

**PACIFIC GAS AND ELECTRIC COMPANY**

**Wholesale Distribution Tariff**

**FERC Electric Tariff Volume No. 4**

**Effective January 1, 2024**

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## **1. Preamble and Applicability**

### **1.1 Preamble**

Through its Transmission Owner (TO) Tariff, Pacific Gas and Electric Company (PG&E) makes transmission service available to Wholesale Customers through the Independent System Operator (ISO) in California, currently the California Independent System Operator Corporation (CAISO). On occasion, a Wholesale Customer who has arranged for transmission service under the TO Tariff, or has an equivalent arrangement with the ISO, may also require Distribution Service from PG&E.

As the Distribution Provider, PG&E will provide Distribution Service to loads pursuant to the applicable terms and conditions of this Wholesale Distribution Tariff (Tariff or WDT). Distribution Service under this Tariff is for the receipt of capacity and energy at designated Points of Receipt and the transportation of such capacity and energy to designated Points of Delivery.

### **1.2 Applicability**

Distribution Service is available to wholesale entities that are Eligible Customers, as defined in Section 2.20 below, taking transmission service through the ISO to:

- new Distribution Customers; and
- existing Distribution Customers requesting Distribution Service to additional Point(s) of Receipt or Delivery.

No new Distribution Service or Distribution Service to additional Point(s) of Receipt or Delivery will be provided at secondary voltage under this Tariff. However, existing Points of Receipt and Points of Delivery that were receiving wholesale distribution service at secondary voltage on the day prior to the Effective Date of this Tariff (Legacy Secondary) can continue to receive secondary voltage service provided that there is no change to such service as described in Section 10.1.1.

The provisions of this Tariff are premised on the fact that the Eligible Customer is a utility operating within the ISO service territory. Required ancillary services, if any, are to be provided by or through the Eligible Customer's arrangements with the ISO, and transmission services shall be separately and satisfactorily arranged between the Eligible Customer and the ISO.

The Distribution Provider will provide Distribution Service pursuant to the applicable terms and conditions contained in this Tariff and the individual Service Agreement developed for each request for Distribution Service. The Tariff is applicable to the transportation of capacity and energy that is: 1) generated or purchased by a Distribution Customer at a generation source and transported to the ISO Grid using the Distribution Provider's Distribution System, or 2) generated or purchased by a Distribution Customer from a generation source and transported from the ISO Grid to the Distribution Customer's Service Area using the Distribution Provider's Distribution System. The Tariff is also applicable to the delivery to the ISO Grid of any capacity and energy generated or purchased by the Distribution Provider that uses the Distribution Provider's Distribution System. Distribution Service shall be provided between the Distribution Provider's interconnection with the ISO Grid and the Distribution Customer's interconnection with the Distribution Provider's Distribution System. The Distribution Customer shall obtain and pay for Transmission Service from the ISO for such energy and capacity delivered to the ISO Grid or for energy and capacity received from the ISO Grid pursuant to the terms and conditions of the ISO Tariff and the TO Tariff. Service hereunder shall not be available if the Commission would be prohibited from ordering such service under Section 212(h) of the Federal Power Act (FPA).

NOTE: An existing retail customer which becomes a Direct Access customer is not a wholesale customer and is not eligible for service under this Tariff. That customer must seek service under the applicable California Public Utilities Commission (CPUC) electric distribution tariffs.

### **1.2.1 Tariff Load Deadlines**

Any deadlines applicable to a load Distribution Customer or the Distribution Provider based on the number of days, calendar or business as those terms are generally understood, set forth in the Tariff, that fall on a federal holiday or weekend, will be extended to the next business day.

## **2. Definitions**

### **2.1 Application**

A written request by an Eligible Customer for Distribution Service to a Point of Delivery pursuant to the provisions of this Tariff that is submitted using PG&E's designated process. Only a request submitted using PG&E's designated application process will be considered a valid Application. The process for submitting an Application may change with technology and circumstances.

Each Application is limited to the provision of wholesale Distribution Service to a single Point of Delivery. However, a single Point of Delivery may include multiple service meters.

### **2.2 CIAC**

Contribution In-Aid-Of-Construction (CIAC) is all property, including money, received by PG&E from a Distribution Customer to provide for the installation, of Direct Assignment Facilities and Upgrades as those terms are defined herein. Property and facilities deeded to PG&E by a Distribution Customer are also subject to CIAC.

### **2.3 Commission**

The Federal Energy Regulatory Commission (FERC) or its successor.

### **2.4 Contract Demand**

The maximum amount of capacity and energy that the Distribution Provider determines it can safely and reliably provide over its Distribution System to each of a Distribution Customer's Points of Delivery, based upon the Distribution Customer's request. In its Application, the

Distribution Customer shall request a Contract Demand based upon its expected non-coincident peak load at each Point of Delivery, and the Distribution Provider shall make all reasonable efforts to accommodate the request. Contract Demand shall be expressed to the nearest hundredth of a megawatt on a thirty (30) minute interval (commencing on the clock hour and half-hour) basis.

## **2.5 Control Area**

An electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to maintain:

- (1) at all times, a balance between the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), and the load within the electric power system(s);
- (2) scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (3) the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and
- (4) operating reserves, by ensuring sufficient generating capacity in accordance with Good Utility Practice.

## **2.6 Cost of Ownership**

The Cost of Ownership charge reflects the Distribution Provider's on-going cost liabilities of owning and operating Direct Assignment Facilities, including such items as maintenance costs, replacement costs (due to age and deterioration), and ad valorem taxes. The Cost of Ownership charge is the product of the actual installation costs (which include the costs of Distribution Facilities installed by the Distribution Provider plus any facilities installed by the Distribution Customer or others that are deeded to the Distribution Provider) and the Cost of

Ownership rate calculated in Appendix I: Formula Rate of the Tariff. The Cost of Ownership charge will be trued-up to the actual installed costs upon the Distribution Provider's completion of the Facilities required to provide Distribution Service to the Distribution Customer.

## **2.7 CPUC**

The California Public Utilities Commission.

## **2.8 Curtailment**

A reduction in Distribution Service in response to a capacity shortage as a result of system reliability conditions.

## **2.9 Delivering Party**

The entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

## **2.10 Delivery Voltage**

The voltage at which electric power is delivered by PG&E to the wholesale Distribution Customer under this Tariff. All deliveries shall be at primary voltage. No secondary voltage Distribution Service is available under this Tariff except as stated in Section 1.2.

## **2.11 Demand**

The rate at which energy is consumed ("load") at a Point of Delivery, measured in kilowatts (kW), for each 30-minute interval. If the load is intermittent or subject to wide fluctuation, a 5-minute interval may be used.

## **2.12 Designated Agent**

Any entity that performs any of the actions or functions required by this Tariff on behalf of the Distribution Provider, an Eligible Customer, or the Distribution Customer.

### **2.13 Direct Assignment Facilities**

Facilities or portions of facilities owned by the Distribution Provider that, solely as a result of and in response to a Distribution Customer's request for Distribution Service under this Tariff, must be constructed or installed by the Distribution Provider in order to interconnect and serve the Distribution Customer's requested Point of Delivery. Facilities are directly assigned for the Distribution Customer's use at a Point of Delivery when the Distribution Provider has no need to construct or install the facilities to meet any of its own Distribution System needs. The Distribution Customer is responsible for the entire cost of Direct Assignment Facilities. Direct Assignment Facilities and an estimate of the resulting Cost of Ownership charge shall be specified in the Service Agreement that governs service to the Distribution Customer.

### **2.14 Distribution Customer**

For generation, any Eligible Customer that submits an application under PG&E's Generator Interconnection Procedures set forth in Attachment I of this Tariff and executes a generator interconnection agreement.

For load, any Eligible Customer that submits an Initial Application and: (i) executes a Service Agreement; or (ii) requests in writing that the Distribution Provider file with the Commission, an unexecuted Service Agreement to receive service under this Tariff.

### **2.15 Distribution Facilities**

Electrical equipment consisting of poles, conduit, splice boxes, conductors and devices, typically operating at less than 50 kV, used for distributing electrical energy at primary voltage. **EXCEPTION:** Those transmission facilities (50 kV and above) which radially supply end-use customers at transmission voltages shall also be considered Distribution Facilities for purposes of this Tariff, as ordered by the Commission in its October 30, 1996 order in Docket No. EL96-48-000.

### **2.16 Distribution Provider**

PG&E or its Designated Agent.

### **2.17 Distribution Service**

The interconnection and transportation at primary voltage of electric power over and through the Distribution Provider's Distribution System for delivery to a Distribution Customer's Point of Delivery. EXCEPTION: Service will continue to be provided to Legacy Secondary Points of Delivery at secondary voltage.

### **2.18 Distribution System**

As it relates to the Distribution Provider, the Distribution System reflects the Distribution Facilities, including Direct Assignment Facilities owned by the Distribution Provider, upon which it relies to transport capacity and energy at primary voltage between the Transmission System and the Distribution Customer's Point of Delivery.

As it relates to the Distribution Customer, the Distribution System reflects the Distribution Facilities including Intervening Facilities and Interconnection Facilities of which the Distribution Customer has *bona fide* ownership or control, upon which it relies to provide capacity and energy to its end-use customer.

### **2.19 Effective Date**

The Effective Date of this Tariff shall be November 15, 2020 or such other date as the Commission may determine. Applications that do not have an executed Service Agreement by November 15, 2020 are subject to this Tariff.

### **2.20 Eligible Customer**

For generating facilities: Any electric utility (including the Distribution Provider or any power marketer) or any person generating electric energy for sale for resale is an Eligible Customer under this Tariff. Electric energy sold or produced by such Eligible Customer may be electric energy produced in the United States, Canada, or Mexico.

For load entities: Any electric utility as defined in Section 3(22) of the Federal Power Act (16 USC § 796(22)), (including the Distribution Provider) or any Federal Power Marketing Agency, provided, that any entity applying for service to serve retail customers must be



authorized by California or Federal law to furnish, sell, or distribute electric energy to retail customers and must have obtained any applicable regulatory approvals, to provide such service. With respect to Distribution Service that the Commission would otherwise be prohibited from ordering by Section 212(h) of the Federal Power Act (16 USC § 824k(h)), such service shall be provided only if provided pursuant to a state requirement that the Distribution Provider offer the Distribution Service, or pursuant to a voluntary offer of such service by the Distribution Provider.

### **2.21 Facilities Study**

An assessment performed by the Distribution Provider after a System Impact Study to determine the required Direct Assignment Facilities and Upgrades to the Distribution Provider's Distribution Facilities that will be required to provide the requested Distribution Service. The Facilities Study will also include the estimated cost and estimated completion date for installation of the Direct Assignment Facilities and Upgrades required to interconnect the Distribution Customer and provide the requested Distribution Service.

### **2.22 Generation**

The capacity and output of any generating facility connected to the Distribution System that can deliver energy to the ISO.

### **2.23 Good Utility Practice**

Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the circumstances and facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

## **2.24 Initial Application**

An Application for Distribution Service that provides all of the information requested in Section 13.2, including payment of the required Interconnection Request Fee, and that has been deemed complete by the Distribution Provider. Even where an Initial Application has been deemed complete by the Distribution Provider, additional information may be necessary for the Distribution Provider to prepare a Service Agreement and construct all facilities for the requested Distribution Service.

## **2.25 Interconnection Agreement**

An agreement containing the terms and conditions for the physical interconnection of the Distribution Systems of the Distribution Customer and the Distribution Provider that provides for the safe and reliable operation and maintenance of, and the rights and responsibilities associated with, the interconnection of the Parties' Distribution Systems. A Distribution Customer requesting Distribution Service under this Tariff shall be required to execute an Interconnection Agreement with the Distribution Provider.

## **2.26 Interconnection Request Fee**

A nonrefundable fee of \$1,500.00 that must accompany each Application. This fee is intended to cover the Distribution Provider's costs associated with reviewing and processing the Application, making a preliminary assessment of capacity availability, and preparing a Service Agreement.

## **2.27 Intervening Facilities**

The Distribution Facilities that must be installed between the Distribution Provider-owned Distribution System and the Distribution Customer's end-use customer's facilities for purposes of the Distribution Customer's delivery of energy to its own customer. Intervening Facilities requirements are described in Section 12.2.1. The requirements for *bona fide* ownership or control of Intervening Facilities by the Distribution Customer are set forth in Sections 12.2.2 and 12.2.3.

## **2.28 ISO**

The Independent System Operator approved by the Commission, currently the California Independent System Operator Corporation, which has operational control over the interconnected transmission systems in California.

## **2.29 ITCC**

The Income Tax Component of Contributions is the Federal and State tax PG&E is required to pay on income by PG&E received as a Contribution In Aid of Construction. That ITCC amount must be paid to by PG&E by the Distribution Customer.

## **2.30 Reactive Demand**

The Distribution Customer's reactive power demand determined for each 30-minute interval, measured in kilovars (kVARS), that must be delivered and integrated. If the load is intermittent or subject to wide fluctuation, a 5-minute interval may be used.

## **2.31 Load Ratio Share**

Ratio of a Distribution Customer's load to the Distribution Provider's total load on specific facilities over a 12-month period used to determine rates in accordance with Appendix I of this Tariff.

## **2.32 Load Shedding**

The systematic reduction of system demand by temporarily decreasing load in response to Transmission System or area capacity shortages, system instability, or voltage control considerations.

## **2.33 Native Load Customers**

The wholesale and retail power customers of the Distribution Provider on whose behalf the Distribution Provider, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate the Distribution Provider's system to meet the electric needs of such customers reliably.

### **2.34 Parties**

The Distribution Provider and the Distribution Customer receiving service under this Tariff.

### **2.35 Point of Delivery**

Point on the Distribution Provider's Distribution System that interconnects with the Distribution Customer's Distribution System where capacity and energy transmitted by the Distribution Provider will be made available to the Distribution Customer under this Tariff. The Point of Delivery shall be specified in the Service Agreement for Distribution Service.

### **2.36 Point of Interconnection**

The physical point where Direct Assignment Facilities, if any, or a Distribution Customer's Intervening Facilities connect to the Distribution Provider's Distribution System.

### **2.37 Point(s) of Receipt**

Point(s) of interconnection on the Distribution Provider's Distribution System where the Delivering Party will provide capacity and energy to the Distribution Provider for delivery to the Distribution Customer under this Tariff.

### **2.38 Power Purchaser**

The entity that is purchasing the capacity and energy to be transmitted under this Tariff.

### **2.39 Regional Transmission Group (RTG)**

A voluntary organization of transmission owners, transmission users, and other entities approved by the Commission to coordinate transmission planning and expansion, operation, and use on a regional and/or interregional basis.

### **2.40 Service Agreement**

The initial agreement for wholesale service and, if executed by the Parties, any amendments or supplements thereto, entered into by the Distribution Customer and the

Distribution Provider for Distribution Service under this Tariff to a Point of Delivery. *See* Attachment A to this Tariff for the Form of Service Agreement.

#### **2.41 Service Commencement Date**

The date the Distribution Provider begins providing service pursuant to the terms of an executed Service Agreement, or the date the Distribution Provider begins providing service in accordance with Section 11.3 of this Tariff.

#### **2.42 System Impact Study**

An assessment performed by the Distribution Provider after a preliminary determination that its Transmission System and/or Distribution System may not have sufficient capacity to serve the Eligible Customer's requested Contract Demand for Distribution Service, to determine: (i) the adequacy of the Distribution Provider's existing Transmission System and Distribution System to accommodate the requested Distribution Service; and (ii) whether any additional facilities are necessary to provide the requested Distribution Service. If additional facilities are determined to be necessary to provide the requested Distribution Service, the System Impact Study report will recommend the need for a Facilities Study.

#### **2.43 Third-Party Sale**

Any sale for resale of energy in interstate commerce to a Power Purchaser.

#### **2.44 Transmission System**

The facilities owned by the Distribution Provider and controlled by the ISO that are used to provide transmission service under the ISO Tariff.

#### **2.45 Upgrades**

Improvements, expansions, additions, or modifications to the Distribution Provider's existing facilities that must be made solely as a result of and in response to a Distribution Customer's request for Distribution Service under this Tariff. Unlike Direct Assignment Facilities, those Upgrades are not directly assigned for the Distribution Customer's use but may

be used by or benefit both the Distribution Provider's Native Load Customers and the Distribution Customer. If the Distribution Provider had no need to construct the Upgrades absent the request for Distribution Service and if the Upgrades are appropriately sized to meet the request for service from the Distribution Customer, the Upgrades shall be paid for by the Distribution Customer. Upgrades shall be specified in the Service Agreement that governs service to the Distribution Customer.

#### **2.46 WDT Design Standard**

The Wholesale Distribution Tariff Interconnection Design Options for Primary Voltage Service standard that appears in the then-current versions of PG&E's Electric and Gas Service Requirements Manual (Greenbook) and electric construction manuals that controls the design and construction of primary level service interconnections.

#### **2.1 Application**

A request by an Eligible Customer for Distribution Service pursuant to the provisions of this Tariff.

#### **2.6 CPUC**

The California Public Utilities Commission.

**[DELETED]**

### **3. Ancillary Services**

Ancillary Services are needed with all transmission service to maintain reliability within the ISO Grid and the Distribution System. Ancillary Services are not provided through this Tariff. The Distribution Service offered in this Tariff is conditioned on the Distribution Customer's having obtained Ancillary Services pursuant to the ISO Tariff, which includes an option for the Distribution Customer to self-provide ancillary services.

## **4. Billing and Payment**

### **4.1 Billing Procedure**

Within a reasonable time after the first day of each month, or at some other mutually agreeable time, the Distribution Provider shall submit an invoice to the Distribution Customer for the charges for all services furnished under this Tariff during the preceding month. The invoice shall be paid by the Distribution Customer within twenty (20) calendar days of receipt. All payments shall be made in immediately available funds payable to the Distribution Provider or by wire transfer to a bank named by the Distribution Provider.

### **4.2 Interest on Unpaid Balances**

Interest on any unpaid amounts (including amounts placed in escrow) shall be calculated in accordance with the methodology specified for interest on refunds in the Commission's regulations at 18 C.F.R. § 35.19a(a)(2)(iii). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. When payments are made by mail, bills shall be considered paid on the date the payment is received by the Distribution Provider.

### **4.3 Customer Default**

In the event the Distribution Customer fails, for any reason other than a billing dispute as described below, to make payment to the Distribution Provider on or before the due date as described above, and such failure of payment is not corrected within thirty (30) calendar days after the Distribution Provider notifies the Distribution Customer to cure such failure, a default by the Distribution Customer shall be deemed to exist. Upon the occurrence of a default, the Distribution Provider may initiate a proceeding with the Commission to terminate service, but the Distribution Provider shall not terminate service until the Commission approves any such request. In the event of a billing dispute between the Distribution Provider and the Distribution Customer, the Distribution Provider will continue to provide service under the Service Agreement as long as the Distribution Customer: (i) continues to make all payments not in dispute; and (ii) pays into an independent escrow account the portion of the invoice(s) in dispute, pending resolution of such dispute. If the Distribution Customer fails to meet these two requirements for continuation of service, then the Distribution Provider may provide notice to the

Distribution Customer of its intention to suspend service in sixty (60) calendar days, in accordance with Commission policy.

## **5. Regulatory Filings**

Nothing contained in this Tariff or any Service Agreement under this Tariff shall be construed as affecting in any way the right of the Distribution Provider to make application unilaterally to the Commission for a change in rates, terms and conditions, charges, or classification of service under Section 205 of the Federal Power Act and pursuant to the Commission's rules and regulations promulgated thereunder.

Nothing contained in this Tariff or any Service Agreement under this Tariff shall be construed as affecting in any way the ability of any Party receiving service under this Tariff to exercise its rights under the Federal Power Act and pursuant to the Commission's rules and regulations promulgated thereunder.

## **6. Uncontrollable Force and Indemnification**

### **6.1 Uncontrollable Force**

An Uncontrollable Force means any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, pandemic, cybersecurity-attack, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully-established civilian authorities, or any other cause beyond the reasonable control of the Distribution Provider or Distribution Customer which could not be avoided through the exercise of Good Utility Practice. Neither the Distribution Provider nor the Distribution Customer will be considered in default of any obligation under this Tariff if prevented from fulfilling that obligation due to the occurrence of an Uncontrollable Force.

### **6.2 Occurrence of Uncontrollable Force**

In the event of the occurrence of an Uncontrollable Force, which prevents the Distribution Provider or Distribution Customer from performing any of its obligations under this Tariff, the affected entity shall: (i) if it is the Distribution Provider, immediately notify the



Distribution Customer in writing of the occurrence of such Uncontrollable Force and, if it is the Distribution Customer, immediately notify the Distribution Provider in writing of the occurrence of such Uncontrollable Force; (ii) not be entitled to suspend performance of its obligations under this Tariff in any greater scope or for any longer duration than is required by the Uncontrollable Force; (iii) use its best efforts to mitigate the effects of such Uncontrollable Force, remedy its inability to perform, and resume full performance of its obligations hereunder as soon as practicable; (iv) in the case of the Distribution Provider, keep the Distribution Customer apprised of such efforts, and in the case of the Distribution Customer, keep the Distribution Provider apprised of such efforts, in each case on a continual basis; and (v) provide written notice of the resumption of its performance of its obligations hereunder when the Uncontrollable Force is no longer present. Notwithstanding any of the foregoing, the settlement of any strike, lockout, or labor dispute constituting an Uncontrollable Force shall be within the sole discretion of the entity involved in such strike, lockout, or labor dispute and the requirement that an entity must use its best efforts to mitigate the effects of the Uncontrollable Force and/or remedy its inability to perform and resume full performance of its obligations hereunder shall not apply to strikes, lockouts, or labor disputes.

### **6.3 Liability for Damages**

The Distribution Provider shall not be liable in damages to any Distribution Customer for any losses, damages, claims, liability, costs or expenses (including legal expenses) arising from the performance or non-performance of its obligations under this Tariff, except to the extent that they result from gross negligence or intentional wrongdoing on the part of the Distribution Provider.

### **6.4 Exclusion of Certain Types of Loss**

The Distribution Provider shall not be liable to any Distribution Customer under any circumstances for any consequential or indirect financial loss including but not limited to loss of profit, loss of earnings or revenue, loss of use, loss of contract or loss of goodwill, except to the extent that it results from gross negligence or intentional wrongdoing on the part of the Distribution Provider.

## **6.5 Distribution Customer Indemnity**

Each Distribution Customer, to the extent permitted by law, shall indemnify the Distribution Provider and hold it harmless against all losses, damages, claims, liabilities, costs or expenses (including legal expenses) arising from any act or omission of the Distribution Customer, except to the extent that they result from the Distribution Provider's default under this Tariff or gross negligence or intentional wrongdoing on the part of the Distribution Provider or of its officers, directors, or employees.

## **6.6 Allocation and Limitation of Imposed Penalties**

Notwithstanding Section 6.3 Liability for Damage, in the event either the Distribution Provider or the Distribution Customer fails to perform its duties under this Tariff and it results in any penalty imposed on the other party, Distribution Provider and Distribution Customer shall meet and attempt to: (1) determine what caused the incident that led to the imposition of the penalty, (2) identify remedies for the incident (and remedies to prevent future occurrences), and (3) allocate any penalty in proportion to fault. In the event the parties are unable to agree, either party may pursue the dispute resolution provisions in Section 8 Dispute Resolution. Any remedy or allocation of penalty shall be subject to existing laws, which may limit a party's ability to enact a remedy or to pay a penalty. In the event an existing law, statute or regulation limits a one party's ability to effect a remedy (*e.g.*, payment of monetary damages), such limitation shall be treated as a reciprocal limitation between both of the parties.

## **7. Creditworthiness**

For the purpose of determining the ability of the Distribution Customer to meet its obligations related to service hereunder, the Distribution Provider may require reasonable credit review procedures. This review shall be made in accordance with standard commercial practices. In addition, the Distribution Provider may require the Distribution Customer to provide and maintain in effect during the term of the Service Agreement, an unconditional and irrevocable letter of credit as security to meet its responsibilities and obligations under the Tariff, or an alternative form of security proposed by the Distribution Customer and acceptable to the Distribution Provider that is consistent with commercial practices established by the Uniform

Commercial Code and that protects the Distribution Provider against the risk of non-payment. The Distribution Provider will determine, on a non-discriminatory basis, whether security will be required and, if so, in what amount. Absent a material adverse change in the creditworthiness of the Distribution Customer, security will not be required where the Distribution Customer has previously established its creditworthiness pursuant to a tariff, rate schedule, or service contract for service provided by the Distribution Provider, and has not defaulted on its obligation under that applicable tariff, rate schedule, or service contract.

## **8. Dispute Resolution Procedures**

### **8.1 Internal Dispute Resolution Procedures**

Any dispute between a Distribution Customer and the Distribution Provider involving Distribution Service under this Tariff (excluding applications for rate changes or other changes to this Tariff, or to any Service Agreement entered into under this Tariff, which shall be presented directly to the Commission for resolution) shall be referred to a designated senior representative of the Distribution Provider and a designated senior representative of the Distribution Customer for resolution on an informal basis as promptly as practicable. For any disputes referred to internal dispute resolution under this Section 8.1 that pertains to a pending Application, the Parties shall work in good faith to continue the application process to the greatest extent possible notwithstanding the dispute. To the extent the application process cannot proceed during dispute resolution proceedings, any otherwise applicable deadlines shall be tolled until the end of the thirty (30) calendar day (or otherwise agreed-upon) period for internal dispute resolution. In the event the designated representatives are unable to resolve the dispute within thirty (30) calendar days [or such other period as the Parties may agree upon in writing], by mutual agreement of the Parties such dispute may be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below.

### **8.2 External Arbitration Procedures**

Any arbitration initiated under the Tariff shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) calendar days of the referral of the dispute to arbitration, each Party shall choose one

arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall, within twenty (20) calendar days, select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission, distribution, and bulk power issues, and shall not have any current or past substantial business or financial relationships with any Party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall generally conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association and any applicable Commission regulations or Regional Transmission Group rules. Where a dispute involves facts and issues that are the subject of a dispute pending under the ISO Tariff or the TO Tariff ADR Procedures, the dispute may be consolidated with the other pending proceeding(s) by the agreement of the Parties to the dispute, which agreement shall not be unreasonably withheld.

### **8.3 Arbitration Decisions**

Unless otherwise agreed in writing, the arbitrator(s) shall render a decision within ninety (90) calendar days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this Tariff and any Service Agreement entered into under this Tariff and shall have no power to modify or change any of the above in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The arbitration decision shall be based on: (i) the evidence in the record; (ii) the terms of this Tariff; (iii) applicable United States federal law, including the FPA and any applicable FERC regulations and decisions, and international treaties or agreements as applicable; and (iv) applicable state law. The decision of the arbitrator(s) may be appealed solely on the grounds set forth in California law. The final decision of the arbitrator must also be filed with the Commission if it affects jurisdictional facilities, rates, or terms and conditions of service.

#### **8.4 Arbitration Costs**

Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable:

- (A) the cost of the arbitrator chosen by the Party to sit on the three-member panel and one half of the cost of the third arbitrator chosen; or
- (B) one half the cost of the single arbitrator jointly chosen by the Parties.

#### **8.5 Rights Under the Federal Power Act**

Nothing in this section shall restrict the rights of any Party to file a Complaint with the Commission under relevant provisions of the Federal Power Act.

### **9. Governing Law**

Except as otherwise provided by federal law, this Tariff shall be governed by and construed in accordance with, the laws of the state of California.

### **10. Nature of Distribution Service**

#### **10.1 Primary Service**

New Distribution Service under this Tariff is provided at primary voltage only. Points of Delivery that were receiving service under this Tariff at secondary voltage on the day prior to the Effective Date of this Tariff (Legacy Secondary) can continue to receive Tariff service at secondary voltage provided that there is no change to such service.

##### **10.1.1 Change in Existing Secondary Service**

PG&E agrees to continue to provide secondary voltage service under this Tariff to each Legacy Secondary Point of Delivery so long as the Distribution Customer does not initiate a change to its service at the Legacy Secondary Point of Delivery. Prior to initiating a change to its service at a Legacy Secondary Point of Delivery, as described below, the Distribution Customer shall submit an Application to upgrade the service to primary voltage service in

accordance with Section 13 of this Tariff and shall upgrade the Legacy Secondary Point of Delivery to primary voltage. A failure to do so will result in a loss of eligibility to receive Distribution Service at that Legacy Secondary Point of Delivery under this Tariff.

Specifically, any of the following changes to the secondary service panel:

- 1) increase in ampacity,
- 2) change in physical location,
- 3) change in voltage, or
- 4) change in delivery method (overhead to underground or underground to overhead)

at a Legacy Secondary Point of Delivery will require the Distribution Customer to submit an Application to upgrade that Point of Delivery to service at primary voltage and to comply with PG&E's then-current interconnection procedures and WDT Design Standard in order to retain eligibility for Tariff service. If the Distribution Customer intends to proceed with the change(s) without upgrading the Legacy Secondary Point of Delivery to primary voltage service as described above, the Legacy Secondary Point of Delivery will lose eligibility for Tariff service and will be terminated. The Distribution Provider shall not terminate service until the Commission approves any such request. While the termination request from the Distribution Provider is being addressed by the Commission, the Distribution Customer shall not change the Legacy Secondary Point of Delivery. After Commission approval of the termination, the Legacy Secondary Point of Delivery may be changed and will then be converted to CPUC-jurisdictional service.

In addition to the requirements described above, for a Distribution Customer with a Legacy Secondary Point of Delivery on PG&E's network distribution grid under this Tariff, where service on PG&E's radial Distribution System is available within 450 feet, any of the following changes to the secondary service panel:

- 1) increase in ampacity,
- 2) change in physical location or
- 3) change in voltage

will require the Distribution Customer to submit an Application to upgrade that Legacy Secondary Point of Delivery to service at primary voltage on PG&E's radial Distribution System

and to comply with PG&E's then-current interconnection procedures and WDT Design Standard in order to retain eligibility for Tariff service. If the Distribution Customer intends to proceed with the change(s) without upgrading the Legacy Secondary Point of Delivery to primary service as described above, the Point of Delivery will lose eligibility for Tariff service and will be terminated. The Distribution Provider shall not terminate service until the Commission approves any such request. While the termination request from the Distribution Provider is being addressed by the Commission, the Distribution Customer shall not change the Legacy Secondary Point of Delivery. After the Commission approves termination, the Point of Delivery may be changed and will then be converted to CPUC-jurisdictional service.

If the Distribution Customer intends to change service to the Legacy Secondary Point of Delivery served on PG&E's network distribution grid but the Point of Delivery is located further than 450 feet from PG&E's existing radial Distribution System, then continued service under this Tariff will not be available and the Point of Delivery will be terminated. The Distribution Provider shall not terminate service until the Commission approves any such request. While the termination request from the Distribution Provider is being addressed by the Commission, the Distribution Customer shall not change the Legacy Secondary Point of Delivery. After Commission approval of termination, the Legacy Secondary Point of Delivery may be changed by the Distribution Customer and will then be converted to CPUC-jurisdictional service.

## **10.2 Term and Termination**

### **10.2.1 Term**

Unless otherwise agreed or unless terminated earlier pursuant to Section 10.2.2, a Service Agreement under this Tariff shall have a "standard term" of five (5) years, with automatic renewals for successive five-year periods thereafter, unless either Party provides written notice of its intention to terminate service no later than ninety (90) calendar days prior to termination of the Service Agreement. Notwithstanding the foregoing, the minimum term of Distribution Service shall be one day and, if the Distribution Customer desires a term other than the standard term, the Distribution Customer may request such term in its Application. The term of each Service Agreement shall be specified in the Service Agreement itself. Independent of the length

of the term of any Service Agreement, all terms and conditions associated with the provision of Distribution Service in this Tariff shall apply.

### **10.2.2 Termination of a Service Agreement**

The Distribution Customer may at any time direct the Distribution Provider to file for termination of a Service Agreement with the Commission. Within ninety (90) calendar days from receipt of such notice, the Distribution Provider shall make such a filing. The Distribution Provider must provide to the Distribution Customer ninety (90) calendar days advance written notice of its intention to file with the Commission to terminate service, and may only terminate service for good cause, as the result of a significant regulatory change or significant operational change or as otherwise described in this Tariff. In the case of a significant regulatory or operational change, the Distribution Provider must make a reasonable offer to continue to provide Distribution Service to the Distribution Customer consistent with the regulatory or operational change.

### **10.2.3 Termination of a Service Agreement for Non-Usage**

If the Distribution Customer stops taking Distribution Service under its Service Agreement for a continuous period of six (6) months, as evidenced by the absence of any metered load for six (6) consecutive months, the Distribution Provider shall be entitled to provide written notice of its intent to terminate Distribution Service under that Service Agreement (or, as appropriate, to the relevant Point of Delivery under the Service Agreement), subject to approval or acceptance by the Commission. If the Distribution Customer anticipates the need to extend the period of non-usage for any Point of Delivery beyond six months and desires to maintain interconnection service under the Tariff, it must request an extension in writing and provide Distribution Provider with a payment equivalent to 50% of Contract Demand multiplied by the then-effective monthly Demand Rate shown in the WDT Formula Rate Model for fourteen (14) months of service under the Tariff no later than fourteen (14) calendar days after its six-month period of non-usage. Upon timely receipt of such a request and payment, Distribution Provider shall provide a one-time extension of six months of additional permissible non-usage for a Point of Delivery served under the Tariff (“Extension Period”). A



failure by Distribution Customer to reinitiate service, as reasonably evidenced by sustained metered load, during the Extension Period will subject the Point of Delivery to termination, subject to approval or acceptance by the Commission. To the extent that the Distribution Provider provides notice and seeks Commission approval to terminate service for non-payment and there is a delay in Commission approval of termination beyond sixty (60) calendar days, Distribution Customer shall be obligated to pay 50% of Contract Demand multiplied by the then-effective monthly Demand Rate shown in the WDT Formula Rate Model each month until the service is terminated. A Distribution Customer shall be entitled to two Extension Periods, totaling two (2) years of permissible, compensated non-usage, for each Point of Delivery served under the Tariff. To the extent that the Distribution Customer desires to use its Extension Periods conterminously (back-to-back), it must request its extension in writing and provide the Distribution Provider with an aggregate payment equivalent to 50% of Contract Demand multiplied by the then-effective monthly Demand Rate shown in the WDT Formula Rate Model for each of twelve (12) additional months of non-usage prior to expiration of the first Extension Period. Nothing in this Tariff precludes a Distribution Customer from submitting a new Application in order to re-initiate Distribution Service to a Point of Delivery that has been terminated for non-usage or non-payment, however, any Application seeking to reinitiate service to a Legacy Secondary Point of Delivery that has been terminated for non-usage or non-payment will be required to request primary voltage service and to comply with all interconnection requirements under the current Tariff. Except as otherwise provided, the terms of this Section 10.2.3 shall not apply to Points of Delivery designated for a Qualifying Exception in Sections 10.2.3.1 and 10.2.3.2.

#### **10.2.3.1 Qualifying Exception for Distribution Customers Who Provide Advance Notice of, and Compensation for, Non-Usage of Agricultural Loads**

Distribution Customer Points of Delivery used to pump and move water for agriculture, irrigation or sustainable groundwater management purposes (and not for water treatment for drinking or sanitation purposes) (“Ag Distribution Points of Delivery”) and whose non-usage is justified by hydrological conditions or regulatory restrictions may, despite extended periods of non-usage, maintain service under the WDT by paying a minimum fee monthly to reserve capacity by adhering to the following requirements.

1. Any Distribution Customer who seeks to designate new Ag Distribution Points of Delivery for service subject to a qualifying exception in this Section 10.2.3.1 must identify them to the Distribution Provider as part of its initial Application for service. A failure to do so will waive eligibility for the qualifying exception.
2. Distribution Customers who desire to designate existing Ag Distribution Points of Delivery for this exception must identify them in writing to the Distribution Provider no later than forty-five (45) calendar days after this Tariff language becomes effective (“Designation Date”). For timely designations of each Ag Distribution Point of Delivery, the application of charges described below in this Section 10.2.3.1 shall be applied to Distribution Service provided in the first full month after the Designation Date and going-forward monthly for each month of non-usage. A failure by the Distribution Customer to identify and request a Point of Delivery be treated as an Ag Distribution Point of Delivery subject to a qualifying exception in this Section 10.2.3.1 within forty-five (45) calendar days of the Designation Date will render any such Point of Delivery ineligible for the qualifying exception and shall subject it to termination for non-usage pursuant to Section 10.2.3 above.
3. For each month of non-usage associated with a timely designated Ag Distribution Point of Delivery, the Distribution Customer agrees to pay the Distribution Provider a monthly fee equivalent to three (3) times the then-effective monthly Demand Rate shown in the WDT Formula Rate Model for the relevant Distribution Customer.
4. For each month of usage at a timely designated Ag Distribution Point of Delivery, the Distribution Customer shall pay for its actual usage.

For any of the non-usage periods described above in 10.2.3.1, a failure by the Distribution Customer to pay the monthly fee described in Section 3 above for non-usage will result in termination of the Point of Delivery, subject to FERC’s approval or acceptance of the termination.

### **10.2.3.2 Qualifying Exception and Compensation for Points of Delivery Not Used Except In Response to Emergencies**

Distribution Customer Points of Delivery that are only used in direct response to unexpected emergency circumstances, such as for fire protection, police alert, storm pumps, emergency alerts or signage (“Emergency Points of Delivery”), may, despite extended periods of non-usage, maintain service under the WDT by paying a minimum fee monthly to reserve capacity by adhering to the following requirements.

1. Any Distribution Customer who seeks to designate new Emergency Distribution Points of Delivery for service subject to a qualifying exception in this Section 10.2.3.2 must identify them to the Distribution Provider as part of its initial Application for service. A failure to do so will waive eligibility for the qualifying exception.
2. Distribution Customers who desire to designate existing Emergency Points of Delivery for this exception must identify them in writing to the Distribution Provider no later than forty-five (45) calendar days after this Tariff language becomes effective (“Designation Date”). For timely designations of each Emergency Distribution Point of Delivery, the application of charges described below in this Section 10.2.3.2 shall be applied to Distribution Service provided in the first full month after the Designation Date and going-forward monthly for each month of non-usage. A failure by the Distribution Customer to identify and request a Point of Delivery be treated as an Emergency Distribution Point of Delivery subject to a qualifying exception in this Section 10.2.3.2 within forty-five (45) calendar days of the Designation Date will render any such Point of Delivery ineligible for the qualifying exception and shall be subject to termination for non-usage pursuant to Section 10.2.3 above.
3. For each month of non-usage associated with a timely designated Emergency Distribution Point of Delivery, the Distribution Customer agrees to pay the Distribution Provider a monthly fee equivalent to ten (10) times the then-effective monthly Demand Rate shown in the WDT Formula Rate Model for the relevant Distribution Customer.

4. For each month of usage at a timely designated Emergency Distribution Point of Delivery, the Distribution Customer shall pay for its actual usage.

For any of the non-usage periods described above in 10.2.3.2, a failure by the Distribution Customer to pay the monthly fee described in Section 3 above for non-usage will result in termination of the Point of Delivery, subject to FERC's approval or acceptance of the termination.

#### **10.2.4 Impact of Termination of Distribution Service on Direct Assignment Facilities**

If Distribution Service terminates at any Point of Delivery for any of the reasons discussed in this Section 10.2, the Distribution Provider shall, at its discretion, remove the Direct Assignment Facilities. If, after termination, the Distribution Provider elects to remove the Direct Assignment Facilities, or the Distribution Customer requests that the Distribution Provider remove the Direct Assignment Facilities, the Distribution Customer shall be responsible for all costs incurred to remove the Direct Assignment Facilities and shall be credited for any positive net salvage value or charged for any negative net salvage value associated with the removal of those facilities.

#### **10.3 Distribution Service Priority**

Distribution Service shall be available on a first-come, first-served basis (*i.e.*, in the chronological sequence in which the Distribution Provider has deemed each Distribution Customer Application to be complete)

#### **10.4 Contract Demand**

Contract Demand shall be specified in the Service Agreement for Distribution Service filed at the Commission. The Distribution Provider may require a System Impact Study and if needed, a Facilities Study, which shall be conducted at the Distribution Customer's expense, to determine whether sufficient capacity exists to serve the requested Demand. To the extent that the Distribution Provider's study (or studies) indicates that the Distribution Provider is required to install Direct Assignment Facilities or Upgrades to serve the Distribution Customer's

requested Contract Demand, the Distribution Provider will do so at the Distribution Customer's expense.

#### **10.4.1 Application and Study Requirements for Exceeding Contract Demand**

If the Distribution Customer exceeds the Contract Demand at a Point of Delivery, the Distribution Provider may require the Distribution Customer to submit an Application to increase the Contract Demand and the Distribution Provider may require a System Impact Study and if needed, a Facilities Study, which shall be conducted at the Distribution Customer's expense, to determine whether sufficient capacity exists to safely and reliably provide service to that Point of Delivery on a going-forward basis. To the extent that the study or studies indicates that sufficient capacity does not exist, and that the Distribution Provider must install Direct Assignment Facilities and/or Upgrades to its Distribution System to continue to serve the Distribution Customer's Contract Demand, the Distribution Provider shall install such Direct Assignment Facilities and/or Upgrades at the Distribution Customer's expense.

#### **10.4.2 Requests to Increase Contract Demand**

If the Distribution Customer notifies the Distribution Provider of its desire to establish a Contract Demand amount for a Point of Delivery that existed prior to the Effective Date of this Tariff and that Contract Demand exceeds its prior estimated peak demand amount or its prior Contract Demand for that Point of Delivery, the Distribution Customer must submit an Application seeking to increase the Contract Demand. After reviewing the Application, the Distribution Provider may require a System Impact Study and if needed, a Facilities Study, which shall be conducted at the Distribution Customer's expense, to determine whether sufficient capacity exists to safely and reliably provide service to that Point of Delivery on a going-forward basis at the requested Contract Demand. To the extent that the study or studies indicate that sufficient capacity does not exist, requiring the Distribution Provider to install Direct Assignment Facilities and/or Upgrades to its Distribution System to serve the Distribution Customer's increased Contract Demand, the Distribution Provider shall install such Direct Assignment Facilities and/or Upgrades at the Distribution Customer's expense.

Where the Distribution Customer expects its peak load to increase over the term of the Service Agreement, the Distribution Customer shall provide an advanced monthly forecast spanning two (2) years forward of its expected peak load to the Distribution Provider at least two (2) years in advance. Any desired increase in the Contract Demand on file with the Commission will require the Distribution Customer to submit an Application sufficiently in advance of its need for the increased Contract Demand.

#### **10.4.3 Requests to Decrease Contract Demand**

Upon receipt of a request to establish a lower Contract Demand the Distribution Provider will confirm acceptance of the reduced Contract Demand within twenty (20) business days. The Distribution Provider's grant of a request for a Contract Demand at a Point of Delivery that is lower than the prior estimated peak demand or Contract Demand shall not alter in any way a Distribution Customer's obligation to pay full Cost of Ownership expenses associated with existing Direct Assignment Facilities and/or Upgrades for the Point of Delivery, nor shall a reduction in the Contract Demand entitle the Distribution Customer to an equitable adjustment associated with payments made by or charged to the Distribution Customer for Direct Assignment Facilities or Upgrades associated with the Point of Delivery. To the extent that a Distribution Customer's reduction in its Contract Demand at a Point of Delivery enhances the capacity of the Distribution Provider's Distribution System, the Distribution Provider may allocate such capacity to other customers and the Distribution Customer is not entitled to an equitable adjustment.

If, after lowering its Contract Demand in accordance with the terms above, a Distribution Customer subsequently desires to increase its Contract Demand and studies indicate that sufficient capacity does not exist to serve the increased Contract Demand, requiring that the Distribution Provider must install Direct Assignment Facilities and/or Upgrades to its Distribution System to serve the Distribution Customer's newly requested Contract Demand or Ratcheted Contract Demand, the Distribution Provider shall install such Direct Assignment Facilities and/or Upgrades at the Distribution Customer's expense without consideration of prior circumstances.

## **10.5 Distribution Customer Obligation for Additions or Redispatch**

In cases where the Distribution Provider determines that its Distribution Facilities are not capable of providing Distribution Service without (1) degrading or impairing the reliability of service to Native Load Customers, or other Distribution Customers taking Distribution Service; or (2) interfering with the Distribution Provider's ability to meet prior firm contractual commitments to others, the Distribution Provider will expand capacity or upgrade its Distribution Facilities pursuant to the terms of Section 11.4. The Distribution Customer must agree to compensate the Distribution Provider for any necessary Upgrades or Direct Assignment Facilities.

To the extent the Distribution Provider can relieve any system constraint more economically by redispatching (*i.e.*, distribution switching or load transfers) the Distribution Provider's resources rather than through constructing Upgrades or Direct Assignment Facilities, it shall do so, provided that the Distribution Customer agrees to compensate the Distribution Provider. All redispatch, Upgrade or Direct Assignment Facilities costs shall be charged to the Distribution Customer in addition to the monthly Distribution Service Charge under the Tariff.

## **10.6 Load Shedding and Curtailment of Distribution Service**

In the event that a Curtailment on the Distribution Provider's system, or a portion thereof, is required to maintain reliable operation of such system, Curtailments will be made on a non-discriminatory basis to the transaction(s) that effectively relieve the constraint. If multiple transactions require Curtailment, to the extent practicable and consistent with Good Utility Practice, the Distribution Provider will curtail service to Distribution Customers taking Distribution Service on a basis comparable to the curtailment of service to the Distribution Provider's Native Load Customers. All Curtailments will be made on a non-discriminatory basis. When the Distribution Provider determines that an electrical emergency exists on its Transmission or Distribution Systems and implements emergency procedures to curtail Distribution Service, the Distribution Customer shall make the required reductions upon the request of the Distribution Provider. However, the Distribution Provider reserves the right to curtail, in whole or in part, any Distribution Service provided under this Tariff when, in the Distribution Provider's sole discretion, an emergency or other unforeseen condition impairs or

degrades the reliability of its Transmission or Distribution Systems. The Distribution Provider will notify the affected Distribution Customer in a timely manner of any scheduled Curtailments.

### **10.7 Classification of Distribution Service**

- (a) The Distribution Customer taking Distribution Service may request a modification of the Point(s) of Receipt or Delivery on a firm basis pursuant to the terms of Section 16.
  
- (b) The Distribution Customer may purchase Distribution Service to make sales of capacity and energy from multiple generating units that are on the Distribution Provider's Transmission System. For such a purchase of Distribution Service, the high voltage bus of the distribution substation will be designated as the Point of Receipt for purposes of this Tariff. If there are multiple generating units connected to the Distribution System, the resources will be designated as multiple Points of Receipt unless the multiple generating units are the same generating plant in which case the units would be treated as a single Point of Receipt.
  
- (c) The Distribution Provider shall provide deliveries of capacity and energy from the Point(s) of Receipt to the Point(s) of Delivery. Each Point of Receipt shall be set forth in the Service Agreement along with a corresponding Contract Demand associated with each Point of Receipt. The Distribution Customer may not exceed its Contract Demand at each Point of Receipt and each Point of Delivery except as otherwise specified in Section 19. The Distribution Provider shall specify the rate treatment and all related terms and conditions applicable in the event that a Distribution Customer (including Third-Party Sales by the Distribution Provider) exceeds its Contract Demand at any Point of Receipt or Point of Delivery.

### **10.8 Generation on Customer's Side of Meter**

A Distribution Customer may elect to install generation on its System. If the Distribution Customer wishes to export capacity and energy from its System, it shall submit an application to connect via an appropriate Wholesale Distribution Tariff generator interconnection agreement



with the Distribution Provider, and all appropriate arrangements shall be made with the Distribution Provider in advance of such installation.

### **10.9 Self-Provision of Ancillary Services**

Nothing in this Tariff is intended to limit a Distribution Customer in the self-provision or sale of Ancillary Services, to the extent the Distribution Customer is eligible to self-provide or sell Ancillary Services under the terms of the ISO Tariff or contracts, except when emergency conditions preclude such provision of ancillary services. Except to the extent that a Distribution Customer may be called upon to provide Reactive Power support consistent with the operations of the Distribution Provider, a Distribution Customer must maintain the power factor at the interface between the Distribution Customer's facilities and the Distribution Provider's facilities pursuant to Section 17.4.

### **10.10 Conflict with ISO Tariff**

If a Distribution Customer identifies a conflict between this Tariff and the ISO Tariff, the Distribution Provider and the Distribution Customer shall make good-faith efforts to resolve the conflict. If the Parties are unable to resolve the conflict informally, the Parties may use the Dispute Resolution Procedures set forth in Section 8 of this Tariff or may file with the Commission to resolve it.

### **10.11 Conflicting Operating Instructions**

In the event a Distribution Customer receives conflicting operating instructions from the ISO, one or more Participating Transmission Operators, as that term is defined in the CAISO Tariff, or the Distribution Provider, and, if human safety would not knowingly be jeopardized nor electric facilities knowingly be subjected to damage while the Distribution Customer seeks to reconcile the conflict with the appropriate ISO, Participating TO and/or Distribution Provider employees before acting, the Distribution Customer should attempt a reconciliation. Otherwise, the Distribution Customer shall adhere to ISO Tariff provisions 4.2.1 and 4.2.2 and follow the ISO's instructions. In no event shall a Distribution Customer be required to follow operating

instructions from the ISO if following those instructions would knowingly jeopardize human safety.

## **11. Service Availability**

### **11.1 General Conditions**

The Distribution Provider will provide Distribution Service over, on, or across its Distribution Facilities to any Distribution Customer that has met the requirements of Section 12.

### **11.2 Determination of Available Capability**

A description of the Distribution Provider's specific methodology for assessing available transmission and distribution capability is contained in Attachment B to this Tariff. In the event sufficient transmission and distribution capability may not exist to accommodate a service request, the Distribution Provider will respond by performing a System Impact Study.

### **11.3 Initiating Service Without an Executed Service Agreement**

If, after deeming the Application of an Eligible Customer complete, the Distribution Provider and the Distribution Customer requesting Distribution Service cannot agree on all the terms and conditions of the Service Agreement or the accompanying distribution Interconnection Agreement described in Section 13.5, which governs the interconnection of the Distribution Provider's and Distribution Customer's systems for Distribution Service, the Distribution Customer shall have the option of requesting that the Distribution Provider file with the Commission, within thirty (30) calendar days after the date the Distribution Customer provides written notification directing the Distribution Provider to file, an unexecuted Service Agreement and accompanying distribution Interconnection Agreement containing terms and conditions deemed appropriate by the Distribution Provider for such requested Distribution Service. The Distribution Provider shall commence providing Distribution Service pursuant to that unexecuted Service Agreement subject to the Distribution Customer's agreeing to: (i) compensate the Distribution Provider at whatever rate the Commission ultimately determines to be just and reasonable; and (ii) comply with the terms and conditions of this Tariff, including paying the appropriate Interconnection Request Fee in accordance with the terms of Section 13.2. However,

this obligation to provide an unexecuted Service Agreement to the Distribution Customer does not apply if the Distribution Customer has not provided requested site information necessary for the Distribution Provider to design Direct Assignment Facilities and Upgrades or information that is necessary to prepare a Service Agreement and Interconnection Agreement.

#### **11.4 Expansion or Modification of the Distribution System**

If the Distribution Provider determines that it cannot accommodate an Initial Application for Distribution Service or an application or request to expand Contract Demand because of insufficient capacity on its Transmission System or Distribution System, the Distribution Provider will use due diligence to modify its Distribution System and its Transmission System in an effort to provide the requested capacity for Distribution Service, provided the Distribution Customer agrees pay all such costs. The Distribution Provider will conform to Good Utility Practice in determining the need for new Distribution Facilities and Upgrades and in the design and construction of such facilities.

#### **11.5 Deferral of Service**

The Distribution Provider may defer providing service until it completes construction of new transmission facilities or Distribution Facilities or Upgrades to existing facilities needed to provide the requested Distribution Service capacity whenever the Distribution Provider determines that providing the requested service would, without such new facilities or Upgrades, impair or degrade reliability to any existing services.

### **12. Distribution Customer Responsibilities**

#### **12.1 Conditions Required of Distribution Customers**

Distribution Service shall be provided by the Distribution Provider provided that the following conditions are satisfied by the Distribution Customer:

- a. The Distribution Customer has submitted an Initial Application for service accompanied by an Interconnection Request Fee;

- b. The Distribution Customer has met the creditworthiness criteria set forth in Section 7;
- c. The Distribution Customer has demonstrated that it will have arrangements in place for any other transmission service and ancillary services necessary for the delivery of energy from the generating source to the Distribution Provider prior to the time service under this Tariff commences;
- d. The Distribution Customer has demonstrated compliance with the WDT Interconnection Design Options for Primary Voltage Service (WDT Design Standard) of the then-current versions of PG&E's Electric and Gas Service Requirements Manual (Greenbook) and electric construction manuals;
- e. The Distribution Customer has demonstrated *bona fide* ownership or control of Intervening Distribution Facilities as described in Section 12.2;
- f. The Distribution Customer has agreed to make and has and made payment for any facilities constructed and chargeable to such Distribution Customer under this Tariff; and
- g. The Distribution Customer has executed an Interconnection Agreement and has also executed a Service Agreement or has agreed to receive service pursuant to Section 11.3.

## **12.2 Intervening Facilities Requirements**

All Eligible Customers shall be required to demonstrate *bona fide* ownership or control of the Intervening Distribution Facilities as provided in Section 12.2.1. An Eligible Customer applying for Distribution Service must demonstrate *bona fide* ownership or control of Intervening Facilities as provided for in Sections 12.2.2 and 12.2.3.

To the extent the Distribution Customer is required to demonstrate continued *bona fide* ownership or control of Intervening Facilities at a site that has previously received service under this Tariff (including, but not limited to, new Applications related to peak load increases or other

changes at existing Points of Delivery), the Distribution Customer may demonstrate *bona fide* ownership or control of Intervening Facilities as provided for in Sections 12.2.2 or 12.2.3. In such instances, if, after a reasonable, good faith attempt to locate the documentation described in Sections 12.2.2 or 12.2.3, the Distribution Customer finds that no such documentation exists, the Distribution Customer may demonstrate *bona fide* ownership or control of facilities with a sworn statement by an officer or executive of the applicant identifying the relevant facilities, describing the good faith effort to locate documentation, affirming that they are owned or controlled by the Distribution Customer, and describing the basis for this affirmation. Such affirmation associated with Section 12.2.2 shall include a description sufficient to demonstrate that the Distribution Customer's ownership includes ongoing responsibility (*e.g.*, responsibility for operation, maintenance, insurance or self-insurance, and liability) for such Intervening Facilities. Such affirmation associated with Section 12.2.3 shall include a description sufficient to demonstrate that Distribution Customer is the party responsible for ensuring that the Intervening Facilities are operated, maintained, and repaired in accordance with all applicable laws and regulations and Good Utility Practice and that the Distribution Customer is responsible for the attendant costs or risks associated with assertion of its control.

### **12.2.1 Intervening Facilities**

The definition of Intervening Facilities for purposes of determining Distribution Service eligibility is independent of and does not address the facilities required by PG&E for a safe interconnection. The distribution Interconnection Agreement, defined in Section 2.25, may require that adequate interconnection facilities (distinct from Intervening Facilities) be in place to support a safe interconnection in accordance with the Distribution Provider's standards for protection at the Point of Interconnection, North American Electric Reliability Corporation (NERC) standards, and Good Utility Practice.

The Intervening Facilities identified in Table 1 of the WDT Design Standard, below, are required for typical underground and overhead service connections. A detailed explanation and relevant diagrams are provided in the WDT Design Standard.

Table 1 Intervening Facility Requirements (Distribution Customer Owned)		
Intervening Facility	Overhead	Underground
Disconnect Switch	Required	Required
Protective Device	Required	Required
Pole	Required	Not Required
Conductor <sup>1</sup>	Required	Required

Note<sup>1</sup>: The Distribution Customer must own the conductor from either its Metering Panel or its Protective Device, depending on the Point of Interconnection (POI), which is discussed in the Application Section of the WDT Design Standard and in Figures 1 and 2 below.

Applicants may request a variance from required Intervening Facilities in accordance with the WDT Design Standard. Additional details on Intervening Facilities and the correct application and installation of these facilities are identified in the WDT Design Standard.

### 12.2.2 Ownership of Intervening Facilities

A Distribution Customer must demonstrate *bona fide* ownership or *bona fide* control of Intervening Facilities by providing information as part of its Application documentation. Such information or documentation shall be sufficient to demonstrate *bona fide* ownership if it includes a copy of a paid invoice, purchase order, purchase and sale agreement, work order, deed, or construction or other similar documentation demonstrating ownership and indicating ongoing responsibility (*e.g.*, responsibility for operation, maintenance, insurance or self-insurance, and liability) for such Intervening Facilities and assets identified as being required for Distribution Service in the WDT Design Standard. Any portions of such documents supplied by the Distribution Customer that are not relevant to demonstrating the Distribution Customer's ownership may be redacted by the Distribution Customer.

### **12.2.3 Control of Intervening Facilities**

If a Distribution Customer is not going to own the Intervening Facilities required for interconnection under this Tariff, the Distribution Customer must demonstrate *bona fide* control of those Intervening Facilities in advance of initiation of service by including evidence in its Application documentation. Such documentation may be sufficient if it includes a copy of a lease, operating or other agreement between the Distribution Customer and the owner(s) of the Intervening Facilities and that documentation demonstrates that the Distribution Customer has discretion and responsibility to perform, or compel the performance of key maintenance actions and functions necessary to deliver energy to the end use load customers of the Distribution Customer. Documentation must identify the facilities owner and clearly name the Distribution Customer (not the facilities owner) as the responsible party for taking measures necessary to ensure that the Intervening Facilities are operated, maintained, and repaired in accordance with all applicable laws and regulations and Good Utility Practice. A document in which the owner(s) of the facilities grants “control” of the facilities to the Distribution Customer but assigns minimal or no responsibilities or obligations to the Distribution Customer relating to or associated with the facilities, such as maintenance, operation, or insurance (*e.g.*, where the owner(s) maintains these responsibilities despite assigning control to the Distribution Customer), is not a demonstration of *bona fide* control by the Distribution Customer. Any portions of the documents that are not relevant to demonstrating the Distribution Customer’s control as described above may be redacted by the Distribution Customer.

### **12.3 Responsibility for Third-Party Arrangements**

Any scheduling arrangements that may be required by end-use customers of the Distribution Customer are the sole responsibility of the Distribution Customer. The Distribution Customer shall provide, unless waived by the Distribution Provider, notification to the Distribution Provider identifying such arrangements so that the Distribution Provider can determine whether the proposed arrangements between the Distribution Customer and the end-use customer can be accommodated. The Distribution Provider will undertake reasonable efforts to assist the Distribution Customer in making such arrangements pursuant to Good Utility Practice.

### **13. Procedures for Arranging Distribution Service**

Interconnection: An Distribution Customer requesting interconnection of a Wholesale Distribution Load to the Distribution Provider's Distribution System shall follow the procedures set forth in Section 13.1 to request interconnection and Distribution Service. A Distribution Customer requesting interconnection of a generating facility shall follow the PG&E's Generator Interconnection Procedures set forth in Attachment I of the WDT to request interconnection at the same time the Distribution Provider shall process such requests concurrently in accordance with the GIP.

#### **13.1 Application**

Distribution Customers must submit an Application using the Distribution Provider's designated application process. The designated application process, currently using an internet-based portal hosted by PG&E, will be described on PG&E's website. For further information, email [WDTLoadApplication@pge.com](mailto:WDTLoadApplication@pge.com).

This application process will provide a date-stamped record for establishing the priority of the Application. The Distribution Provider shall treat all information provided by the Distribution Customer consistent with the standards of conduct contained in Part 37 of the Commission's regulations.

#### **13.2 Initial Application**

An Initial Application will be considered complete when all items required for an Application, including receipt of the nonrefundable \$1,500.00 Interconnection Request Fee, are received by the Distribution Provider and deemed valid by Distribution Provider. A detailed checklist of all Application requirements can be found on PG&E's website.

An Initial Application shall provide all basic information required to evaluate a request for Distribution Service. The Initial Application must also include details regarding the project scope; load information; and electrical, civil, and architectural drawings. The Distribution Provider may also request detailed information about equipment after an Initial Application is deemed complete.



While an Initial Application may be deemed complete based on the information contained in the Initial Application itself, other information not addressed in the Application may be required from the Distribution Customer in order to allow the Distribution Provider to process a Service Agreement. The need for other information may delay processing of the Application and preparation of a Service Agreement. Such other information and issues include further review of information about the site at which service is requested, including but not limited to as land rights and unexpected issues or concerns that arise after a visit to the site.

### **13.3 Response to an Application**

Within fifteen (15) business days of the receipt of an Application, the Distribution Provider shall notify the applicant whether the Distribution Provider considers the applicant to be an Eligible Customer under Section 2.20 and whether the Application has been deemed complete.

If the Distribution Provider deems the Application incomplete, the Distribution Provider shall identify all known missing information or deficiency in the Application and notify the applicant. The applicant may then submit additional material or information to the Distribution Provider. If forty-five (45) business days pass after receiving notification that its Application is incomplete and the applicant has not provided the missing materials, the Distribution Provider shall treat the Application as withdrawn.

Within fifteen (15) business days of receipt of any additional material or information, the Distribution Provider shall notify the applicant to advise the applicant as to whether the Application has been deemed complete. If the Distribution Provider deems the Application still incomplete after the receipt of additional material or information, the Distribution Provider shall identify the missing information or deficiency in that notice. To the extent the Distribution Provider identifies any missing information or deficiency that was not identified in its response to the original Application, the Distribution Customer shall have forty-five (45) days to provide that missing information or correct that deficiency. Upon receipt of a revised Application that the Distribution Provider deems complete, the Application shall be assigned a new priority consistent with the date that the revised Application was deemed complete.

### **13.4 Response to an Initial Application**

Following a determination by the Distribution Provider that an Application is complete, the Distribution Provider shall make a determination of available transmission and distribution capability as required in Section 11.2, Determination of Available Distribution Capability. The Distribution Provider shall notify the Eligible Customer as soon as practicable, but not later than thirty (30) business days after the date the Eligible Customer is notified that the Application is complete, whether the Distribution Provider will be able to provide service without performing a System Impact Study or whether such a study is needed to evaluate the impact of the Initial Application pursuant to Section 13. Responses by the Distribution Provider must be made as soon as practicable to all Initial Applications (including applications by its own merchant function) and the timing of such responses must be made on a non-discriminatory basis.

### **13.5 Service Agreements**

The Distribution Provider shall offer a draft of the standard form Service Agreement (Attachment A) and a draft Interconnection Agreement to a Distribution Customer within forty-five (45) business days after the Distribution Provider deems the Distribution Customer's Initial Application to be complete, provided that the Distribution Provider determines that a System Impact Study is not required and provided that a site visit or other detailed review of the work site does not reveal conditions that were previously unknown or not contemplated when the Initial Application was deemed complete or when the interconnection project was designed or estimated. In cases where a System Impact Study (and, if necessary, a Facilities Study) is required or where previously unknown or unanticipated conditions are revealed, the provisions of Section 14 will govern the timing of the tender of the draft Service Agreement by the Distribution Provider. The Distribution Provider shall complete any necessary System Impact Study and Facilities Study before providing a draft Service Agreement to the Distribution Customer and before requiring any payment of a cost estimate for the interconnection project.

For any Point of Delivery that is moving from an existing Service Agreement under this Tariff to service under a new Service Agreement under this Tariff, the Distribution Provider will offer a draft of the new Service Agreement within forty-five (45) business days of receiving an Initial Application so long as the requirements under the new Service Agreement do not trigger a

System Impact Study or Facilities Study, modification to the Distribution Provider's Distribution Facilities, or new Intervening Facilities.

The draft Service Agreement will contain a nonbinding cost estimate for the interconnection project. The Distribution Provider shall develop the total estimated cost of the project design using the WDT Unit Cost Guide. The Distribution Provider will include a breakdown of the nonbinding cost estimate, by unit cost and asset type, when it provides the draft Service Agreement to the Distribution Customer. The Distribution Provider will perform engineering and design work only after the Distribution Customer has executed and paid the estimated costs in the Service Agreement.

### **13.6 Execution of Service Agreement**

Executed Service Agreements that contain the information required under this Tariff shall be reported to or filed with the Commission in compliance with applicable Commission regulations. Similarly, executed Interconnection Agreements that contain the information required under this Tariff and that are required for Distribution Service under this Tariff shall be reported to or filed with the Commission in compliance with applicable Commission regulations.

Failure of a Distribution Customer to, within ninety (90) calendar days after the draft Service Agreement and invoice for required payment are tendered by the Distribution Provider, either execute and return an execution-ready Service Agreement along with the required payment and Interconnection Agreement or submit the required payment and request the filing of an unexecuted Service Agreement and Interconnection Agreement pursuant to Section 11.3, will be deemed a withdrawal and termination of the Initial Application. Nothing herein limits the right of a Distribution Customer to file another Application after such withdrawal and termination.

If the Distribution Customer has not entered into an Engineering and Procurement Agreement prior to the Service Agreement, the Distribution Customer shall have the option of either (1) paying the Service Agreement's nonbinding cost estimate upon executing the Service Agreement, or (2) paying an Engineering Advance upon executing the Service Agreement. An Engineering Advance shall be equal to twenty (20) percent of the nonbinding cost estimate of the project design contained in the Service Agreement. An Engineering Advance may take the form

of (1) a check deposit; (2) electronic payment via ACH or wire; or (3) the posting of Interconnection Financial Security, as provided under Section 13.6.1

If the Distribution Customer has entered into an Engineering and Procurement Agreement prior to the Service Agreement, the Distribution Customer shall pay the Service Agreement's nonbinding cost estimate upon executing the Service Agreement.

### **13.6.1. Interconnection Financial Security**

The Interconnection Financial Security posted by a Distribution Customer may be any combination of the following types of financial instruments, provided in favor of the Distribution Provider:

- (i) An irrevocable and unconditional letter of credit issued by a bank or financial institution that has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's;
- (ii) An unconditional and irrevocable guaranty issued by a company has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's;
- (iii) A cash deposit standing to the credit of the Distribution Provider and in an interest-bearing escrow account maintained at a bank or financial institution that is reasonably acceptable to the Distribution Provider.

To the greatest extent possible, the Distribution Customer will use industry standard forms for the instruments of Interconnection Financial Security used in this Section, such as standard forms used within the financial and electrical industries. The instruments of Interconnection Financial Security listed in this Section shall be in such form and format as the Distribution Provider may reasonably require from time to time by notice to Distribution Customers, or in such other form as has been evaluated and approved as reasonably acceptable by the Distribution Provider.

If at any time the guarantor of the Interconnection Financial Security fails to maintain the credit rating required by this Section, the Distribution Customer shall provide to the Distribution Provider replacement Interconnection Financial Security that meets the requirements of this Section within five (5) business days of the change in credit rating.

### **13.7 Notice of Application Process Delays**

The Distribution Provider shall receive, process, and analyze all Applications in a timely manner as set forth in this Tariff. The Distribution Provider shall use the same reasonable efforts in processing and analyzing Applications from all Distribution Customers. If for any reason the Distribution Provider is not able to meet the timeline in this Tariff, in advance of any Tariff deadline the Distribution Provider must provide written notice to the Distribution Customer of the delay and provide a schedule identifying when the Distribution Provider expects to meet the milestone. Tariff milestones include: Application completeness determination; the review of availability of distribution capacity; tendering System Impact Study plan, if necessary; tendering the System Impact Study report, if necessary; tendering the Facilities Study plan, if necessary; tendering the Facilities Study report, if necessary; and tendering a Service Agreement.

### **13.8 Construction Initiation**

No later than twenty-four (24) months after the Distribution Provider's project design is complete and has been delivered to the Distribution Customer, the Distribution Customer shall initiate construction and be ready to take Distribution Service immediately upon construction completion to ensure efficient use of facilities and system capacity, avoid permit re-application costs due to permit expiration and material and labor cost increases, and avoid conflicts that may arise with design standard changes. If the Distribution Customer fails to initiate construction demonstrating substantive progress and to provide the Distribution Provider a reasonable estimated completion date within twenty-four (24) months of the Distribution Provider's project design completion, the Distribution Provider will notify the Distribution Customer that the Agreement will be terminated pending FERC acceptance of such termination. Nothing in this provision prohibits the Distribution Customer from re-submitting an Application for service pursuant to the terms of this Tariff.

### **13.9 Real Power Losses**

Real Power Losses are associated with all distribution service. The Distribution Provider is not obligated to provide Real Power Losses. The Distribution Customer is responsible for replacing losses associated with all Distribution Service as calculated by the Distribution

Provider. Real Power Losses associated with Distribution Service are calculated by multiplying the metered quantity, whether energy or demand, by the Real Power Loss Factor calculated by the Distribution Provider. The applicable Real Power Loss Factors for Distribution Service over the Distribution System will be set forth in the Service Agreement.

### **13.10 True-up of Interconnection Project Costs**

Within 180 calendar days of the energization date of the interconnection project, the Distribution Provider shall true-up the actual costs of the project design and refund or bill the Distribution Customer for the difference between the estimated and actual costs. Along with such true-ups, the Distribution Provider shall provide documentation that includes, at minimum, information that breaks down the work involved by type of activity performed by the Distribution Provider, components installed by the Distribution Provider, materials used and labor performed by the Distribution Provider, and size of project.

### **13.11 Option for Alternative Timeline for Interconnections**

If the Distribution Provider and Distribution Customer agree in writing to alternative timelines and/or milestones for any interconnection project, they can rely upon those instead of the standard timelines and/or milestones described in the Tariff.

## **14. Additional Study Procedures for Distribution Service**

### **14.1 Notice of Need for System Impact Study**

After receiving an Application, the Distribution Provider shall determine whether a System Impact Study is needed. If the Distribution Provider determines that a System Impact Study is necessary to determine whether it can accommodate the requested Distribution Service, it shall inform the Distribution Customer no later than thirty (30) business days after the Initial Application is deemed complete. The Distribution Provider may determine that additional information from the Distribution Customer is necessary to develop the System Impact Study plan. The Distribution Provider will request the additional information from the Distribution

Customer and the Distribution Customer shall provide the requested information within forty-five (45) business days of being notified of that need by the Distribution Provider. If the Distribution Customer does not provide the requested information within forty-five (45) business days, the Initial Application will be considered withdrawn.

In cases where additional information has been requested and supplied, the Distribution Provider shall, within thirty (30) business days of receiving such additional information, tender a draft System Impact Study Agreement. In cases where additional information is unnecessary, the Distribution Provider shall, within thirty (30) business days of notifying the Distribution Customer that its Application is deemed complete, tender a draft System Impact Study Agreement. In both cases, in order to proceed with the processing of its Initial Application for Distribution Service, the Distribution Customer shall agree to reimburse the Distribution Provider for performing the required System Impact Study. For a service request to remain an Initial Application, the Distribution Customer shall execute the System Impact Study Agreement and return it, along with payment for estimated costs to perform the System Impact Study, to the Distribution Provider within thirty (30) business days of receipt.

#### **14.2 System Impact Study Agreement and Cost Reimbursement**

- (i) The System Impact Study Agreement will clearly specify the Distribution Provider's estimate of the cost and time for completion of the System Impact Study. In performing the System Impact Study, the Distribution Provider shall rely, to the extent reasonably practicable, on existing studies. The Distribution Customer will not be assessed a charge for such existing studies; however, the Distribution Customer will be responsible for charges associated with any modifications to existing studies that are reasonably necessary to evaluate the impact of the Distribution Customer's request for service on the Distribution Provider's facilities. Within 180 days of completion of the System Impact Study, the Distribution Provider shall true-up the actual costs of the System Impact Study and refund to or bill the Distribution Customer for the difference between the estimated and actual costs.

- (ii) If in response to multiple Distribution Customers requesting service in relation to the same competitive solicitation, a single System Impact Study should be sufficient for the Distribution Provider to accommodate the requests for service and the costs of that study shall be pro-rated among the Distribution Customers.
- (iii) Accounting for the Distribution Provider's Study Costs and Revenues: The Distribution Provider shall include in a separate transmission or distribution operating expense account or subaccount, as appropriate, costs properly chargeable to expense that are incurred to perform any System Impact Studies or Facilities Studies which the Distribution Provider conducts to determine if it must construct Distribution System facilities or Upgrades necessary for its own uses under this Tariff, including making Third-Party Sales under the Tariff; and include in a separate operating revenue account or subaccount the revenues received for System Impact Studies or Facilities Studies performed when such amounts are separately stated and identified in the Distribution Customer's billing under the Tariff.

### **14.3 System Impact Study Procedures**

Upon receipt of payment for costs described above and an executed System Impact Study Agreement, the Distribution Provider will use due diligence to complete the required System Impact Study within a sixty (60) business day period. A copy of the completed System Impact Study shall be sent to the Eligible Customer upon completion of the System Impact Study by the Distribution Provider. The Distribution Customer shall notify the Distribution Provider of any errors in the System Impact Study, including, but not limited to, discrepancies between the Application and System Impact Study. PG&E shall correct any such errors and provide a corrected System Impact Study within fifteen (15) calendar days of the Distribution Customer providing notice of such errors. Upon request by either the Distribution Customer or the Distribution Provider, the parties shall convene a technical meeting to address questions about the System Impact Study or errors in the System Impact Study. The Distribution Provider will use the same due diligence in completing the System Impact Study for an Distribution Customer as it uses when completing studies for itself. The System Impact Study shall identify any



Distribution System constraints and redispatch options, and state whether any additional Direct Assignment Facilities or Upgrades may be required to provide the requested Distribution Service. The Distribution Provider shall notify the Distribution Customer immediately upon completion of the System Impact Study if the Distribution Provider's Facilities will be adequate to accommodate the request for Distribution Service (*i.e.*, there is no need for additional Distribution Facilities or Upgrades to existing facilities). In such a case, a Facilities Study is not required, and the Distribution Provider shall send the Distribution Customer a draft Service Agreement as soon as practicable, but no later than thirty (30) business days after the completed System Impact Study has been sent to the Distribution Customer. Therefore, in order for the Distribution Provider to proceed with the request for Distribution Service, within ninety (90) calendar days of receipt of the draft Service Agreement and invoice for the required payment, the Distribution Customer must execute the Service Agreement and submit the required payment or must submit the required payment and request the filing of an unexecuted Service Agreement pursuant to Section 11.3, or the Application shall be deemed terminated and withdrawn.

#### **14.4 Facilities Study Procedures**

If a System Impact Study indicates that Upgrades to the Distribution Facilities are needed to meet the Distribution Customer's Distribution Service request, the Distribution Provider, within thirty (30) business days of the completion of the System Impact Study, shall tender to the Distribution Customer a draft Facilities Study Agreement pursuant to which the Distribution Customer shall agree to reimburse the Distribution Provider for performing the required Facilities Study. In order for the Distribution Provider to develop the Facilities Study Agreement, additional project information may be necessary. The Distribution Provider shall request such additional information within fifteen (15) business days after the System Impact Study has been completed. The Distribution Customer shall provide such additional information within forty-five (45) business days. If the Distribution Customer does not provide the requested information within forty-five (45) business days, the Initial Application will be considered withdrawn.

If additional information has been provided, the Distribution Provider has thirty (30) business days from receipt of such information to provide the Facilities Study Agreement. In order for the Distribution Provider to continue processing the request for Distribution Service,

the Distribution Customer shall execute the Facilities Study Agreement and return it to the Distribution Provider, along with the estimated costs to perform the Facilities Study within fifteen (15) business days. Alternatively, if within fifteen (15) business days the Distribution Customer requests the Distribution Provider to proceed with the Facilities Study and commits to abide by the terms, conditions, and cost assignments ultimately determined under the Dispute Resolution Procedures, including any determination by FERC or appeal of a FERC determination in accordance with that process, the Distribution Provider shall promptly proceed with the Facilities Study, and the parties shall submit the disputed terms for resolution under the Dispute Resolution Procedures. If the Distribution Customer elects not to execute the Facilities Study Agreement, its Application shall be deemed withdrawn. Upon receipt of payment described above and an executed Facilities Study Agreement, the Distribution Provider will use due diligence to complete the required Facilities Study within a sixty (60) business day period. If the Distribution Provider is unable to complete the Facilities Study in the allotted time period, in advance of sixty (60) business days the Distribution Provider shall notify the Eligible Customer and provide an estimate of the time needed to reach a final determination along with an explanation of the reasons that additional time is required to complete the study. A copy of the completed Facilities Study shall be sent to the Distribution Customer upon completion of the Facilities Study by the Distribution Provider. The Distribution Customer shall notify the Distribution Provider of any errors in the Facilities Study, including, but not limited to, discrepancies between the Application or System Impact Study and Facilities Study. PG&E shall correct any such errors and provide a corrected Facilities Study within fifteen (15) calendar days of the Distribution Customer providing notice of such errors. Upon request by either the Distribution Customer or the Distribution Provider, the parties shall convene a technical meeting to address questions about the Facilities Study or errors in the Facilities Study. When completed, the Facilities Study will include a good faith estimate of: (i) the cost of new Direct Assignment Facilities to be charged to the Distribution Customer; (ii) the Eligible Customer's appropriate share of the cost of any required Upgrades as determined pursuant to the provisions of this Tariff; and (iii) the estimated time required to complete such construction and initiate the requested service. In order to proceed, the Distribution Customer shall pay for or provide the Distribution Provider with a letter of credit or other reasonable form of security acceptable to the Distribution Provider equivalent to the costs of new facilities or Upgrades consistent with

commercial practices as established by the Uniform Commercial Code. The Distribution Provider shall send the Distribution Customer a draft Service Agreement as soon as practicable, but no later than thirty (30) business days after the Distribution Provider receives the letter of credit or other reasonable form of security acceptable to the Distribution Provider. The Distribution Customer shall have ninety (90) calendar days from receipt of draft Service Agreement and invoice for required payment to execute and return a Service Agreement along with the required payment or to submit the required payment and request the filing of an unexecuted Service Agreement in accordance with Section 11.3 and provide the required letter of credit or other form of security. If the Distribution Customer fails to do so, the request will no longer be an Initial Application and shall be deemed terminated and withdrawn.

Within 180 calendar days of completion of the Facilities Study, the Distribution Provider shall true-up the actual costs of the Facilities Study and refund to or bill the Distribution Customer for the difference between the estimated and actual costs. Alternatively, the Distribution Customer and Distribution Provider may agree to true-up the actual costs of the Facilities Study as part of the final true-up.

#### **14.5 Facilities Study Modifications**

Any change in design arising from inability to site or construct facilities as originally proposed or contemplated will require development of a revised good faith estimate by the Distribution Provider. New good faith estimates also will be required in the event of new statutory or regulatory requirements that are effective before the completion of construction of facilities or other circumstances beyond the control of the Distribution Provider that significantly affect the final cost of Upgrades to be charged to the Distribution Customer pursuant to the provisions of this Tariff.

#### **14.6 Engineering and Design Process**

##### **14.6.1 Optional Engineering and Procurement (“E&P”) Agreement**

Prior to executing a Service Agreement, a Distribution Customer may, in order to advance the implementation of its requested interconnection, request an E&P Agreement that

authorizes Distribution Provider to begin engineering and design work, as described in Section 14.6.2 and procurement of long lead-time items necessary for the establishment of the interconnection. The Distribution Provider shall provide an E&P Agreement upon such a request. However, Distribution Provider shall not be obligated to offer an E&P Agreement if the Application has not been deemed complete or if any necessary System Impact Study and/or Facilities Study have not yet been completed. The E&P Agreement is an optional procedure and it will not alter distribution service priority, as described in Section 10.3.

The E&P Agreement shall include an estimated date for completion of engineering and design work. If the Distribution Provider is unable to meet this estimated completion date, it shall provide the Distribution Customer with an updated estimated completion date at least fifteen (15) calendar days prior to the initial estimated completion date.

The E&P Agreement shall provide for the Distribution Customer to pay the cost of all activities authorized by Distribution Customer and to make advance payments or provide other satisfactory security for such costs. The E&P Agreement will specify the Distribution Provider's estimate of the cost for completion of engineering and design work, and the Distribution Customer must pay the estimated cost of engineering and design work before the Distribution Provider commences such work. This payment may take any of the forms acceptable for payment of an Engineering Advance, as defined in Section 13.6. If the Distribution Customer ultimately executes a Service Agreement, its E&P Agreement payment will be applied to the Service Agreement's nonbinding cost estimate and credited toward the final project interconnection costs. If the Distribution Customer does not ultimately execute a Service Agreement, the Distribution Provider shall true-up the actual costs of work performed under the E&P Agreement and refund or bill the Distribution Customer for the difference between the amount paid under the E&P Agreement and actual costs.

In order for the Distribution Provider to procure equipment pursuant to the E&P Agreement, the Distribution Customer must first approve the procurement of any equipment and must pay the estimated cost of such authorized activities. If Distribution Customer withdraws its Application or either Party terminates the E&P Agreement, Distribution Provider will make best efforts to return the equipment ordered on behalf of the Distribution Customer and seek a full

refund. To the extent the equipment ordered cannot be returned without paying cancellation costs, Distribution Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled or returned for a full refund, the Distribution Customer may: 1) elect to take title to the equipment, in which case the Distribution Provider shall deliver such equipment to the Distribution Customer and the Distribution Customer shall pay the Distribution Provider any unpaid balance and cost of delivery of such equipment or; 2) offer to sell the equipment to the Distribution Provider. If the Distribution Customer opts to offer to sell the equipment to the Distribution Provider and the Distribution Provider refuses the offer and does not want to purchase the equipment, then the Distribution Customer must take title to, and delivery of, the equipment and the Distribution Customer shall pay to the Distribution Provider any unpaid balance and cost of delivery of such equipment.

The Distribution Provider shall send the Distribution Customer a draft Service Agreement as soon as practicable, but no later than thirty (30) calendar days after completion of work authorized by the E&P Agreement. Upon receipt of the draft Service Agreement and invoice for required payment, the Distribution Customer shall have ninety (90) calendar days to either (1) execute the Service Agreement and submit the required payment in accordance with Section 13.6, or (2) submit the required payment and request the filing of an unexecuted Service Agreement in accordance with Section 11.3.

#### **14.6.2 Engineering and Design Work**

Engineering and design work shall be performed by the Distribution Provider either (1) under an E&P Agreement requested by the Distribution Customer pursuant to Section 14.6; or, (2) if no E&P Agreement has been requested, after receipt of the executed Service Agreement and the associated payment. The Distribution Provider will schedule such engineering and design work as it would a Native Load Customer. Anytime during the engineering and design process the Distribution Provider may request additional information from the Distribution Customer. The Distribution Customer will provide such requested information within forty-five (45) business days. The Distribution Provider and the Distribution Customer will work cooperatively during the engineering and design process.

Upon receipt of the executed Service Agreement and associated payment, the Distribution Provider shall provide the Distribution Customer with an estimated date for the completion of engineering and design work on the project. If the Distribution Provider is unable to meet this estimated completion date, it shall provide the Distribution Customer with an updated estimated completion date at least fifteen (15) calendar days prior to the initial estimated completion date. As soon as practicable after beginning engineering and design work, the Distribution Provider shall inform the Distribution Customer of the location of the point of common coupling and the equipment to be installed at that location. The Distribution Provider shall promptly inform the Distribution Customer of any changes to this information.

#### **14.7 Due Diligence in Completing New Facilities**

The Distribution Provider shall use due diligence to add necessary facilities or Upgrade its Distribution Facilities within a reasonable time. The Distribution Provider will not Upgrade its existing or planned Distribution System in order to provide the requested Distribution Service if doing so would impair system reliability or otherwise impair or degrade existing service.

#### **14.8 Partial Interim Service**

If the Distribution Provider determines that it will not have adequate distribution capability to satisfy the full amount of a Completed Application for Distribution Service, the Distribution Provider nonetheless shall be obligated to offer and provide the portion of the requested Distribution Service that can be accommodated. However, the Distribution Provider shall not be obligated to provide the incremental amount of requested Distribution Service that requires the addition of Distribution Facilities or Upgrades until such Facilities or Upgrades have been placed in service.

### **15. Inability of Distribution Provider to Complete New Facilities**

#### **15.1 Delays in Construction of New Facilities**

If any event occurs that will materially affect the time for completion of new Distribution Facilities, or the ability to complete them, the Distribution Provider shall promptly notify the Distribution Customer. In such circumstances, the Distribution Provider shall, within thirty (30)

calendar days of notifying the Distribution Customer of such delays, convene a technical meeting with the Distribution Customer to evaluate the alternatives that satisfy the requirements of the Tariff and that are available to the Distribution Customer. The Distribution Provider also shall make available to the Distribution Customer any studies and work papers that have been prepared by Distribution Provider related to the delay that, in the sole opinion of the Distribution Provider, may be needed by the Distribution Customer to evaluate any alternatives.

### **15.2 Alternatives to the Original Facility Additions**

When the review process of Section 15.1 determines that one or more alternatives to the originally planned construction project exist and that satisfy the requirements of the Tariff, the Distribution Provider shall present such alternatives for consideration by the Distribution Customer. If, upon review of any alternatives, the Distribution Customer desires to maintain its Initial Application subject to construction of the alternative facilities, it may request that the Distribution Provider submit a revised Service Agreement. In the event the Distribution Provider concludes that no reasonable alternative exists and the Distribution Customer disagrees, the Distribution Customer may seek relief under the dispute resolution procedures pursuant to Section 8, Dispute Resolution Procedures, or it may refer the dispute to the Commission for resolution.

### **15.3 Refund Obligation for Unfinished Facility Additions**

If the Distribution Provider and the Distribution Customer mutually agree that no other reasonable alternatives exist and the requested Distribution Service cannot be provided out of existing capacity under the conditions of this Tariff, the obligation to provide the requested Distribution Service shall terminate. The Distribution Customer shall be responsible for all prudently incurred costs by the Distribution Provider through the time construction was suspended including the cost to remove any unfinished facility additions.

## **16. Changes in Service**

The Distribution System may be highly integrated, particularly in densely populated areas, such that rerouting of power may occur annually, or even seasonally, usually in order to

maximize the efficiency of the Distribution System. The delivery of power to the Distribution Customer is designed so that any such rerouting is not visible to the Distribution Customer. As a result, the Distribution Provider may elect a different path to supply the Distribution Customer after service is established without any notice requirements, although the specified Point of Delivery is not changed.

Any request by a Distribution Customer to modify any Point of Delivery shall be treated as a new request for service and it will require an Application. While the Application is pending, the Distribution Customer shall retain its priority for service at the existing Point of Delivery specified in its Service Agreement.

## **17. Metering and Power Factor Correction**

### **17.1 Metering and Communications Equipment**

As it pertains to loads, and unless the Distribution Customer desires to install and maintain its own revenue meters and communications equipment and coordinates in advance with the Distribution Provider, the Distribution Provider shall be responsible for installing, maintaining, and owning the revenue meters and communications equipment at each Point of Delivery to account for the capacity and energy being transmitted under this Tariff and to communicate the information to the Distribution Provider. The revenue meter shall record real and Reactive Power delivered to the Distribution Customer each half-hour on an integrated demand basis. The meters shall be capable of measuring flows both "in" and "out" (watts and VARs), which is consistent with the requirements in ISO's Metering Business Practice Manual, shall be designed to prevent reverse registration, and shall measure and continuously record such deliveries. Current metering is solid state (Quad 4+) with dial-in access consistent with the MV-90 addressable metering protocol, or successor protocol set forth in the ISO Tariff as it may change from time to time. As it pertains to Generation, metering and other requirements are listed in the PG&E Interconnection Handbook or its successor.



## **17.2 Access to Metering Data**

Prior to initiation of Distribution Service, the Distribution Provider and the Distribution Customer must agree on a process for making meter data, including the output from each individual meter, available to one another. The Distribution Customer shall have access to metering data and shall have reasonable access to install any recording devices or telemetering equipment it may require connected to the Distribution Provider-owned revenue meter. For a fee that covers the Distribution Provider's costs to program the meter, meters owned by the Distribution Provider can be configured to allow dial-in access by the Distribution Customer, if applicable. Meters owned by the Distribution Customer must allow dial-in access by the Distribution Provider or the Distribution Customer shall provide 4-channel, settlement quality meter data with meter reads for each half hour on an integrated demand basis.

## **17.3 Distribution Customer Obligations**

The Distribution Customer shall provide mounting devices, structures, and enclosures, as specified by the Distribution Provider for such metering. If the Distribution Provider owns a meter and associated communication equipment, the Distribution Customer shall grant the Distribution Provider such access to facilities as may be required for proper operation and maintenance of all revenue metering equipment.

## **17.4 Power Factor**

Unless otherwise agreed, the Distribution Customer is required to maintain a power factor within the same range as the aggregate of the Distribution Provider's Native Load Customers in the same area, as corrected by Distribution Provider-installed Reactive Power devices, pursuant to Good Utility Practice. If it is necessary to install facilities or equipment to correct voltage conditions caused by the Distribution Customer, such installation shall be at the Distribution Customer's expense. The power factor requirements are specified in the Service Agreement where applicable.

## **18. Compensation for Distribution Service**

Rates for Distribution Service to Distribution Customer loads are provided in Appendix I to this Tariff.

### **18.1 Compensation for Distribution Service Associated with Generation**

Rates for Distribution Service associated with Generation will be determined from any Direct Assignment Facilities and any Upgrades required to provide Distribution Service pursuant to Section 14. Rates are applied to those facilities required to transport Generation output to the ISO grid. For Direct Assignment Facilities and Upgrades, the annual revenue requirement will be determined from the current test year to the extent possible pursuant to applicable Commission regulations, for the cost of such facilities. The monthly charge shall be established by dividing that amount by twelve (12) months. For use of existing Distribution Facilities that are not a part of Direct Assignment Facilities or Upgrades, no charges will be assessed Distribution Service relating to Generation.

## **19. Stranded Cost Recovery**

**19.1** The Distribution Provider may seek to recover stranded costs from the Distribution Customer pursuant to this Tariff in accordance with the terms, conditions and procedures set forth in FERC Order No. 888 and FERC Order No. 888-A. However, the Distribution Provider must separately file any specific proposed stranded cost charge under Section 205 of the Federal Power Act.

**19.2** In agreeing to provide Distribution Service under this Distribution Tariff, the Distribution Provider reserves the right to collect any applicable non-bypassable charges (NBCs). Non-bypassable charges are typically imposed over an established time period by a government authority that affected persons or entities are required to pay to cover costs incurred, or programs funded by, a utility. Examples of NBCs include public purpose programs such as energy assistance programs for low-income households and energy efficiency programs, departing load or exit fees, stranded cost charges, charges associated with decommissioning of a nuclear power plant, the securitized proceeds of a revenue stream, or competition transition charges (CTCs) for other wholesale loads which may, in the future, be created from existing

retail loads at the Point of Delivery. NBCs shall be collected in the event that a competent regulatory agency or legislative body determines that it is appropriate to promulgate regulations or legislation which entitle the Distribution Provider to collect such charges from the Distribution Customer and similarly situated customers.

## **20. Standards of Conduct**

Terms and conditions regarding Open Access Same-Time Information System and standards of conduct are set forth in 18 CFR § 37 of the Commission's regulations (Open Access Same-Time Information System and Standards of Conduct for Public Utilities) and will be followed to the extent applicable.

## **21. Non-Waiver**

Except as otherwise expressly provided herein, no waiver of any covenant, condition, or provision of this Tariff shall be deemed to have been made by the Distribution Provider unless expressly in writing. The failure of Distribution Provider to insist in any one or more cases upon the performance of any of the provisions, covenants, or conditions of this Tariff or to exercise any option herein contained shall not be construed as a waiver or relinquishment of the Distribution Provider's rights under any such provisions, covenants, or conditions. The Distribution Provider's acceptance of performance of anything required by this Tariff to be performed with knowledge of a breach or failure of a covenant, condition, or provision hereof shall not be deemed a waiver of such breach or failure.

## **22. Existing, Legacy Shared Conduit Infrastructure**

In association with Points of Delivery in service as of the Effective Date of this Tariff, where the Distribution Provider and Distribution Customer own, operate and maintain electric facilities that are or may be located within the same geographical territory, each Party may own electric facilities that are located in conduits owned by the other Party. In such a circumstance, the sharing of existing conduit infrastructure will require that each Party make available authorized personnel to evaluate and coordinate work at locations where conduit substructures may be shared. In addition, both Parties agree to clearly mark their own lines and facilities that

are located in the manholes or vaults owned by the other Party. Each Party also agrees to remove its own de-energized, abandoned electric facilities at its own expense within six (6) months of de-energization. Each Party also agrees to use of Qualified Electrical Workers to access, maintain, install and remove electrical facilities within any shared conduits and to perform work in compliance with applicable laws and regulations in a manner that is consistent with Good Utility Practice.

For non-emergency situations where one Party must enter and perform work in the conduit or substructure of the other Party, the Parties must enter into a contract with payment required prior to work execution. In such a circumstance, each Party will provide at least twenty (20) business days' notice in advance of any scheduled work and each Party will be required to mitigate any hazardous substances in the work area for which it is responsible.

### **23. Separation of Conduit Infrastructure Under the Tariff**

For all Points of Delivery that are interconnected after the Effective Date of this Tariff the Distribution Customer will be responsible for the installation costs of any conduit required by the Distribution Provider's design (including spare conduit installed pursuant to Good Utility Practice) and shall deed all conduit and substructures on the Distribution Provider's side of the Point of Interconnection to the Distribution Provider. After construction and energization of a Point of Delivery is complete, each Party will own and be responsible for maintaining its respective substructures and electric facilities on its side and up to the Point of Interconnection. Both Parties agree to clearly mark their own lines and facilities that are located in the manholes or vaults owned by the other Party. Each Party also agrees to remove its own de-energized, abandoned electric facilities at its own expense within six (6) months of de-energization. Each Party also agrees to the required use of Qualified Electrical Workers to access, maintain, install and remove electrical facilities and to perform work in compliance with applicable laws and regulations in a manner that is consistent with Good Utility Practice.

**APPENDIX I:  
WHOLESALE DISTRIBUTION FORMULA RATE**

The Protocols set forth in Attachment 1 of this Appendix and the Model set forth in Attachment 2 of this Appendix together comprise the Wholesale Distribution Formula Rate.

## **ATTACHMENT 1: PROTOCOLS**

# PROTOCOLS

## 1. INTRODUCTION

These Protocols describe: (1) the terms and operation of the Wholesale Distribution Formula Rate (Formula Rate) to calculate the Wholesale Distribution Revenue Requirement (DRR), Distribution Rates, Cost of Ownership rates, and Customer Service Charges; (2) PG&E's commitment to use the Formula Rate to annually update the DRR, Distribution Rates, Cost of Ownership rates, and Customer Service Charges; and (3) the terms under which certain Formula Rate provisions may be revised, subject to FERC approval. The rates and charges described in these Protocols and calculated in the Model shall be in addition to any amounts the Distribution Customer ("Customer") has paid or is obligated to pay for studies, Direct Assignment Facilities or Upgrades.

The Model and its underlying Schedules are presented as Attachment 2 to Appendix I. All references in the Protocols to Schedules refer to Schedules in the Model. The Schedules contain fixed formulas that will be populated with data from PG&E's most recent annual FERC Form 1 filing or from other PG&E records when appropriate. The sources of the data used in the Formula Rate will be identified in the Model by references to their corresponding location in FERC Form 1 or source from PG&E records.

All capitalized terms used in these Protocols shall have the meanings as set forth herein, elsewhere in PG&E's Wholesale Distribution Tariff, or in the Model.

## 2. DEFINED TERMS

### 2.1 Annual True-up Adjustment or ATA

The Annual True-up Adjustment ("ATA") is a component of a Customer's Distribution Rate for the upcoming Rate Year. For purposes of these Protocols, reference to Distribution Rates shall be understood to include the ATA. The ATA component of a Customer's Distribution Rate is calculated for each Annual Update as shown in Schedule 3-ATA and included in the calculation of a Customer's Distribution Rate in Schedule 4-WholesaleRates as described in these Protocols.

## **2.2 Annual Update**

The update setting forth the DRR, Distribution Rates, Cost of Ownership rates, and Customer Service Charge for the upcoming Rate Year. The Annual Update is submitted as an informational filing at FERC.

## **2.3 Customer Service Charge**

A fixed amount per month assessed to reimburse the Distribution Provider for its costs of labor and supervision for billing services associated with the Distribution Customer's Point(s) of Delivery.

## **2.4 Distribution Service Charge**

The monthly charge a Distribution Customer pays for Distribution Service. This charge is the product of a Distribution Customer's total Demand for its Point(s) of Delivery and its applicable Distribution Rate(s).

## **2.5 Distribution Rate**

The rate a Distribution Customer is charged for Distribution Service as calculated in Schedule 4-WholesaleRates and described in Section 12 of these Protocols.

## **2.6 Diversified Peak Demand or DP**

For PG&E retail customers, the highest monthly demand coincident within each customer class. For each PG&E WDT Distribution Customer, the highest monthly demand coincident among each Distribution Customer's Points of Interconnection ("POI"). For Customers with one Point of Interconnection, the Diversified Peak Demand and the Non-Coincident Peak Demand will be the same.

## **2.7 Draft Annual Update**

The draft of the proposed update of the DRR, Distribution Rates, Cost of Ownership rates, and Customer Service Charges, for the upcoming Rate Year.



## **2.8 Filing Year**

The Filing Year is the calendar year in which an Annual Update is filed.

## **2.9 Final True-Up Adjustments**

At either the expiration of the Formula Rate or the termination of a Customer's wholesale distribution service agreement, a Final True-up Adjustment will be calculated for each Customer or the terminating Customer, depending on the event giving rise to the Final True-up Adjustment. The Final True-up Adjustment is the adjustment made for the period spanning from the day after the period covered by the most recent ATA that was included in a Customer's Distribution Rate(s) to the expiration of the Formula Rate, as described in these Protocols.

## **2.10 Initial Distribution Rate**

The initial primary service rate a new Customer is charged for Distribution Service, as calculated in Schedule 4-WholesaleRates, until a Customer-specific rate(s) can be determined based on twelve months of billed peak demand.

## **2.11 Interested Party(ies)**

Entities on the Notification List.

## **2.12 Model**

The Model, set forth in Attachment 2 to this Appendix I, is the spreadsheet containing Schedules that operate as the mechanism for calculating the DRR, Distribution Rates, Cost of Ownership rates, and Customer Service Charges.

## **2.13 Non-Coincident Peak Demand or NCP**

The Distribution Customer's highest monthly demand irrespective of the date or time the peak occurred in that month. For Distribution Customers with more than one POI, the NCP is a sum of each POI's highest monthly demand irrespective of the date or time the peak occurred in that month.

#### **2.14 Notification List**

Interested Parties receiving the Draft Annual Update, as defined in Section 4.1.

#### **2.15 Prior Year**

The Prior Year is the calendar year immediately preceding the Filing Year.

#### **2.16 Rate Base**

Rate Base is the value of property upon which a utility is permitted to earn a specified rate of return as established by the Commission. The components of PG&E's Rate Base are listed in Schedule 1-DRR of the Model.

#### **2.17 Rate Year**

Rate Year means the year in which the rates will be effective and is the calendar year immediately following the Filing Year.

#### **2.18 Schedules**

The Schedules are individual worksheets in the Model that reflect the components and formulas used to calculate the DRR, Distribution Rates, Cost of Ownership rates, and Customer Service Charges.

#### **2.19 True-up DRR**

The True-up DRR is a component of the ATA and is calculated in Schedule 2-True-upDRR. The True-up DRR represents the actual costs that PG&E incurred in the Prior Year.

#### **2.20 Wholesale Distribution Revenue Requirement (DRR)**

The total annual authorized revenue requirement associated with the Distribution Facilities. The DRR is allocated between Distribution Service at Primary (Primary DRR) and Distribution Service at Secondary (Secondary DRR) as determined in Schedule 1-

DRR of the Model. PG&E will calculate a Secondary DRR to determine Secondary Distribution Rates for its Legacy Secondary Points of Delivery.

### **3. IMPLEMENTATION AND TERM OF THE FORMULA RATE**

The Formula Rate shall become effective on the date specified by FERC. Beginning on that date, PG&E’s DRR and Distribution Rates shall be subject to true-up and revision in accordance with these Protocols and the Cost of Ownership rate and Customer Service Charges shall be subject to revision in accordance with these Protocols.

This Formula Rate shall remain effective until December 31, 2024 or until FERC on its own modifies, revises, or replaces the Formula Rate, or until such date as a replacement Formula Rate is made effective by the Commission. No Party shall seek to change or cancel the Formula Rate under Sections 205 or 206 of the FPA during the term of the Formula Rate, except as provided for under Section 8 of the Protocols. On or before November 1, 2024, PG&E will file a replacement Formula Rate proposed to be effective January 1, 2025.

### **4. UPDATING THE DRR**

As set forth below, the procedures for updating the DRR for the upcoming Rate Year shall be followed while this Formula Rate is in effect. The following is a summary of the annual events and associated dates for PG&E’s performance of these procedures. If any of the dates listed below do not fall on a business day, the due date for the event shall be the following business day.

<i>ANNUAL EVENT</i>	<i>DATE</i>
Posting Date of Draft Annual Update	July 1
First Day to Submit Information Requests	July 1
Draft Annual Update Technical Conference	August 1 – August 15
Last Day to submit Information Requests	October 15
Date by which changes, if any, to the Draft Annual Update are made	November 1

<i>ANNUAL EVENT</i>	<i>DATE</i>
Annual Update Filed at FERC	December 1
Rates Become Effective	January 1

#### **4.1 Draft Annual Update**

In accordance with the schedule set forth in Section 4 above, PG&E shall post to a page on its website, pge.com, its Draft Annual Update and will provide electronic notice of such posting to: (1) PG&E’s current Distribution Customers; (2) any person or entity admitted as a party in the FERC proceeding concerning PG&E’s WDT cost of service filing to implement the Formula Rate (“WDT3”); (3) any person or entity admitted as a party in any subsequent Annual Update proceeding filed by PG&E in accordance with these Protocols; (4) the CPUC; and (5) any other customer of PG&E or interested stakeholder that requests to be added (collectively, “Notification List”). For purposes of these Protocols, any references to an “Interested Party” shall include entities on the Notification List.

#### **4.2 Draft Annual Update Contents**

The Draft Annual Update shall set forth the DRR, Distribution Rates, Cost of Ownership rates, and Customer Service Charges for the upcoming Rate Year and shall include populated versions of all Schedules in their native format with all formulas and links intact and all workpapers used in the calculation of the DRR, in their native format, with all formulas and links intact. Specifically, the Draft Annual Update shall:

- 4.2.1 Identify all methodological changes to inputs;
- 4.2.2 Identify any changes to the references in the Model of (1) the sources of information from FERC Form 1 and (2) the sources and/or methods of obtaining information from PG&E’s records;

- 4.2.3 Include all workpapers from which a Formula Rate input is taken, in native format, and with all data used;
- 4.2.4 Include a workable, data-populated Model in native format with all formulas and links intact;
- 4.2.5 Provide for the applicable Rate Year the following information related to affiliate cost allocations: (1) a detailed description of the methodologies used to allocate and directly assign costs between PG&E and its affiliates by service category or function, including any changes to such cost allocation methodologies from the Prior Year and the reasons for those changes; and (2) the magnitude of such costs that have been allocated or directly assigned between PG&E and each affiliate by service category or function;
- 4.2.6 Identify any change in accounting relative to the Prior Year that affects inputs to the Formula Rate or the resulting charges billed under the Formula Rate including: (1) the initial implementation date of a new or revised accounting standard or policy and a quantification of the impact of the change(s); (2) the initial implementation date of new or revised accounting practices for unusual or unconventional items where FERC has not provided specific accounting direction and a quantification of the impact of the change(s); (3) correction of errors and prior period adjustments that impact the Annual True-Up Adjustment calculation; and (4) changes to income tax elections;
- 4.2.7 Identify all reorganization, merger, or sale of distribution asset transactions during the previous year; and,
- 4.2.8 Identify any known errors or adjustments in FERC Form 1 data used in the Model.

### **4.3 Draft Annual Update Technical Conference**

PG&E will provide notice to the Notification List of a one-day technical conference to discuss the Draft Annual Update. Such a meeting may take place in-person or via

telephone, video or web-based conference. PG&E shall make appropriate personnel available for this conference. As appropriate, additional meetings to discuss the Draft Annual Update may be scheduled by mutual agreement of PG&E and those on the Notification List.

#### **4.4 Information Requests**

- 4.4.1 Interested Parties may submit reasonable information requests to PG&E regarding the Draft Annual Update.
- 4.4.2 PG&E shall make a good faith effort to respond to reasonable information requests in writing within ten (10) business days of receipt. PG&E shall contemporaneously provide copies of all responses to all parties that have affirmatively indicated to PG&E that they wish to receive such copies. If PG&E, in good faith, finds that an information request is unreasonable, it may object to the request. If PG&E objects to an information request, it will make a good faith effort to provide its objections and bases for any such objections within ten (10) business days of receipt of the information request to the party propounding the request. PG&E and the party propounding the information request on PG&E will work cooperatively and in good faith to resolve any questions, objections, or disputes relating to the information requests.
- 4.4.3 Responses to information requests shall not be designated as settlement communications or produced under FERC's rules and regulations governing settlements, unless provided as a privileged settlement communication in a FERC proceeding being conducted under FERC's settlement rules. PG&E may mark materials provided in response to an information request as Protected Materials in accordance with Exhibit A to the Protocols. To the extent an information request response calls for the production of Protected Materials, PG&E will only provide such materials to the parties with whom it has entered into a non-disclosure agreement that is included as Exhibit A.

4.4.4 To the extent PG&E and any Interested Party(ies) are unable to resolve disputes related to information requests submitted in accordance with these Protocols, PG&E or any Interested Party may petition FERC to appoint an Administrative Law Judge as a Discovery Master. Neither PG&E nor any Interested Party shall object to a request for a Discovery Master. The Discovery Master shall have the power to issue orders to resolve discovery disputes, as appropriate, in accordance with these Protocols and consistent with FERC's discovery rules. The Discovery Master's orders shall be subject to appeal to FERC and to the courts to the same extent and under the same rules as would be applicable to an Initial Decision issued under Rule 708 of FERC's Rules of Practice and Procedure. In the event FERC establishes hearing procedures for an Annual Update, the Discovery Master's responsibilities shall be transferred to the Presiding Judge for such hearing effective upon his or her appointment.

#### **4.5 Changes to Draft Annual Update**

PG&E shall make available to the parties a marked version indicating any changes it proposes to the Draft Annual Update and provide an explanation of the reason for the changes.

#### **4.6 Annual Update**

4.6.1 On or before December 1 of each year, PG&E shall file with FERC its Annual Update as an informational filing setting forth the DRR, Distribution Rates, Cost of Ownership rates, and Customer Service Charges for the upcoming Rate Year. The DRR, Distribution Rates, and Customer Service Charge shall be effective January 1 of the upcoming Rate Year.

4.6.2 The Annual Update shall not modify the Formula Rate or subject the Formula Rate to modification and shall not constitute a rate change filing under Section 205 under the FPA, 16 U.S.C. § 824d(d) and Section 35.13 of the rules and regulations of the Commission, 18 C.F.R. §35.13.

4.6.3 Any person may comment on or protest the Annual Update. Any person may request that FERC establish hearing and/or settlement procedures regarding an Annual Update, and all Parties to the FERC proceedings concerning PG&E's WDT3 filing reserve their rights to oppose such requests on their merits. More particularly, any person may challenge the justness and reasonableness of PG&E's implementation of the Formula Rate with respect to such matters as:

(1) whether PG&E has properly and reasonably applied the Formula Rate;

(2) whether the costs to be recovered through the DRR have been accurately stated, properly recorded and accounted for pursuant to applicable FERC accounting rules, and are consistent with the Formula Rate;

(3) whether PG&E's calculation methodologies are consistent with the Formula Rate; and whether the costs and expenditures included for recovery have been or will be prudently incurred, consistent with FERC precedent regarding prudence; and

(4) whether any accounting changes are reasonable and consistent with applicable FERC accounting rules.

4.6.4 PG&E shall make any revisions to the DRR, Distribution Rates, Cost of Ownership rates, and Customer Service Charges required by a final FERC order with respect to each Annual Update. Unless otherwise ordered by FERC, such revisions shall be effective as of the first day of the applicable Rate Year and shall be reflected, with interest calculated pursuant to FERC's regulations, in the next Annual Update as a component of the ATA or, if applicable, the Final True-up Adjustment.

4.6.5 If PG&E determines that a previously-filed Annual Update contained errors that affected the True-up DRR or Distribution Rates calculated in that Annual Update, including but not limited to filed corrections to its FERC Form 1 that affect the



inputs to the Formula Rate or errors in other input data used in determining the True-up DRR or Distribution Rates, PG&E shall recalculate the True-up DRR or Distribution Rates for each affected Prior Year and then for each affected Customer, PG&E shall:

- (1) recalculate the Total Allocated True-up DRR or Distribution Rates for all affected Prior Years;
- (2) compare the difference between the initial incorrect Total Allocated True-up DRR and the revised correct Total Allocated True-up DRR; or the incorrect Distribution Rates and the revised correct Distribution Rates and
- (3) calculate the cumulative amount of the difference, including interest calculated pursuant to FERC's regulations.

Absent an order requiring refunds outside of the true-up process, the difference calculated above for each Customer shall be included as an additional component in each Customer's ATA in the subsequent Annual Update as a one-time True-up Adjustment in accordance with the Formula Rate.

All corrections will be detailed in a Workpaper to be included with the subsequent Annual Update.

- 4.6.6 PG&E will bear the burden of demonstrating the correctness of its Annual Update, and is obliged to demonstrate that the rate resulting from the application of the Model complies with Section 205 of the FPA. In this regard, PG&E will bear the burden of proving whether it has correctly implemented the filed Formula Rate. To the extent any Interested Party challenges an Annual Update and/or Annual True-Up Adjustment, either informally or by raising a formal challenge with FERC, PG&E will continue to bear this burden of demonstrating the correctness of its Annual Update and the justness and reasonableness of the implementation of its Formula Rate in the context of a formal challenge. To the extent a party's challenge to an Annual Update, including the Annual True-up

Adjustment, creates serious doubt as to the prudence of an expenditure, PG&E will bear the burden of dispelling such doubts and proving the questioned expenditure to have been prudent consistent with FERC precedent regarding prudence. Any party challenging the Formula Rate itself in a filing under FPA Section 206 will bear the burden of proof.

## **5. ANNUAL TRUE-UP ADJUSTMENT**

The ATA component of a Customer's wholesale rates ensures that PG&E shall recover its actual costs of owning and operating its Distribution Facilities, as prescribed by the True-up DRR, defined below. As described below and shown in Schedule 3-ATA of the Model, the ATA is calculated for each applicable Customer for each Annual Update of the Prior Year if the Formula Rate was in effect during all or part of that Prior Year.

### **5.1 True-up DRR**

5.1.1 Calculate PG&E's actual costs during the Prior Year, as measured by the True-up DRR. The True-up DRR includes the same cost of service items and is calculated in the same manner as the Prior Year DRR, with the following exceptions:

- (1) End of year values are used for certain Rate Base items in the DRR, whereas average values are used for those same Rate Base items when calculating the True-up DRR.
- (2) If the Return on Equity ("ROE") is updated midway through the Prior Year, the True-up DRR will use a weighted average ROE to compute the Cost of Capital Rate based on the number of days each ROE was in effect in the Prior Year.
- (3) The True-up DRR will be calculated using State and Federal Tax Rates in effect during the Rate Year. If the State or Federal income tax rates change during the Rate Year, the True-up DRR will use a weighted average tax rate based on the number of days each tax rate was in effect in the Rate Year.

The True-up DRR calculation is shown in Schedule 2-True-upDRR of the Model.

## **5.2 Allocation of True-up DRR and Calculation of True-up Rates**

5.2.1 Calculate the Prior Year Load Ratio Shares for each Customer and allocate the True-up DRR by multiplying the Customer's Load Ratio Share with the True-up DRR. If applicable, add the Customer's ATA that was included in their Prior Year's rates to the Allocated True-up DRR to get the Total Allocated True-up DRR. The addition of the Customer's ATA that was included in the Customer's Prior Year rates will ensure that previous Customer ATAs are refunded to or collected from each Customer.

5.2.2 For Primary level distribution service, calculate the Customer's Prior Year Primary True-up Rate by dividing the Customer's Total Allocated Primary True-up DRR by the Customer's Prior Year Annual Primary Demand.

5.2.3 For Secondary level distribution service, to calculate the Customer's Total Prior Year Secondary True-up Rate, first calculate the Prior Year Secondary Load Primary Cost. The Prior Year Secondary Load Primary Cost is the Total Allocated Primary True-up DRR minus the product of the Prior Year Primary True-up Rate with the Customer's Prior Year Annual Demand. The remaining portion of the Total Allocated Primary True-up DRR is attributed to Secondary level usage. The Total Prior Year Secondary Load DRR is the sum of the Total Allocated Secondary True-up DRR and the Prior Year Secondary Load Primary Cost. The Total Prior Year Secondary Load DRR is divided by the Prior Year Annual Secondary Demand to derive the Prior Year Secondary True-up Rate.

## **5.3 Cumulative Excess or Shortfall in Revenue with Interest**

5.3.1 For each month in the Prior Year, calculate the difference between the Customer's Monthly True-up Revenues and the Prior Year Revenues. The Customer's Monthly True-up Revenues are calculated by multiplying the Customer's Prior Year True-up Rates by the Customer's Prior Year monthly demand. The sum of

the difference between the Customer's Monthly True-up Revenues and the Customer's Prior Year Monthly Revenues is the Cumulative Excess or Shortfall in Revenue.

5.3.2 Interest is calculated monthly using FERC interest rates and is compounded quarterly from the start of the Prior Year through the end of the Filing Year.

5.3.3 For each Customer, add the accumulated interest to the Cumulative Excess or Shortfall to calculate the Total Cumulative Excess Revenue or Shortfall with Interest from the start of the Prior Year through the end of the Filing Year.

#### **5.4 Partial Year True-up Adjustment**

A Partial Year True-up Adjustment occurs when either: 1) the Formula Rate was not in effect for the entire Prior Year and will account only for the months that the Formula Rate was in effect for that Prior Year, or 2) a Customer commences service or changes its service in the middle of the Rate Year. A Partial Year True-Up Adjustment will be calculated as follows:

5.4.1 PG&E will calculate the True-up DRR as described in Section 5.1.

5.4.2 For a Customer where PG&E has twelve months of demand data for the Prior Year, Section 1, Section 2, and Section 3 of Schedule 3-ATA shall be calculated using the twelve months of demand data for the Prior Year. Section 4 of Schedule 3-ATA will be calculated for the months the Formula Rate was in effect in the Prior Year.

5.4.3 For a Customer where PG&E does not have the twelve months of demand data for the Prior Year, Section 1, Section 2 and Section 3 of Schedule 3-ATA shall be calculated using the twelve months of demand data starting from the month where demand data is first available for the Customer. For example, if the Formula Rate's effective date begins on May 1, 2021 and the month of the first available demand data for the Customer is July 2021, then PG&E will use demand data from the months of July 2021 through June 2022 to calculate Sections 1, 2 and 3

of Schedule 3-ATA. Section 4 of Schedule 3-ATA will be calculated for the months the Formula Rate was in effect in the Prior Year.

5.4.4 For a Customer that commences service in the middle of the Rate Year, Section 1, Section 2, and Section 3 of Schedule 3-ATA shall be calculated using the twelve months of demand data starting from the service commencement date. Section 4 of Schedule 3-ATA will be calculated starting with the service commencement date in the Prior Year.

## **6. FINAL TRUE-UP ADJUSTMENT**

6.1.1 PG&E shall calculate a Final True-up Adjustment for the period spanning from the day after the period covered by the most recent ATA that was included in the Customer's Distribution Rate(s) to the expiration of the Formula Rate. Pursuant to Section 3 of these Protocols, the Formula Rate terminates on December 31, 2024. PG&E will calculate a 2024 Final True-up Adjustment for inclusion in Customers' Rate Year 2026 Distribution Rates. The Final True-Up Adjustment shall be calculated using the same methodology as the ATA in Schedule 3-ATA.

6.1.2 In the case of the termination of an individual Customer's wholesale distribution Service Agreement, a Final True-up Adjustment will be calculated for that specific Customer when the True-up DRR is calculated for the Rate Year in which the wholesale distribution Service Agreement was terminated. The Final True-up Adjustment will be calculated for the period spanning from the day after the period covered by the Customer's most recent ATA that was included in a Customer's Distribution Rate(s) to the termination date of the Customer's wholesale distribution Service Agreement. For example, if the Customer's wholesale distribution Service Agreement terminates on October 31, 2022, PG&E will calculate a 2022 Final True-up Adjustment for the ten months of 2022 that the Service Agreement was in effect. The Final True-up Adjustment shall be calculated using the same methodology as the ATA in Schedule 3-ATA with the exception of using the last 12 months of the Customer's demand data from the date of the termination of the service agreement to calculate the Load Ratio Shares and the Prior Year Distribution Rate(s).

6.1.3 If the Final True-up Adjustment reflects an overcollection by PG&E, then PG&E shall be required to refund the amount of the Final True-up Adjustment to Customers. If the Final True-up Adjustment reflects an under-collection by PG&E, then PG&E shall be entitled and required to recover from the Customers the amount of the Final True-up Adjustment in its successor Distribution Rates to this Formula Rate.

## **7. MODEL TARIFF RECORD AND SUPPORTING WORKPAPERS**

### **7.1 Model Tariff Record**

The tariff record of the Model is constructed to provide for Annual Updates as described herein. As such, certain portions of the Model contain cells for input values, sources, and explanatory notes that may change. Input cells affect the operation of the Model and necessarily change for each Annual Update. Cells that are labeled for sources or notes do not affect the operation of the Model and may be changed as needed to update the sources of input or explanatory notes. The Model contains a Formatting and References sheet that includes a description of input cells and cells labeled for sources or notes.

Changes to the content of input cells or the addition or revision of cells for labeling sources or explanatory notes are not revisions to the tariff record of the Model and shall not require a filing at FERC pursuant to Section 205 of the FPA, 16 U.S.C. § 824d(d) and Section 35.13 of the rules and regulations of the Commission, 18 C.F.R. §35.13. Such changes, however, may be challenged pursuant to Section 4.6 of these Protocols.

### **7.2 Supporting Workpapers**

Workpapers that support the Model, including workpapers that provide inputs to the Model are not part of the Model and are not tariff records. As such, additions or revisions to workpapers shall not require a filing at the Commission. As applicable, such additions or revisions will be identified as specified in Section 4.2 Draft Annual Update Contents of these Protocols. The guidance contained in the Formatting and References sheet of the Model applies to workpapers in order to provide consistency between the Model and supporting workpapers.

## **8. REVISIONS TO FORMULA RATE PROVISIONS**

To address the circumstances described in the sub-Sections below, PG&E may make a single-issue Section 205 filing to revise the Formula Rate or any person may make a single-issue Section 206 filing to revise the Formula Rate. A single-issue Section 205 filing or a single-issue Section 206 filing is referred to as a “Filing” for purposes of this Section.

The proceedings commenced in response to the Filing shall not include or allow for consideration or examination of any other aspects of the Formula Rate or other issues associated with the Formula Rate, except to the extent that the proposed changes directly impact other Formula Rate components that are not the subject of the Filing. All parties will have all applicable rights under the FPA and the Commission’s rules and regulations with respect to such Filings, except as limited by this Section 8. However, the Commission is not bound by the provisions in this Section and may at its discretion broaden the scope of a Filing to review any components of the Formula Rate.

### **8.1 Changes to FERC Form 1 or Uniform System of Accounts**

PG&E will make a Filing to update the references in the Formula to reflect any changes to the format and/or content of the FERC Form 1 or the Uniform System of Accounts that affect the calculations set forth in the Formula in the event that a FERC order revises the format and/or content of the FERC Form 1 or the Uniform System of Accounts. This Filing shall be submitted within sixty (60) days of the implementation of any FERC decision to revise the FERC Form 1 or the Uniform System of Accounts, and shall be effective on the date of the revisions to the FERC Form 1 or Uniform System of Accounts, as applicable. In a proceeding commenced under this Section, the issues that can be addressed are whether the changes proposed by PG&E: (1) address the circumstances described in this sub-Section; and (2) are just and reasonable.

### **8.2 Amortization of Excess Deferred Federal Income Taxes**

PG&E will make a Filing to revise its accounting for timing differences between Costs of Removal and Method Life as shown in Schedule 17-RegAssets-2 as appropriate. In a proceeding commenced under this Section, the issues that can be addressed are whether

the changes proposed by PG&E: (1) address the circumstances described in this sub-Section; and (2) are just and reasonable.

### **8.3 Non-bypassable Charges Stranded Costs**

PG&E may make a Filing to recover non-bypassable charges as described in Section 19.2 of this Tariff. In a proceeding commenced under this Section, the issues that can be addressed are whether the changes proposed by PG&E: (1) address the circumstances described in this sub-Section; and (2) are just and reasonable.

### **8.4 Depreciation Rates**

PG&E will make a Filing to conform the depreciation rates in Schedule 12-DepRates within 120 days of the CPUC final unappealable decision authorizing revised depreciation rates. In a proceeding commenced under this Section, the issues that can be addressed are whether the changes proposed by PG&E: (1) address the circumstances described in this sub-Section; (2) are just and reasonable; and (3) correctly implement the applicable CPUC order.

## **9. DEPRECIATION RATES**

PG&E shall use the authorized CPUC depreciation rates for Electric Distribution Plant and Common, General, and Intangible Plant. When the authorized rates are revised by the CPUC, PG&E will make a single-issue Section 205 filing as required in Section 8 of these Protocols.

## **10. DISTRIBUTION PLANT**

Distribution Plant is a component of Rate Base and includes the Plant-in-Service recorded in Accounts 360 through 374 of the FERC Uniform System of Accounts for Public Utilities. Examples of Electric Distribution functional plant include substations, poles, and overhead lines. PG&E adjusts the Distribution Plant reported in PG&E's FERC Form 1 for Asset Retirement costs, and for journal entries recorded for projects that were operative at the end of



the prior year, but were not marked operative in PG&E's fixed asset system of record. These adjustments are shown in Schedule 6-PlantJurisdiction.

If PG&E wishes to recover the costs of cancelled capital distribution projects, it will petition the Commission seeking authorization for abandoned plant treatment for such costs. In its petition, PG&E will ask the Commission to order PG&E to make a compliance filing to revise the Model tariff record to reflect the recovery of abandoned plant should the Commission authorize such recovery.

## **11. DISTRIBUTION EXPENSE**

### **11.1 Distribution Operations and Maintenance (O&M) Expense**

PG&E shall annually determine the amount of recorded Distribution O&M expense that is attributable to Distribution Plant. As set forth in Schedule 18-OandM of the Model, the method used to determine Distribution O&M Expense shall be to (1) adjust total recorded Distribution O&M Expense as stated in FERC Form 1, then (2) allocate recorded adjusted Distribution O&M Expense to Primary and Secondary based on plant allocation factors found in Schedule 6-PlantJurisdiction.

### **11.2 Distribution Administrative and General (A&G) Expense**

PG&E shall annually determine the amount of recorded A&G expense that is attributable to Distribution Service. As set forth in Schedule 19-AandG of the Model, the method used to determine Distribution A&G Expense shall be to (1) adjust recorded total company A&G Expense as stated in FERC Form 1 and FERC Form 2, then (2) allocate recorded adjusted total company A&G Expense to Primary and Secondary using either the Distribution O&M labor factor, the Distribution Plant factor, or an average of the Distribution labor and plant factors, found in Schedule 24-Allocators.

### **11.3 Distribution Property Tax Expense**

PG&E shall annually determine the amount of recorded Electric Property Tax expense that is attributable to Distribution. As set forth in Schedule 1-DRR of the Model, the

method used to determine the Distribution Property Tax Expense shall be to allocate the recorded Electric Property Tax expense as stated in FERC Form 1 using the Property Tax Allocation Factor found in Schedule 24-Allocators.

## **12. CALCULATION OF DISTRIBUTION RATES**

The Distribution Rate is calculated for a Customer using the components discussed below. These items are used in the calculation of rates for primary service and will also be used to calculate rates for secondary service for any Customer with Legacy Secondary Points of Delivery. The rates calculated for Legacy Secondary Points of Delivery will be based on the Secondary DRR and will be added to the rates calculated for primary service, based on the Primary DRR, to determine the total Distribution Service Rate for secondary service for a Customer. The components for calculating Distribution Rates are:

- Customer Prior Year Peak Demand
- PG&E Prior Year total Peak Demand
- Load Ratio Share
- Prior Year allocated DRR
- Customer Prior Year annual demand

### **12.1 Customer Prior Year Peak Demand**

For Customers with primary load points, the Customer's maximum Prior Year Diversified Peak Demand (DP) that occurred in any month of the Prior Year.

For Customers with secondary load points, the Customer's maximum Prior Year Non-Coincident Peak Demand (NCP) that occurred in any month of the Prior Year.

### **12.2 PG&E Prior Year Total Peak Demand**

For Customers with primary load points, the sum of all retail customer classes' maximum DPs and each Customer's maximum DPs.

For Customers with secondary load points, the sum of all retail customer classes' maximum NCPs and each Customer's maximum NCPs.

### **12.3 Load Ratio Share**

The Customer's allocated share of PG&E's distribution system determined as the ratio of the Customer Prior Year Peak Demand to PG&E Prior Year Total Peak Demand.

### **12.4 Prior Year Allocated DRR**

The allocation of the Prior Year DRR to the Customer determined as the product of the Customer's Load Ratio Share and the Prior Year applicable DRR (Primary or Secondary).

### **12.5 Customer Prior Year Annual Demand**

The total of the Customer's monthly NCPs in the Prior Year.

### **12.6 Distribution Rate**

The rate charged for distribution service is determined as the quotient of the Prior Year Allocated DRR divided by the Customer Prior Year Annual Demand.

### **12.7 Initial Distribution Rate**

The initial primary service rate is determined as the quotient of the sum of each Customer's Prior Year Allocated DRR divided by the sum of each Customer's Prior Year Annual Demand. The first Annual True-up Adjustment after a Customer has twelve months of DP will include the calculation of Customer-specific Rate(s).

## **13. CUSTOMER SERVICE CHARGE**

The monthly Customer Service Charge is the product of the Customer's monthly billing labor in hours and the annual average hourly labor rate determined in Schedule 23-CustServCharge. The number of monthly labor hours for each Customer is determined annually based on the specific billing services required of each Customer.

## **14. COST OF OWNERSHIP RATE**

The Cost of Ownership rate used to calculate Cost of Ownership charges are determined in Schedule 21-CoO as described below.

### **14.1 Customer-financed Cost of Ownership Rate**

The Customer-financed Cost of Ownership rate is calculated by beginning with the distribution revenue requirement from Schedule 1-DRR and 1) removing the Depreciation Expense, the total Distribution Return on Capital, and Taxes, and then 2) adding back the Return on Capital and Taxes attributed to Common General and Intangible (CGI) plant. The resulting amount represents the distribution revenue requirement when a customer is contributing capital. PG&E then divides this calculated distribution revenue requirement by the total gross plant (including CGI plant), resulting in the annual percentage of total distribution revenue requirement needed per dollar of plant when capital is contributed by the customer. This annual percentage is then divided by 12 to determine the monthly Customer-financed Cost of Ownership rate.

## **15. RESERVATION OF RIGHTS**

### **15.1 Annual Update**

Nothing in these Protocols shall be deemed to limit in any way the right of any party admitted as an intervenor to any future proceeding involving an Annual Update to file a request for relief under any applicable provision of the FPA and/or FERC's regulations or participate in Annual Update proceedings.

### **15.2 Burden**

The party filing a proposed change to the Model or the Protocols under Section 205 or 206 of the FPA bears the standard burdens associated with such a filing.

## **16. USE OF INFORMATION**

Information produced pursuant to these Protocols may be used in any proceeding concerning the Model, the Protocols, or the Annual Update; provided, however, that to the extent that any information provided pursuant to these Protocols has been designated and provided as Protected Materials, subject to the provisions of Exhibit A to these Protocols, the use of such information shall be governed by Exhibit A.

This Section shall not apply to any information produced in the course of FERC-established settlement proceedings pursuant to FERC's rules and regulations governing settlement.

## **17. EXCLUDED COSTS**

The costs for the following will not be included in the DRR nor included in any account that informs the Model or any calculation in the Model:

- 17.1 General Advertising expenses except for safety, education and outreach related.
- 17.2 Lobbying and public relations expenses (civic/political).
- 17.3 Donations or charitable contributions.
- 17.4 Asset Retirement Obligation related rate base items.
- 17.5 Merger Goodwill in capital structure, unless approved by FERC.
- 17.6 Penalties and/or fines imposed by a regulatory body.
- 17.7 PG&E will remove all officer and executive compensation and officer and executive compensation benefits from Accounts 920, 923 and 926.

**EXHIBIT A**  
**PG&E WHOLESALE DISTRIBUTION TARIFF**  
**NON-DISCLOSURE AGREEMENT**

1. This Non-Disclosure Agreement shall govern the use of all Privileged Materials produced by, or on behalf of, any Participant in relation to Pacific Gas and Electric Company's ("PG&E") initial Wholesale Distribution Tariff formula rate filing ("WDT3"), Annual Update filings, or subsequent proceedings at the Federal Energy Regulatory Commission ("FERC") to update PG&E's WDT formula rate. This Non-Disclosure Agreement shall remain in effect until all Privileged Materials are returned to the producing Participant or destroyed by the receiving Participant, as described herein.
2. This Non-Disclosure Agreement applies to the following two categories of materials: (A) a Participant may designate as Privileged Materials those materials that are customarily treated by that Participant as sensitive, private, proprietary or otherwise confidential, which are not available to the public, and which, if disclosed freely, would subject that Participant or its customers to a risk of competitive disadvantage, breach of confidentiality requirements or commitments, or other business injury; and (B) a Participant shall designate as Privileged those materials which contain critical energy infrastructure information, as defined in 18 CFR § 388.113(c)(1) ("Critical Energy Infrastructure Information").
3. Definitions – For purposes of this Agreement:
  - (a) The term "Participant" shall mean a Participant as defined in 18 CFR § 385.102(b).
  - (b)(1) The term "Privileged Materials" means: (A) materials provided by a Participant in response to a request from another Participant, or in response to settlement discovery requests, and designated by the producing Participant as Privileged; (B) any information contained in, obtained from or derived from such designated materials; (C) notes of Privileged Materials; and (D) copies of Privileged Materials. The Participant producing the Privileged Materials shall physically mark them on each page as "PRIVILEGED MATERIALS," or with words of similar import as long as the term "Privileged Materials" is included in that designation, to indicate that they are Privileged Materials. To the extent that the materials cannot be marked individually, the Participant producing the Privileged Materials must take other measures, such as including "Privileged Materials" in the filename or clearing indicating in the communication producing materials that the attached are Privileged Materials. If the Privileged Materials contain Critical Energy Infrastructure Information, the Participant producing such information shall, to the extent possible, additionally mark on each page containing such information the words "Contains Critical Energy Infrastructure Information; Do Not Release" Or take other reasonable steps to indicate to the any receiving party that the materials reflect or contains Critical Energy Infrastructure Information.
  - (2) The term "Notes of Privileged Materials" means memoranda, handwritten notes, or

any other form of information (including electronic form) which copies or discloses materials described in Paragraph 3(b)(1). Notes of Privileged Materials are subject to the same restrictions provided in this Agreement for Privileged Materials.

(3) Privileged Materials shall not include: (A) any information or document that has been filed with and accepted into the public files of the Federal Energy Regulatory Commission (“Commission”), or contained in the public files of any other federal or state agency, or any federal or state court, unless the information or document has been determined to be protected by such agency or court; or (B) information that is public knowledge, or which becomes public knowledge, other than through disclosure in violation of this Non-Disclosure Agreement. Privileged Materials do include any information or document contained in the files of the Commission that has been designated as Critical Energy Infrastructure Information.

(c) The term “Non-Disclosure Certificate” shall mean the certificate annexed hereto by which Participants who have been granted access to Privileged Materials shall execute to certify their understanding and agreement that such access to Privileged Materials is provided pursuant to the terms and restrictions of this Non-Disclosure Agreement, and that such Participants have read the Non-Disclosure Agreement and agree to be bound by it. All executed Non-Disclosure Certificates shall be served on all parties on the official service list maintained by the Secretary in this proceeding.

(d) The term “Reviewing Representative” shall mean a person who has signed a Non-Disclosure Certificate and who is:

- (1) Commission Trial Staff (“Staff”) designated as such in this proceeding;
- (2) an attorney who has made an appearance in this proceeding for a Participant;
- (3) an attorney, paralegal, or other employee associated for purposes of this case with an attorney described in Subparagraph (2);
- (4) an expert or an employee of an expert retained by a Participant for the purpose of evaluating the filing made in this docket or advising, preparing for or negotiating a settlement of this proceeding; or
- (5) an employee or other representative of a Participant appearing in this proceeding with significant responsibility for this docket.

4. Privileged Materials shall be made available under the terms of this Non-Disclosure Agreement only to Participants and only through their Reviewing Representatives as provided in Paragraphs 7-9.
5. Privileged Materials shall remain available to Participants until the later of the date that an order terminating this proceeding becomes no longer subject to judicial review, or the date that any other Commission proceeding relating to the Privileged Material is

concluded and no longer subject to judicial review. After that date, the Participants shall, within fifteen days of such date, return the Privileged Materials (excluding Notes of Privileged Materials) to the Participant that produced them, or shall destroy the materials, except that copies of filings, official transcripts and exhibits in this proceeding that contain Privileged Materials, and Notes of Privileged Material may be retained, if they are maintained in accordance with Paragraph 6, below. Within such time period each Participant shall also submit to the producing Participant an affidavit stating that, to the best of its knowledge, all Privileged Materials and all Notes of Privileged Materials have been returned or have been destroyed or will be maintained in accordance with Paragraph 6. To the extent Privileged Materials are not returned or destroyed, they shall remain subject to this Non-Disclosure Agreement.

6. All Privileged Materials shall be maintained by the Participant in a secure place reasonably designed to prevent unauthorized disclosure. Access to those materials shall be limited to those Reviewing Representatives specifically authorized pursuant to Paragraphs 8-9. For documents submitted to Staff, Staff shall follow the notification procedures of 18 CFR § 388.112 before making public any Privileged Materials.
7. To the extent allowed by law, Privileged Materials shall be treated as confidential by each Participant and by the Reviewing Representative in accordance with the certificate executed pursuant to Paragraph 9. Privileged Materials shall not be used except as necessary to evaluate the filing made in this docket or for the conduct of settlement efforts in this proceeding, nor shall they be disclosed, except as may be required by law, in any manner to any person except a Reviewing Representative who is engaged in the conduct of this proceeding and who needs to know the information in order to carry out that person's responsibilities in this proceeding. Reviewing Representatives may make copies of Privileged Materials, but such copies become Privileged Materials. Reviewing Representatives may make notes of Privileged Materials, which shall be treated as Notes of Privileged Materials if they disclose the contents of Privileged Materials. Privileged Materials including without limitation when associated with any information that can reasonably be used to identify an individual, consumer, family, household, residence or non-residential customer shall be protected by each Participant using reasonable security procedures and practices to protect such information from unauthorized access, use, modification or disclosure, including, without limitation, encryption of the Privileged Materials, password-protected workstations, and documented training of all persons with access to the Privileged Materials. Under no circumstances shall any Participant receiving Privileged Materials sell or obtain any consideration for transfer of the Privileged Materials to any third party. Privileged Material may be disclosed by any Party, if required by law, regulation or a valid court of competent jurisdiction, provided that the disclosing Party notifies the Party providing Privileged Material immediately upon becoming aware court or other proceeding in which the release of Privileged Material is at issue or is reasonably anticipated to be at issue.
8. (a) If a Reviewing Representative's scope of employment includes the marketing of energy, the direct supervision of any employee or employees whose duties include the marketing of energy, the provision of consulting services to any person whose duties



include the marketing of energy, or the direct supervision of any employee or employees whose duties include the marketing of energy, such Reviewing Representative may not use information contained in any Privileged Materials obtained through this proceeding to give any Participant or any competitor of any Participant a commercial advantage.

(b) In the event that a Participant wishes to designate as a Reviewing Representative a person not described in Paragraph 3 (d) above, the Participant shall seek prior written agreement from the Participant providing the Privileged Materials. If an agreement is reached, that person shall be a Reviewing Representative pursuant to Paragraphs 3(d) above with respect to those materials. If no agreement is reached, that person shall not be given access to Privileged Materials.

9. (a) A Reviewing Representative shall not be permitted to inspect, participate in discussions regarding, or otherwise be permitted access to Privileged Materials pursuant to this Non-Disclosure Agreement unless that Reviewing Representative has first executed a Non-Disclosure Certificate; provided, that if an attorney qualified as a Reviewing Representative has executed such a certificate, the paralegals, secretarial and clerical personnel under the attorney's supervision or control need not do so. A copy of each executed Non-Disclosure Certificate shall be provided to counsel for the Participant asserting confidentiality prior to disclosure of any Privileged Material to that Reviewing Representative.  
  
(b) Attorneys qualified as Reviewing Representatives are responsible for ensuring that persons under their supervision or control comply with this Agreement.
10. Any Reviewing Representative may disclose Privileged Materials to any other Reviewing Representative as long as the disclosing Reviewing Representative and the receiving Reviewing Representative both have executed a Non-Disclosure Certificate. In the event that any Reviewing Representative to whom the Privileged Materials are disclosed ceases to be engaged in these proceedings, or is employed or retained for a position whose occupant is not qualified to be a Reviewing Representative under Paragraph 3(d), access to Privileged Materials by that person shall be terminated. Even if no longer engaged in this proceeding, every person who has executed a Non-Disclosure Certificate shall continue to be bound by the provisions of this Non-Disclosure Agreement and the certification.
11. Nothing in this Non-Disclosure Agreement shall be construed as precluding any Participant from objecting to the use of Privileged Materials on any legal grounds.
12. Nothing in this Non-Disclosure Agreement shall be deemed to preclude any Participant from independently seeking through discovery in any other administrative or judicial proceeding information or materials produced in this proceeding under this Non-Disclosure Agreement.
13. None of the Participants waives the right to pursue any other legal or equitable remedies that may be available in the event of actual or anticipated disclosure of Privileged

Materials.

14. The contents of Privileged Materials or any other form of information that copies or discloses Privileged Materials shall not be disclosed to anyone other than in accordance with this Non-Disclosure Agreement and shall be used only in connection with evaluating the filing made in this docket or in connection with settlement discussions in this proceeding.
16. This Agreement shall be governed and construed according to the laws of the State of California, except if a federal agency is executing this agreement, in which case, this Agreement shall be governed and construed according to federal law, as if performed within the state of California. Participants agree to comply with all applicable federal, state and local laws governing the protection of the Privileged Materials, including, all applicable laws, rules and regulations protecting consumer privacy.
17. In the event a federal agency or employee is executing this Agreement, the following provisions shall apply:

WHISTLEBLOWER PROTECTION ENHANCEMENT ACT OF 2012 The Whistleblower Protection Enhancement Act of 2012 (WPEA) was signed into law to strengthen protections for federal employees who disclose evidence of waste, fraud, or abuse. The WPEA requires that any non-disclosure policy, form, or agreement utilized by a federal agency include the statement below:

These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling. Employees (and former employees) are reminded that reporting evidence of waste, fraud, or abuse involving classified information or classified programs must continue to be made consistent with established rules and procedures designed to protect classified information.

The following list of Executive orders and statutory provisions are controlling in the case of any conflict with an agency non-disclosure policy, form, or agreement:

- Executive Order No. 13526;
- Section 7211 of Title 5, United States Code (governing disclosures to Congress);
- Section 1034 of Title 10, United States Code, as amended by the Military Whistleblower Protection Act (governing disclosure to Congress by members of the military);
- Section 2302(b)(8) of Title 5, United States Code, as amended by the

Whistleblower Protection Act of 1989 (governing disclosures of illegality, waste, fraud, abuse or public health or safety threats);

- Intelligence Identities Protection Act of 1982 (50 U.S.C. 421 et seq.) (governing disclosures that could expose confidential Government agents);
- The statutes which protect against disclosure that may compromise the national security, including sections 641, 793, 794, 798, and 952, of title 18, United States Code; and
- Section 4(b) of the Subversive Activities Act of 1950 (50 U.S.C. 783(b))

End

**PG&E WHOLESALE DISTRIBUTION  
NON-DISCLOSURE CERTIFICATE**

I hereby certify my understanding that access to Privileged Materials is provided to me pursuant to the terms and restrictions of the Exhibit A - PG&E Wholesale Distribution Tariff Non-Disclosure Agreement in this proceeding (Docket No. \_\_\_\_\_), that I have been given a copy of and have read the Non-Disclosure Agreement, and that I agree to be bound by it. I understand that the contents of the Privileged Materials, any notes or other memoranda, or any other form of information that copies or discloses Privileged Materials, shall not be disclosed to anyone other than in accordance with that Non-Disclosure Agreement.

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Employer:

Representing  
Participant: \_\_\_\_\_

Date: \_\_\_\_\_

Email: \_\_\_\_\_

**Pacific Gas and Electric Company  
Wholesale Distribution Tariff**

**Appendix I: Wholesale Distribution Formula Rate  
Attachment 2: Model**

**Pacific Gas and Electric Company  
Wholesale Distribution Tariff  
Appendix I: Formula Rate  
Attachment 2: Model**

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<b>Schedule</b>	<b>Description</b>
1-DRR	Distribution Revenue Requirement
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7-PlantInService	Distribution Plant In Service
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26-NPands	Revenue Sharing for Non-Tariff New Products & Services

**Pacific Gas and Electric Company  
Formula Rate Model**

**FORMATTING:**

**Shading and Labeling**

In the Schedules and Workpapers, those cells shaded in gold are inputs to the Model and change for each Annual Update. Cells labeled as Sources or Notes are subject to revision pursuant to Section 8 of the Protocols.

**Number Format**

Excel "Currency" number format is used.

**Reference Order**

Reference order: page (or tab) number, line number, column number, note number. A comma separates each reference element. Notes contained in the FERC Form 1 are not numbered (see example below).

**Workpaper Naming Conventions**

Workpaper names are prefaced with "WP\_" followed by the schedule name to which it corresponds (e.g.: WP\_18-O&M). If workpapers in support of a Schedule come from different sources or support distinctly different sections of a Schedule, the workpaper name includes a short description suffix (e.g.: WP\_25-RevenueFeeFactors\_FF, where FF describes Franchise Fees).

**Workpaper Tabs and Structure**

Workpaper tabs are numbered and do not have names or otherwise attempt to describe the contents of the workpaper with the exception of the Table of Contents sheet.

The first sheet of a workpaper with multiple sheets is a Table of Contents. The tab for the Table of Contents sheet is named "TOC". The TOC sheet lists the tab number and the description of the workpaper contents taken from the workpaper heading.

**REFERENCES:**

REFERENCE	FORM OF REFERENCE	EXAMPLE	NOTES
Column	col (column # or letter)	col k or col 6	
FERC Form No. 1	FF1	FF1 337.2, L. 20, col k FF1 234, Note(s)	
Line (internal reference)	Line (line #)	Line 25	Internal reference – source within the same Schedule or Workpaper sheet
Line (external reference)	L. (line #)	L. 25	External reference – source outside the Schedule or Workpaper sheet
Note	Note(s) (note #, if provided)	Note 1 14-ADIT, Note 1 FF1 450.1, Notes	
Page	(page #)	337.2 or 2-24 337.2, L. 10, col k	Nothing precedes the page number(s).
Schedule	(schedule name)	12-DepRates	Nothing precedes the schedule name
Tabs	(tab #)	WP_10-AccDep 4  WP_7-PlantInService 6, L. 122, col 7 & 8	Nothing precedes the tab number.
Line for extra data	...	...	Some Schedules have a "..." row. These rows are intended for new data to be added in a future update.

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 1-DRR

Distribution Revenue Requirement					Rate Year: <span style="background-color: yellow;">                    </span>			
Input cells are shaded gold					Prior Year: -2			
Line		Col 1			Col 2	Col 3	Col 4	Source
1					Col 3 + Col 4	#DIV/0!	#DIV/0!	6-PlantJurisdiction, L. 400, col 1 and col 2
<b>1) Rate Base</b>								
Line	Description	Total Distribution	Source	Notes	Total Wholesale Distribution	Primary Distribution	Secondary Distribution	Source
<u>Plant</u>								
100	Distribution Plant	\$0	7-PlantInService, L. 112, col 26	End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	7-PlantInService, L. 212 and L. 312, col 26
101	Common + General + Intangible Plant		WP_7-PlantInService 6, L. 122, col 10	End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	7-PlantInService, L. 701, col 2 and col 3
102	<b>Total Plant</b>	<b>\$0</b>	Line 100 + Line 101		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Line 100 + Line 101
<u>Working Capital</u>								
103	Materials and Supplies	\$0	13-WorkCap, L. 112, col 2	End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	Line 103, col 1 * Line 1, col 3 and col 4
104	Prepayments	#DIV/0!	13-WorkCap, L. 217, col 5	End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	Line 104, col 1 * Line 1, col 3 and col 4
105	Cash Working Capital	#DIV/0!	(Line 500 + Line 501) / 8		#DIV/0!	#DIV/0!	#DIV/0!	Line 105, col 1 * Line 1, col 3 and col 4
106	<b>Total Working Capital</b>	<b>#DIV/0!</b>	Sum of Lines 103 to 105		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Sum of Lines 103 to 105
<u>Accumulated Depreciation Reserve</u>								
107	Distribution Depreciation Reserve	\$0	10-AccDep, L. 112, col 26	Negative End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	10-AccDep, L. 212 and L. 312, col 26
108	Common + General + Intangible Depreciation Reserve		WP_10-AccDep 6, L. 122, col 10	Negative End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	10-AccDep, L. 701, col 2 and col 3
109	<b>Total Accumulated Depreciation Reserve</b>	<b>\$0</b>	Line 107 + Line 108		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Line 107 + Line 108
110 a	Accumulated Deferred Income Taxes	#DIV/0!	14-ADIT, L. 104, col 2	End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	Line 110a, col 1 * Line 1, col 3 and col 4
110 b	Excess Accumulated Deferred Income Taxes	\$0	17-RegAssets-1, L. 201	End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	Line 110b, col 1 * Line 1, col 3 and col 4
110 c	<b>Total Excess and Accumulated Deferred Income Taxes</b>	<b>#DIV/0!</b>	Line 110a + Line 110b	End of Year Value	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Line 110a + Line 110b
111	Unfunded Reserves	#DIV/0!	UnfundedReserves, L. 101, col 2	End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	Line 111, col 1 * Line 1, col 3 and col 4
112	Other Regulatory Assets or Liabilities	\$0	17-RegAssets-1, L. 100	End of Year Value	#DIV/0!	#DIV/0!	#DIV/0!	Line 112, col 1 * Line 1, col 3 and col 4
113	<b>Rate Base</b>	<b>#DIV/0!</b>	Sum of Lines 102, 106, 109 and Lines 110c to 112		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Sum of Lines 102, 106, 109 and Lines 110c to 112
<b>2) ROE and Capitalization Calculations</b>								
Line	Description	Total Distribution	Source	Notes	Total Wholesale Distribution	Primary Distribution	Secondary Distribution	Source
<u>Capital Percentages</u>								
200	Long Term Debt Capital Percentage	49.75%	Set at 49.75	Second Partial Settlement Value	49.75%	49.75%	49.75%	Line 200, col 1
201	Preferred Stock Capital Percentage	0.50%	Set at 0.5%	Second Partial Settlement Value	0.50%	0.50%	0.50%	Line 201, col 1
202	Common Stock Capital Percentage	49.75%	Set at 49.75	Second Partial Settlement Value	49.75%	49.75%	49.75%	Line 202, col 1
<u>Annual Cost of Capital Components</u>								
203	Long Term Debt Cost Percentage	#DIV/0!	5-CostofCap-3, L. 114		#DIV/0!	#DIV/0!	#DIV/0!	Line 203, col 1
204	Preferred Stock Cost Percentage	#DIV/0!	5-CostofCap-4, L. 106		#DIV/0!	#DIV/0!	#DIV/0!	Line 204, col 1
205	PG&E Return on Common Equity	10.25%	Set at 10.25%	Second Partial Settlement Value	10.25%	10.25%	10.25%	Line 205, col 1
<u>Calculation of Cost of Capital Rate</u>								
206	Weighted Cost of Long Term Debt	#DIV/0!	Line 200 * Line 203		#DIV/0!	#DIV/0!	#DIV/0!	Line 206, col 1
207	Weighted Cost of Preferred Stock	#DIV/0!	Line 201 * Line 204		#DIV/0!	#DIV/0!	#DIV/0!	Line 207, col 1
208	Weighted Cost of Common Stock	5.10%	Line 202 * Line 205		5.10%	5.10%	5.10%	Line 208, col 1
209	<b>Cost of Capital Rate</b>	<b>#DIV/0!</b>	Sum of Lines 206 to 208		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Line 209, col 1
210	<b>Equity Rate of Return Including Common and Preferred Stock</b>	<b>#DIV/0!</b>	Line 207 + Line 208		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Line 210, col 1
211	<b>Total Return on Capital</b>	<b>#DIV/0!</b>	Line 113 * Line 209		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Line 113 * Line 209



Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 1-DRR

Distribution Revenue Requirement

Rate Year:                     

Input cells are shaded gold

Prior Year: -2

**3) Other Taxes**

Line	Description	Total Distribution	Source	Notes	Total Wholesale Distribution	Primary Distribution	Secondary Distribution	Source	Line
<u>Property Taxes</u>									
300	Sub-Total Local Taxes		FF1 263, L. 13, col l		#DIV/0!	#DIV/0!	#DIV/0!	Line 300, col 1 * Line 1, col 3 and col 4	300
301	Property Tax Allocation Factor	#DIV/0!	24-Allocators, L. 125		#DIV/0!	#DIV/0!	#DIV/0!	Line 301, col 1	301
302	<b>Total Distribution Property Taxes</b>	#DIV/0!	Line 300 * Line 301		#DIV/0!	#DIV/0!	#DIV/0!	Line 300 * Line 301	302
<u>Payroll Tax Expense</u>									
303	Fed Ins Cont Amt -- Current		FF1 263, L. 1, col i		#DIV/0!	#DIV/0!	#DIV/0!	Line 303, col 1 * Line 1, col 3 and col 4	303
304	CA SUI Current		FF1 263, L. 9, col i		#DIV/0!	#DIV/0!	#DIV/0!	Line 304, col 1 * Line 1, col 3 and col 4	304
305	Fed Unemp Tax Act- Current		FF1 263, L. 3, col i		#DIV/0!	#DIV/0!	#DIV/0!	Line 305, col 1 * Line 1, col 3 and col 4	305
306	Business Taxes		WP_1-BaseDRR_Pyrl_Tax 2, L. 106		#DIV/0!	#DIV/0!	#DIV/0!	Line 306, col 1 * Line 1, col 3 and col 4	306
307	SF Pyrl Exp Tx		WP_1-BaseDRR_Pyrl_Tax 2, L. 107		#DIV/0!	#DIV/0!	#DIV/0!	Line 307, col 1 * Line 1, col 3 and col 4	307
308	<b>Total Electric Payroll Tax Expense</b>	\$0	Sum of Lines 303 to 307		#DIV/0!	#DIV/0!	#DIV/0!	Sum of Lines 303 to 307	308
<u>Network Distribution Labor as a % of Total Electric Labor</u>									
309	Allocation Factor	#DIV/0!	24-Allocators, L. 112		#DIV/0!	#DIV/0!	#DIV/0!	Line 309, col 1	309
310	<b>Total Distribution Payroll Tax Expense</b>	#DIV/0!	Line 309 * Line 308		#DIV/0!	#DIV/0!	#DIV/0!	Line 309 * Line 308	310
311	<b>Total Other Taxes</b>	#DIV/0!	Line 302 + Line 310		#DIV/0!	#DIV/0!	#DIV/0!	Line 302 + Line 310	311

**4) Income Taxes**

Line	Description	Total Distribution	Source	Notes	Total Wholesale Distribution	Primary Distribution	Secondary Distribution	Source	Line
400	Federal Income Tax Rate	0.00%	22-TaxRates, L. 100		0.00%	0.00%	0.00%	Line 400, col 1	400
401	State Income Tax Rate	0.00%	22-TaxRates, L. 101		0.00%	0.00%	0.00%	Line 401, col 1	401
402	<b>Composite Tax Rate</b>	0.00%	22-TaxRates, L. 103		0.00%	0.00%	0.00%	Line 402, col 1	402
<u>Calculation of Flowthrough and Permanent Tax Deductions (FPD):</u>									
403	Book Depreciation of AFUDC Equity Book Basis		WP_1-BaseDRR_Tax 1, L. 101		#DIV/0!	#DIV/0!	#DIV/0!	Line 403, col 1 * Line 1, col 3 and col 4	403
404	<b>Flowthrough and Permanent Tax Deductions</b>	\$0	Line 403		#DIV/0!	#DIV/0!	#DIV/0!		404
<u>Calculation of Credits and Other (CO):</u>									
405	Amortization of Excess Deferred Tax Liability	\$0	17-RegAssets-2, col 18-20, L. 110		#DIV/0!	#DIV/0!	#DIV/0!	Line 405, col 1 * Line 1, col 3 and col 4	405
406	Federal and State Tax Credits		WP_1-BaseDRR_Tax 2, L. 103		#DIV/0!	#DIV/0!	#DIV/0!	Line 406, col 1 * Line 1, col 3 and col 4	406
407	<b>Credits and Other</b>	\$0	Line 405 + Line 406		#DIV/0!	#DIV/0!	#DIV/0!	Line 405 + Line 406	407
408	<b>Income Taxes:</b>	#DIV/0!	Line 409		#DIV/0!	#DIV/0!	#DIV/0!	Line 409	408
409	<b>Income Taxes = (((RB * ER) + FPD) * (CTR/(1 - CTR))) + CO/(1 - CTR))</b>								409
<u>Where:</u>									
410	RB = Rate Base	#DIV/0!	Line 113, col 1		#DIV/0!	#DIV/0!	#DIV/0!	Line 113, col 3 and col 4	410
411	ER = Equity Rate of Return Including Common and Preferred Stoc	#DIV/0!	Line 210, col 1		#DIV/0!	#DIV/0!	#DIV/0!	Line 210, col 3 and col 4	411
412	CTR = Composite Tax Rate	0.00%	Line 402, col 1		0.00%	0.00%	0.00%	Line 402, col 3 and col 4	412
413	CO = Credits and Other	\$0	Line 407, col 1		#DIV/0!	#DIV/0!	#DIV/0!	Line 407, col 3 and col 4	413
414	FPD = Flowback and Permanent Tax Deductions	\$0	Line 404, col 1		#DIV/0!	#DIV/0!	#DIV/0!	Line 404, col 3 and col 4	414

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 1-DRR

Distribution Revenue Requirement

Rate Year:                     

Input cells are shaded gold

Prior Year: -2

**5) Distribution Revenue Requirement**

Line	Description	Total Distribution	Source	Notes	Total Wholesale Distribution	Primary Distribution	Secondary Distribution	Source	Line
<u>Prior Year DRR Components</u>									
500	O&M Expense	\$0	18-OandM, L. 101, col 11		#DIV/0!	#DIV/0!	#DIV/0!	18-OandM, L. 101, col 12 and col 13	500
501	A&G Expense	#DIV/0!	19-AandG, L. 219		#DIV/0!	#DIV/0!	#DIV/0!	Line 501, col 1 * Line 1, col 3 and col 4	501
502	Depreciation Expense for Distribution Plant	\$0	11-Depreciation, L. 100, col 26		#DIV/0!	#DIV/0!	#DIV/0!	11-Depreciation, L. 101 and L. 102, col 26	502
503	Depreciation Expense for Common, General and Intangible Plant	#DIV/0!	WP_11-Depreciation 5, L. 122, col 10		#DIV/0!	#DIV/0!	#DIV/0!	11-Depreciation, L. 500, col 1 and col 2	503
504	Return on Capital	#DIV/0!	Line 211, col 1		#DIV/0!	#DIV/0!	#DIV/0!	Line 211, col 3 and col 4	504
505	Other Taxes	#DIV/0!	Line 311, col 1		#DIV/0!	#DIV/0!	#DIV/0!	Line 311, col 3 and col 4	505
506	Income Taxes	#DIV/0!	Line 408, col 1		#DIV/0!	#DIV/0!	#DIV/0!	Line 408, col 3 and col 4	506
507	Revenue Credits	\$0	20-RevenueCredits, L. 100, col 5	Negative Value	#DIV/0!	#DIV/0!	#DIV/0!	Line 507, col 1 * Line 1, col 3 and col 4	507
508	NP&S Credit	\$0	26-NP&S, Line 403	Negative Value	#DIV/0!	#DIV/0!	#DIV/0!	Line 508, col 1 * Line 1, col 3 and col 4	508
509	Amortization and Regulatory Debits/Credits	\$0	17-RegAssets-1, L. 102		#DIV/0!	#DIV/0!	#DIV/0!	Line 509, col 1 * Line 1, col 3 and col 4	509
510	<b>Prior Year DRR</b>	<b>#DIV/0!</b>	Sum of Lines 500 to Line 509		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Sum of Lines 500 to Line 508	<b>510</b>
<u>SFGR Tax and Franchise Fees</u>									
511	Franchise Fees Factor	#DIV/0!	25-RevenueFeeFactors, L. 400		#DIV/0!	#DIV/0!	#DIV/0!	Line 511, col 1	511
512	SFGR Tax Factor	#DIV/0!	25-RevenueFeeFactors, L. 401		#DIV/0!	#DIV/0!	#DIV/0!	Line 512, col 1	512
513	<b>Total SFGR Tax and Franchise Fees</b>	<b>#DIV/0!</b>	Line 510 * (Line 511 + Line 512)		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Line 510 * (Line 511 + Line 512)	<b>513</b>
514	<b>Distribution Revenue Requirement</b>	<b>#DIV/0!</b>	Line 510 + Line 513		<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	Line 510 + Line 513	<b>514</b>

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 2-True-upDRR

True-up Distribution Revenue Requirement										Prior Year: -2
Input cells are shaded gold										
Line		Col 1			Col 2	Col 3	Col 4	Source		
1	1] Rate Base	Col 3 + Col 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	6-PlantJurisdiction, L. 400, col 1 and col 2	1	
Line	Description	Total Company Distribution	Source	Notes	Total Wholesale Distribution	Primary Distribution	Secondary Distribution	Source	Line	
100	Plant									
100	Distribution Plant	\$0	7-PlantInService, L. 113 col 26	13-Month Avg	#DIV/0!	#DIV/0!	#DIV/0!	7-PlantInService, L. 213 and L. 313, col 26	100	
101	Common + General + Intangible Plant		WP_7-PlantInService 6, L. 122, col 10	BOY EOY Avg	#DIV/0!	#DIV/0!	#DIV/0!	7-PlantInService, L. 702, col 2 and col 3	101	
102	Total Plant	\$0	Line 100 + Line 101		#DIV/0!	#DIV/0!	#DIV/0!		102	
	Working Capital									
103	Materials and Supplies	\$0	13-WorkCap, L. 113, col 2	13-Month Avg	#DIV/0!	#DIV/0!	#DIV/0!	Line 103, col 1 * Line 1, col 3 and col 4	103	
104	Prepayments	#DIV/0!	13-WorkCap, L. 215, col 5	13-Month Avg	#DIV/0!	#DIV/0!	#DIV/0!	Line 104, col 1 * Line 1, col 3 and col 4	104	
105	Cash Working Capital	#DIV/0!	(Line 400 + Line 401) / 8		#DIV/0!	#DIV/0!	#DIV/0!	Line 105, col 1 * Line 1, col 3 and col 4	105	
106	Total Working Capital	#DIV/0!	Sum of Lines 103 to 105		#DIV/0!	#DIV/0!	#DIV/0!	Sum of Lines 103 to 105	106	
	Accumulated Depreciation Reserve									
107	Distribution Depreciation Reserve	\$0	10-AccDep, L. 113, col 26	Negative 13-Month Avg	#DIV/0!	#DIV/0!	#DIV/0!	10-AccDep, L. 213 and L. 313, col 26	107	
108	Common + General + Intangible Depreciation Reserve		WP_10-AccDep 6, L. 122, col 10	Negative BOY EOY Avg	#DIV/0!	#DIV/0!	#DIV/0!	10-AccDep, L. 702, col 2 and col 3	108	
109	Total Accumulated Depreciation Reserve	\$0	Line 107 + Line 108		#DIV/0!	#DIV/0!	#DIV/0!	Line 107 + Line 108	109	
110	a Accumulated Deferred Income Taxes	#DIV/0!	14-ADIT, L. 106, col 2	Weighted Average	#DIV/0!	#DIV/0!	#DIV/0!	Line 110a, col 1 * Line 1, col 3 and col 4	110 a	
110	b Excess Accumulated Deferred Income Taxes	#VALUE!	17-RegAssets-1, L. 202	Weighted Average	#VALUE!	#VALUE!	#VALUE!	Line 110b, col 1 * Line 1, col 3 and col 4	110 b	
110	c Total Excess and Accumulated Statutory Deferred Income Taxes	#DIV/0!	Line 110a + Line 110b	Weighted Average	#DIV/0!	#DIV/0!	#DIV/0!	Line 110a + Line 110b	110 c	
111	Unfunded Reserves	#DIV/0!	UnfundedReserves, L. 100, col 2	13-Month Avg	#DIV/0!	#DIV/0!	#DIV/0!	Line 111, col 1 * Line 1, col 3 and col 4	111	
112	Other Regulatory Assets or Liabilities	\$0	17-RegAssets, L. 101	BOY EOY Avg	#DIV/0!	#DIV/0!	#DIV/0!	Line 112, col 1 * Line 1, col 3 and col 4	112	
113	Rate Base	#DIV/0!	Sum of Lines 102, 106, 109 and Lines 110c to 112		#DIV/0!	#DIV/0!	#DIV/0!	Sum of Lines 102, 106, 109 and Lines 110c to 112	113	
2] ROE and Capitalization Calculations										
Instructions:										
1) Input the ROE for the Prior Year on Line 200.										
Line	Description	Total Company Distribution	Source	Notes	Total Wholesale Distribution	Primary Distribution	Secondary Distribution	Source	Line	
200	Prior Year Return on Common Equity	10.25%	1-DRR, L. 205	ROE from Schedule 1; if there are mid-year changes, a workpaper will be provided	10.25%	10.25%	10.25%	Line 200, Col 1	200	
	Calculation of Cost of Capital Rate									
201	Weighted Cost of Long Term Debt	#DIV/0!	1-DRR, L. 206		#DIV/0!	#DIV/0!	#DIV/0!	Line 201, Col 1	201	
202	Weighted Cost of Preferred Stock	#DIV/0!	1-DRR, L. 207		#DIV/0!	#DIV/0!	#DIV/0!	Line 202, Col 1	202	
203	Weighted Cost of Common Stock	5.10%	Line 200 * 1-DRR, L. 202		5.10%	5.10%	5.10%	Line 203, Col 1	203	
204	Cost of Capital Rate	#DIV/0!	Sum of Lines 201 to 203		#DIV/0!	#DIV/0!	#DIV/0!	Line 204, Col 1	204	
205	Equity Rate of Return Including Common and Preferred Stock	#DIV/0!	Line 202 + Line 203		#DIV/0!	#DIV/0!	#DIV/0!	Line 205, Col 1	205	
206	Total Return on Capital	#DIV/0!	Line 113 * Line 204		#DIV/0!	#DIV/0!	#DIV/0!	Line 113 * Line 204	206	

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 2-True-upDRR

True-up Distribution Revenue Requirement

Prior Year: -2

Input cells are shaded gold

3) Income Taxes

Line	Description	Total Company		Source	Notes	Total Wholesale			Source	Line
		Distribution				Distribution	Primary Distribution	Secondary Distribution		
300	Federal Income Tax Rate	0.00%	22-TaxRates, L. 200			0.00%	0.00%	0.00%	Line 300, Col 1	300
301	State Income Tax Rate	0.00%	22-TaxRates, L. 201			0.00%	0.00%	0.00%	Line 301, Col 1	301
302	Composite Tax Rate	0.00%	22-TaxRates, L. 203			0.00%	0.00%	0.00%	Line 302, Col 1	302
303	Income Taxes:	#DIV/0!	Line 304			#DIV/0!	#DIV/0!	#DIV/0!	Line 304	303
304	Income Taxes = $(((RB * ER) + FPD) * (CTR / (1 - CTR))) + CO / (1 - CTR)$									304
Where:										
305	RB = Rate Base	#DIV/0!	Line 113 col 1			#DIV/0!	#DIV/0!	#DIV/0!	Line 113	305
306	ER = Equity Rate of Return Including Common and Preferred Stock	#DIV/0!	Line 205			#DIV/0!	#DIV/0!	#DIV/0!	Line 205	306
307	CTR = Composite Tax Rate	0.00%	Line 302			0.00%	0.00%	0.00%	Line 302	307
308	CO = Credits and Other	\$0	1-DRR, L. 407, col 1			#DIV/0!	#DIV/0!	#DIV/0!	1-DRR, L. 407, col 3 and col 4	308
309	FPD = Flowback and Permanent Tax Deductions	\$0	1-DRR, L. 404, col 1			#DIV/0!	#DIV/0!	#DIV/0!	1-DRR, L. 404, col 3 and col 4	309

4) True-up Distribution Revenue Requirement

Instructions:

1) Input the Annual True-up Adjustment that was included in the Prior Year's rates on Line

Line	Description	Total Company		Source	Notes	Total Wholesale			Source	Line
		Distribution				Distribution	Primary Distribution	Secondary Distribution		
<i>Prior Year DRR Components</i>										
400	O&M Expense	\$0	1-DRR, L. 500, col 1			#DIV/0!	#DIV/0!	#DIV/0!	18-QandM, L. 101, col 12 and col 13	400
401	A&G Expense	#DIV/0!	1-DRR, L. 501, col 1			#DIV/0!	#DIV/0!	#DIV/0!	Line 501, col 1 * Line 1, col 3 and col 4	401
402	Depreciation Expense for Distribution Plant	\$0	1-DRR, L. 502, col 1			#DIV/0!	#DIV/0!	#DIV/0!	1-DRR, L. 502, col 3 and col 4	402
403	Depreciation Expense for Common, General and Intangible Plant	\$0	1-DRR, L. 503, col 1			#DIV/0!	#DIV/0!	#DIV/0!	1-DRR, L. 503, col 3 and col 4	403
404	Return on Capital	#DIV/0!	Line 206, col 1			#DIV/0!	#DIV/0!	#DIV/0!	Line 206, col 3 and col 4	404
405	Other Taxes	#DIV/0!	1-DRR, L. 505, col 1			#DIV/0!	#DIV/0!	#DIV/0!	1-DRR, L. 505, col 3 and col 4	405
406	Income Taxes	#DIV/0!	Line 303, col 1			#DIV/0!	#DIV/0!	#DIV/0!	Line 303, col 3 and col 4	406
407	Revenue Credits	\$0	1-DRR, L. 507, col 1		Negative Value	#DIV/0!	#DIV/0!	#DIV/0!	1-DRR, L. 507, col 3 and col 4	407
408	NP&S Credit	\$0	1-DRR, L. 508, col 1		Negative Value	#DIV/0!	#DIV/0!	#DIV/0!	1-DRR, L. 508, col 3 and col 4	408
409	Amortization and Regulatory Debits/Credits	\$0	1-DRR, L. 509, col 1			#DIV/0!	#DIV/0!	#DIV/0!	1-DRR, L. 509, col 3 and col 4	409
410	Total without Franchise Fees and SFGR Tax	#DIV/0!	Sum Lines 400 to 409			#DIV/0!	#DIV/0!	#DIV/0!	Sum Lines 400 to 409	410
<i>SFGR Tax and Franchise Fees</i>										
411	Franchise Fees Factor	#DIV/0!	1-DRR, L. 511			#DIV/0!	#DIV/0!	#DIV/0!	Line 411, Col 1	411
412	SFGR Tax Factor	#DIV/0!	1-DRR, L. 512			#DIV/0!	#DIV/0!	#DIV/0!	Line 412, Col 1	412
413	Total SFGR Tax and Franchise Fees	#DIV/0!	Line 410 * ( Line 411 + Line 412)			#DIV/0!	#DIV/0!	#DIV/0!	Line 410 * ( Line 411 + Line 412)	413
414	Total True-up DRR	#DIV/0!	Line 410 + Line 413			#DIV/0!	#DIV/0!	#DIV/0!	Line 410 + Line 413	414

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 3-ATA

Annual True-up Adjustments

Prior Year: -2

Input cells are shaded gold

1) Calculation of Prior Year Load Ratio Shares

Instructions: Add new customers to lines 100 and 101 when needed.

Line									Source	Line
100								...		100
101	Primary Load Ratio Share:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	8-DemandForAllocation, L. 203, each customer's col / I	101
102										
103	Secondary Load Ratio Share:	#DIV/0!	#DIV/0!	#DIV/0!					8-DemandForAllocation, L. 206, each customer's col / L. 206, col 1	103

2) Calculation of Allocated True-up Revenue Requirements

Instructions: Add new customers to lines 200 - 204 when needed. If applicable, include the True-up Adjustments Included in Prior Year's Rates in lines 203 and 208 (will be applicable for the True-ups of RY2023 and onward).

Line									Source	Line
200	<u>Prior Year Primary True-up DRR</u>	#DIV/0!							2-True-upDRR, L. 413, col 3	200
200a	<u>Wholesale Primary Credit</u>	\$0							Note 7	200a
201		0	0	0	0	0	0	...		201
202	Allocated Primary True-up DRR:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Line 101 * Line 200	202
202a	Allocated Wholesale Primary True-up Credit	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	\$0.00	Note 8	202a
203	Primary True-up Adjustment Included in Prior Year's Rates:									203
204	Total Allocated Primary True-up DRR:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Line 202 + Line 203 + Line 202a	204
205	<u>Prior Year Secondary True-up DRR</u>	#DIV/0!							2-True-upDRR, L. 413, col 4	205
206		\$0.00	\$0.00	\$0.00						206
207	Allocated Secondary True-up DRR:	#DIV/0!	#DIV/0!	#DIV/0!					Line 103 * Line 205	207
208	Secondary True-up Adjustment Included in Prior Year's Rates:									208
209	Total Allocated Secondary True-up DRR:	#DIV/0!	#DIV/0!	#DIV/0!					Line 207 + Line 208	209

3) Calculation of Prior Year Customer-Specific True-up Rates

Instructions: Add new customers to lines 300 - 303 when needed.

Line									Source	Line
300	<u>Primary Rates Calculation</u>	0	0	0	0	0	0	...		300
301	Total Allocated Primary True-up DRR:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Line 204	301
302	Prior Year Annual Primary NCP Demand:	#DIV/0!	#DIV/0!	0	0	#DIV/0!	0	0	Note 9	302
303	Prior Year Primary True-up Rates:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	\$0.000	Line 301 / Line 302	303
304	<u>Secondary Rates Calculation</u>	0	0	0						304
305	Total Allocated Secondary True-up DRR:	#DIV/0!	#DIV/0!	#DIV/0!					Line 209	305
306	Prior Year Secondary Load Primary Cost:	#DIV/0!	#DIV/0!	#DIV/0!					Line 301 - (Line 303 * 9-WholesaleRevenues, L. 112)	306
307	Total Prior Year Secondary Load DRR:	#DIV/0!	#DIV/0!	#DIV/0!					Line 305 + Line 306	307
308	Prior Year Annual Secondary NCP Demand:	0	0	0	0	9-WholesaleRevenues, L. 312				308
309	Prior Year Secondary True-up Rates:	#DIV/0!	#DIV/0!	#DIV/0!					Line 307 / Line 308	309

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**4) Calculation of True-up Adjustments**

Instructions: 1) Add new customers to lines 400 - 402. Create a new Sections below to calculate the Cumulative Excess or Shortfall in Revenue with Interest for the new customers. 2) Input the monthly FERC interest rates (18 C.F.R. §35.19a) for the corresponding Month and Year into Col 6.

Line	Summary of True-up Adjustments							Line
400	0	0	0	0	0	0	...	400
401	Primary True-up Adjustment:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	401
402	Source:	Line 525, Col 9	Line 625, Col 9	Line 725, Col 9	Line 825, Col 9	Line 925, Col 9	Line 1025, Col 9	402
403		0	0	0				403
404	Secondary True-up Adjustment:	#DIV/0!	#DIV/0!	#DIV/0!				404
405	Source:	Line 550, Col 9	Line 650, Col 9	Line 950, Col 9				405

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Line	Customer	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Line
500	CCSF (SA No. 275)		Note 1	Note 2	Col 2 - Col 3	Note 3	Note 4	Note 5	Note 6	Col 5 + Col 8	500
			Monthly Primary True-up Revenue	Prior Year Primary Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest	
	Month	Year									
501	December	-3	N/A	N/A	N/A	\$0	N/A	N/A	\$0	\$0	501
502	January	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	502
503	February	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	503
504	March	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	504
505	April	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	505
506	May	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	506
507	June	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	507
508	July	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	508
509	August	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	509
510	September	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	510
511	October	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	511
512	November	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	512
513	December	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	513
514	January	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	514
515	February	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	515
516	March	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	516
517	April	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	517
518	May	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	518
519	June	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	519
520	July	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	520
521	August	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	521
522	September	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	522
523	October	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	523
524	November	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	524
525	December	-1	N/A	N/A	\$0	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	525

  

Customer	Secondary Monthly True-up Revenue	Secondary Prior Year Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest	
CCSF (SA No. 275)									
Month	Year								
526	December	-3	N/A	N/A	\$0	N/A	\$0	\$0	526
527	January	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	527
528	February	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	528
529	March	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	529
530	April	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	530
531	May	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	531
532	June	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	532
533	July	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	533
534	August	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	534
535	September	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	535
536	October	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	536
537	November	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	537
538	December	-2	#DIV/0!	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	538
539	January	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	539
540	February	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	540
541	March	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	541
542	April	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	542
543	May	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	543
544	June	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	544
545	July	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	545
546	August	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	546
547	September	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	547
548	October	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	548
549	November	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	549
550	December	-1	N/A	N/A	\$0	0.00%	#DIV/0!	#DIV/0!	550

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 3-ATA

Line	Customer	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Line
600	PWRPA 1 (SA No. 30)		Note 1	Note 2	Col 2 - Col 3	Note 3	Note 4	Note 5	Note 6	Col 5 + Col 8	600
	Month	Year	Primary Monthly True-up Revenue	Primary Prior Year Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest	
601	December	-3	N/A	N/A	N/A	\$0	N/A	N/A	\$0	\$0	601
602	January	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	602
603	February	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	603
604	March	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	604
605	April	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	605
606	May	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	606
607	June	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	607
608	July	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	608
609	August	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	609
610	September	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	610
611	October	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	611
612	November	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	612
613	December	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	613
614	January	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	614
615	February	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	615
616	March	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	616
617	April	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	617
618	May	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	618
619	June	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	619
620	July	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	620
621	August	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	621
622	September	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	622
623	October	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	623
624	November	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	624
625	December	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	625

Customer	Month	Year	Secondary Monthly True-up Revenue	Secondary Prior Year Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest
PWRPA 1 (SA No. 30)	December	-3	N/A	N/A	N/A	\$0	N/A	N/A	\$0	\$0
	January	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	February	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	March	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	April	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	May	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	June	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	July	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	August	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	September	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	October	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	November	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	December	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	January	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	February	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	March	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	April	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	May	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	June	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	July	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	August	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	September	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	October	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	November	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!
	December	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!



Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 3-ATA

Line	Customer	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Line
700	PWRPA 2 (SA No. 56)		Note 1	Note 2	Col 2 - Col 3	Note 3	Note 4	Note 5	Note 6	Col 5 + Col 8	700
			Primary Monthly True-up Revenue	Primary Prior Year Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest	
	Month	Year									
701	December	-3	N/A	N/A	N/A	\$0	N/A	N/A	\$0	\$0	701
702	January	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	702
703	February	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	703
704	March	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	704
705	April	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	705
706	May	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	706
707	June	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	707
708	July	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	708
709	August	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	709
710	September	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	710
711	October	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	711
712	November	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	712
713	December	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	713
714	January	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	714
715	February	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	715
716	March	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	716
717	April	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	717
718	May	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	718
719	June	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	719
720	July	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	720
721	August	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	721
722	September	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	722
723	October	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	723
724	November	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	724
725	December	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	725

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 3-ATA

Line	Customer	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Line
800	Shelter Cove (SA No. 382)		Note 1	Note 2	Col 2 - Col 3	Note 3	Note 4	Note 5	Note 6	Col 5 + Col 8	800
			Primary Monthly True-up Revenue	Primary Prior Year Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest	
	Month	Year									
801	December	-3	N/A	N/A	N/A	\$0	N/A	N/A	\$0	\$0	801
802	January	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	802
803	February	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	803
804	March	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	804
805	April	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	805
806	May	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	806
807	June	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	807
808	July	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	808
809	August	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	809
810	September	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	810
811	October	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	811
812	November	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	812
813	December	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	813
814	January	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	814
815	February	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	815
816	March	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	816
817	April	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	817
818	May	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	818
819	June	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	819
820	July	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	820
821	August	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	821
822	September	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	822
823	October	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	823
824	November	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	824
825	December	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	825

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 3-ATA

Line	Customer	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Line
900	WAPA (SA No. 17)		Note 1	Note 2	Col 2 - Col 3	Note 3	Note 4	Note 5	Note 6	Col 5 + Col 8	900
Month	Year	Primary Monthly True-up Revenue	Primary Prior Year Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest		
901	December	-3	N/A	N/A	N/A	\$0	N/A	N/A	\$0	\$0	901
902	January	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	902
903	February	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	903
904	March	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	904
905	April	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	905
906	May	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	906
907	June	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	907
908	July	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	908
909	August	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	909
910	September	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	910
911	October	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	911
912	November	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	912
913	December	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	913
914	January	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	914
915	February	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	915
916	March	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	916
917	April	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	917
918	May	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	918
919	June	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	919
920	July	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	920
921	August	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	921
922	September	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	922
923	October	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	923
924	November	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	924
925	December	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	925

Customer	Month	Year	Secondary Monthly True-up Revenue	Secondary Prior Year Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest	
926	December	-3	N/A	N/A	N/A	\$0	N/A	N/A	\$0	\$0	926
927	January	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	927
928	February	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	928
929	March	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	929
930	April	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	930
931	May	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	931
932	June	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	932
933	July	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	933
934	August	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	934
935	September	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	935
936	October	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	936
937	November	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	937
938	December	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	938
939	January	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	939
940	February	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	940
941	March	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	941
942	April	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	942
943	May	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	943
944	June	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	944
945	July	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	945
946	August	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	946
947	September	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	947
948	October	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	948
949	November	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	949
950	December	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	950

**Pacific Gas and Electric Company**  
**Formula Rate Model**  
**Schedule 3-ATA**

Line	Customer	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Line
1000	Westside (SA No. 15)		Note 1	Note 2	Col 2 - Col 3	Note 3	Note 4	Note 5	Note 6	Col 5 + Col 8	1000
			Primary Monthly True-up Revenue	Primary Prior Year Revenues	Monthly Excess or Shortfall in Revenue	Cumulative Excess or Shortfall in Retail Revenue without Interest	FERC Interest Rate	Monthly Interest	Accumulated Interest	Cumulative Excess or Shortfall in Revenue with Interest	
	Month	Year									
1001	December	-3	N/A	N/A	N/A	\$0	N/A	N/A	\$0	\$0	1001
1002	January	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1002
1003	February	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1003
1004	March	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1004
1005	April	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1005
1006	May	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1006
1007	June	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1007
1008	July	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1008
1009	August	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1009
1010	September	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1010
1011	October	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1011
1012	November	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1012
1013	December	-2	#DIV/0!	\$0	#DIV/0!	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1013
1014	January	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1014
1015	February	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1015
1016	March	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1016
1017	April	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1017
1018	May	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1018
1019	June	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1019
1020	July	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1020
1021	August	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1021
1022	September	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1022
1023	October	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1023
1024	November	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1024
1025	December	-1	N/A	N/A	\$0	#DIV/0!	0.00%	#DIV/0!	#DIV/0!	#DIV/0!	1025
...	...										

**Note 1:** The Monthly True-up Revenue is calculated by multiplying the True-up Rates from lines 303 for Primary and 309 for Secondary by the Prior Year billed demand from 9-WholesaleRevenues, lines 100 - 111 and 300 - 311.

**Note 2:** The monthly Prior Year Revenues are from 9-WholesaleRevenues, lines 200 - 211 for Primary and lines 400 - 411 for Secondary.

**Note 3:** Corrections or Adjustments applied from previously-filed Annual Updates are outlined in Section 4.6.5 of the Protocols.

**Note 4:** Monthly FERC interest rates (18 C.F.R. §35.19a).

**Note 5:** Monthly Interest is calculated by summing the current month's "Excess or Shortfall in Revenue" divided by 2, last month's "Cumulative Excess or Shortfall in Revenue without Interest", the beginning quarter's Accumulated Interest and multiplying the result by the current month's FERC interest rate.

**Note 6:** Accumulated Interest is the sum of the current month's "Monthly Interest" with last month's "Accumulated Interest".

**Note 7:** Per the Second Partial Settlement, the Wholesale Primary Credit for RY2021 is (\$3,500,000), for RY2022 is (\$3,500,000), for RY2023 is (\$2,000,000), and for RY2024 is (\$1,000,000).

**Note 8:** The Allocated Wholesale Primary True-up Credits are only applicable to SA Nos. 275, 30, 56, 382, 17, and 15. The calculation to allocate the credit is equal to each customer's Allocated Rate Year Primary True-up DRR (Line 202) divided by the sum of all the Allocated Rate Year Primary True-up DRRs of each applicable Wholesale Customers multiplied by the Wholesale Primary Credit for the Rate Year (Line 200a).

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 4-WholesaleRates

Wholesale Distribution Rates  
Input cells are shaded gold

Rate Year:

1) Calculation of Customer Specific Rates for Wholesale Distribution Service

Line		Wholesale Primary DRR	Source						Line
100		#DIV/0!	1-DRR, L. 513, col 3						
100a		Wholesale Primary Credit (\$3,500,000)	Source Note 2						
101									
101									
102	Primary Load Ratio Share:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	3-ATA L. 101
103	Allocated Rate Year Primary DRR:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Line 102 * Line 100
103a	Allocated Wholesale Primary Credit	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	\$0	Note 3
104	Prior Year Primary True-up Adjustment:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	\$0	3-ATA L. 401
105	Total Allocated Rate Year Primary DRR:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		Line 103 + Line 103a + Line 104
106	Prior Year Annual Primary Non-Coincident Demand:	#DIV/0!	0	0	#DIV/0!	0	#DIV/0!	0	Note 1
107	Rate Year Primary Demand Rate (\$/kW):	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0	Line 105 / Line 106
108		Wholesale Secondary DRR	#DIV/0!						
108									
109									
109	Secondary Load Ratio Share:	#DIV/0!	#DIV/0!	3-ATA L. 103					
110	Allocated Rate Year Secondary DRR:	#DIV/0!	#DIV/0!	Line 108 * Line 109					
111	Prior Year Secondary True-up Adjustment:	#DIV/0!	#DIV/0!	3-ATA L. 404					
112	Secondary Load Primary Cost:	#DIV/0!	#DIV/0!	Line 105 - (Line 107 * 9-WholesaleRevenues, L. 112)					
113	Total Allocated Rate Year Secondary Load DRR:	#DIV/0!	#DIV/0!	Sum Lines 110 - 112					
114	Prior Year Annual Secondary Non-Coincident Demand:	0	0	9-WholesaleRevenues, L. 312					
115	Rate Year Secondary Demand Rate (\$/kW):	#DIV/0!	#DIV/0!	Line 113 / 114					

2) Calculation of Initial Rates for Wholesale Distribution Service

Line		Value	Source	Line
200	Total Allocated Primary DRR	#DIV/0!	Sum Line 103	200
201	Total Annual Primary Demand	#DIV/0!	Sum Line 106	201
202	Initial Primary Rate	#DIV/0!	Line 200 / 201	202

3) List of Wholesale Customers on Initial Rates for Wholesale Distribution Service

Instruction: Add new customers taking the Initial Rate. Remove the customer from this list when a customer-specific rate is calculated.

Line	Customer	Service Agreement No.	Service Start Date	Line
300				300
301				301
302				302
303				303
...				...

Note 1: The Prior Year Annual Primary Non-Coincident Demand for Customers with Secondary loads is calculated using this formula: 9-WholesaleRevenues, L. 112 + (9-WholesaleRevenues, L. 412) \* (1.13848 / 1.07414). The loss factor 1.07414 is found in 15-LossFactors, col 1, line 103 and the loss factor 1.13848 is found in 15-LossFactors, col 1, line 104. For Customer with Primary only, see 9-WholesaleRevenues, L. 112.

Note 2: Per the Second Partial Settlement, the Wholesale Primary Credit for RY2021 is (\$3,500,000), for RY2022 is (\$3,500,000), for RY2023 is (\$2,000,000), and for RY2024 is (\$1,000,000).

Note 3: The Allocated Wholesale Primary Credits are only applicable to SA Nos. 275, 30, 56, 382, 17, and 15. The calculation to allocate the credit is equal to each customer's Allocated Rate Year Primary DRR (Line 103) divided by the sum of all the Allocated Rate Year Primary DRRs of each applicable Wholesale Customers multiplied by the Wholesale Primary Credit for the Rate Year (Line 100a).

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 5-CostofCap-3

Long Term Debt Cost Percentage

Prior Year: -2

Input cells are shaded gold

**1) Calculation of Cost of Long Term Debt**

Instructions: Enter credit balances as positive balances.

Line	Description	Values	Source	Line
<u>Long-Term Debt Component - Denominator:</u>				
100	(Plus) Bonds (Acct. 221)		FF1 112, L. 18, col c	100
101	(Less) Reacquired Bonds (Acct. 222)		FF1 112, L. 19, col c	101
102	(Plus) Other Long-Term Debt (Acct. 224)		FF1 112, L. 21, col c	102
103	(Plus) Unamortized Premium on Long-Term Debt (Acct. 225)		FF1 112, L. 22, col c	103
104	(Less) Unamortized Discount on Long-Term Debt-Debit (Acct. 226)		FF1 112, L. 23, col c	104
105	(Less) Unamortized Debt Expenses (Acct. 181)		FF1 111, L. 69, col c	105
106	(Less) Unamortized Loss on Reacquired Debt (Acct. 189)		FF1 111, L. 81, col c	106
107	<b>LTD = Long Term Debt</b>	<b>\$0</b>	Lines ((100 + 102 + 103) - (101 + 104 + 105 + 106 ))	<b>107</b>
<u>Long-Term Debt Component - Numerator:</u>				
108	(Plus) Interest on Long-Term Debt (Acct. 427)		FF1 117, L. 62, col c	108
109	(Plus) Amort. of Debt Disc. and Expense (Acct. 428)		FF1 117, L. 63, col c	109
110	(Plus) Amortization of Loss on Reacquired Debt (Acct. 428.1)		FF1 117, L. 64, col c	110
111	(Less) Amort. of Premium on Debt-Credit (Acct. 429)		FF1 117, L. 65, col c	111
112	(Less) Amortization of Gain on Reacquired Debt-Credit (Acct. 429.1)		FF1 117, L. 66, col c	112
113	<b>LTD interest</b>	<b>\$0</b>	Lines ((108 + 109 + 110) - (111 + 112))	<b>113</b>
114	<b>Cost of Long-Term Debt:</b>	<b>#DIV/0!</b>	Line 113 / Line 107	<b>114</b>

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 5-CostofCap-4**

Preferred Stock Cost Percentage

Prior Year: -2

Input cells are shaded gold

**1) Calculation of "Preferred Stock Cost Percentage"**

<u>Line</u>	<u>Description</u>	<u>Amount</u>	<u>Reference</u>	<u>Line</u>
100	Total Annual Cost of Preferred Stock:	\$0	Line 208, Col 9	100
101	Total Reacquired Preferred Stock Cost:	\$0	Line 305, Col 6	101
102	<b>Total Annual Cost of Preferred:</b>	<b>\$0</b>	Line 100 + Line 101	<b>102</b>
103	Total Preferred Stock Amount Outstanding:	\$0	Line 208, Col 5	103
104	Total Premium/Discount	\$0	Line 208, Col 6	104
105	<b>Total Preferred Balance:</b>	<b>\$0</b>	Line 103 + Line 104	<b>105</b>
106	<b>Preferred Stock Cost Percentage:</b>	<b>#DIV/0!</b>	Line 102 / Line 105	<b>106</b>

**2) Preferred Stock Information for each Outstanding Series**

<u>Col 1</u>	<u>Col 2</u>	<u>Col 3</u>	<u>Col 4</u>	<u>Col 5</u>	<u>Col 6</u>	<u>Col 7</u>	<u>Col 8</u>	<u>Col 9</u>
PG&E Records Note 1	PG&E Records Note 1	FF1 250, col a	PG&E Records Note 1	FF1 251, col f	PG&E Records Note 1	FF1 251, col e	= Col 5 + Col 6	= Col 3 x Col 5 Note 2

<u>Line</u>	<u>Preferred Stock Series Name</u>	<u>Issue Date</u>	<u>Dividend Rate</u>	<u>Dividend</u>	<u>Face Value/ Amount Outstanding</u>	<u>Total Premium/ Discount Cost</u>	<u>Shares Outstanding</u>	<u>Net Proceeds at Issuance</u>	<u>Annual Dividend</u>	<u>Line</u>
200	A	3/28/1905	6.000%					\$0	\$0	200
201	B	4/12/1905	5.500%					\$0	\$0	201
202	C	7/9/1941	5.000%					\$0	\$0	202
203	D	6/28/1948	5.000%					\$0	\$0	203
204	E	5/4/1949	5.000%					\$0	\$0	204
205	G	1/25/1950	4.800%					\$0	\$0	205
206	H	6/22/1954	4.500%					\$0	\$0	206
207	I	10/25/1955	4.360%					\$0	\$0	207
208	<b>Total Amount Outstanding (sum of above):</b>				<b>\$0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>208</b>

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 5-CostofCap-4

**3) Reacquired Preferred Stock Information**

Col 1                      Col 2                      Col 3                      Col 4                      Col 5                      Col 6

	Preferred Stock	Call Date	Total Issuance Cost	Unamortized Issuance Cost	Amortization Period	Issuance Amortization Cost	Notes and Sources	
<u>Line</u>								<u>Line</u>
300								300
301								301
302								302
303								303
304								304
305	Total Annual Cost (sum of above):		\$ -	\$ -				305

**Notes:**

- 1) PG&E's Treasury uses an internal monthly Excel-based report to track historical information associated with preferred stock issuances. Due to the age of each preferred stock series, many of the original hard copy records are no longer available, and electronic records were not available at time of issuance.
- 2) Annual dividend calculation is comparable to the calculation described in 18 CFR 35.13 (22) (iii)



**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 6-PlantJurisdiction**

**Electric Distribution Plant by FERC Account**

Prior Year: -2

Input cells are shaded gold

**1) Adjustment of Electric Distribution Plant in FERC Form 1 for Prior Year:**

FERC Form 1 Distribution Plant balances are Prior Year ending balances from PG&E's FERC Form 1. Electric Distribution Plant represents the Distribution plant that is eligible for inclusion in rate base.

Line	FERC Account	Account Description	Col 1	Col 2	Col 3	Col 4	Col 5	Line
			FERC Form 1 Distribution Plant	Source for Col 1	Note 1 Note 2	Col 1 + Col 3	Formula Model Reference	
100	360	Land and Land Rights		FF1 207, L. 60, col g		\$0	7-PlantInService L 112, col 1 + 2	100
101	361	Structures and Improvements		FF1 207, L. 61, col g		\$0	7-PlantInService L 112, col 3 + 4	101
102	362	Station Equipment		FF1 207, L. 62, col g		\$0	7-PlantInService L 112, col 5	102
103	363	Storage Battery Equipment		FF1 207, L. 63, col g		\$0	7-PlantInService L 112, col 6 + 7	103
104	364	Poles, Towers, and Fixtures		FF1 207, L. 64, col g		\$0	7-PlantInService L 112, col 8	104
105	365	Overhead Conductors and Devices		FF1 207, L. 65, col g		\$0	7-PlantInService L 112, col 9	105
106	366	Underground Conduit		FF1 207, L. 66, col g		\$0	7-PlantInService L 112, col 10	106
107	367	Underground Conduit and Devices		FF1 207, L. 67, col g		\$0	7-PlantInService L 112, col 11	107
108	368	Line Transformers		FF1 207, L. 68, col g		\$0	7-PlantInService L 112, col 12 + 13	108
109	369	Services		FF1 207, L. 69, col g		\$0	7-PlantInService L 112, col 14 + 15	109
110	370	Meters		FF1 207, L. 70, col g		\$0	7-PlantInService L 112, col 16 + 17	110
111	371	Installations on Customer Premises		FF1 207, L. 71, col g		\$0	7-PlantInService L 112, Sum of col 18-20	111
112	372	Leased Property on Customer Premises		FF1 207, L. 72, col g		\$0	7-PlantInService L 112, col 21	112
113	373	Street Lighting and Signal Systems		FF1 207, L. 73, col g		\$0	7-PlantInService L 112, Sum of col 22-25	113
114	374	Asset Retirement Costs for Distribution Plant		FF1 207, L. 74, col g		\$0		114
115		<b>Total Electric Distribution Plant</b>	<b>\$0</b>			<b>\$0</b>	<b>\$0</b>	<b>115</b>

**2) Primary/Secondary Distribution Plant Allocation Factors**

Line	FERC Account	Account Description	Col 1	Col 2	Col 3	Col 4	Col 5	Line
			Adjusted Plant Balance	Primary Distribution	Secondary Distribution	Distribution Meters	Distribution Street Lights	
200	360	Land and Land Rights (Note 6)	\$0	#DIV/0!	#DIV/0!			200
201	361	Structures and Improvements	\$0					201
202	362	Station Equipment	\$0					202
203	363	Storage Battery Equipment	\$0					203
204	364	Poles, Towers, and Fixtures (Note 7)	\$0					204
205	365	Overhead Conductors and Devices (Note 7)	\$0					205
206	366	Underground Conduit (Note 7)	\$0					206
207	367	Underground Conduit and Devices (Note 7)	\$0					207
208	368	Line Transformers	\$0					208
209	369	Services	\$0					209
210	370	Meters	\$0					210
211	371	Installations on Customer Premises	\$0					211
212	372	Leased Property on Customer Premises	\$0					212
213	373	Street Lighting and Signal Systems	\$0					213
214		<b>Total Electric Distribution Plant</b>	<b>\$0</b>					<b>214</b>

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 6-PlantJurisdiction

**3) Allocation of Electric Distribution Plant to Primary/Secondary Distribution**

Line	FERC Account	Account Description	Col 1	Col 2	Col 3	Col 4	Col 5	Line
			Section 1, Col 4	Col 1 * Section 2, Col 2	Col 1 * Section 2, Col 3	Col 1 * Section 2, Col 4	Col 1 * Section 2, Col 5	
			Adjusted Plant Balance	Primary Distribution	Secondary Distribution	Distribution Meters	Distribution Street Lights	
300	360	Land and Land Rights	\$0	#DIV/0!	#DIV/0!	\$0	\$0	\$0 300
301	361	Structures and Improvements	\$0	\$0	\$0	\$0	\$0	\$0 301
302	362	Station Equipment	\$0	\$0	\$0	\$0	\$0	\$0 302
303	363	Storage Battery Equipment	\$0	\$0	\$0	\$0	\$0	\$0 303
304	364	Poles, Towers, and Fixtures	\$0	\$0	\$0	\$0	\$0	\$0 304
305	365	Overhead Conductors and Devices	\$0	\$0	\$0	\$0	\$0	\$0 305
306	366	Underground Conduit	\$0	\$0	\$0	\$0	\$0	\$0 306
307	367	Underground Conduit and Devices	\$0	\$0	\$0	\$0	\$0	\$0 307
308	368	Line Transformers	\$0	\$0	\$0	\$0	\$0	\$0 308
309	369	Services	\$0	\$0	\$0	\$0	\$0	\$0 309
310	370	Meters	\$0	\$0	\$0	\$0	\$0	\$0 310
311	371	Installations on Customer Premises	\$0	\$0	\$0	\$0	\$0	\$0 311
312	372	Leased Property on Customer Premises	\$0	\$0	\$0	\$0	\$0	\$0 312
313	373	Street Lighting and Signal Systems	\$0	\$0	\$0	\$0	\$0	\$0 313
314	Total Electric Distribution Plant		\$0	#DIV/0!	#DIV/0!	\$0	\$0	\$0 314
						Note 4	Note 5	

**4) Development of Primary/Secondary Distribution General Allocation Factor**

Line	Year	Description	Col 1	Col 2	Col 3	Col 4	Line
			Section 3, Line 314 Col 2/Col 1	Section 3, Line 314 Col 3/Col 1	Section 3, Line 314 Col 4/Col 1	Section 3, Line 314 Col 5/Col 1	
			Primary Distribution	Secondary Distribution	Distribution Meters	Distribution Street Lights	
400	-2	Primary/Secondary General Allocation Factor	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	400

**Notes:**

- 1) These adjustments are due to small differences between recorded rate base and how costs were classified in PG&E's FERC Form 1.
- 2) FERC Account 374 - Asset Retirement Costs for Distribution Plant is not included in rate base.
- 3) Electric Distribution Plant balances were assigned to cost categories for Primary and Secondary distribution based on engineering reviews, observations of equipment, and studies.
- 4) Distribution Meters are not included in the Wholesale Distribution Tariff.
- 5) Distribution Street Lights are not included in the Wholesale Distribution Tariff.
- 6) For Land and Land Rights, the Primary percentage is calculated by summing Col 2, Lines 301 to 313, then dividing the sum of Cols 2 and 3, Lines 301 to 313. The secondary percentage is 1 minus the primary percentage.
- 7) See Workpaper WP\_6-PlantJurisdiction

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Pacific Gas and Electric Company  
 Periodic Rate Model  
 Schedule 7 Plants/Service

Four Year - 3

Electric Distribution Plant in Service  
 (Worksheet and Annual Total)

11 Electric Distribution Functional Plant

Electric Distribution Plant balances are extracted from PowerPlant, PG&E's fixed asset system of record, by grouping by Asset Class, REC Account and UCC. The monthly balances in rows 102-111 are the end-of-month balances for the four year and December of four year - 3.

Line	Month	REC Account	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25	Col 26	Col 27	Col 28	Col 29	Col 30	Col 31	Col 32	Col 33	Col 34	Col 35	Col 36	Total of Col 1-25	Line	
102	January	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	
103	February	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103
104	March	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104
105	April	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105
106	May	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106
107	June	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107
108	July	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108
109	August	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109
110	September	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110
111	October	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111
112	November	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112
113	December	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113
113	13 Month Average	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113

12 Electric Distribution Functional Plant - Primary Distribution

Total Electric Distribution Plant (Section 1) is allocated to Primary and Secondary Distribution using allocation factors shown on 6-Plant/Production, Lines 200-213.

Line	Month	REC Account	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25	Col 26	Col 27	Col 28	Col 29	Col 30	Col 31	Col 32	Col 33	Col 34	Col 35	Col 36	Total of Col 1-25	Line	
200	January	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	
201	February	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201
202	March	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	202
203	April	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203
204	May	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204
205	June	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	205
206	July	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206
207	August	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	207
208	September	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208
209	October	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	209
210	November	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210
211	December	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211
212	13 Month Average	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	212



Electric Distribution Plant in Service

Worksheet: [Worksheet: EDP](#)

6) Corporate Services (Gas and Electric) Residual Common, General and Intangible (CG) Plant

Corporate Services (Gas and Electric) Residual Common, General and Intangible (CG) Plant is extracted from PowerPlant, PGE's fixed asset system of record, by querying by Asset Class, FERC Account and UCC. Corporate Services (Gas and Electric) Residual CG Plant is allocated to Line of Business based on O&M labor factors.

Line	Month	Year	CG1		CG2		CG3		CG4		CG5		Line
			Total P&L Residual CG	Electric Distribution O&M Labor Factor	Wholesale Distribution Corporate CG	Electric Distribution O&M Labor Factor	Primary Distribution	Secondary Distribution	Primary Distribution	Secondary Distribution			
600	December	-1	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	600	
601	December	-2	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	601	
602	Average	-2	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	602	

6) Corporate Services (Electric) Residual Common, General and Intangible (CG) Plant

Corporate Services (Electric) Residual Common, General and Intangible (CG) Plant is extracted from PowerPlant, PGE's fixed asset system of record, by querying by Asset Class, FERC Account and UCC. Corporate Services (Electric) Residual CG Plant is allocated to Line of Business based on O&M labor factors.

Line	Month	Year	CG1		CG2		CG3		CG4		CG5		Line
			Total Electric Residual CG	Electric Distribution O&M Labor Factor	Wholesale Distribution Corporate CG	Electric Distribution O&M Labor Factor	Primary Distribution	Secondary Distribution	Primary Distribution	Secondary Distribution			
600	December	-1	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	600	
601	December	-2	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	601	
602	Average	-2	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	602	

7) Total Electric Distribution Common, General and Intangible (CG) Plant

Total Electric Distribution Common, General and Intangible (CG) Plant is the total of the Direct Assigned CG Plant (Sections 4) and the residual CG Plant (Sections 5 & 6) allocated to Electric Distribution.

Line	Month	Year	CG1		CG2		CG3		CG4		CG5		Line
			Total of Section 4 & 6	Primary Distribution	Secondary Distribution	Total of Section 4 & 6	Primary Distribution	Secondary Distribution	Total of Section 4 & 6	Primary Distribution	Secondary Distribution		
700	December	-1	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	700	
701	December	-2	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	701	
702	Average	-2	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	401V/0	702	

Notes:

- 1) Electric Distribution Direct Assigned CG Plant is Plant in FERC Accounts 189-200 to 300-300 that serves only Electric Distribution. For Prior Year amounts, see WP\_7 Plant/Service 4.1.1.12, col 7-10.
- 2) Corporate Gas and Electric Residual CG Plant in FERC Accounts 189-200 to 300-300 that serves all P&L Gas and Electric Lines of Business. For Prior Year amounts, see WP\_7 Plant/Service 4.1.1.12, col 14.
- 3) Corporate (Electric) Residual CG Plant is Plant in FERC Accounts 189-200 to 300-300 that serves P&L Electric Lines of Business only. For Prior Year amounts, see WP\_7 Plant/Service 4.1.1.12, col 15.

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 8-DemandForAllocation

System Demand

Prior Year: -2

Input cells are shaded gold

**1) Wholesale Distribution Tariff Demand for Allocation (kW) (Note 1)**

**Diversified Peak (DP):** For each PG&E WOT Distribution Customer, the highest monthly demand coincident among each Distribution Customer's points of interconnection. For Customers with one point of interconnection, the Diversified Peak Demand and the Non-Coincident Peak Demand will be the same.

**Non-Coincident Peak (NCP):** The Distribution Customer's highest monthly demand irrespective of the date or time the peak occurred in that month. For Customers with more than one POI, the NCP is a sum of each POIs NCP.

Line	Month											...	Line
100	January	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	100
101	February	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	101
102	March	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	102
103	April	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	103
104	May	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	104
105	June	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	105
106	July	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	106
107	August	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	107
108	September	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	108
109	October	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	109
110	November	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	110
111	December	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	111
112	<b>Total</b>	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	112
113	<b>Maximum</b>	#DIV/0!	0	0	#DIV/0!	0	0	0	#DIV/0!	0	0	0	113

**2) Summary of System Demand for Allocation (kW)**

Line	Allocation Factor Names and Mnemonics	Col 1 (Sum Cols 2 - 3)	Col 2 (Note 3)	Col 3 (Sum Cols 4 - 10)	Col 4 (Note 4)	Col 5 (Note 4)	Col 6 (Note 4)	Col 7 (Note 4)	Col 8 (Note 4)	Col 9 (Note 4)	Col 10 (Note 4)	...	Line
200	Production Demand (DEMD 1) (CP)	0		0	0	0	0	0	0	0	0	0	200
201	High Voltage (DEMD 4) (CP)	0		0	0	0	0	0	0	0	0	0	201
202	Low Voltage (DEMD 5) (CP)	0		0	0	0	0	0	0	0	0	0	202
203	Distribution - Substa (DEMD 6) (DP)	#DIV/0!		#DIV/0!	#DIV/0!	0	#DIV/0!	0	0	#DIV/0!	0	0	203
204	Overhead Primary Line (DEMD 7) (DP)	#DIV/0!		#DIV/0!	#DIV/0!	0	#DIV/0!	0	0	#DIV/0!	0	0	204
205	Underground Primary Line (DEMD 8) (DP)	#DIV/0!		#DIV/0!	#DIV/0!	0	#DIV/0!	0	0	#DIV/0!	0	0	205
206	Line Transformers (DEMD 9) (NCP)	0		0	0	0	0	0	0	0	0	0	206
207	Overhead Secondary Line (DEMD 10) (NCP)	0		0	0	0	0	0	0	0	0	0	207
208	Underground Secondary Line (DEMD 11) (NCP)	0		0	0	0	0	0	0	0	0	0	208
209	Services (DEMD 12) (NCP)	0		0	0	0	0	0	0	0	0	0	209

**Note 1:** Primary and Secondary Demand data is from Schedule 9-Wholesale Revenues, lines 113 - 124 for Primary and lines 313 - 324 for Secondary.

**Note 2:** The monthly Primary Demands for Customers with Secondary loads is calculated using this formula: Recorded Primary DP Demand + [Recorded Secondary DP Demand \* (1.13848 / 1.07414)]. The loss factor 1.07414 is found in 15-LossFactors, col 1, line 103 and the loss factor 1.13848 is found in 15-LossFactors, col 1, line 104.

**Note 3:** Total recorded Retail System Coincident Peaks (CP) (DEMD 1 - 5), Diversified Peaks (DP) (DEMD 6 - 8), and Non-Coincident Peaks (NCP) (DEMD 9 -12) for the Prior Year.

**Note 4:** For each Customer, the sources for DEMD 6 - 8 and DEMD 9 - 12 are found on Line 113.

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 9-WholesaleRevenues**

Wholesale Distribution Revenues

Prior Year: -2

Input cells are shaded gold

**1) Prior Year Wholesale Primary Demand (kW) (Note 1)**

Instructions: Add any new customers during the Annual Update Process.

**Diversified Peak (DP):** For each PG&E WDT Distribution Customer, the highest monthly demand coincident among each Distribution Customer's points of interconnection. For Customers with one point of interconnection, the Diversified Peak Demand and the Non-Coincident Peak Demand will be the same.

**Non-Coincident Peak (NCP):** The Distribution Customer's highest monthly demand irrespective of the date or time the peak occurred in that month. For Customers with more than one POI, the NCP is a sum of each POIs NCP.

**Non-Coincident Peak (NCP)**

Line	Month								...	Line
100	January									100
101	February									101
102	March									102
103	April									103
104	May									104
105	June									105
106	July									106
107	August									107
108	September									108
109	October									109
110	November									110
111	December									111
112	<b>Total</b>	0	0	0	0	0	0	0	0	112

**Diversified Peak (DP)**

Line	Month	0	0	0	0	0	0	0	...	Line
113	January									113
114	February									114
115	March									115
116	April									116
117	May									117
118	June									118
119	July									119
120	August									120
121	September									121
122	October									122
123	November									123
124	December									124
125	<b>Total</b>	0	0	0	0	0	0	0	0	125

**2) Prior Year Wholesale Primary Distribution Revenue (Note 2)**

Instructions: Add any new customers during the Annual Update Process.

Line	Month	0	0	0	0	0	0	0	...	Line
200	January									200
201	February									201
202	March									202
203	April									203
204	May									204
205	June									205
206	July									206
207	August									207
208	September									208
209	October									209
210	November									210
211	December									211
212	<b>Total</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	212

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 9-WholesaleRevenues

**3) Prior Year Wholesale Secondary Demand (kW) (Note 1)**

Non-Coincident Peak (NCP)					
Line	Month				Line
300	January				300
301	February				301
302	March				302
303	April				303
304	May				304
305	June				305
306	July				306
307	August				307
308	September				308
309	October				309
310	November				310
311	December				311
312	<b>Total</b>	0	0	0	312

Diversified Peak (DP)					
Line	Month	0	0	0	Line
313	January				313
314	February				314
315	March				315
316	April				316
317	May				317
318	June				318
319	July				319
320	August				320
321	September				321
322	October				322
323	November				323
324	December				324
325	<b>Total</b>	0	0	0	325

**4) Prior Year Wholesale Secondary Distribution Revenue (Note 2)**

Line	Month	0	0	0	Line
400	January				400
401	February				401
402	March				402
403	April				403
404	May				404
405	June				405
406	July				406
407	August				407
408	September				408
409	October				409
410	November				410
411	December				411
412	<b>Total</b>	\$0.00	\$0.00	\$0.00	412

**Note 1:** Data is from each Customer's monthly billed Non-Coincident Peak demand.

**Note 2:** The Prior Year Primary and Secondary monthly Revenue can be found on each Customer's monthly bill.



Pacific Gas and Electric Company  
 Form 941-AM-000  
 Schedule 10-AccDep

Accumulated Depreciation for Electric Distribution Assets  
 Report with an attached schedule.

Prior Year: 2

1) Total Accumulated Depreciation for Electric Distribution Functional Plant

Accumulated Depreciation balances for Electric Distribution Plants are extracted from PowerPlant, PG&E's fixed asset system of record, by querying by Asset Class, PERC Account and UCC. The monthly balances in Lines 100-112 are the end-of-month balances for Prior Year and December of Prior Year - 1.

Line	Month	FERC Account	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25	Total	Line
			100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124		
100	December	-	EXP2601	EXP2602	EXP2603	EXP2604	EXP2605	EXP2606	EXP2607	EXP2608	EXP2609	EXP2610	EXP2611	EXP2612	EXP2613	EXP2614	EXP2615	EXP2616	EXP2617	EXP2618	EXP2619	EXP2620	EXP2621	EXP2622	EXP2623	EXP2624	EXP2625	0	100
101	January	-																									0	101	
102	February	-																									0	102	
103	March	-																									0	103	
104	April	-																									0	104	
105	May	-																									0	105	
106	June	-																									0	106	
107	July	-																									0	107	
108	August	-																									0	108	
109	September	-																									0	109	
110	October	-																									0	110	
111	November	-																									0	111	
112	December	-																									0	112	
113	12 Month Average	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113

2) Accumulated Depreciation for Electric Distribution Functional Plant - Primary Distribution

Total Accumulated Depreciation balances for Electric Distribution Plant (Section 2) is allocated to Primary and Secondary Distribution using allocation factors shown on 6-PlantIndicators, Lines 200-213.

Line	Month	FERC Account	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25	Total	Line	
			Section 1, Col 1 * 6-PlantIndicators, L. 200, Col 2	Section 1, Col 2 * 6-PlantIndicators, L. 200, Col 2	Section 1, Col 3 * 6-PlantIndicators, L. 201, Col 2	Section 1, Col 4 * 6-PlantIndicators, L. 201, Col 2	Section 1, Col 5 * 6-PlantIndicators, L. 202, Col 2	Section 1, Col 6 * 6-PlantIndicators, L. 202, Col 2	Section 1, Col 7 * 6-PlantIndicators, L. 203, Col 2	Section 1, Col 8 * 6-PlantIndicators, L. 204, Col 2	Section 1, Col 9 * 6-PlantIndicators, L. 205, Col 2	Section 1, Col 10 * 6-PlantIndicators, L. 206, Col 2	Section 1, Col 11 * 6-PlantIndicators, L. 207, Col 2	Section 1, Col 12 * 6-PlantIndicators, L. 208, Col 2	Section 1, Col 13 * 6-PlantIndicators, L. 208, Col 2	Section 1, Col 14 * 6-PlantIndicators, L. 208, Col 2	Section 1, Col 15 * 6-PlantIndicators, L. 208, Col 2	Section 1, Col 16 * 6-PlantIndicators, L. 210, Col 2	Section 1, Col 17 * 6-PlantIndicators, L. 210, Col 2	Section 1, Col 18 * 6-PlantIndicators, L. 211, Col 2	Section 1, Col 19 * 6-PlantIndicators, L. 211, Col 2	Section 1, Col 20 * 6-PlantIndicators, L. 211, Col 2	Section 1, Col 21 * 6-PlantIndicators, L. 212, Col 2	Section 1, Col 22 * 6-PlantIndicators, L. 213, Col 2	Section 1, Col 23 * 6-PlantIndicators, L. 213, Col 2	Section 1, Col 24 * 6-PlantIndicators, L. 213, Col 2	Section 1, Col 25 * 6-PlantIndicators, L. 213, Col 2			
200	December	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	200
201	January	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	201
202	February	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	202
203	March	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	203
204	April	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	204
205	May	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	205
206	June	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	206
207	July	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	207
208	August	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	208
209	September	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	209
210	October	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	210
211	November	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	211
212	December	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	212
213	12 Month Average	-	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	MDV00	0	213



**Accumulated Depreciation for Electric Distribution Assets**

**Notes to the Schedule 10-Accounts:**

**1) Accumulated Depreciation for Corporate Services (Gas and Electric) Residual CGU Plant**

Accumulated Depreciation balances for Corporate Services (Gas and Electric) Residual CGU Plant are extracted from PowerPlant, PG&E's fixed asset system of record, by querying by Asset Class, FERC Account and UCC. Corporate Services (Gas and Electric) Residual CGU is allocated to Line of Business based on O&M labor factors.

Line	Month	Start	Total PG&E Residual CGU	Electric		Wholesale		Secondary	
				CGU 1	CGU 2	CGU 3	CGU 4	CGU 5	CGU 6
500	December	-3		24 Allocation, Line 113	Col 1 * Col 2	Col 3 * Col 4	Col 5 * Col 6	6-Plant/Production, L, 400, 400, col 1	6-Plant/Production, L, 400, col 2
500	December	-3		Electric Distribution	CGU Labor Factor	Wholesale Distribution	Corporate CGU	Primary Distribution	Secondary Distribution
500	December	-3		MDV01	MDV01	MDV01	MDV01	MDV01	MDV01
500	December	-3		MDV01	MDV01	MDV01	MDV01	MDV01	MDV01
500	Average	-3		MDV01	MDV01	MDV01	MDV01	MDV01	MDV01

**2) Accumulated Depreciation for Corporate Services (Electric) Residual CGU Plant**

Accumulated Depreciation balances for Corporate Services (Electric) Residual CGU Plant are extracted from PowerPlant, PG&E's fixed asset system of record, by querying by Asset Class, FERC Account and UCC. Corporate Services (Electric) Residual CGU is allocated to Line of Business based on O&M labor factors.

Line	Month	Start	Total Electric Residual CGU	Electric		Wholesale		Secondary	
				CGU 1	CGU 2	CGU 3	CGU 4	CGU 5	CGU 6
600	December	-3		24 Allocation, Line 113	Col 1 * Col 2	Col 3 * Col 4	Col 5 * Col 6	6-Plant/Production, L, 400, 400, col 1	6-Plant/Production, L, 400, col 2
600	December	-3		Electric Distribution	CGU Labor Factor	Wholesale Distribution	Corporate CGU	Primary Distribution	Secondary Distribution
600	December	-3		MDV01	MDV01	MDV01	MDV01	MDV01	MDV01
600	December	-3		MDV01	MDV01	MDV01	MDV01	MDV01	MDV01
600	Average	-3		MDV01	MDV01	MDV01	MDV01	MDV01	MDV01

**3) Total Accumulated Depreciation for Electric Distribution Common, General and Intangible (CGU) Plant**

Total Electric Distribution Accumulated Depreciation for Common, General and Intangible (CGU) Plant is the total of the Direct Assigned CGU Plant (Section 4) and the residual CGU Plant (Sections 5-6) allocated to Electric Distribution.

Line	Month	Start	Total of Sections 4-6	Total of Sections 4-6	
				Primary Distribution	Secondary Distribution
700	December	-3		MDV01	MDV01
700	December	-3		MDV01	MDV01
700	Average	-3		MDV01	MDV01

**Notes:**

- 1) Plant is Distribution Direct Assigned CGU Plant in FERC Accounts 389-399 or 301-303 that serves only Electric Distribution. For Prior Year amounts, see WP\_10-Accounts A, L, 122, col 7 & 8.
- 2) Corporate (Gas and Electric) Residual CGU Plant in FERC Accounts 389-399 or 301-303 that serves PG&E Gas and Electric Lines of Business. For Prior Year amounts, see WP\_10-Accounts A, L, 122, col 14.
- 3) Corporate (Electric) Residual CGU Plant in FERC Accounts 389-399 or 301-303 that serves PG&E Electric Lines of Business only. For Prior Year amounts, see WP\_10-Accounts A, L, 122, col 15.

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 11-Depreciation

Electric Distribution Depreciation Expense  
Input cells are shaded gold

Prior Year: 2

1) Depreciation Expense for Electric Distribution Functional Plant

Prior Year recorded Depreciation Expense is extracted from PowerPlant, PG&E's fixed asset system of record, by querying by Asset Class. It is then allocated to UCC and Line of Business based on Prior Year ending plant balances. Total Depreciation Expense for Electric Distribution Plant (Line 100) is allocated to Primary Distribution (Line 101) and Secondary Distribution (Line 102) using allocation factors shown on 6-PlantJurisdiction, Lines 200-211.

Line	Year	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25	Col 26	Total	Line	
100	2	EDP36001	EDP36002	EDP36101	EDP36102	EDP36200	EDP36300	EDP36301	EDP36400	EDP36500	EDP36600	EDP36700	EDP36801	EDP36802	EDP36901	EDP36902	EDP37000	EDP37001	EDP37100	EDP37101	EDP37102	EDP37200	EDP37301	EDP37302	EDP37303	EDP37304		\$0	100	
101	2	#DIV/0!	#DIV/0!	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!	101
102	2	#DIV/0!	#DIV/0!	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!	102

2) Depreciation Expense for Direct Assigned Common, General and Intangible (CGI) Plant

Depreciation Expense for Direct Assigned CGI Plant is extracted from PowerPlant, PG&E's fixed asset system of record, by querying by Asset Class. It is then allocated to UCC and Line of Business based on Prior Year ending plant balances.

Line	Year	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25	Col 26	Total	Line	
200	2																												\$0	200

3) Depreciation Expense for Corporate Services (Gas and Electric) Residual Common, General and Intangible (CGI) Plant

Depreciation Expense for Corporate Services (Gas and Electric) Residual CGI Plant is extracted from PowerPlant, PG&E's fixed asset system of record, by querying by Asset Class. It is allocated to UCC based on Prior Year ending plant balances and to Line of Business based on O&M labor factors.

Line	Year	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Col 16	Col 17	Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25	Col 26	Total	Line	
300	2																												\$0	300

Electric Distribution Depreciation Expense  
Input cells are shaded gold

Prior Year: 2

4) Depreciation Expense for Corporate Services (Electric) Residual Common, General and Intangible (CGI) Plant

Depreciation Expense for Corporate Services (Electric) Residual CGI Plant is extracted from PowerPlant, PG&E's fixed asset system of record, by querying by Asset Class. It is allocated to UCC based on Prior Year ending plant balances and to Line of Business based on O&M labor factors.

Line	Year	Col 1 Note 3	Col 2 24-Allocators, Line 112	Col 3 Col 1 * Col 2	Col 4 Col 4 * 6-PlantJurisdiction, L 400, col 1	Col 5 Col 5 * 6-PlantJurisdiction, L 400, col 2	Total PG&E Electric Residual CGI	Electric Distribution O&M Labor Factor #DVU/DI	Wholesale Distribution Corporate CGI #DVU/DI	Primary Distribution #DVU/DI	Secondary Distribution #DVU/DI	Line
400	2											400

5) Total Depreciation Expense for Electric Distribution Common, General and Intangible (CGI) Plant

Total Depreciation Expense for Electric Distribution CGI Plant is the total of the amount related to Direct Assigned CGI Plant (Section 2) and amounts related to Residual CGI Plant (Sections 3-4) allocated to Electric Distribution.

Line	Year	Col 1 Total of Sections 2-4	Col 2 Total of Sections 2-4	Primary Distribution #DVU/DI	Secondary Distribution #DVU/DI See WP 11-Depreciation 5, L 122, col 7 & 8	Line
500	2					500

Notes:

- 1) Electric Distribution Direct Assigned CGI Plant is Plant in FERC Accounts 389-399 or 301-303 that serves only Electric Distribution. For Prior Year Electric Distribution Direct Assigned CGI Depreciation Expense, see WP\_11-Depreciation 3, L 122, col 7-10.
- 2) Corporate (Gas and Electric) Residual CGI Plant is Plant in FERC Accounts 389-399 or 301-303 that serves all PG&E Gas and Electric Lines of Business. For Prior Year Depreciation Expense for Corporate (Gas and Electric) Residual CGI Plant, see WP\_11-Depreciation 3, L 122, col 14.
- 3) Corporate (Electric) Residual CGI Plant is Plant in FERC Accounts 389-399 or 301-303 that serves PG&E Electric Lines of Business only. For Prior Year Depreciation Expense for Corporate (Electric) Residual CGI Plant, see WP\_11-Depreciation 3, L 122, Col 15.

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 12-DepRates**

PRIOR YEAR DEPRECIATION RATES (Note 1)

Prior Year: -2

**1) CPUC Approved Depreciation Rates for Electric Distribution Plant**

<u>Line</u>	<u>Functional Group</u>	<u>FERC Account</u>	<u>Asset Class</u>	<u>Asset Class Description</u>	<u>Depreciation</u>	
					<u>Accrual Rates</u>	<u>Line</u>
100	EDP	360.01	EDP36001	LAND	0.00%	100
101	EDP	360.02	EDP36002	LAND RIGHTS	3.31%	101
102	EDP	361.01	EDP36101	STRUCTURES AND IMPROVEMENTS	1.59%	102
103	EDP	361.02	EDP36102	STRUCTURES AND IMPROVEMENTS - EQUIPMENT	1.66%	103
104	EDP	362	EDP36200	STATION EQUIPMENT	3.06%	104
105	EDP	363	EDP36300	STORAGE BATTERY EQUIPMENT	3.74%	105
106	EDP	363.01	EDP36301	ENERGY STORAGE	6.62%	106
107	EDP	364	EDP36400	POLES, TOWERS AND FIXTURES	6.07%	107
108	EDP	365	EDP36500	OVERHEAD CONDUCTORS AND DEVICES	3.96%	108
109	EDP	366	EDP36600	UNDERGROUND CONDUIT	2.41%	109
110	EDP	367	EDP36700	UNDERGROUND CONDUCTORS AND DEVICES	3.12%	110
111	EDP	368.01	EDP36801	LINE TRANSFORMERS - OVERHEAD	4.39%	111
112	EDP	368.02	EDP36802	LINE TRANSFORMERS - UNDERGROUND	3.91%	112
113	EDP	369.01	EDP36901	SERVICES - OVERHEAD	3.98%	113
114	EDP	369.02	EDP36902	SERVICES - UNDERGROUND	2.71%	114
115	EDP	370	EDP37000	METERS	6.86%	115
116	EDP	370.01	EDP37001	METERS	6.86%	116
117	EDP	371	EDP37100	INSTALLATIONS ON CUSTOMERS' PREMISES	0.00%	117
118	EDP	372	EDP37200	LEASED PROPERTY ON CUSTOMERS' PREMISES	0.00%	118

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 12-DepRates**

**2) CPUC Approved Depreciation Rates for Common, General and Intangible (CGI) Plant**

<u>Line</u>	<u>Functional Group</u>	<u>FERC Account</u>	<u>Asset Class</u>	<u>Asset Class Description</u>	<u>Depreciation Accrual Rates</u>	<u>Line</u>
200			CMP30101	ORGANIZATION - COMMON PLANT	0.00%	200
201			CMP30200	FRANCHISES AND CONSENTS - COMMON PLANT	0.00%	201
202			CMP30301	MISCELLANEOUS INTANGIBLE PLANT	3.39%	202
203			CMP30302	SOFTWARE	17.36%	203
204			CMP30304	SOFTWARE CIS	9.01%	204
205			CMP38901	LAND - COMMON PLANT	0.00%	205
206			CMP38902	LAND RIGHTS	2.58%	206
207			CMP39000	STRUCTURES AND IMPROVEMENTS	1.97%	207
208			CMP39001	COMM PLANT: LEASEHOLD IMPR	20.00%	208
209			CMP39101	OFFICE MACHINES	27.31%	209
210			CMP39102	PC HARDWARE	14.17%	210
211			CMP39103	OFFICE FURNITURE AND EQUIPMENT	7.50%	211
212			CMP39104	OFFICE MACHINES AND COMPUTER EQUIPMENT - CIS - FULLY ACCRUED	27.31%	212
213			CMP39201	TRANSPORTATION EQUIPMENT - AIR	1.36%	213
214			CMP39202	TRANSPORTATION EQUIPMENT - CLASS P	13.48%	214
215			CMP39203	TRANSPORTATION EQUIPMENT - CLASS C2	9.92%	215
216			CMP39204	TRANSPORTATION EQUIPMENT - CLASS C4	10.13%	216
217			CMP39205	TRANSPORTATION EQUIPMENT - CLASS T1	10.11%	217
218			CMP39206	TRANSPORTATION EQUIPMENT - CLASS T3	9.10%	218
219			CMP39207	TRANSPORTATION EQUIPMENT - CLASS T4	6.82%	219
220			CMP39208	TRANSPORTATION EQUIPMENT - VESSELS	4.15%	220
221			CMP39209	TRANSPORTATION EQUIPMENT - TRAILERS	3.07%	221
222			CMP39300	STORES EQUIPMENT	6.25%	222
223			CMP39400	TOOLS, SHOP AND GARAGE EQUIPMENT	3.34%	223
224			CMP39500	LABORATORY EQUIPMENT	7.77%	224
225			CMP39600	POWER OPERATED EQUIPMENT	6.45%	225
226			CMP39701	COMMUNICATION EQUIPMENT - NON-COMPUTER	14.45%	226
227			CMP39702	COMMUNICATION EQUIPMENT - COMPUTER	20.47%	227
228			CMP39703	COMMUNICATION EQUIPMENT - RADIO SYSTEMS	15.25%	228
229			CMP39704	COMMUNICATION EQUIPMENT - VOICE SYSTEMS	14.61%	229
230			CMP39705	COMMUNICATION EQUIPMENT - TRANSMISSION SYSTEMS	4.79%	230
231			CMP39706	COMMUNICATION EQUIPMENT - TRANSMISSION SYSTEMS, GAS AMI	5.14%	231
232			CMP39707	COMMUNICATION EQUIPMENT - TRANSMISSION SYSTEMS, ELECTRIC AMI	0.83%	232
233			CMP39708	AMI COMMUNICATION NETWORK	4.87%	233
234			CMP39800	MISCELLANEOUS EQUIPMENT	5.36%	234
235			CMP39900	OTHER TANGIBLE PROPERTY	0.21%	235
236			EGP38901	LAND	0.00%	236
237			EGP38902	LAND RIGHTS	2.99%	237
238			EGP39000	STRUCTURES AND IMPROVEMENTS	1.58%	238
239			EGP39100	OFFICE FURNITURE AND EQUIPMENT	5.93%	239
240			EGP39400	TOOLS, SHOP AND WORK EQUIPMENT	3.94%	240
241			EGP39500	LABORATORY EQUIPMENT	4.74%	241
242			EGP39600	POWER OPERATED EQUIPMENT	7.89%	242
243			EGP39700	COMMUNICATION EQUIPMENT	6.92%	243
244			EGP39708	AMI COMMUNICATION NETWORK	4.96%	244
245			EGP39800	MISCELLANEOUS EQUIPMENT	6.85%	245
246			EIP30201	FRANCHISES AND CONSENTS	2.40%	246
247			EIP30301	USBR - LIMITED TERM ELECTRIC	0.00%	247
248			EIP30303	COMPUTER SOFTWARE	20.42%	248

**Notes:**

1) See CPUC Decision 20-12-005. In the event the CPUC modifies these depreciation rates in the future, PG&E will make a Section 205 filing and update the rates in the next Annual Update.

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Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 13-WorkCap

Calculation of Components of Working Capital

Prior Year: -2

Input cells are shaded gold

**1) Calculation of Materials and Supplies**

Materials and Supplies balances are recorded in FERC Account 154.

Line	Month	Year	Col 1	Col 2	Line	
			Note 1	Note 2		
			Total Company	Electric		
			Materials & Supplies	Distribution		
100	December	-3			100	
101	January	-2			101	
102	February	-2			102	
103	March	-2			103	
104	April	-2			104	
105	May	-2			105	
106	June	-2			106	
107	July	-2			107	
108	August	-2			108	
109	September	-2			109	
110	October	-2			110	
111	November	-2			111	
112	December	-2			112	
113	13-Month Average		\$0	\$0	113	

**2) Calculation of Prepayments**

Prepaid property insurance is allocated to Electric Distribution (ED) based on plant ratios. Prepaid liability insurance is allocated to ED based on a 50% plant, 50% labor ratio. Other prepayments are allocated to ED based on the labor ratio.

Line	Month	Year	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Line
			Data Source:		FF1 111, L. 57, col c and d	Note 3 Less:	col 3 - col 4	Note 4	Note 5	Note 6	
			Total Prepayments	Direct Assignments	Adjusted Total	Detail of Adjusted Total Prepays					
						Property Insurance	Liability Insurance	Misc.			
200	December	-3			\$0						200
201	January	-2			\$0						201
202	February	-2			\$0						202
203	March	-2			\$0						203
204	April	-2			\$0						204
205	May	-2			\$0						205
206	June	-2			\$0						206
207	July	-2			\$0						207
208	August	-2			\$0						208
209	September	-2			\$0						209
210	October	-2			\$0						210
211	November	-2			\$0						211
212	December	-2			\$0						212



**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 13-WorkCap**

**Calculation of Components of Working Capital**

Prior Year: -2

Input cells are shaded gold

Allocation Method to Electric Distribution					Plant Ratio	50% Plant / 50% Labor Average	Labor Ratio	
					#DIV/0!	#DIV/0!	#DIV/0!	
<b>213</b>	Allocation Factor	24-Allocators, L. 116, L. 120, L. 113						<b>213</b>
		(Sum Line 200 to Line 212) / 13						
<b>214</b>	<b>a) 13 Month Avg Calculation</b>		\$0	\$0	\$0	\$0	\$0	<b>214</b>
<b>215</b>	Allocated Prepayments	Line 213 * Line 214			#DIV/0!	#DIV/0!	#DIV/0!	<b>215</b>
<b>216</b>	<b>b) EOY Calculation</b>	Line 212	\$0	\$0	\$0	\$0	\$0	<b>216</b>
<b>217</b>	Allocated Prepayments	Line 213 * Line 216			#DIV/0!	#DIV/0!	#DIV/0!	<b>217</b>

**Notes:**

Note 1: Materials and Supplies month-end balances are extracted from SAP by querying by General Ledger (GL) Account. December balances are from FF1 227, L. 12, cols b and c.

Note 2: PG&E's supply chain management team uses specific material codes to assign recorded inventory balances to Electric Distribution.

Note 3: PG&E conducted a query of the subaccounts of General Ledger (GL) Account 165 and removed all prepayments that are directly assigned to PG&E's Generation department in col 4.

Note 4: PG&E conducted a query of GL Acct 165 for prepaid amounts related to A&G account 924 property insurance and reflected the month-end recorded balances in col 6.

Note 5: PG&E conducted a query of GL Acct 165 for prepaid amounts related to A&G account 925 general liability insurance and reflected the month-end recorded balances in col 7.

Note 6: PG&E conducted a query of GL Acct 165 for other prepaid amounts consisting of Acct 308.1 excise taxes, property taxes and miscellaneous and reflected the month-end recorded balances in col 8.

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 14-ADIT

Prior Year: -2

Accumulated Deferred Income Taxes

Input cells are shaded gold

Debit balances are positive, Credit balances are negative

1) Summary of Accumulated Deferred Income Taxes

a) End of Year Accumulated Deferred Income Taxes

Line	Account	Col 1	Col 2	Col 3	Line
			<b>Total Recorded ADIT</b>	<b>Source</b>	
100	Account 190		#DIV/0!	Line 212, Col. 2	100
101	Account 282		#DIV/0!	Line 309, Col. 2	101
102	Account 283		#DIV/0!	Line 406, Col. 2	102
103	Account 255		#DIV/0!	Line 506, Col. 2	103
104	Total Accumulated Deferred Income Taxes		#DIV/0!	Sum of Lines 100 to 103	104

b) Beginning of Year Accumulated Deferred Income Taxes

105	Total Accumulated Deferred Income Taxes		<b>BOY ADIT</b>	<b>Source</b>	
			#DIV/0!	WP_14-ADIT 1, L. 100, col 7	105

c) Average of Beginning and End of Year Accumulated Deferred Income Taxes

106	Weighted Average ADIT:		<b>Average ADIT</b>	<b>Source</b>	
			#DIV/0!	Line 614, Col. 8	106

2) Account 190 Detail

Line	ACCT 190	DESCRIPTION	Col 2 END BAL per G/L Sum Col 3 to Col 6	Col 3 Gas, Generation or Other Related	Col 4 EDP Only	Col 5 Plant Related Note 3	Col 6 Labor Related Note 3	Col 7 Description	Reference	Line
200		Electric:	\$0						WP_14-ADIT 2, L. 100, Col 2	200
201			\$0						WP_14-ADIT 2, L. 101, Col 2	201
202			\$0						WP_14-ADIT 2, L. 102, Col 2	202
203			\$0						WP_14-ADIT 2, L. 103, Col 2	203
204			\$0						WP_14-ADIT 2, L. 104, Col 2	204
205			\$0						WP_14-ADIT 2, L. 105, Col 2	205
206			\$0						WP_14-ADIT 2, L. 106, Col 2 and WP_14-ADIT 3, L. 113	206
207			\$0						WP_14-ADIT 2, L. 107, Col 2	207
208			\$0						WP_14-ADIT 2, L. 108, Col 2	208
209			\$0						WP_14-ADIT 2, L. 109, Col 2	209
210	Total Account 190		\$0	\$0	\$0	\$0	\$0	Sum of Above Lines beginning on Line 200		210
211	Allocation Factors (Plant and Wages)					#DIV/0!	#DIV/0!	24-Allocators, L. 119, 112		211
212	Total Account 190 ADIT (Sum of amounts in Columns 4 to 6)		#DIV/0!		\$0	#DIV/0!	#DIV/0!	Line 210 * Line 211 for Cols 5 and 6		212
213	FERC Form 1 Account 190							Must match amount on Line 210 Col 2	FF1 234, L. 18, col c	213

3) Account 282 Detail

Line	ACCT 282	DESCRIPTION	Col 2 END BAL per G/L Sum Col 3 to Col 6	Col 3 Gas, Generation or Other Related	Col 4 EDP Only	Col 5 Plant Related Note 4	Col 6 Labor Related	Col 7 Description	Reference	Line
300			\$0						WP_14-ADIT 4, L. 103, Col 2	300
301			\$0							301
302			\$0							302
303			\$0							303
304			\$0						WP_14-ADIT 6, L. 101, Col 6	304
305			\$0							305
306			\$0							306
307	Total Account 282		\$0		\$0	\$0	\$0	Sum of Above Lines beginning on Line 300		307
308	Allocation Factors (Plant and Wages)					#DIV/0!	#DIV/0!	24-Allocators, L. 116, 113		308
309	Total Account 282 ADIT (Sum of amounts in Columns 4 to 6)		#DIV/0!		\$0	#DIV/0!	#DIV/0!	Line 307 * Line 308 for Cols 5 and 6		309
310	FERC Form 1 Account 282								FF1 275, L. 9, col k	310
311	Not Used									311
312	FERC Form 1 Account 282		\$0					Must match amount on Line 307 Col 2		312

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 14-ADIT

Accumulated Deferred Income Taxes  
Input cells are shaded gold

Prior Year: -2

4) Account 283 Detail											
Line	ACCT 283	DESCRIPTION	Col 1	Col 2 END BAL per G/L Sum Col 3 to Col 6	Col 3 Gas, Generation or Other Related	Col 4 EDP Only	Col 5 Plant Related	Col 6 Labor Related	Col 7 Description	Line	
400		Electric:		\$0						FF1 277, L 3 + L 11, col k	400
401				\$0						FF1 277, L 4 + L 12, col k	401
402				\$0						FF1 277, L 5 + L 14 + L 18, col k	402
403											403
404		Total Account 283		\$0	\$0	\$0	\$0	\$0	Sum of Above Lines beginning on Line 400		404
405		Allocation Factors (Plant and Wages)					#DIV/0!	#DIV/0!	24-Allocators, Lines 116, 113		405
406		Total Account 283 ADIT (Sum of amounts in Columns 4 to 6)		#DIV/0!		\$0	#DIV/0!	#DIV/0!	Line 404 * Line 405 for Cols 5 and 6		406
407		FERC Form 1 Account 283							Must match amount on Line 404 Col 2	FF1 277, L 19, col k	407

5) Account 255 Detail											
Line	ACCT 255	DESCRIPTION	Col 1	Col 2 END BAL per G/L Sum Col 3 to Col 6	Col 3 Gas, Generation or Other Related	Col 4 EDP Only	Col 5 Plant Related Note 4	Col 6 Labor Related	Col 7 Description	Line	
500		Electric:		\$0						WP_14-ADIT 7, L 105, Col 6	500
501				\$0						WP_14-ADIT 7, L 100 + L 101, col 6	501
502				\$0							502
503				\$0							503
504		Total Electric 255		\$0	\$0	\$0	\$0	\$0	Sum of Above Lines beginning on Line 500		504
505		Allocation Factors (Plant and Wages)					#DIV/0!	#DIV/0!	24-Allocators, L 116, 113		505
506		Total Account 255 ADIT (Sum of amounts in Columns 4 to 6)		#DIV/0!		\$0	#DIV/0!	#DIV/0!	Line 504 * Line 505 for Cols 5 and 6		506
507		FERC Form 1 Account 255							Must match amount on Line 504 Col 2	FF1 267, L 8 + L 13, col h	507

6) Tax Normalization Calculation Pursuant to Treas. Reg §1.167(j)-1(h)(6); PLR 9313008; 9202029; 922404; 201717008											
Line	Year	Future Test Period	Col 1	Col 2 See Note 1	Col 3 See Note 2	Col 4	Col 5	Col 6 Col 5 / Tot. Days	Col 7 = Col 2 * Col 6	Col 8 Prior Month Col 8 + Col 7	Line
			Mthly Deferred Tax Amount	Deferred Tax Balance	Days in Month	Number of Days Left in Period	Prorata Percentages	Monthly Prorata Amounts	Monthly Prorata Amounts	Annual Accumulated Prorata Calculation	
600		Beginning Deferred Tax Balance (Line 105, Col. 2)		\$0				100.00%		0	600
601	-2	January	#DIV/0!	#DIV/0!		31	#VALUE!			#DIV/0!	601
602	-2	February	#DIV/0!	#DIV/0!	#VALUE!	30	307	#VALUE!		#DIV/0!	602
603	-2	March	#DIV/0!	#DIV/0!		31	276	#VALUE!		#DIV/0!	603
604	-2	April	#DIV/0!	#DIV/0!		30	246	#VALUE!		#DIV/0!	604
605	-2	May	#DIV/0!	#DIV/0!		31	215	#VALUE!		#DIV/0!	605
606	-2	June	#DIV/0!	#DIV/0!		30	185	#VALUE!		#DIV/0!	606
607	-2	July	#DIV/0!	#DIV/0!		31	154	#VALUE!		#DIV/0!	607
608	-2	August	#DIV/0!	#DIV/0!		31	123	#VALUE!		#DIV/0!	608
609	-2	September	#DIV/0!	#DIV/0!		30	93	#VALUE!		#DIV/0!	609
610	-2	October	#DIV/0!	#DIV/0!		31	62	#VALUE!		#DIV/0!	610
611	-2	November	#DIV/0!	#DIV/0!		30	32	#VALUE!		#DIV/0!	611
612	-2	December	#DIV/0!	#DIV/0!		31	1	#VALUE!		#DIV/0!	612
613		Ending Balance		#DIV/0!							613
614									Weighted Average ADIT Balance:	#DIV/0!	614

Notes:

- 1) The monthly deferred tax amounts are equal to the ending ADIT balance minus the beginning ADIT balance, divided by 12 months.
- 2) For January through December = previous month balance plus amount in col 2.
- 3) FERC Account 190 amounts are coming from FERC Form 1, which lists Electric and Gas amounts separately. For the amounts listed on 14-ADIT, PG&E uses Electric amounts whenever possible.
- 4) FERC Account 282 and Account 255 amounts are coming from PG&E's tax fixed asset software system (PowerTax). PowerTax common amounts are on a total company basis.

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 15-LossFactors**

Loss Factors

Prior Year: -2

Input cells are shaded gold

**FUNCTIONALIZED SYSTEM AVERAGE LOSS FACTORS**

<u>Line</u>		<b>Demand Loss Factors</b>		<b>Energy Loss Factors</b>		<u>Line</u>
		<u>Col 1</u>	<u>Col 2</u>	<u>Col 3</u>	<u>Col 4</u>	
	<b><u>TRANSMISSION (Note 1)</u></b>	<b><u>Meter to Generation</u></b>	<b><u>Generation to Meter</u></b>	<b><u>Meter to Generation</u></b>	<b><u>Generation to Meter</u></b>	
<b>100</b>	Generation Tie Output (High Voltage Input)					<b>100</b>
<b>101</b>	High Voltage Output (Low Voltage Input)					<b>101</b>
<b>102</b>	Low Voltage Output (Primary Distn. Input)					<b>102</b>
	<b><u>DISTRIBUTION (Note 2)</u></b>					
<b>103</b>	Primary Output (Secondary Input)					<b>103</b>
<b>104</b>	Secondary Output					<b>104</b>

**Note 1:** Transmission Loss Factors are from the "Transmission Loss Factors Study", dated May 14, 2010 and from the "TO-14\_TandD\_LossFactors.xlsx" worksheet.

**Note 2:** Distribution Loss Factors are from the "Distribution Loss Values for the TO-8 Filing" study, updated for TO14, and from the "TO-14\_TandD\_LossFactors.xlsx" worksheet.

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 16-UnfundedReserves

Unfunded Reserves  
Input cells are shaded gold

Prior Year: -2

The Formula Rate shall include a credit to rate base for unfunded reserves, defined as funds (1) included in the revenue requirement or otherwise recovered from customers (2) in advance of expenditure that (3) have not been set aside in a trust, escrow or restricted account. Reserves shall be included in rate base only to the extent that the reserves are customer-contributed capital or offsets to other rate base amounts for which the utility has not expended investor capital. For the avoidance of doubt, unfunded reserves includes capitalized amounts for which PG&E has not made corresponding cash expenditures. "In advance of expenditure" is defined as one accounting period or longer prior to expenditure as "accounting period" is used to define prepayments in rate base. Unfunded reserves shall be allocated to rate base on the same basis that the utility recovers the underlying accrual through the Formula Rate.

Line	1) Summary of Unfunded Reserves Average Balances	Col 2	Source	Line
100	Sum of 13-Month Averages	#DIV/0!		100
101	Sum of EOY Values	#DIV/0!		101

**2) Calculation of Allocated Accrued Vacation**  
Instructions: Enter values as negatives.

Line	Description/Period	Col 1 EOY	Col 2 13-Month Average	Source	Line
200	Allocated Accrued Vacation	#DIV/0!	#DIV/0!		200
201	December				201
202	January				202
203	February				203
204	March				204
205	April				205
206	May				206
207	June				207
208	July				208
209	August				209
210	September				210
211	October				211
212	November				212
213	December				213
214	13-Month Average Company Accrued Vacation Liability		#DIV/0!	Note 1	214
215	Less: Accounting Adjustment	\$45,700,000	\$45,700,000	Note 2	215
216	Net Accrued Vacation (13-Month Average)		#DIV/0!	Line 214 + Line 215	216
217	Net Accrued Vacation (EOY)	\$45,700,000		Line 213 + Line 215	
218	Labor Allocation Factor	#DIV/0!	#DIV/0!	24-Allocators, Line 113	218
219	Allocated Accrued Vacation	EOY >> #DIV/0!	#DIV/0!	Line 216 * Line 218	219

**3) Calculation of Allocated Preferred Stock Dividends Payable**  
Instructions: Enter values as negatives.

Line	Description/Period	Col 1 EOY	Col 2 13-Month Average	Source	Line
300	Allocated Preferred Stock Dividends Payable	\$0.00	#DIV/0!		300
301	December				301
302	January				302
303	February				303
304	March				304
305	April				305
306	May				306
307	June				307
308	July				308
309	August				309
310	September				310
311	October				311
312	November				312
313	December				313
314	13-Month Average Dividends Declared-Preferred Stock (Acct. 437)		#DIV/0!	Note 3	314
315	Electric Plant over Total Plant	40.49%	40.49%	24-Allocators, Line 116	315
316	Allocated Preferred Stock Dividends Payable	EOY >> \$0.00	#DIV/0!	Line 314 * Line 315 (see Note 3)	316

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 16-UnfundedReserves

**4) Other Unfunded Reserves**

Instructions: Add any new categories of unfunded reserves (as defined at the top of this schedule) to the gold shaded cells below. Add more categories as needed.

		Col 1	Col 2		
		EOY	13-Month Average		
400	<b>Other Unfunded Reserves</b>	\$0.00	\$0	Line 417	
401	December				401
402	January				402
403	February				403
404	March				404
405	April				405
406	May				406
407	June				407
408	July				408
409	August				409
410	September				410
411	October				411
412	November				412
413	December				413
414	13-Month Average				414
415	Adjustments				415
416	Allocations				416
417	<b>Total</b>			EOY >>	417
...					
Line	Description/Period	Monthly Value	13-Month Average	Source	Line
...	...	...	...	...	...

**Note 1:** PG&E conducted a query of GL Acct 2420024 Accrued Vacation Liability and reflected the beginning-of-year (BOY) and end-of-year (EOY) recorded balances in col 1 and col 2.

**Note 2:** The amount of \$47,500,000 represents a one-time accounting adjustment to increase the vacation accrual that was never reflected in operating expenses, never recovered from customers and was instead absorbed by shareholders. Per the Second Partial Settlement, for Rate Year 2021 100% of the adjustment is applied, for Rate Year 2022, 70% is applied, for Rate Year 2023, 30% is applied, and for Rate Year 2024 and beyond, 0% is applied.

**Note 3:** During PG&E's Chapter 11 bankruptcy, filed on January 29, 2019, and until preferred stock dividends resume, the company will treat monies collected to cover preferred stock costs as unfunded reserves for ratemaking purposes.

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 17-RegAssets-1**

Prior Year: -2

**Regulatory Assets and Liabilities and Associated Amortization and Regulatory Debits and Credits**

**Input cells are shaded gold**

Other Regulatory Assets and Liabilities are a component of Rate Base representing costs that have been deferred to a future period and recorded in Other Regulatory Assets (Account 182.3) and Regulatory Liabilities (Account 254). This Schedule does not include Abandoned Plant costs recovered through Schedule 8.

PG&E will include a non-zero amount of Other Regulatory Assets and Liabilities only with Commission approval received subsequent to a PG&E Section 205 filing requesting such treatment.

Amortization and Regulatory Debits and Credits are costs of revenues that are approved for recovery from or return to customers in this formula distribution rate. Approved costs are amortized as expenses or revenue in the DRR, consistent with a Commission Order.

**1) Calculation of Regulatory Assets and Liabilities and Amortization of Debits and Credits**

**Instructions:**

- 1) Upon Commission approval of recovery of Other Regulatory Assets and Liabilities, Amortization and Regulatory Debits and Credits costs through this formula wholesale distribution rate:
  - a) Fill in Description for issue in above table.
  - b) Enter costs in columns 1-3 in above table for the applicable Prior Year.
- 2) Insert additional lines as necessary for additional issues.

<u>Line</u>		<u>Prior Year</u>			<u>Calculation or Source</u>	<u>Line</u>
100	Other Regulatory Assets and Liabilities (EOY):				\$0 Line 103, col 2	100
101	Other Regulatory Assets and Liabilities (BOY/EOY average):				\$0 Avg. of Line 103 col 1 and col 2	101
102	Amortization and Regulatory Debits and Credits:				\$0 Line 103, col 3	102
		col 1	col 2	col 3		
	Description of Issue	Prior Year	Prior Year	Prior Year	Commission Order	
	Resulting in Other Regulatory	BOY	EOY	Amortization or	Granting Approval of	
	Asset/Liability	Other Reg	Other Reg	Regulatory	Regulatory Liability	
<u>Line</u>	<u>Asset/Liability</u>	<u>Asset/Liability</u>	<u>Asset/Liability</u>	<u>Debit/Credit</u>	<u>Regulatory Liability</u>	<u>Source</u>
103	Sum of below	\$0	\$0	\$0		103
104	Issue #1					104
105	Issue #2					105
106	Issue #3					106
107	---					107

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 17-RegAssets-1

2) Unamortized Excess ADIT and Tax Normalization Calculation Pursuant to Treas. Reg §1.167(l)-1(h)(6); PLR 9313008; 9202029; 922404; 201717008

Line	Description	Value	Source	Line
200	BOY Unamortized Excess Federal Accumulated Deferred Income Taxes		17-RegAssets-2, L. 109, Col 17 (zero in 2017 only)	200
201	EOY Unamortized Excess Federal Accumulated Deferred Income Taxes		17-RegAssets-2, L. 109, Col 24	201
202	Weighted Average ADIT Balance	#VALUE!	Line 217, Col 8	202

Line	Year	Future Test Period	Mthly Deferred Tax Amount	Deferred Tax Balance	Days in Month	Number of Days Left in Period	Prorata Percentages	Monthly Prorata Amounts	Annual Accumulated Prorata Calculation	Line
203		Beginning Deferred Tax Balance (Line 200)		\$0		#VALUE!	100.00%		0	203
204	-2	January	\$0	\$0		#VALUE!		#VALUE!	#VALUE!	204
205	-2	February	\$0	\$0	#VALUE!	31		#VALUE!	#VALUE!	205
206	-2	March	\$0	\$0	31	276	#VALUE!	#VALUE!	#VALUE!	206
207	-2	April	\$0	\$0	30	246	#VALUE!	#VALUE!	#VALUE!	207
208	-2	May	\$0	\$0	31	215	#VALUE!	#VALUE!	#VALUE!	208
209	-2	June	\$0	\$0	30	185	#VALUE!	#VALUE!	#VALUE!	209
210	-2	July	\$0	\$0	31	154	#VALUE!	#VALUE!	#VALUE!	210
211	-2	August	\$0	\$0	31	123	#VALUE!	#VALUE!	#VALUE!	211
212	-2	September	\$0	\$0	30	93	#VALUE!	#VALUE!	#VALUE!	212
213	-2	October	\$0	\$0	31	62	#VALUE!	#VALUE!	#VALUE!	213
214	-2	November	\$0	\$0	30	32	#VALUE!	#VALUE!	#VALUE!	214
215	-2	December	\$0	\$0	31	1	#VALUE!	#VALUE!	#VALUE!	215
216		Ending Balance		\$0						216
217							Weighted Average ADIT Balance:		#VALUE!	217

Note 1: The monthly deferred tax amounts are equal to the ending ADIT balance minus the beginning ADIT balance, divided by 12 months.  
 Note 2: For January through December = previous month balance plus amount in col 2.



Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 17-RegAssets-2

Amortization of (Excess)/Deficient Deferred Federal and State Income Taxes (Note 1)  
Input cells are shaded gold

				Order 864 Permanent Worksheet(s) Category 1 Information			
				Col 0	Col 1	Col 2	Col 3
				Col 1 - Col 2			
Line	DESCRIPTION		Originating (Excess)/Deficient ADIT Recorded Account	Originating Timing Difference 12/31/2017	ADIT Balance Prior to TCJA @ 35% FIT 12/31/2017	Remeasurement ADIT Balance @ 21% FIT 12/31/2017	(Excess)/Deficient ADIT Note F Balance 12/31/2017
100	Method Life	Note A	Acct # 282	0	0	0	0
101	Fixed Assets Book Tax Basis Differences	Note C	Acct # 282	0	0	0	0
102	Non Fixed Assets Book Tax Basis Differences	Note D	Acct # 190 / # 282	0	0	0	0
103	Non Fixed Asset Book Tax Basis Differences	Net Operating Loss Carryover Note E	Acct # 190	0	0	0	0
104	Total			0	0	0	0
105	Adjustments to December 31, 2017 Amounts						
106	ADIT Item 1	Repairs on System	Acct # 282	0	0	0	0
107	...			0	0	0	0
108	...			0	0	0	0
109	Total Including Adjustments			0	0	0	0
110	Details of ADIT						
200	Total Method Life			0	0	0	0
201			Acct # 282				
202		Includes Cost of Removal	Acct # 282				
203		Includes Cost of Removal	Acct # 282				
204	...						
205	...						
300	Total Fixed Assets Book Tax Basis Differences			0	0	0	0
301			Acct # 282				
302			Acct # 282				
303			Acct # 282				
304			Acct # 282				
305			Acct # 282				
306			Acct # 282				
307			Acct # 282				
308			Acct # 282				
309			Acct # 282				
310			Acct # 282				
311			Acct # 282				
312			Acct # 282				
313			Acct # 282				
314			Acct # 282				
315			Acct # 282				
316			Acct # 282				
317			Acct # 282				
318			Acct # 282				
319			Acct # 282				
320			Acct # 282				
321			Acct # 282				
322			Acct # 282				
323			Acct # 282				
324			Acct # 282				
325			Acct # 282				
326			Acct # 282				
327			Acct # 282				
328			Acct # 282				
329			Acct # 282				
330			Acct # 282				
331			Acct # 282				
332			Acct # 282				
333			Acct # 282				
334			Acct # 282				
335			Acct # 282				
336			Acct # 282				
337			Acct # 282				
338			Acct # 282				
339			Acct # 282				
340			Acct # 282				
341			Acct # 282				
342			Acct # 282				
343			Acct # 282				
344			Acct # 282				
345			Acct # 282				
346			Acct # 282				
347			Acct # 282				
348			Acct # 282				
349			Acct # 282				
350			Acct # 282				
351			Acct # 282				
352			Acct # 282				
353			Acct # 282				
354			Acct # 282				
355			Acct # 282				
356	...						
357	...						
400	Total Non Fixed Assets Book Tax Basis Differences			0	0	0	0
401			Acct # 190				
402			Acct # 190				
402a			Acct # 190				
403			Acct # 282				
404			Acct # 282				
405			Acct # 282				
406			Acct # 282				
407			Acct # 282				
408	...						
409	...						
410	...						
500	Total Non Fixed Asset Book Tax Basis Differences			0	0	0	0
501			Acct # 190				
502	...						
503	...						
504	...						
505	...						
600	Adjustments to December 31, 2017 Amounts						
601			Acct # 282	0	0	0	0
602			Acct # 282				
603			Acct # 282				
604	...						
605	...						

Note 1 This Schedule 17-RegAsset-2 reflects the federal income tax rate change due to the Tax Cuts and Job Act (TCJA). This Schedule will be replicated for each tax rate change after the TCJA (see 17-RegAsset-3).  
 Note A Reflects the deferred tax liability (DTL) for the difference between book and tax depreciation methods and depreciable lives on plant capitalized.  
 Note B Reflects the deferred tax asset (DTA) difference between the book accrual and actual spending for cost of removal.  
 Note C Reflects the DTL difference between tax basis deductions and book depreciation on these tax basis deductions.  
 Note D Reflects the DTA difference between non-fixed asset tax deductions and book deductions.  
 Note E Reflects the tax net operating loss DTA. The net operating loss DTA is protected.  
 Note F Basis for allocation is the 2017 value from Tab 24-Allocators, Rows 17 and 23 for common and direct function groups, respectively.  
 Note G PG&E's method for amortization of non-protected excess ADIT.  
 Note H The "grossed-up" portion included in Column 25, equals the amounts included in PG&E's FERC Account 182.3 and 254 on its balance sheet, and is not included in rate base.  
 Note I PG&E's method provides for a base 130-months amortization subject to adjustment. As a result, the overall amortization period may not be 130-months.





Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 17-RegAssets-2

Prior Year: -2

Category 3 Information											
Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25				
CURRENT PERIOD AMORTIZATION OF EXCESS/DEFICIENT FEDERAL ACCUMULATED DEFERRED INCOME TAXES											
			Col 14 - Col 18	Col 15 - Col 19	Col 16 - Col 20	Sum Col 21 to Col 23	Col 24 x Gross-up				
Amortization Expense PROTECTED FIXED ASSETS	Amortization Expense UNPROTECTED FIXED ASSETS	Amortization Expense UNPROTECTED NON FIXED ASSETS	UNAMORTIZED (EXCESS)/DEFICIENT FEDERAL ACCUMULATED DEFERRED INCOME TAXES - ENDING BALANCE End Bal PROTECTED FIXED ASSETS	UNAMORTIZED (EXCESS)/DEFICIENT FEDERAL ACCUMULATED DEFERRED INCOME TAXES - ENDING BALANCE End Bal UNPROTECTED FIXED ASSETS	UNAMORTIZED (EXCESS)/DEFICIENT FEDERAL ACCUMULATED DEFERRED INCOME TAXES - ENDING BALANCE End Bal UNPROTECTED NON FIXED ASSETS	End Bal TOTALS	(Excess)/Deficient ADIT Note H Including Gross-up of 1.38857		Reference	Line	
0	0	0	0	0	0	0	0	0		100	
0	0	0	0	0	0	0	0	0		101	
0	0	0	0	0	0	0	0	0		102	
0	0	0	0	0	0	0	0	0		103	
0	0	0	0	0	0	0	0	0		104	
0	0	0	0	0	0	0	0	0		105	
0	0	0	0	0	0	0	0	0		106	
0	0	0	0	0	0	0	0	0		107	
0	0	0	0	0	0	0	0	0		108	
0	0	0	0	0	0	0	0	0		109	
0	0	0	0	0	0	0	0	0		Line	
0	0	0	0	0	0	0	0	0		200	
0	0	0	0	0	0	0	0	0		201	
0	0	0	0	0	0	0	0	0		202	
0	0	0	0	0	0	0	0	0		203	
0	0	0	0	0	0	0	0	0		204	
0	0	0	0	0	0	0	0	0		205	
0	0	0	0	0	0	0	0	0		Line	
0	0	0	0	0	0	0	0	0		300	
0	0	0	0	0	0	0	0	0		301	
0	0	0	0	0	0	0	0	0		302	
0	0	0	0	0	0	0	0	0		303	
0	0	0	0	0	0	0	0	0		304	
0	0	0	0	0	0	0	0	0		305	
0	0	0	0	0	0	0	0	0		306	
0	0	0	0	0	0	0	0	0		307	
0	0	0	0	0	0	0	0	0		308	
0	0	0	0	0	0	0	0	0		309	
0	0	0	0	0	0	0	0	0		310	
0	0	0	0	0	0	0	0	0		311	
0	0	0	0	0	0	0	0	0		312	
0	0	0	0	0	0	0	0	0		313	
0	0	0	0	0	0	0	0	0		314	
0	0	0	0	0	0	0	0	0		315	
0	0	0	0	0	0	0	0	0		316	
0	0	0	0	0	0	0	0	0		317	
0	0	0	0	0	0	0	0	0		318	
0	0	0	0	0	0	0	0	0		319	
0	0	0	0	0	0	0	0	0		320	
0	0	0	0	0	0	0	0	0		321	
0	0	0	0	0	0	0	0	0		322	
0	0	0	0	0	0	0	0	0		323	
0	0	0	0	0	0	0	0	0		324	
0	0	0	0	0	0	0	0	0		325	
0	0	0	0	0	0	0	0	0		326	
0	0	0	0	0	0	0	0	0		327	
0	0	0	0	0	0	0	0	0		328	
0	0	0	0	0	0	0	0	0		329	
0	0	0	0	0	0	0	0	0		330	
0	0	0	0	0	0	0	0	0		331	
0	0	0	0	0	0	0	0	0		332	
0	0	0	0	0	0	0	0	0		333	
0	0	0	0	0	0	0	0	0		334	
0	0	0	0	0	0	0	0	0		335	
0	0	0	0	0	0	0	0	0		336	
0	0	0	0	0	0	0	0	0		337	
0	0	0	0	0	0	0	0	0		338	
0	0	0	0	0	0	0	0	0		339	
0	0	0	0	0	0	0	0	0		340	
0	0	0	0	0	0	0	0	0		341	
0	0	0	0	0	0	0	0	0		342	
0	0	0	0	0	0	0	0	0		343	
0	0	0	0	0	0	0	0	0		344	
0	0	0	0	0	0	0	0	0		345	
0	0	0	0	0	0	0	0	0		346	
0	0	0	0	0	0	0	0	0		347	
0	0	0	0	0	0	0	0	0		348	
0	0	0	0	0	0	0	0	0		349	
0	0	0	0	0	0	0	0	0		350	
0	0	0	0	0	0	0	0	0		351	
0	0	0	0	0	0	0	0	0		352	
0	0	0	0	0	0	0	0	0		353	
0	0	0	0	0	0	0	0	0		354	
0	0	0	0	0	0	0	0	0		355	
0	0	0	0	0	0	0	0	0		356	
0	0	0	0	0	0	0	0	0		357	
0	0	0	0	0	0	0	0	0		Line	
0	0	0	0	0	0	0	0	0		400	
0	0	0	0	0	0	0	0	0		401	
0	0	0	0	0	0	0	0	0		402	
0	0	0	0	0	0	0	0	0		402a	
0	0	0	0	0	0	0	0	0		403	
0	0	0	0	0	0	0	0	0		404	
0	0	0	0	0	0	0	0	0		405	
0	0	0	0	0	0	0	0	0		406	
0	0	0	0	0	0	0	0	0		407	
0	0	0	0	0	0	0	0	0		408	
0	0	0	0	0	0	0	0	0		409	
0	0	0	0	0	0	0	0	0		408	
0	0	0	0	0	0	0	0	0		Line	
0	0	0	0	0	0	0	0	0		500	
0	0	0	0	0	0	0	0	0		501	
0	0	0	0	0	0	0	0	0		502	
0	0	0	0	0	0	0	0	0		503	
0	0	0	0	0	0	0	0	0		504	
0	0	0	0	0	0	0	0	0		505	
0	0	0	0	0	0	0	0	0		Line	
0	0	0	0	0	0	0	0	0		600	
0	0	0	0	0	0	0	0	0		601	
0	0	0	0	0	0	0	0	0		602	
0	0	0	0	0	0	0	0	0		603	
0	0	0	0	0	0	0	0	0		604	
0	0	0	0	0	0	0	0	0		605	

Amortization of (Excess)/Deficient Deferred Federal and state Income Taxes (Note 1)  
Input cells are shaded gold

		Order 854 Permanent Worksheet(s) Category 1 Information				
		Col 0	Col 1	Col 2	Col 3	
		Col 1, Col 2				
Line	DESCRIPTION	Originating (Excess)/Deficient ADIT Recorded Account	Originating Timing Difference 12/31/2017	ADIT Balance Prior to TCJA @ 35% FIT 12/31/2017	Remasurment ADIT Balance @ 21% FIT 12/31/2017	(Excess)/Deficient ADIT Note F Balance 12/31/2017
100	Method Life	Note A	0	0	0	0
101	Fixed Assets Book Tax Basis Differences	Note C	0	0	0	0
102	Non Fixed Assets Book Tax Basis Differences	Note D	0	0	0	0
103	Non Fixed Asset Book Tax Differences	Net Operating Loss Carryover Note E	0	0	0	0
104	Total		0	0	0	0
<b>Adjustments to December 31, 2017 Amounts</b>						
105	ADIT Item 1	Repairs on System	0	0	0	0
106			0	0	0	0
107			0	0	0	0
108			0	0	0	0
109	Total Including Adjustments		0	0	0	0
<b>Details of ADIT Note 1</b>						
200	Total Method Life		0	0	0	0
201						
202		Includes Cost of Removal				
203		Includes Cost of Removal				
204						
205						
<b>Total Fixed Assets Book Tax Basis Differences</b>						
300			0	0	0	0
301						
302						
303						
304						
305						
306						
307						
308						
309						
310						
311						
312						
313						
314						
315						
316						
317						
318						
319						
320						
321						
322						
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346						
347						
348						
349						
350						
351						
352						
353						
354						
355						
356						
357						
<b>Total Non Fixed Assets Book Tax Basis Differences</b>						
400			0	0	0	0
401						
402						
402a						
403						
404						
405						
406						
407						
408						
409						
408						
<b>Total Non Fixed Asset Book Tax Differences</b>						
500			0	0	0	0
501						
502						
503						
504						
505						
<b>Adjustments to December 31, 2017 Amounts</b>						
600			0	0	0	0
601						
602						
603						
604						
605						

Note 1 This Schedule 17-RegAssets-3 reflects the federal income tax rate change due to the Tax Cuts and Job Act (TCJA). This Schedule will be recalculated for each tax rate change after the TCJA.  
 Note A Reflects the deferred tax liability (DTL) for the difference between book and tax depreciation methods and depreciable lives on plant capitalized for Note B.  
 Note B Reflects the deferred tax asset (DTA) difference between the book accrual and actual spending for cost of removal.  
 Note C Reflects the DTL difference between tax basis deductions and book depreciation on these tax basis deductions.  
 Note D Reflects the DTA difference between non-fixed asset tax deductions and book deductions.  
 Note E Reflects the tax net operating loss (NOL). The net operating loss (NOL) is protected.  
 Note F Basis for allocation in the 2017 value from Tab 24-Allocators, Rows 17 and 23 for common and direct function groups, respectively.  
 Note G PG&E's method for amortization of non-protected excess ADIT.  
 Note H The "grossed-up" portion from Column 25 is excluded from rate base.  
 Note I PG&E's method provides for a base 130-months amortization subject to adjustment. As a result, the overall amortization period may not be 130-months.



Category 3 Information			Category 3 Information				Category 3 Information	Category 3 Information	Category 3 Information
Col 18	Col 19	Col 20	Col 21	Col 22	Col 23	Col 24	Col 25		
CURRENT PERIOD AMORTIZATION OF DEFICIENT FEDERAL ACCUMULATED DEFERRED INCOME TAXES			UNAMORTIZED DEFICIENT FEDERAL ACCUMULATED DEFERRED INCOME TAXES - ENDING BALANCE				(Excess) Deficient ADIT Note H		
Amortization Expense PROTECTED FIXED ASSETS	Amortization Expense UNPROTECTED FIXED ASSETS	Amortization Expense UNPROTECTED NON-FIXED ASSETS	End Bal PROTECTED FIXED ASSETS	End Bal UNPROTECTED FIXED ASSETS	End Bal UNPROTECTED NON-FIXED ASSETS	End Bal TOTALS	Including Gross-up of 1.38857	Reference	
0	0	0	0	0	0	0	0	100	
0	0	0	0	0	0	0	0	101	
0	0	0	0	0	0	0	0	102	
0	0	0	0	0	0	0	0	103	
0	0	0	0	0	0	0	0	104	
0	0	0	0	0	0	0	0	105	
0	0	0	0	0	0	0	0	106	
0	0	0	0	0	0	0	0	107	
0	0	0	0	0	0	0	0	108	
0	0	0	0	0	0	0	0	109	
0	0	0	0	0	0	0	0	200	
0	0	0	0	0	0	0	0	201	
0	0	0	0	0	0	0	0	202	
0	0	0	0	0	0	0	0	203	
0	0	0	0	0	0	0	0	204	
0	0	0	0	0	0	0	0	205	
0	0	0	0	0	0	0	0	300	
0	0	0	0	0	0	0	0	301	
0	0	0	0	0	0	0	0	302	
0	0	0	0	0	0	0	0	303	
0	0	0	0	0	0	0	0	304	
0	0	0	0	0	0	0	0	305	
0	0	0	0	0	0	0	0	306	
0	0	0	0	0	0	0	0	307	
0	0	0	0	0	0	0	0	308	
0	0	0	0	0	0	0	0	309	
0	0	0	0	0	0	0	0	310	
0	0	0	0	0	0	0	0	311	
0	0	0	0	0	0	0	0	312	
0	0	0	0	0	0	0	0	313	
0	0	0	0	0	0	0	0	314	
0	0	0	0	0	0	0	0	315	
0	0	0	0	0	0	0	0	316	
0	0	0	0	0	0	0	0	317	
0	0	0	0	0	0	0	0	318	
0	0	0	0	0	0	0	0	319	
0	0	0	0	0	0	0	0	320	
0	0	0	0	0	0	0	0	321	
0	0	0	0	0	0	0	0	322	
0	0	0	0	0	0	0	0	323	
0	0	0	0	0	0	0	0	324	
0	0	0	0	0	0	0	0	325	
0	0	0	0	0	0	0	0	326	
0	0	0	0	0	0	0	0	327	
0	0	0	0	0	0	0	0	328	
0	0	0	0	0	0	0	0	329	
0	0	0	0	0	0	0	0	330	
0	0	0	0	0	0	0	0	331	
0	0	0	0	0	0	0	0	332	
0	0	0	0	0	0	0	0	333	
0	0	0	0	0	0	0	0	334	
0	0	0	0	0	0	0	0	335	
0	0	0	0	0	0	0	0	336	
0	0	0	0	0	0	0	0	337	
0	0	0	0	0	0	0	0	338	
0	0	0	0	0	0	0	0	339	
0	0	0	0	0	0	0	0	340	
0	0	0	0	0	0	0	0	341	
0	0	0	0	0	0	0	0	342	
0	0	0	0	0	0	0	0	343	
0	0	0	0	0	0	0	0	344	
0	0	0	0	0	0	0	0	345	
0	0	0	0	0	0	0	0	346	
0	0	0	0	0	0	0	0	347	
0	0	0	0	0	0	0	0	348	
0	0	0	0	0	0	0	0	349	
0	0	0	0	0	0	0	0	350	
0	0	0	0	0	0	0	0	351	
0	0	0	0	0	0	0	0	352	
0	0	0	0	0	0	0	0	353	
0	0	0	0	0	0	0	0	354	
0	0	0	0	0	0	0	0	355	
0	0	0	0	0	0	0	0	356	
0	0	0	0	0	0	0	0	357	
0	0	0	0	0	0	0	0	400	
0	0	0	0	0	0	0	0	401	
0	0	0	0	0	0	0	0	402	
0	0	0	0	0	0	0	0	402a	
0	0	0	0	0	0	0	0	403	
0	0	0	0	0	0	0	0	404	
0	0	0	0	0	0	0	0	405	
0	0	0	0	0	0	0	0	406	
0	0	0	0	0	0	0	0	407	
0	0	0	0	0	0	0	0	408	
0	0	0	0	0	0	0	0	409	
0	0	0	0	0	0	0	0	408	
0	0	0	0	0	0	0	0	500	
0	0	0	0	0	0	0	0	501	
0	0	0	0	0	0	0	0	502	
0	0	0	0	0	0	0	0	503	
0	0	0	0	0	0	0	0	504	
0	0	0	0	0	0	0	0	505	
0	0	0	0	0	0	0	0	600	
0	0	0	0	0	0	0	0	601	
0	0	0	0	0	0	0	0	602	
0	0	0	0	0	0	0	0	603	
0	0	0	0	0	0	0	0	604	
0	0	0	0	0	0	0	0	605	

Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 18-OandM

Operations and Maintenance Expense  
Input cells are shaded gold

Prior Year: -2

Line	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15	Line
100	Distribution O&M Expense (Line 101, Col 11, 12, 13, 14)		\$0													100
Source			Note 1	Note 1	Col 3 + Col 4, Note 2	Note 1, Note 3	Note 1, Note 3	Col 6 + Col 7	Col 3 + Col 6	Col 4 + Col 7	Col 9 + Col 10, Note 4			Col 12 + Col 13		
	FF1 Recorded O&M Expense	FF1 Recorded O&M Expense														
Line	Account	Account Description	Labor	Non-Labor	Total	Labor	Non-Labor	Total	Labor	Non-Labor	Total	Primary	Secondary	Total		
101		Total Distribution O&M	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Source for Col 12 and 13	101
102	580	Operation Supervision and Engineering			\$0			\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Col 11 * 6-Plantjurisdiction, Line 400, Cols 1 and 2	102
103	581	Load Dispatching			\$0			\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Col 11 * 6-Plantjurisdiction, Line 400, Cols 1 and 2	103
104	582	Station Expenses			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 202, Cols 2 and 3	104
105	583	Overhead Line Expenses			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 205, Cols 2 and 3	105
106	584	Underground Line Expenses			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 206, Cols 2 and 3	106
107	584.1	Operation of Energy Storage Equipment			\$0			\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Col 11 * 6-Plantjurisdiction, Line 400, Cols 1 and 2	107
108	585	Street Lighting and Signal System Expenses			\$0			\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Col 11 * 6-Plantjurisdiction, Line 400, Cols 1 and 2	108
109	586	Meter Expenses			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 210, Cols 2 and 3	109
110	587	Customer Installations Expenses			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 211, Cols 2 and 3	110
111	588	Miscellaneous Distribution Expenses			\$0			\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Col 11 * 6-Plantjurisdiction, Line 400, Cols 1 and 2	111
112	589	Rents			\$0			\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Col 11 * 6-Plantjurisdiction, Line 400, Cols 1 and 2	112
113	590	Maintenance Supervision and Engineering			\$0			\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Col 11 * 6-Plantjurisdiction, Line 400, Cols 1 and 2	113
114	591	Maintenance of Structures			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 201, Cols 2 and 3	114
115	592	Maintenance of Station Equipment			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 202, Cols 2 and 3	115
116	593	Maintenance of Overhead Lines			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 205, Cols 2 and 3	116
117	594	Maintenance of Underground Lines			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 206, Cols 2 and 3	117
118	595	Maintenance of Line Transformers			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 208, Cols 2 and 3	118
119	596	Maintenance of Street Lighting and Signal Systems			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 213, Cols 2 and 3	119
120	597	Maintenance of Meters			\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	Col 11 * 6-Plantjurisdiction, Line 210, Cols 2 and 3	120
121	598	Maintenance of Miscellaneous Distribution Plant			\$0			\$0	\$0	\$0	\$0	#DIV/0!	#DIV/0!	#DIV/0!	Col 11 * 6-Plantjurisdiction, Line 400, Cols 1 and 2	121

Notes:  
1) Data are extracted from SAP for all costs (broken down into labor and non-labor components) in the Prior Year that are recorded in electric distribution operations and maintenance expense accounts.  
2) The Total FF1 Recorded O&M Expense is the sum of Labor and Non-labor FF1 Recorded O&M Expense (obtained as explained in Note 1) and tie to the amounts provided in FF1 322, L. 156, col b.  
3) See WP 18-OandM for adjustment details.



Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 19-AandG

Prior Year: -2

Administrative and General Expenses

Input Cells are shaded in gold

Line								Line	
100	1) Calculation of Total Company Adjusted A&G Expense							100	
101		Col 1	Col 2	Col 3	Col 4	Col 5 = Col 1+Col 3	Col 6	Col 7 = Col 5 - Col 6	101
102		FERC Form 1	Data	FERC Form 2	Data	Total Company	See Note 1	Total Company Adj	102
103	<u>Acct.</u>	<u>Amount</u>	<u>Source</u>	<u>Amount</u>	<u>Source</u>	<u>Amount</u>	<u>Amount Excluded</u>	<u>A&amp;G Expense</u>	<u>Reference</u>
104	920 A&G Salaries		FF1 323, L. 181, col b		FF2 325, L. 254, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 106
105	921 Office Supplies and Expenses		FF1 323, L. 182, col b		FF2 325, L. 255, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 206
106	922 A&G Expenses Transferred		FF1 323, L. 183, col b		FF2 325, L. 256, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 306
107	923 Outside Services Employed		FF1 323, L. 184, col b		FF2 325, L. 257, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 406
108	924 Property Insurance		FF1 323, L. 185, col b		FF2 325, L. 258, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 506
109	925 Injuries and Damages		FF1 323, L. 186, col b		FF2 325, L. 259, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 606
110	926 Employee Pensions and Benefits		FF1 323, L. 187, col b		FF2 325, L. 260, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 706
111	927 Franchise Requirements		FF1 323, L. 188, col b		FF2 325, L. 261, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 806
112	928 Regulatory Commission Expenses		FF1 323, L. 189, col b		FF2 325, L. 262, col b	\$0		\$0	\$0 See Note 2
113	929 Duplicate Charges		FF1 323, L. 190, col b		FF2 325, L. 263, col b	\$0		\$0	\$0 See Note 2
114	930.1 General Advertising Expense		FF1 323, L. 191, col b		FF2 325, L. 264, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 906
115	930.2 Miscellaneous General Expense		FF1 323, L. 192, col b		FF2 325, L. 265, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 906
116	931 Rents		FF1 323, L. 193, col b		FF2 325, L. 266, col b	\$0		\$0	\$0 See Note 2
117	935 Maintenance of General Plant		FF1 323, L. 196, col b		FF2 325, L. 269, col b	\$0		\$0	\$0 WP_19-AandG 1, L. 1006
118	<b>Total A&amp;G Expenses:</b>	<b>\$0</b>	FF1 323, L. 197, col b	<b>\$0</b>	FF2 325, L. 270, col b	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
200	2) Calculation of Distribution A&G Expense							200	
201	<b>Based on Labor Factors</b>							201	
202		<u>Amount</u>	<u>Source</u>					202	
203	A&G Expense after Adjustments	\$0	Line 118, col 7					203	
204	Less Account 924 Property Insurance nonnuclear:	\$0	Line 108, col 7					204	
205	Less Account 925 General Liability and Injuries and Damages	\$0	WP_19-AandG 2, L. 102					205	
206	Total A&G Expense Applicable to the O&M Labor Allocation Factor:	\$0	Line 202 - Line 203 - Line 206					206	
207	Electric O&M Labor Allocation Factor:	#DIV/0!	24-Allocators, L. 109					207	
208	Total Electric Portion of A&G From Labor	#DIV/0!	Line 205 * Line 206					208	
209	Distribution as a Percent of Electric O&M Labor Allocation Factor:	#DIV/0!	24-Allocators, L. 112					209	
210	Distribution Portion of A&G from Labor Allocation Factors:	#DIV/0!	Line 207 * Line 208					210	
211	<b>Based on Yearend Plant</b>							211	
211a	Total Electric Plant as a % of Total Company Plant	#DIV/0!	24-Allocators, L. 128					211a	
212	Total Insured Electric Distribution Plant as a % of Total Insured Electric Plant	#DIV/0!	24-Allocators, L. 131					212	
213	Account 924 Property Insurance nonnuclear:	\$0	Line 203					213	
214	Distribution Portion of Property Insurance Account 924	#DIV/0!	Line 211 * Line 211a * Line 212					214	
215	<b>Based on Blended Labor and Plant Factor</b>							215	
216	General Liability Accrued Insurance and Paid Injuries and Damages:	\$0	Line 204					216	
217	Factor using the combined O&M Labor and Plant Factor:	#DIV/0!	24-Allocators, L. 120					217	
218	Distribution Portion of General Liability Insurance and Injuries and Damages:	#DIV/0!	Line 215 * Line 216					218	
219	Total Distribution Portion of Administrative and General Expenses:	#DIV/0!	Line 209 + Line 213 + Line 217					219	



Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 20-RevenueCredits

Revenue Credits

Prior Year: -2

Input cells are shaded gold

Instructions:

1) Insert additional lines as necessary for additional items.

Line	FERC ACCT	NATURAL ACCT	ACCT DESCRIPTION	Col 4	Col 5	Col 6	Col 6	Line
				Total Electric	Distribution	NP&S Wholesale Distribution	Notes	
100			Totals	\$0	\$0	\$0	Sum Lines 201, 301, 401, 501, 601	100
<b>Forfeited Discounts</b>								
200			FF1 300, L. 16, col b					200
201			Acct 450 Total	\$0	\$0	\$0		201
202	450	4500000	Forfeited Discounts				Note 2	202
203								203
204			---					204
<b>Miscellaneous Service Revenues</b>								
300			FF1 300, L. 17, col b					300
301			Acct 451 Total	\$0	\$0	\$0		301
302	451	4510000	Miscellaneous Service Revenues				Note 2	302
303	451	4510007	NRD Revenue Other				Note 2	303
304	451	4510040	Miscellaneous Service Electric Customer Fund Management - RES				Note 2	304
305	451	4510041	Miscellaneous Service Electric Customer Fund Management Non-RES				Note 2	305
306	451	4510043	Miscellaneous Service Revenues - Reimbursable				Note 2	306
307	451	4510005	Misc Electric Service Revenue Protection					307
308			---					308
<b>Sales of Water and Water Power</b>								
400			FF1 300, L. 18, col b					400
401			Acct 453 Total	\$0	\$0	\$0		401
402	453	4530000	Sales of Water and Water Power				Note 2	402
403								403
404			...					404
<b>Rents</b>								
500			FF1 300, L.19, col b					500
501			Acct 454 Total	\$0	\$0	\$0		501
502	454	4540010	Rent from Electric Property				Note 2, 3	502
503	454	4540012	New Revenue Development Rent				Note 2	503
504	454	4540013	New Revenue Development Fee Revenue				Note 2	504
505								505
506			...					506

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 20-RevenueCredits**

Other Electric Revenue							
600			FF1 300, L. 21-22, col b			Note 1	600
601			Acct 456 Total	\$0	\$0	\$0	601
602	456	4560099	Other Electric Revenues			Note 2	602
603	456		MCI Rights-of-Way (B)			Note 2	603
604	456	4560050	Recreation Facilities Revenue			Note 2	604
605	456	4560070	Timber Sales - Utility			Note 2	605
606	456	4560014	Other Revenue - Affiliate			Note 2	606
607	456	4560022	Revenue Damage Claims Electric			Note 2	607
608	456	4560093	Mobile Home Park Electric			Note 2	608
609	456	4560091	NEBS TCRA			Note 2	609
610	456	4560098	New Revenue Development - Electric Revenue			Note 2	610
611	456	4560000	Unbilled Electric Revenue			Note 2	611
612	456	4560001	Reimbursed Electric Revenue			Note 2, 4	612
613	456	4560002	Reimbursed Electric Revenue Joint Poles			Note 2	613
614	456	4560003	Reimbursed Electric Revenue Customer Care and Billing (CC&B)			Note 2	614
615	456	4560095	Other Electric Revenue - Calif Department of Water & Resources (DWR)			Note 2	615
616	456	4560005	Reimbursed Electric Revenue - CPUC			Note 2	616
617	456	9414000	Other Utility Operating Income			Note 2	617
618	456.1	4561000	Other Transmission Revenue - Wheeling			Note 2, 5	618
619							619
620	...						620

**Notes:**

- 1) Immaterial reconciling difference.
- 2) Run a query of col 2 (Natural Account) in SAP system to get col 4 and col 5.
- 3) Run a query of rent in SAP system to get Line 502, col 4-5.
- 4) Apply plant allocation factors after running a query of Natural Account in SAP system to get Line 612, col 4-5.
- 5) See FF1 330, col n, Total

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 21-CoO**

Cost of Ownership Rates

Rate Year:

**1) Monthly Cost of Ownership Rates**

<u>Line</u>				<u>Source</u>	<u>Line</u>
100	Monthly Customer Financed Cost of Ownership Rate:	#DIV/0!	Line 208		100

**2) Calculation of the Cost of Ownership Rates**

<u>Line</u>	<u>Description</u>	<u>Values</u>	<u>Source</u>	<u>Line</u>
200	Distribution Revenue Requirement	#DIV/0!	1-DRR, L. 513	200
201	Depreciation Expense for Distribution Plant	\$0	1-DRR L. 502	201
202	Gross Electric Distribution CGI Plant	\$0	1-DRR L. 101	202
203	Gross Electric Distribution Plant In Service including CGI Plant	\$0	1-DRR L. 102	203
204	Total Distribution Return on Capital and Income Taxes	#DIV/0!	1-DRR, L. 504 + L. 506	204
205	Electric Distribution CGI Plant Portion of Return and Taxes	#DIV/0!	(Line 202 / Line 203) * Line 204	205
206	Distribution Revenue Requirement Return when capital is contributed	#DIV/0!	Line 200 - Line 201 - Line 204 +Line 205	206
207	Annual Distribution Carrying Percentage with contributing capital	#DIV/0!	Line 203 / Line 206	207
208	Monthly Distribution Carrying Percentage with contributing capital	#DIV/0!	Line 207 / 12	208

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 22-TaxRates**

**Income Tax Rates**

**Prior Year: -2**

**Input cells are shaded gold**

**1) Tax Rates for the Rate Year**

<u>Line</u>	<u>Description</u>	<u>Value</u>	<u>Reference</u>	<u>Notes</u>	<u>Line</u>
100	Federal Income Tax Rate		Internal Revenue Code (IRC) Section 11		100
101	State Franchise Tax Rate (California)		California Rev. & Tax. Cd. § 23151		101
102	Federal Secondary	0.00%	Negative Line 100 * Line 101	Reflects the federal tax deduction for state taxes which reduces the composite income tax rate	102
103	<b>Composite Income Tax Rate</b>	<b>0.00%</b>	Sum of Lines 100-Line 102		<b>103</b>

**2) Tax Rates for the Prior Year True-up**

<u>Line</u>	<u>Description</u>	<u>Value</u>	<u>Reference</u>	<u>Notes</u>	<u>Line</u>
200	Federal Income Tax Rate		Internal Revenue Code (IRC) Section 11		200
201	State Franchise Tax Rate (California)		California Rev. & Tax. Cd. § 23151		201
202	Federal Secondary	0.00%	Negative Line 100 * Line 101	Reflects the federal tax deduction for state taxes which reduces the composite income tax rate	202
203	<b>Composite Income Tax Rate</b>	<b>0.00%</b>	Sum of Lines 100-Line 102		<b>203</b>

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 23-CustServCharge**

Customer Service Charge Calculations

Rate Year:

Input cells are shaded gold

**1) Average Hourly Rate Calculation**

**2021 Planned Hourly Rate Complex Billing Organization**

<u>Line</u>	<u>Description</u>	<u>Values</u>	<u>Source</u>	<u>Line</u>
100	<b>Total Billable Labor Costs</b>		SAP Activity Type Price, Note 1	100
<b>Overheads (Note 2)</b>				
101	Operational Mgmt & Support		Utility Standard: FIN-1104S - Third Party Billing Overhead Allocations	101
102	Base Facility Charges		Utility Standard: FIN-1104S - Third Party Billing Overhead Allocations	102
103	Computer/Telecom Charges		Utility Standard: FIN-1104S - Third Party Billing Overhead Allocations	103
104	Benefits		Utility Standard: FIN-1104S - Third Party Billing Overhead Allocations	104
105	Payroll Taxes		Utility Standard: FIN-1104S - Third Party Billing Overhead Allocations	105
106	Pension		Utility Standard: FIN-1104S - Third Party Billing Overhead Allocations	106
107	Workers Comp/LTD		Utility Standard: FIN-1104S - Third Party Billing Overhead Allocations	107
108	<b>Total Overheads</b>	<b>\$0.00</b>	Sum Lines 101 to 107	108
109	<b>Average Hourly Rate (Total Costs/Billable Hours)</b>	<b>\$0.00</b>	Sum Lines 100 and 108	109

**2) Customer Service Charges**

<u>Line</u>	<u>Customer</u>	<u>Hours</u> (Note 3)	<u>Total Charge</u> (Hours * Line 109)	<u>Line</u>
200			\$0.00	200
201			\$0.00	201
202			\$0.00	202
203			\$0.00	203
204			\$0.00	204
205			\$0.00	205
...			\$0.00	...

**Note 2:** To ensure rate payers are not subsidizing work being performed on behalf of third parties, the cost of the work must include a portion of overhead costs. This is required to reflect the full cost of work and allow for recovery of costs not included in labor rates. PG&E's costs are billed in accordance with the Uniform System of Accounts prescribed by the Federal Energy Regulatory Commission (FERC).

**Note 3:** Estimated average monthly labor in hours provided by the Complex Billing Organization.

**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 24-Allocators**

**Calculation of Allocation Factors**

Prior Year: -2

Input cells are shaded gold

Line	Description	Value	Reference	Notes	Line
<b>Calculation of Prior Year Total Electric Department Labor Allocation Factor</b>					
100	Total Company Wages and Salaries		FF1 355, L. 65, col b		100
101	Electric A&G Wages and Salaries		FF1 354, L. 27, col b		101
102	Gas A&G Wages and Salaries		FF1 355, L. 61, col b		102
103	Cost Adjustment		WP_24-Allocators_Labor, L. 100, col 3		103
104	<b>Total Company Wages and Salaries w/o A&amp;G</b>	\$0	Sum Lines 100 - 103		104
105	Total Electric Department Wages and Salaries		FF1 354, L. 28, col b		105
106	Electric A&G Wages and Salaries	\$0	Line 101		106
107	Cost Adjustment		WP_24-Allocators_Labor, L. 100, col 5		107
108	<b>Total Adjusted Electric Wages and Salaries wo A&amp;G</b>	\$0	Sum Lines 105 - 107		108
109	<b>Total Electric Department Labor as a % of Total Company Labor</b>	#DIV/0!	Line 108 / Line 104		109
<b>Calculation of Prior Year Electric Distribution Labor Allocation Factors</b>					
110	Total Adjusted Electric Wages and Salaries wo A&G	\$0	Line 108		110
111	Electric Distribution Wages and Salaries	\$0	18-OandM, L. 101, col 9		111
112	<b>Electric Distribution Labor as a % of Total Electric Allocation Factor</b>	#DIV/0!	Line 111 / Line 110		112
113	<b>Electric Distribution Labor as a % of Total Company Allocation Factor</b>	#DIV/0!	Line 111 / Line 104		113
<b>Calculation of Prior Year Distribution Plant Allocation Factor</b>					
114	Electric Distribution Plant In Service including CGI Plant		WP_7-PlantInService 6, L. 148, col 10	Prior Year Dec	114
115	Total PG&E Company Plant In Service		WP_7-PlantInService 6, L. 148, col 13	Prior Year Dec	115
116	<b>Electric Distribution Plant as a % of Total Company Plant</b>	#DIV/0!	Line 114 / Line 115		116
117	Electric Distribution Plant In Service including CGI Plant	\$0	Line 114	Prior Year Dec	117
118	Total PG&E Electric Plant In Service including CGI Plant		WP_7-PlantInService 6, L. 148, col 11	Prior Year Dec	118
119	<b>Electric Distribution Plant as a % of Total Electric Plant</b>	#DIV/0!	Line 117 / Line 118		119
<b>Calculation of Prior Year Liability Insurance Allocation Factor</b>					
120	<b>Liability Insurance Allocation Factor (50/50)</b>	#DIV/0!	Average of Line 113 and Line 116		120
<b>Calculation of Prior Year Property Tax Allocation Factor</b>					
121	Electric Distribution Accumulated Depreciation including CGI		WP_10-AccDep 6, L. 148, Col 10	Prior Year Dec	121
122	Total PG&E Electric Accumulated Depreciation including CGI		WP_10-AccDep 6, L. 148, Col 11	Prior Year Dec	122
123	Electric Distribution Net Plant in Service (Functional + CGI)	\$0	Line 117 - Line 121	Prior Year Dec	123
124	Total PG&E Electric Net Plant In Service (Functional + CGI)	\$0	Line 118 - Line 122	Prior Year Dec	124
125	<b>Net Plant Property Tax Allocation Factor</b>	#DIV/0!	Line 123 / Line 124		125
<b>Calculation of Prior Year Property Insurance Allocation Factor</b>					
126	Total PG&E Electric Plant In Service including CGI Plant	\$0	Line 118		126
127	Total PG&E Company Plant In Service	\$0	Line 115		127
128	<b>Total Electric Plant as a % of Total Company Plant</b>	#DIV/0!	Line 126 / Line 127		128
129	Total Insured Electric Distribution Plant		WP_24-Allocators_Property_Insurance, L. 1		129
130	Total Insured Electric Plant		WP_24-Allocators_Property_Insurance, L. 2		130
131	<b>Total Insured Electric Distribution Plant as a % of Total Insured Electric Plant</b>	#DIV/0!	Line 129 / Line 130		131



**Pacific Gas and Electric Company  
Formula Rate Model  
Schedule 25-RevenueFeeFactors**

Revenue Fee Factors

Prior Year: -2

Input cells are shaded gold

<u>Line</u>						<u>Line</u>
<b>1) Approved Franchise Fee Factor(s)</b>						
	<u>From</u>	<u>To</u>	<u>Days in Prior Year</u>	<u>Franchise Fee Factor</u>	<u>Reference</u>	
100					WP_25-RevenueFeeFactors 1, L. 102	100
101	...					101
<b>2) Approved San Francisco Gross Receipts Tax Factor(s)</b>						
	<u>From</u>	<u>To</u>	<u>Days in Prior Year</u>	<u>SFGR Tax Factor</u>	<u>Reference</u>	
200					WP_25-RevenueFeeFactors 2, L. 104	200
201	...					201
<b>3) Calculation of Weighted Average SFGR and Franchise Fee Factors</b>						
400	Franchise Fee Factor			#DIV/0!		400
401	SFGR Tax Factor			#DIV/0!		401

Revenue Sharing for Non-Tariff New Products & Services

Prior Year: -2

Input cells are shaded gold

**Total NP&S Distribution Revenues and Expenses**

Line	Description	Values	Source	Line
100	NP&S Distribution Revenue	\$0	20-RevenueCredits, Line 100, Col 6	100
101	NP&S Distribution O&M Expense			101
102	NP&S Distribution A&G Expense			102
103	<b>Total NP&amp;S Distribution Expense</b>	<b>\$0</b>	Line 101 + Line 102	<b>103</b>

**Distribution Revenues and Expenses by Product Line**

Line	Product Line	Col 1	Col 2	Col 3	Col 4	Line
		Note 1	Note 2	Col 1 - Col 2	Note 3	
		Revenues	Expense	Net Revenues	Net Revenues Adjusted	
200	Total	\$0	\$0	\$0	\$0	200
201	ATS			\$0	\$0	201
202	FIBER (WIRELINE)			\$0	\$0	202
203	FM (MAINTENANCE & CONSULTING)			\$0	\$0	203
204	IP			\$0	\$0	204
205	PT-SLA			\$0	\$0	205
206	WIRELESS			\$0	\$0	206
207	...					207

**Calculation of Pre-tax Revenue Allocation %**

Line	Description	Values	Source	Line
300	PTNR (Pre-tax net revenue)	\$0	Line 200, Col 4	300
301	t = Composite state & federal tax rate	0.00%	1-DRR, L. 402	301
302	k = The ratio of customer to shareholder after tax net revenues.	1	50%/50% = 1	302
303	PSA% (Pre-Tax Shareholder Percent of Net Revenues) = $1 / (1 + k - kt)$	50.00%	$1 / [1 + \text{Line 302} - (\text{Line 302} * \text{Line 301})]$	303
304	CRC% (Customer Revenue Credit Percent of Net Revenues) = $1 - [1 / (1 + k - kt)]$	50.00%	1 - Line 303	304

**Calculation of 50/50 After-Tax Sharing**

Line	Description	Values	Source	Line
400	Pre-tax Shareholder Allocation (PSA\$) = PTNR * PSA%	\$0	Line 300 * Line 303	400
401	State and Federal taxes = PSA\$ * t	\$0	Line 400 * Line 301	401
402	Shareholder Allocation	\$0	Line 400 - Line 401	402
403	Customer Revenue Credit (CRC\$) = PTNR * CRC%	\$0	Line 304 * Line 300	403

**Notes:**

- 1) Please see WP\_26-NPS 1 for Revenues by Product Line.
- 1) Please see WP\_26-NPS 2 for Expenses by Product Line.
- 3) Product Lines with negative Net Revenues are set to zero.

**ATTACHMENT A:**  
**Form Of Service Agreement For Wholesale Distribution Service**

- 1.0 This Service Agreement, dated as of \_\_\_\_\_, is entered into, by and between \_\_\_\_\_ (the “Distribution Provider”), and \_\_\_\_\_ (“Distribution Customer”).
- 2.0 The Distribution Customer has been determined by the Distribution Provider to be an Eligible Customer and to have a Completed Application for Distribution Service under the Wholesale Distribution Tariff.
- 3.0 The Distribution Customer has provided to the Distribution Provider an Interconnection Request Fee in accordance with the provisions of Section 13.2 of the Tariff.
- 4.0 Service under this agreement shall commence on the later of (1) the requested service commencement date, or (2) the date on which construction of any Direct Assignment Facilities and/or Upgrades are completed, or (3) such other date as it is permitted to become effective by the Commission. Service under this agreement shall terminate in accordance with Section 10.2 of the Tariff or on such date as mutually agreed upon by the parties.
- 5.0 The Distribution Provider agrees to provide and the Distribution Customer agrees to take and pay for Distribution Service in accordance with the provisions of the Tariff and this Service Agreement.
- 6.0 Any notice or request made to or by either Party regarding this Service Agreement shall be made to the representative of the other Party as indicated below.

Distribution Provider:

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Distribution Customer:

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7.0 The Tariff and the attached Details of Service and Exhibits are incorporated herein and made a part hereof.

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Distribution Provider:

By: \_\_\_\_\_  
Name Title Date

Distribution Customer:

By: \_\_\_\_\_  
Name Title Date

## Details of Service

1.0 Term of Transaction: \_\_\_\_\_

Start Date: \_\_\_\_\_

Termination Date (if the Distribution Customer opts for a term other than the standard term): \_\_\_\_\_

2.0 Description of capacity and energy to be transmitted by Distribution Provider including the electric Control Area in which the transaction originates.

\_\_\_\_\_

3.0 Point(s) of Receipt : \_\_\_\_\_

Delivery Party: \_\_\_\_\_

Delivery voltage: \_\_\_\_\_

4.0 Point(s) of Delivery: \_\_\_\_\_

Receiving Party: \_\_\_\_\_

Delivery voltage: \_\_\_\_\_

5.0 Contract Demand:

\_\_\_\_\_

6.0 Service under this Agreement may be subject to some combination of the charges detailed below. (The appropriate charges for individual transactions will be determined in accordance with the terms and conditions of the Tariff.)

6.1 Distribution Service Rate as stated in Appendix I: Formula Rate in the Tariff

6.2 System Impact and/or Facilities Study Charge(s):

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6.3 Direct Assignment Facilities Charge:

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6.4 Cost of Ownership Charge:

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6.5 Customer Service Charge

The Customer Service Charge as stated in Appendix I: Formula Rate of the Tariff.:

7.0 Distribution Customer's Service Data

The Distribution Customer has requested this service to supply their wholesale power requirements as described:

\_\_\_\_\_ load (load type)

Estimated load is \_\_\_\_\_ MW monthly peak demand, Summer

Estimated load is \_\_\_\_\_ MW monthly peak demand, Winter

Include hourly demand profile for the peak Summer day and peak Winter day.

\_\_\_\_\_

**Interconnection Point:** \_\_\_\_\_

Interconnection to Distribution Customer

From: \_\_\_\_\_

To: \_\_\_\_\_

Describe and attach a sketch. Delivery Voltage

**Delivery Point:** if other than to Distribution Customer

Name of Receiving entity \_\_\_\_\_

Point of Delivery (description) \_\_\_\_\_

Power Factor data: Base PF \_\_\_\_% Corrected PF \_\_\_\_%

Load Factor: Peak Month, monthly LF. \_\_\_\_%

Average annual LF. \_\_\_\_%

Monthly consumption, kWh(@)Peak Demand month \_\_\_\_kwh

Annual consumption, kWh \_\_\_\_kwh

The Distribution Provider's initially required corrected PF (Section \_\_\_\_ of Tariff.)

Peak Load PF \_\_\_\_\_% @ Specified Time \_\_\_\_

Minimum Load PF \_\_\_\_% @ Specified Time \_\_\_\_

## **8.0 Stranded Cost Recovery**

Pursuant to Section 19 of the Tariff in agreeing to provide Distribution Service under the Tariff, the Distribution Provider may seek to recover stranded costs from the Distribution Customer and the Distribution Provider reserves the right to collect any applicable nonbypassable charges.

## **9.0 Facilities Required for Distribution Service**

The Distribution Provider agrees to provide Distribution Services via its existing Distribution Facilities, with modification as needed, to supply Distribution Customer's load as specified above. In the event it is necessary to extend the Distribution System, with the new installation of facilities, the following describes installation responsibilities:

### **9.1 Construction Responsibilities of the Distribution Provider**

The Distribution Provider shall install the Distribution Facilities needed to interconnect with the Distribution Customer's facilities at the point of interconnection. These facilities include those required related to the Distribution Customer's project, and only those facilities that, in the Distribution Provider's judgment, will be used within a reasonable time to serve permanent load. Such facilities include the installation of conductors, poles, pole risers, switches, devices, and other distribution facilities required to complete the interconnection.

### **9.2 Construction Responsibilities of Distribution Customer**

The Distribution Customer shall perform or arrange for the performance of the following work required for this project:

- Route clearing, tree trimming, trenching, excavating,
- backfilling, and compacting;



- Furnish imported backfill material required and disposal of trench spoil as required;
- Perform necessary surface repair and boring as required;
- Furnish, install, and transfer ownership to the Distribution Provider any substructures, conduits, and protective structures required for Direct Assignment Facilities or Distribution Facilities owned by the Distribution Provider that are required to interconnect the Distribution Customer; and
- Obtain any necessary construction permit for all work performed by Distribution Customer under this Service Agreement.

Description of Distribution Provider-owned Facilities the Distribution Provider is to install, replace, in order to provide the requested Distribution Service:

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Description of Direct Assignment Facilities (if any)

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## **10.0 Distribution Customer Payments and Adjustments**

### **10.1 One-Time Payment in Advance of Construction**

Distribution Customer shall pay a one-time payment to the Distribution Provider, on demand and in advance of any construction, equal to the total amount shown in Exhibit A - Cost Summary. This cost consists of the following components as determined in the Exhibits:

- Installation Charge - The Distribution Customer agrees to pay the Distribution Provider's total estimated cost of the facilities to serve the Distribution Customer, less credits, if any, as shown on Exhibit B.
- ITCC (CIAC) Tax - The Distribution Customer must pay the taxes on such contributions, in addition to any other applicable contributions, such as facilities installed by the Distribution Customer, and deeded to the Distribution Provider. The determination of the tax due is shown on Exhibit C and is \$\_\_\_\_\_.

### **10.2 Cost Responsibility for Altered or Rearranged Direct Assignment Facilities and Equitable Adjustments for Connection of Additional Customers**

This Section 10.2 shall govern cost responsibility for Direct Assignment Facilities that are to be altered or rearranged. If the Distribution Customer requests alteration or rearrangement of Direct Assignment Facilities, the Distribution Customer shall pay an additional advance and/or rearrangement costs, if any, for any new facilities, plus a revised monthly or equivalent one-time cost of ownership charge. If it becomes necessary for PG&E to alter or rearrange the Direct Assignment Facilities for its own purposes and not at the request of the original Distribution Customer, or if PG&E connects another PG&E customer to the Direct Assignment Facilities, the Distribution Provider shall notify the Distribution Customer, and the Distribution Provider will make an equitable adjustment to the Distribution Customer with respect to the Direct Assignment Facilities. Connection of another customer, including but not limited to another PG&E customer, to a Distribution Customer's Direct Assignment Facilities will not affect the Distribution Customer's eligibility for continued wholesale service at the applicable rate as stated in Appendix I: Formula Rate in the Tariff

### **11.0 Voltage Stability and Interference with Service**

Under normal load conditions, the Distribution Provider will deliver sustained voltage as close to the nominal service voltage as is economically practical. Any deviations from the normal voltage levels will be no greater than the service voltage ranges specified in the Distribution Provider's Electric Rule 2 on file with the CPUC. Exceptions to voltage limits are

specified also in Electric Rule 2. The Distribution Customer is responsible for planning, designing, operating, and protecting equipment beyond the interconnection point, in such a fashion as to not interfere with service to other customers, as also set forth in Rule 2.

## **12.0 Power Factor Requirements**

### **12.1 General**

Each Eligible Customer must comply with the VAR requirements as specified in the TO Tariff or in their agreement with the ISO. However, in order to meet local distribution operating needs, PG&E may also, consistent with Section 17.4, require that the Distribution Customer maintain specified power factors at peak load and at minimum load. Generally, such power factor may be the same as, but shall not be required to exceed, the power factor PG&E maintains for that particular area. This may require that fixed, and/or switched capacitors, or other power factor correction devices be installed. The power factor target may vary from time to time as area conditions change. PG&E shall provide information to the Eligible Customer about the required power factors and shall include that information in this Service Agreement.

### **12.2 Power Factor Maintenance and Future Changes in Target Power Factor**

Due to changes in system requirements, the necessary power factor may change from time to time. Upon changes in that required power factor after service is established, PG&E shall provide written notice to the Distribution Customer, and provide ample lead time for corrective action by the Distribution Customer to the extent the need for corrective devices is caused by general system requirements or by said Distribution Customer. In the event that the need for correction devices is caused by other customers, a Distribution Customer need not maintain the power factors at the Interconnection Point, as specified by PG&E, at the Distribution Customer's expense, but PG&E may, at its option, install the necessary distribution capacitors or other power factor correction devices. Costs and payments for such devices will, to the extent applicable, be directly assigned to the Distribution Customer whose load caused the need for the correction devices.

In no event shall a wholesale Distribution Customer be responsible for their reactive requirements (VARs) through the TO Tariff or their ISO agreement and in addition incur responsibility for local distribution power factor correction for the same reactive (VAR) requirements. If local power factor correction is installed at Distribution Customer expense, such reactive support shall be credited to the Distribution Customer's meter readings. (Note: if such installation is on the Distribution Customer's side of the revenue meters, the meter readings already incorporate the correction.)

However, if installation of capacitors is required to correct voltage conditions caused by the Distribution Customer, such installation shall be at the Distribution Customer's expense in accordance with terms of this Tariff, regardless of any other reactive provisions. Such installations may serve to reduce the Distribution Customer's reactive requirements through the ISO.

### **12.3 Power Factor**

The Distribution Provider shall specify a power factor within a bandwidth of 0.95 lagging to 0.95 leading (or, in appropriate circumstances, a less-restrictive bandwidth), and the Distribution Customer will operate at the specified power factor within the following tolerances:

Peak Hours, 12:00 PM to 6:00 PM:  $\pm 0.01$

Off-Peak Hours, 6:01 PM to 11:59 AM:  $\pm 0.02$

In extraordinary circumstances, a more restrictive bandwidth may be specified. A Distribution Customer must, subject to Sections 14.1 and 14.2, maintain at all times the required power factor, except to the extent required to provide reactive power support in accordance with Section 10.9, Self Provision of Ancillary Services, of the Tariff. The power factor for the Distribution Customer is \_\_\_\_\_.

**Distribution  
Service Agreement  
Exhibit A – Cost Summary**

**Distribution Customer**

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**Project Name and Location**

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The total Advance Payment required for the above project prior to start of construction is as follows:

- Installation Charge (From Exhibit B - Installation Charge) \$ \_\_\_\_\_
- ITCC Tax (From Exhibit C - ITCC Tax) \$ \_\_\_\_\_
- Total (Sum of Installation Charge and ITCC Tax) \$ \_\_\_\_\_

In addition, an on-going monthly cost of ownership payment for facilities relevant to this project is required. The payment will be due monthly and included in the monthly billing for Distribution Service.

- × Monthly Cost of Ownership  
(From Exhibit D - Cost of Ownership) \$ \_\_\_\_\_/Month

**Distribution  
Service Agreement  
Exhibit B – Installation Charge**

The following is the Distribution Provider's site-specific estimate (Gross Financial Costs -- labor, material, indirect and overhead cost components) for the facilities required to provide Distribution Service to the above project. It excludes any work on the Distribution Provider's facilities which is done for the convenience of the Distribution Provider, such as work to accommodate future system expansion, or capacity increases. Upon completion of the project, the Distribution Provider shall determine the actual cost of installing facilities and shall provide a final accounting to the Distribution Customer. The Distribution Provider shall invoice or refund the Distribution Customer for the difference between the Advance Payment and actual cost for the facilities, plus interest calculated pursuant to 18 C.F.R. § 35.19a.

Description of facilities to be installed:

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|----|--|----------|
| 1. | Distribution System Capacity Increases<br><br>(reconductoring, equipment replacement, rearrangements, to accommodate Distribution Customer's initial load) | \$ _____ |
| 2. | Protection System Modifications<br><br>(installation and reconfiguration of protective devices)  | \$ _____ |
| 3. | Power Factor Correction<br><br>(____ KVAR of ( ) Fixed, ( ) Switched Capacitors required to attain _____ % Power Factor)                                   | \$ _____ |

4. Voltage Correction Devices \$ \_\_\_\_\_  
(Installation of regulators, boosters, and capacitors)
5. Primary Extension Estimated Costs \$ \_\_\_\_\_  
(Poles, conductors, other equipment)
6. Revenue Meters \$ \_\_\_\_\_  
(Initial cost to install and the field set up revenue meters, plus the administrative costs of setting up the revenue data retrieval)
7. Telecommunications Facilities \$ \_\_\_\_\_  
(Initial payments to telephone company for the installation of phone lines etc, plus related telecommunications work by the Distribution Provider to establish telecom links. Does not include on-going monthly service charges.)
8. Total Initial Installation Charge \$ \_\_\_\_\_  
(Sum of 1 through 7)

**Distribution  
Service Agreement  
Exhibit C – ITCC Tax**

1. One-time payment (advance) by Distribution Customer \$ \_\_\_\_\_  
(From Exhibit B - Installation Charge)

2. Value of trenching and conduits subject to ITCC \$ \_\_\_\_\_  
(Description of facilities)

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3. Other applicable contributions subject to ITCC \$ \_\_\_\_\_  
(Description)

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4. Total taxable amount \$ \_\_\_\_\_  
(Sum of Items 1 thru 3)

5. Tax Rate

6. Tax Due Tax Rate (line 5) x Taxable Amount (line 4) = \$ \_\_\_\_\_



**Distribution**  
**Service Agreement**  
**Exhibit D – Cost of Ownership**

The Cost of Ownership is the Distribution Provider's on-going cost liabilities of owning and operating facilities, including such items as maintenance costs, replacement costs (due to age and normal life and deterioration), and ad valorem taxes. The Cost of Ownership charge is the product of the actual installation costs, which include facilities installed by the Distribution Provider plus facilities installed by the Distribution Customer or others, if any, that are deeded to the Distribution Provider and the currently effective Cost of Ownership rate. To the extent that the Cost of Ownership in this Exhibit D is based on estimated facilities costs, the Cost of Ownership shall be trued-up to the actual facilities costs once the final accounting of the cost of the facilities has been performed by the Distribution Provider.

1. Cost of Facilities Installed by the Distribution Provider \$ \_\_\_\_\_  
(From line 8 of Exhibit B - Installation Charge)
  
2. Cost of Facilities Installed by Distribution Customer or Others \$ \_\_\_\_\_  
and Deeded to the Distribution Provider  
(Based on Distribution Customer's Gross Financial installed cost)
  
3. Total Cost Basis (Sum of line 1 and line 2) \$ \_\_\_\_\_
  
4. Applicable Cost of Ownership Rate \_\_\_\_\_ %  
As stated in Appendix I: Formula Rate in the Tariff.
  
5. Applicable Monthly Cost of Ownership \$ \_\_\_\_\_ /month  
(line 3 x line 4)

## **ATTACHMENT B: Methodology To Assess Available Distribution Capability**

### **1.0 GENERAL**

The Distribution Provider utilizes a general on-going distribution planning process. This process yields a forecast of area-specific loads, and loads on major distribution equipment. Comparison of projected loads and capabilities yields the available capability. A more detailed description is provided to cover the specifics.

### **2.0 PLANNING CRITERIA**

Planning criteria requires consideration of both normal and emergency operation of the distribution system. Planning guidelines provide parameters for standardizing the process to the extent possible:

#### **2.1 Normal Criteria**

Area distribution systems are planned to include sufficient transmission input, substation capability, and distribution circuit capability to supply the forecasted loads without overloading any Distribution Facilities or deviating from normal operating conditions.

#### **2.2 Emergency Criteria**

Area distribution systems are planned for emergency conditions such as the loss (failure) of a component, so that the remaining Distribution Facilities can supply the load without exceeding their emergency capabilities.

### **3.0 SELECTION OF DISTRIBUTION STUDY AREAS**

To perform distribution studies most effectively and conveniently, the distribution system is divided into study areas. The boundaries for study areas are determined based on natural geographic features, such as rivers or mountains, and electrical boundaries, such as the physical end of the distribution system. Consideration is also given to load distribution, growth rate

characteristics, primary distribution voltage, and distribution ties between substations. An ideal study area would have uniform load distribution, uniform growth rate, a single primary distribution voltage, strong distribution ties between substations in the study area, and no ties outside the study area.

#### **4.0 LOAD FORECASTING**

Load forecasts are prepared for each study area described in Section 3.0 above. Such forecasts are prepared based on historical seasonal peak load growth in the area in combination with forecasted changes in the economy, new incoming industry, or developments, and closures. Efforts involve forecasting magnitude and location of expected loads as accurately as possible to ensure the adequacy of facilities in the total area as well as locally.

To forecast loads, usually historical load data is used for several years to develop linear load projections using least squares curve fitting. Such projections are adjusted based on anticipated changes in the area to reflect government planning information, customer growth trends, land-use constraints, temperature data, and other relevant factors.

This process is particularly helpful in forecasting area loads. The forecasted loads on individual substations, down to the distribution feeder level, are determined as a continuation of the process except more localized information is of greater value.

#### **5.0 CAPABILITY OF FACILITIES**

Load-carrying capability of the various components of the existing distribution system is an integral element of the process. The capability limits for a distribution substation are generally determined by the capability of the transformer banks in the substation. In some cases, the substation capability may be limited instead by the incoming transmission lines or the distribution circuits emanating from the substation to the loads.

The normal capability is determined for each substation transformer, and distribution circuit along with the emergency capability which is much higher. These capabilities are usually determined by the temperature rise limitations of the transformer and circuit components, and are affected by ambient temperatures as well as loading.

## **6.0 AVAILABLE CAPABILITY**

By comparing equipment forecasted loads, including the Distribution Customer's request, with equipment capability for the season and year in question, the available capability can be determined. If the load forecasts were recently completed, and the forecasted period is in the near future, accuracy of the available capability may be comparatively high. In this case, if the available capability is high in comparison to the Distribution Customer's requested load, one may confidently decide the ability to supply the requested service. On the other hand, if the forecast is old, meaning it is almost time to produce a new analysis, the data used to make the forecast is less than ideal, or if the period in question is in the distant future, then the confidence in the accuracy of the analysis is somewhat diminished. In these cases, a more detailed or updated analysis, may be necessary. This becomes particularly the case if the available capability is also very close to the Distribution Customer's request, and the safety margin is very small.

**ATTACHMENT C:  
Methodology for Completing a System Impact Study**

**1.0 GENERAL**

Determination of the available capability also effectively identifies limiting factors in supplying forecasted loads. Based on these limitations, and through the use of sound engineering judgment and consideration of economic analysis, corrective plans can be made.

**2.0 DEVELOPMENT OF ALTERNATIVE PLANS**

With a clear identification of the limiting factors, engineering personnel develop several plans that correct the identified deficiencies and are sufficient for several future planning cycles. Usually the more costly the equipment required, the longer the period the study must cover to provide ample lead time to implement the plans and strive for equivalency among the alternatives. Other factors, such as governmental and regulatory restraints, other agencies plans and requirements, as well as environmental factors, are also taken into account in developing the alternatives.

**3.0 ECONOMIC COMPARISON OF ALTERNATIVES AND PLAN SELECTION**

Usually the next and final step is to select the most economic plan. Such selection involves utility economics in the comparison of levelized revenue requirements or net present value of the alternatives considered. Ultimately, the alternative with the lowest overall cost, or conversely, the greatest overall benefit, is selected as the recommended alternative.

Completion of the System Impact Study constitutes an analysis of the Distribution System and major Distribution Facilities required to provide adequate capability. Subsequently, further detailed engineering is required to prepare construction drawings, material lists for construction, and companion cost estimates and responsibilities.

**ATTACHMENT D:  
Wholesale Distribution Losses**

1.0. POWER (DEMAND) LOSSES

The demand losses, expressed in kW, attributable to a given load are those losses created by the load in question. This is the total losses with existing load plus the load in question, less the existing losses without the added load. These losses are site-specific calculations and are as follows:

$$\text{Losses, kW} = 3 I_T^2 R - 3 I_B^2 R$$

Where,

$I_T$  = Total load current in one wire, in amps. (The current for the existing base load plus the load in question.)

$I_B$  = Base load current in one wire, in amps. (Existing load without the load in question.)

$I_L$  = Load current in one wire, in amps for the load in question.

$R$  = Resistance of one wire (phase) in the path from the point of receipt to the point of delivery.

If there are multiple sections of circuitry in the path to the point of delivery, with substantially different characteristics, either load current or resistance, the losses must be considered for each line section, and then combined with all other line sections in the path.

Energy losses are simply the hourly kW losses accumulated over the period in question and expressed in kWhs.

To simplify the calculations, PG&E has historically used system average energy and power loss factors developed from a specific study of losses. PG&E will use those system average loss factors in the determination of losses, both energy and power, as applicable to this

tariff based upon system average loss factors as specified in PG&E's latest Test Year Filing. (See page BB-3 of Volume 4, Workpapers, in Docket No. OA96-28-000.)

The Distribution loss factors are:

	Demand Loss Factor	Energy Loss Factor
Primary System	1.83%	1.25%
Secondary System	2.66%	3.62%

### **Demand Losses**

Primary Distribution Demand Losses:

$$1000\text{kW} \times 1.83\% = 18.3\text{kW (at peak load)}$$

Secondary Distribution (If secondary service is involved)

$$1000\text{kW} \times 2.66\% = 26.6\text{kW (at peak load)}$$

$$18.3\text{kW} + 26.6\text{kW} = 44.9\text{kW}$$

Then, Total Distribution Losses would be 44.9 kW

### **Energy Losses**

Annual Energy Consumption = 1000kW x .65 Load Factor x 8760 hrs/yr

$$= 5,694,000\text{kWh}$$

Primary Distribution Energy Losses:

$$5,694,000\text{kWh} \times 1.25\% = 71,175\text{kWh (at peak load)}$$

Secondary Distribution Energy Losses: (If secondary service is involved)

$$5,694,000\text{kWh} \times 3.62\% = 206,123\text{kWh (at peak load)}$$

$$71,175\text{kWh} + 206,123\text{kWh} = 277,298\text{kWh}$$

Then, Total Distribution Energy Losses would be 277,298kWh



**ATTACHMENT E:  
Small Generator Interconnection Procedures (SGIP)  
(For Generating Facilities No Larger Than 20 MW)**

**Section 1. Application**

1.1 Applicability

- 1.1.1 A request to interconnect a certified Small Generating Facility (See Attachments 3 and 4 for description of certification criteria) no larger than 2 MW shall be evaluated under the section 2 Fast Track Process. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kW shall be evaluated under the Attachment 5 10 kW Inverter Process. A request to interconnect a Small Generating Facility larger than 2 MW but no larger than 20 MW or a Small Generating Facility that does not pass the Fast Track Process or the 10 kW Inverter Process, shall be evaluated under the section 3 Study Process.
- 1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of these procedures.
- 1.1.3 Neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for interconnection prior to 60 Business Days after the effective date of these procedures.
- 1.1.4 Prior to submitting its Interconnection Request (Attachment 2), the Interconnection Customer may ask the Distribution Provider's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The Distribution Provider shall respond within 15 Business Days.
- 1.1.5 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Federal Energy Regulatory Commission expects all Distribution and Transmission Providers, market participants, and Interconnection Customers

interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

1.1.6 References in these procedures to interconnection agreement are to the Small connection Agreement (SGIA).

## 1.2 Pre-Application

The Distribution Provider shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Distribution Provider's Internet web site. Electric system information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Distribution Provider's Distribution System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The Distribution Provider shall comply with reasonable requests for such information.

## 1.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the Distribution Provider, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and time-stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the Distribution Provider within three Business Days of receiving the Interconnection Request. The Distribution Provider shall notify the

Interconnection Customer within ten Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the Distribution Provider shall provide along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the Distribution Provider.

#### 1.4 Modification of the Interconnection Request

Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the Distribution Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

#### 1.5 Site Control

Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

- 1.8.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;
- 1.8.2 An option to purchase or acquire a leasehold site for such purpose; or
- 1.8.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

## 1.6 Queue Position

The Distribution Provider shall assign a Queue Position based upon the date- and time-stamp of the Interconnection Request. The Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Distribution Provider shall maintain a single queue per geographic region. At the Distribution Provider's option, Interconnection Requests may be studied serially or in clusters for the purpose of the system impact study.

## 1.7 Interconnection Requests Submitted Prior to the Effective Date of the SGIP

Nothing in this SGIP affects an Interconnection Customer's Queue Position assigned before the effective date of this SGIP. The Parties agree to complete work on any interconnection study agreement executed prior the effective date of this SGIP in accordance with the terms and conditions of that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this SGIP.

## **Section 2. Fast Track Process**

### 2.1 Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Distribution Provider's Distribution System if the Small Generating Facility is no larger than 2 MW and if the Interconnection Customer's proposed Small Generating Facility meets the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the Distribution Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

### 2.2 Initial Review

Within 15 Business Days after the Distribution Provider notifies the Interconnection Customer it has received a complete Interconnection Request, the Distribution Provider

shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Distribution Provider's determinations under the screens.

### 2.2.1 Screens

2.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Distribution Provider's Distribution System that is subject to the Tariff.

2.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Distribution Provider's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

2.2.1.3 For interconnection of a proposed Small Generating Facility to the load side of Spot Network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 50 kW<sup>Fn 1/</sup> to ensure continuous import of power. Under no condition shall the interconnection of a Small Generating Facility result in a backfeed of a spot network or cause unnecessary operation of any Spot Network protectors.

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Fn. 1/ A Spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11th edition, Donald Fink, McGraw Hill Book Company)

2.2.1.4 The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 %

to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

2.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

2.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Distribution Provider's electric power system due to a loss of ground during the operating time of any antiislanding function.

<b>Primary Distribution Line</b>	<b>Type of Interconnection to Primary Distribution Line</b>	<b>Result/CriteriaType</b>
Three-phase, three wire	3-phase or single phase, phase to phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single phase line-to-neutral	Pass screen

2.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

2.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition

shall not create an imbalance between the two sides of the 240 volt service of more than 20 % of the nameplate rating of the service transformer.

2.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

2.2.1.10 No construction of facilities by the Distribution Provider on its own system shall be required to accommodate the Small Generating Facility.

- 2.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the Distribution Provider will provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.
- 2.2.3 If the proposed interconnection fails the screens, but the Distribution Provider determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Distribution Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days after the determination.
- 2.2.4 If the proposed interconnection fails the screens, but the Distribution Provider does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider modifications or further study, the Distribution Provider shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

### 2.3 Customer Options Meeting

If the Distribution Provider determines the Interconnection Request cannot be approved without minor modifications at minimal cost; or a supplemental study or other additional studies or actions; or at significant cost to address safety, reliability, or power quality problems, within the five Business Day period after the determination, the Distribution Provider shall notify the Interconnection Customer and provide copies of all data and analyses underlying its conclusion. Within ten Business Days of the Distribution Provider's determination, the Distribution Provider shall offer to convene a customer options meeting with the Distribution Provider to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the Distribution Provider's determination, or at the customer options meeting, the Distribution Provider shall:

- 2.3.1 Offer to perform facility modifications or minor modifications to the Distribution Provider's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Distribution Provider's electric system; or
- 2.3.2 Offer to perform a supplemental review if the Distribution Provider concludes that the supplemental review might determine that the Small Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, and provide a non-binding good faith estimate of the costs of such review; or
- 2.3.3 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the section 3 Study Process.

### 2.4 Supplemental Review

If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer shall agree in writing within 15 Business Days of the offer, and submit a deposit for the estimated costs. The Interconnection Customer shall be responsible for the



Distribution Provider's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Distribution Provider will return such excess within 20 Business Days of the invoice without interest.

2.4.1 Within ten Business Days following receipt of the deposit for a supplemental review, the Distribution Provider will determine if the Small Generating Facility can be interconnected safely and reliably.

2.4.1.1 If so, the Distribution Provider shall forward an executable an interconnection agreement to the Interconnection Customer within five Business Days.

2.4.1.2 If so, and Interconnection Customer facility modifications are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the Distribution Provider shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days after confirmation that the Interconnection Customer has agreed to make the necessary changes at the Interconnection Customer's cost.

2.4.1.3 If so, and modifications to the Distribution Provider's electric system are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under the Fast Track Process, the Distribution Provider shall forward an executable interconnection agreement to the Interconnection Customer within ten Business Days that requires the Interconnection Customer to pay the costs of such system modifications prior to interconnection.

2.4.1.4 If not, the Interconnection Request will continue to be evaluated under the section 3 Study Process.

## **Section 3. Study Process**

### **3.1 Applicability**

The Study Process shall be used by an Interconnection Customer proposing to interconnect Its Small Generating Facility with the Distribution Provider's Distribution System if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.

### **3.2 Scoping Meeting**

3.2.1 A scoping meeting will be held within ten Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties.

The Distribution Provider and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.

3.2.2 The purpose of the scoping meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties shall further discuss whether the Distribution Provider should perform a feasibility study or proceed directly to a system impact study, or a facilities study, or an interconnection agreement. If the Parties agree that a feasibility study should be performed, the Distribution Provider shall provide the Interconnection Customer, as soon as possible, but not later than five Business Days after the scoping meeting, a feasibility study agreement (Attachment 6) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

3.2.3 The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within 15 Business Days. If the Parties agree not to perform a feasibility study,

the Distribution Provider shall provide the Interconnection Customer, no later than five Business Days after the scoping meeting, a system impact study agreement (Attachment 7) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

### 3.3 Feasibility Study

- 3.3.1 The feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the Small Generating Facility.
- 3.3.2 A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of \$1,000 may be required from the Interconnection Customer.
- 3.3.3 The scope of and cost responsibilities for the feasibility study are described in the attached feasibility study agreement.
- 3.3.4 If the feasibility study shows no potential for adverse system impacts, the Distribution Provider shall send the Interconnection Customer a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If no additional facilities are required, the Distribution Provider shall send the Interconnection Customer an executable interconnection agreement within five Business Days.
- 3.3.5 If the feasibility study shows the potential for adverse system impacts, the review process shall proceed to the appropriate system impact study(s).

### 3.4 System Impact Study

- 3.4.1 A system impact study shall identify and detail the electric system impacts that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the scoping meeting. A

system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

- 3.4.2 If no system impact study is required, but potential electric power Distribution System adverse system impacts are identified in the scoping meeting or shown in the feasibility study, a distribution system impact study must be performed. The Distribution Provider shall send the Interconnection Customer a distribution system impact study agreement within 15 Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the scoping meeting if no feasibility study is to be performed.
- 3.4.3 In instances where the feasibility study or the distribution system impact study shows potential for transmission system adverse system impacts, within five Business Days following transmittal of the feasibility study report, the Distribution Provider shall send the Interconnection Customer a transmission system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.
- 3.4.4 If a transmission system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no distribution system impact study has been conducted, the Distribution Provider shall send the Interconnection Customer a distribution system impact study agreement.
- 3.4.5 If the feasibility study shows no potential for transmission system or Distribution System adverse system impacts, the Distribution Provider shall send the Interconnection Customer either a facilities study agreement (Attachment 8), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or an executable interconnection agreement, as applicable.

- 3.4.6 In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within 30 Business Days.
- 3.4.7 A deposit of the good faith estimated costs for each system impact study may be required from the Interconnection Customer.
- 3.4.8 The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement.
- 3.4.9 Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") – whether investor-owned or not – the Interconnection Customer may apply to the nearest transmission provider (transmission owner, regional transmission operator, or independent transmission provider) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

### 3.5 Facilities Study

- 3.5.1 Once the required system impact study(s) is completed, a system impact study report shall be prepared and transmitted to the Interconnection Customer along with a facilities study agreement within five Business Days, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. In the case where one or both impact studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.
- 3.5.2 In order to remain under consideration for interconnection, or, as appropriate, in the Distribution Provider's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within 30 Business Days.

- 3.5.3 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s).
- 3.5.4 Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. The Distribution Provider may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the Distribution Provider may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Distribution Provider, under the provisions of the facilities study agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Distribution Provider shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.
- 3.5.5 A deposit of the good faith estimated costs for the facilities study may be required from the Interconnection Customer.
- 3.5.6 The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement.
- 3.5.7 Upon completion of the facilities study, and with the agreement of the Interconnection Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study , the Distribution Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days.

## **Section 4. Provisions that Apply to All Interconnection Requests**

### **4.1 Reasonable Efforts**

The Distribution Provider shall make reasonable efforts to meet all time frames provided in these procedures unless the Distribution Provider and the Interconnection Customer agree to a different schedule. If the Distribution Provider cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

### **4.2 Disputes**

4.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

4.2.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.

4.2.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.

4.2.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

4.2.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

4.2.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

#### 4.3 Interconnection Metering

Any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Federal Energy Regulatory Commission, state, or local regulatory requirements or the Distribution Provider's specifications.

#### 4.4 Commissioning

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards. The Distribution Provider must be given at least five Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

#### 4.5. Confidentiality

4.5.1 Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.

4.5.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that



information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

4.5.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

4.5.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

4.5.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1 b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### 4.6 Comparability

The Distribution Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this document. The Distribution Provider shall use the

same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Small Generating Facility is owned or operated by the Distribution Provider, its subsidiaries or affiliates, or others.

#### 4.7 Record Retention

The Distribution Provider shall maintain for three years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

#### 4.8 Interconnection Agreement

After receiving an interconnection agreement from the Distribution Provider, the Interconnection Customer shall have 30 Business Days or another mutually agreeable timeframe to sign and return the interconnection agreement, or request that the Distribution Provider file an unexecuted interconnection agreement with the Federal Energy Regulatory Commission. If the Interconnection Customer does not sign the interconnection agreement, or ask that it be filed unexecuted by the Distribution Provider within 30 Business Days, the Interconnection Request shall be deemed withdrawn. After the interconnection agreement is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the interconnection agreement.

#### 4.9 Coordination with Affected Systems

The Distribution Provider shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The Distribution Provider will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Distribution Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A

Transmission Provider which may be an Affected System(s) shall cooperate with the Distribution Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

#### 4.10 Capacity of the Small Generating Facility

4.10.1 If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Small Generating Facility.

4.10.2 If the Interconnection Request is for a Small Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

4.10.3 The Interconnection Request shall be evaluated using the maximum rated capacity of the Small Generating Facility.

#### 4.11 Interconnection Customer To Meet Requirements fo the Distribution Provider's Interconnection Handbook

The Interconnection Customer's Interconnection Facilities shall be designed, constructed, operated and maintained in accordance with the Distribution Provider's Interconnection Handbook. In the event of a conflict between the terms of the SGIP and the terms of the Distribution Provider's Interconnection Handbook, the terms of the SGIP shall govern.

## **Attachment 1**

### **Glossary of Terms**

**10 kW Inverter Process** – The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Attachment 5.

**Affected System** – An electric system other than the Distribution Provider's Distribution System that may be affected by the proposed interconnection, including but not limited to the Transmission System.

**Business Day** – Monday through Friday, excluding Federal Holidays.

**Distribution Owner** - The entity that owns, leases or otherwise possesses an interest in the portion of the Distribution System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

**Distribution Provider** – The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission or wholesale distribution service under the Tariff. The term Distribution Provider should be read to include the Distribution Owner when the Distribution Owner is separate from the Distribution Provider.

**Distribution System** – Those non-ISO transmission and distribution facilities owned, controlled and operated by the Distribution Provider that are used to provide distribution service under the Tariff, which facilities and equipment are used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Fast Track Process** – The procedure for evaluating an Interconnection Request for a certified Small Generating Facility no larger than 2 MW that includes the section 2 screens, customer options meeting, and optional supplemental review.

**Interconnection Customer** – Any entity, including the Distribution Provider, the Distribution Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Distribution Provider's Distribution System.

**Interconnection Facilities** – The Distribution Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Distribution Provider's Distribution System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

**Interconnection Handbook** – A handbook, developed by the Distribution Provider and posted on the Distribution Provider's website or otherwise made available by the Distribution Provider, describing the technical and operational requirements for wholesale generators and loads connected to the Distribution System, as such handbook may be modified or superseded from time to time. In the event of a conflict between the terms of the Small Generator Interconnection Procedures and the terms of the Distribution Provider's Interconnection Handbook, the terms in the Small Generator Interconnection Procedures shall govern.

**Interconnection Request** – The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a

Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Distribution Provider's Distribution System.

**Material Modification** – A modification that has a material impact on the cost or timing of any Interconnection Request or any other valid interconnection request to the Distribution Provider or the ISO with a later queue priority date.

**Network Upgrades** – Additions, modifications, and upgrades to the Distribution Provider's Transmission System required at or beyond the point at which the Distribution System connects to the Distribution Provider's Transmission System to accommodate the interconnection of the Small Generating Facility to the Distribution Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

**Party or Parties** – The Distribution Provider, Distribution Owner, Interconnection Customer or any combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Distribution Provider's Distribution System.

**Queue Position** – The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Distribution Provider.

**Small Generating Facility** – The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Study Process** – The procedure for evaluating an Interconnection Request that includes the section 3 scoping meeting, feasibility study, system impact study, and facilities study.

**Tariff** – The Distribution Provider's Wholesale Distribution Tariff through which open access distribution service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

**Distribution Provider** – The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission or wholesale distribution service under the Tariff. The term Distribution Provider should be read to include the Distribution Owner when the Distribution Owner is separate from the Distribution Provider.

**Transmission System** – Those facilities owned by the Distribution Provider that have been placed under the ISO’s operational control and are part of the ISO Grid.

**Upgrades** – The required additions and modifications to the Distribution Provider's Transmission System and Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Attachment 2**  
**SMALL GENERATOR INTERCONNECTION REQUEST**  
**(Application Form)**

Distribution Provider: \_\_\_\_\_

Designated Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

An Interconnection Request is considered complete when it provides all applicable and correct information required below.

**Preamble and Instructions**

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, e-mail, or fax to the Distribution Provider.

**Processing Fee or Deposit:**

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$500.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to the Distribution Provider a deposit not to exceed \$1,000 towards the cost of the feasibility study.



**Interconnection Customer Information**

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Facility Location (if different from above): \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Alternative Contact Information (if different from the Interconnection Customer)

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Application is for: \_\_\_\_\_ New Small Generating Facility

\_\_\_\_\_ Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: \_\_\_\_\_

\_\_\_\_\_

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_ No \_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_ No \_\_\_

To Supply Power to Others? Yes \_\_\_ No \_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_

\_\_\_\_\_

(Local Electric Service Provider\*)

(Existing Account Number\*)

[\*To be provided by the Interconnection Customer if the local electric service provider is different from the Distribution Provider]

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source:  Solar  Wind  Hydro  Hydro Type (e.g. Run-of-River): \_\_\_\_\_

Diesel  Natural Gas  Fuel Oil  Other (state type) \_\_\_\_\_

Prime Mover:  Fuel Cell  Recip Engine  Gas Turb  Steam Turb

Microturbine  PV  Other

Type of Generator:  Synchronous  Induction  Inverter

Generator Nameplate Rating: \_\_\_\_\_ kW (Typical) Generator Nameplate kVAR: \_\_\_\_\_

Generator Nameplate Rating: \_\_\_\_\_ kVA

Interconnection Customer or Customer-Site Load: \_\_\_\_\_ kW (if none, so state)

Typical Reactive Load (if known): \_\_\_\_\_

Maximum Physical Export Capability Requested: \_\_\_\_\_ kW

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package?  Yes  No

Generator (or solar collector)

Manufacturer, Model Name & Number: \_\_\_\_\_

Version Number: \_\_\_\_\_

Nameplate Output Power Rating in kW: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Nameplate Output Power Rating in kVA: (Summer) \_\_\_\_\_ (Winter) \_\_\_\_\_

Individual Generator Power Factor

Rated Power Factor: Leading: \_\_\_\_\_ Lagging: \_\_\_\_\_

Total Number of Generators in wind farm to be interconnected pursuant to this Interconnection

Request: \_\_\_\_\_ Elevation: \_\_\_\_\_      \_\_\_ Single phase \_\_\_ Three phase

Inverter Manufacturer, Model Name & Number (if used): \_\_\_\_\_

List of adjustable set points for the protective equipment or software: \_\_\_\_\_

Note: A completed Power Systems Load Flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based generators)

Max design fault contribution current at the terminal: \_\_\_\_\_ Instantaneous or RMS? \_\_\_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

(\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

KVA Base: \_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Induction Generators:

Motoring Power (kW): \_\_\_\_\_

$I^2t$  or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance,  $R_r$ : \_\_\_\_\_

Stator Resistance,  $R_s$ : \_\_\_\_\_

Stator Reactance,  $X_s$ : \_\_\_\_\_

Rotor Reactance,  $X_r$ : \_\_\_\_\_

Magnetizing Reactance,  $X_m$ : \_\_\_\_\_

Short Circuit Reactance,  $X_d''$ : \_\_\_\_\_

Exciting Current: \_\_\_\_\_

Temperature Rise: \_\_\_\_\_

Frame Size: \_\_\_\_\_

Design Letter: \_\_\_\_\_

Reactive Power Required In Vars (No Load): \_\_\_\_\_

Reactive Power Required In Vars (Full Load): \_\_\_\_\_

Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on kVA Base

Note: Please contact the Distribution Provider prior to submitting the Interconnection Request to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the generator and the point of common coupling? \_\_\_ Yes \_\_\_ No

Will the transformer be provided by the Interconnection Customer? \_\_\_ Yes \_\_\_ No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_\_\_ single phase \_\_\_\_\_ three phase? \_\_\_\_\_ Size: \_\_\_\_\_ kVA

Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_

Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Potential Transformer Data (If Applicable):

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_



**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Small Generating Facility is larger than 50 kW. Is One-Line Diagram Enclosed?  Yes  No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Small Generating Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address)\_\_\_\_\_

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed?  Yes  No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed?  Yes  No

**Applicant Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

For Interconnection Customer:\_\_\_\_\_Date:\_\_\_\_\_

### **Attachment 3**

#### **Certification Codes and Standards**

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems  
(including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV)  
Systems NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for  
Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated  
Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers IEEE  
Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low  
Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment  
Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms NEMA MG 1-  
1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in  
Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1



## **Attachment 4**

### **Certification of Small Generator Equipment Packages**

- 1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.

- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

## **Attachment 5**

### **Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")**

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Distribution Provider ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten Business

Days of the receipt of the Certificate of Completion. If the Company does not inspect within ten Business Days or by mutual agreement of the Parties, the witness test is deemed waived.

- 7.0 Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information – Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed – This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.

**Application for Interconnecting a Certified Inverter-Based Small Generating Facility  
No Larger than 10kW**

This Application is considered complete when it provides all applicable and correct information required below and the documentation of site control pursuant to Section 1.5 of the SGIP. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Contact (if different from Interconnection Customer)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_



Owner of the facility (include % ownership by any electric utility): \_\_\_\_\_

Small Generating Facility Information

Location (if different from above): \_\_\_\_\_

Electric Service Company: \_\_\_\_\_

Account Number: \_\_\_\_\_

Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_

Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts)

Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA)

Prime Mover: Photovoltaic  Reciprocating Engine  Fuel Cell

Turbine  Other \_\_\_\_\_

Energy Source: Solar  Wind  Hydro  Diesel  Natural Gas

Fuel Oil  Other (describe) \_\_\_\_\_

Is the equipment UL1741 Listed? \_\_\_\_\_ Yes \_\_\_\_\_ No

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

The 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small Generator Interconnection Procedures (SGIP), or the Distribution Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

	Equipment Type	Certifying Entity
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Contingent Approval to Interconnect the Small Generating Facility

(For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Company waives inspection/witness test? Yes \_\_\_\_\_ No \_\_\_\_\_

**Small Generating Facility Certificate of Completion**

Is the Small Generating Facility owner-installed? Yes \_\_\_\_\_ No \_\_\_\_\_

Interconnection Customer: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Location of the Small Generating Facility (if different from above):

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Electrician:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

Date Approval to Install Facility granted by the Company: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local building/electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

\_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City, State ZIP: \_\_\_\_\_

Fax: \_\_\_\_\_

Approval to Energize the Small Generating Facility (For Company use only)

Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Company Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility  
No Larger than 10kW**

**1.0 Construction of the Facility**

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Distribution Provider (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

**2.0 Interconnection and Operation**

The Customer may operate Small Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

- 2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2 The Customer returns the Certificate of Completion to the Company, and
- 2.3 The Company has either:
  - 2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or

2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Small Generating Facility.

2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

### **3.0 Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

### **4.0 Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Small Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

### **5.0 Disconnection**

The Company may temporarily disconnect the Small Generating Facility upon the following conditions:

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

5.3 If the Small Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

## 6.0 **Indemnification**

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

## 7.0 **Insurance**

The Parties each agree to maintain commercially reasonable amounts of insurance.

## 8.0 **Limitation of Liability**

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

## 9.0 **Termination**

The agreement to operate in parallel may be terminated under the following conditions:



**9.1 By the Customer**

By providing written notice to the Company.

**9.2 By the Company**

If the Small Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions

**9.3 Permanent Disconnection**

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Small Generating Facility.

**9.4 Survival Rights**

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

**10.0 Assignment/Transfer of Ownership of the Facility**

This Agreement shall survive the transfer of ownership of the Small Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

## Attachment 6

### Feasibility Study Agreement

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Distribution Provider"). Interconnection Customer and Distribution Provider each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Small Generating Facility with the Distribution Provider's Distribution System; and

**WHEREAS**, Interconnection Customer has requested the Distribution Provider to perform a feasibility study to assess the feasibility of interconnecting the proposed Small Generating Facility with the Distribution Provider's Distribution System, and of any Affected Systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the Distribution Provider shall cause to be performed an interconnection feasibility study consistent the standard Small Generator Interconnection Procedures in accordance with the Wholesale Distribution Tariff.

- 3.0 The scope of the feasibility study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The feasibility study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the scoping meeting. The Distribution Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the feasibility study and as designated in accordance with the standard Small Generator Interconnection Procedures. If the Interconnection Customer modifies its Interconnection Request, the time to complete the feasibility study may be extended by agreement of the Parties.
- 5.0 In performing the study, the Distribution Provider shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility study.
- 6.0 The feasibility study report shall provide the following analyses for the purpose of identifying any potential adverse system impacts that would result from the interconnection of the Small Generating Facility as proposed:
  - 6.1 Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
  - 6.2 Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
  - 6.3 Initial review of grounding requirements and electric system protection ; and
  - 6.4 Description and non-bonding estimated cost of facilities required to interconnect the proposed Small Generating Facility and to address the identified short circuit and power flow issues.

- 7.0 The feasibility study shall model the impact of the Small Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the Interconnection Customer later changes the purpose for which the Small Generating Facility is being installed.
- 8.0 The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.
- 9.0 A deposit of the lesser of 50 percent of good faith estimated feasibility study costs or earnest money of \$1,000 may be required from the Interconnection Customer.
- 10.0 Once the feasibility study is completed, a feasibility study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the feasibility study must be completed and the feasibility study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a feasibility study.
- 11.0 Any study fees shall be based on the Distribution Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Distribution Provider shall refund such excess within 30 calendar days of the invoice without interest.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Distribution Provider]**

**[Insert name of Interconnection Customer]**

---

---

Signed \_\_\_\_\_

Signed \_\_\_\_\_

Name (Printed):

Name (Printed):

\_\_\_\_\_

\_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

## **Attachment A to Feasibility Study Agreement**

### **Assumptions Used in Conducting the Feasibility Study**

The feasibility study will be based upon the information set forth in the Interconnection Request and agreed upon in the scoping meeting held on \_\_\_\_\_:

- 1) Designation of Point of Interconnection and configuration to be studied.
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Distribution Provider.

**Attachment 7**

**System Impact Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Distribution Provider"). Interconnection Customer and Distribution Provider each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the Distribution Provider's Distribution System;

**WHEREAS**, the Distribution Provider has completed a feasibility study and provided the results of said study to the Interconnection Customer (This recital to be omitted if the Parties have agreed to forego the feasibility study.); and

**WHEREAS**, the Interconnection Customer has requested the Distribution Provider to perform a system impact study(s) to assess the impact of interconnecting the Small Generating Facility with the Distribution Provider's Distribution System, and of any Affected Systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.

- 2.0 The Interconnection Customer elects and the Distribution Provider shall cause to be performed a system impact study(s) consistent with the standard Small Generator Interconnection Procedures in accordance with the Wholesale Distribution Tariff.
- 3.0 The scope of a system impact study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 A system impact study will be based upon the results of the feasibility study and the technical information provided by Interconnection Customer in the Interconnection Request. The Distribution Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the system impact study may be extended.
- 5.0 A system impact study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Request and non-binding good faith estimates of cost responsibility and time to construct.
- 6.0 A distribution system impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.



- 7.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems, and the Distribution Provider has 20 additional Business Days to complete a system impact study requiring review by Affected Systems.
- 8.0 If the Distribution Provider uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced –
- 8.1 Are directly interconnected with the Distribution Provider's electric system; or
  - 8.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
  - 8.3 Have a pending higher queued Interconnection Request to interconnect with the Distribution Provider's electric system.
- 9.0 A distribution system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 30 Business Days after this Agreement is signed by the Parties. A transmission system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 45 Business Days after this Agreement is signed by the Parties, or in accordance with the Distribution Provider's queuing procedures.
- 10.0 A deposit of the equivalent of the good faith estimated cost of a distribution system impact study and the one half the good faith estimated cost of a transmission system impact study may be required from the Interconnection Customer.

11.0 Any study fees shall be based on the Distribution Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.

12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Distribution Provider shall refund such excess within 30 calendar days of the invoice without interest.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Distribution Provider]**

**[Insert name of Interconnection Customer]**

\_\_\_\_\_

\_\_\_\_\_

Signed \_\_\_\_\_

Signed \_\_\_\_\_

Name (Printed):

Name (Printed):

\_\_\_\_\_

\_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

**Attachment A**  
**to System Impact Study Agreement**

**Assumptions Used in Conducting the System Impact Study**

The system impact study shall be based upon the results of the feasibility study, subject to any modifications in accordance with the standard Small Generator Interconnection Procedures, and the following assumptions:

- 1) Designation of Point of Interconnection and configuration to be studied.
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Distribution Provider.

**Attachment 8**

**Facilities Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Distribution Provider"). Interconnection Customer and Distribution Provider each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the Distribution Provider's Transmission System;

**WHEREAS**, the Distribution Provider has completed a system impact study and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, the Interconnection Customer has requested the Distribution Provider to perform a facilities study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the system impact study in accordance with Good Utility Practice to physically and electrically connect the Small Generating Facility with the Distribution Provider's Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the Distribution Provider shall cause a facilities study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the Wholesale Distribution Tariff.
- 3.0 The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement.
- 4.0 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Distribution Provider's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities.
- 5.0 The Distribution Provider may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit of the good faith estimated facilities study costs may be required from the Interconnection Customer.
- 7.0 In cases where Upgrades are required, the facilities study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within 30 Business Days.

- 8.0 Once the facilities study is completed, a facilities study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the facilities study must be completed and the facilities study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a facilities study.
- 9.0 Any study fees shall be based on the Distribution Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 10.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Distribution Provider shall refund such excess within 30 calendar days of the invoice without interest.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of Distribution Provider]

[Insert name of Interconnection Customer]

\_\_\_\_\_

\_\_\_\_\_

Signed \_\_\_\_\_

Signed \_\_\_\_\_

Name (Printed):

Name (Printed):

\_\_\_\_\_

\_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

**Attachment A**  
**to Facilities Study Agreement**

**Data to Be Provided by the Interconnection Customer**  
**with the Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

On the one-line diagram, indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

One set of metering is required for each generation connection to the new ring bus or existing Distribution Provider station. Number of generation connections: \_\_\_\_\_

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes\_\_\_ No \_\_\_

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes\_\_\_ No \_\_\_

(Please indicate on the one-line diagram).

What type of control system or PLC will be located at the Small Generating Facility?

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What protocol does the control system or PLC use?

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Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, transmission line, and property lines.

Physical dimensions of the proposed interconnection station:

---

Bus length from generation to interconnection station:

---

Line length from interconnection station to Distribution Provider's Transmission System.

---

Tower number observed in the field. (Painted on tower leg)\*:

---

Number of third party easements required for transmission lines\*:

---

\* To be completed in coordination with Distribution Provider.

Is the Small Generating Facility located in Distribution Provider's service area?

Yes\_\_\_ No\_\_\_ If No, please provide name of local provider:

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Please provide the following proposed schedule dates:

Begin Construction Date: \_\_\_\_\_

Generator step-up transformers  
receive back feed power Date: \_\_\_\_\_

Generation Testing Date: \_\_\_\_\_

Commercial Operation Date: \_\_\_\_\_

**ATTACHMENT F:**  
**Small Generator Interconnection Agreement (SGIA)**  
**(For Generating Facilities No Larger Than 20 MW)**

This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_ ("Distribution Provider"), and \_\_\_\_\_ ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

**Distribution Provider Information**

Distribution Provider: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**Interconnection Customer Information**

Distribution Provider: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Interconnection Customer Application No: \_\_\_\_\_

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

## **Article 1. Scope and Limitations of Agreement**

- 1.1 This Agreement shall be used for all Small Generating Facility Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) or Generator Interconnection Procedures (GIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Attachment 5.
- 1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Distribution Provider's Distribution System.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity.
- 1.4 Nothing in this Agreement is intended to affect any other agreement between the Distribution Provider and the Interconnection Customer.
- 1.5 Responsibilities of the Parties
  - 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.
  - 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, in accordance with this Agreement, and with Good Utility Practice.

- 1.5.3 The Distribution Provider shall construct, operate, and maintain its Distribution System, Transmission System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.
- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Distribution Provider or Affected Systems. The Interconnection Customer shall comply with the Distribution Provider's Interconnection Handbook. In the event of a conflict between the terms of this SGIA and the terms of the Distribution Provider's Interconnection Handbook, the terms in this SGIA shall govern.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Distribution Provider and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Distribution Provider's Distribution and Transmission Systems, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.
- 1.5.6 The Distribution Provider shall coordinate with all Affected Systems to support the interconnection.

1.5.7 The Interconnection Customer shall ensure “frequency ride through” capability and “voltage ride through” capability of its Small Generating Facility in accordance with the standards and requirements described in the PG&E Transmission Interconnection Handbook (TIH) and the Distribution Interconnection Handbook (DIH). The Interconnection Customer shall enable these capabilities such that its Small Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Distribution Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to Article 2.1 of this Agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The Small Generating Facility’s protective equipment settings shall comply with the Distribution Provider’s automatic load-shed program. The Distribution Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term “ride through” as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority on a comparable basis. The term “frequency ride through” as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The term “voltage ride through” as used herein shall mean the ability of a Small Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems

during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis.

#### 1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized by the Distribution Provider to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Distribution Provider's Distribution and Transmission Systems and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

#### 1.7 Metering

The Interconnection Customer shall be responsible for the Distribution Provider's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

#### 1.8 Reactive Power and Primary Frequency Response

##### 1.8.1 Power Factor Design Criteria

1.8.1.1 Synchronous Generation. The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Distribution Provider has established

different requirements that apply to all similarly situated synchronous generators in the control area on a comparable basis.

1.8.1.2 Non-Synchronous Generation – The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Distribution Provider has established a different power factor range that applies to all similarly situated non-synchronous generators in the control area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

1.8.2 This Section deleted in FERC Docket No. ER13-494-000.

1.8.3 This Section deleted in FERC Docket No. ER13-494-000.

1.8.4 Primary Frequency Response. Interconnection Customer shall ensure the primary frequency response capability of its Small Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term “functioning governor or equivalent controls” as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Small Generating Facility’s real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency

deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and  $\pm 0.036$  Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Small Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Small Generating Facility's real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Small Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Small Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Small Generating Facility with the Transmission System, Interconnection Customer shall operate the Small Generating Facility consistent with the provisions specified in Sections 1.8.4.1 and 1.8.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Small Generating Facilities.

1.8.4.1 Governor or Equivalent Controls. Whenever the Small Generating Facility is operated in parallel with the Transmission System,



Interconnection Customer shall operate the Small Generating Facility with its governor or equivalent controls in service and responsive to frequency. Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of  $\pm 0.036$  Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Interconnection Customer needs to operate the Small Generating Facility with its governor or equivalent controls not in service, Interconnection Customer shall immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Interconnection Customer shall make Reasonable Efforts to keep outages of the Small Generating Facility's governor or equivalent controls to a minimum whenever the Small Generating Facility is operated in parallel with the Transmission System.

1.8.4.2 Timely and Sustained Response. Interconnection Customer shall ensure that the Small Generating Facility's real power response to

sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Small Generating Facility has operating capability in the direction needed to correct the frequency deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Small Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

- 1.8.4.3 Exemptions. Small Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Sections 1.8.4, 1.8.4.1, and 1.8.4.2 of this Agreement. Small Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Section 1.8.4, but shall be otherwise exempt from the operating requirements in Sections 1.8.4, 1.8.4.1, 1.8.4.2, and 1.8.4.4 of this Agreement.

#### 1.8.4.4

##### Electric Storage Resources. Interconnection Customer

interconnecting an electric storage resource shall establish an operating range in Attachment 5 of its SGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Sections 1.8.4, 1.8.4.1, 1.8.4.2 and 1.8.4.3 of this Agreement. Attachment 5 shall specify whether the operating range is static or dynamic, and shall consider: (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Attachment 5 must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.

Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Section 1.8.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If

Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for under-frequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

- 1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

## **Article 2. Inspection, Testing, Authorization, and Right of Access**

### 2.1 Equipment Testing and Inspection

- 2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Distribution Provider of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Distribution Provider may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Distribution Provider a written test report when such testing and inspection is completed.
- 2.1.2 The Distribution Provider shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Distribution Provider of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by

the Interconnection Customer or the quality of power produced by the Small Generating Facility.

## 2.2 Authorization Required Prior to Parallel Operation

2.2.1 The Distribution Provider shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Distribution Provider shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Distribution Provider shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Distribution Provider's Distribution System without prior written authorization of the Distribution Provider. The Distribution Provider will provide such authorization once the Distribution Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

## 2.3 Right of Access

2.3.1 Upon reasonable notice, the Distribution Provider may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Distribution Provider at least five Business Days prior to conducting any on-site verification testing of the Small Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Distribution Provider shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3 Each Party shall be responsible for its own costs associated with following this article.

### **Article 3. Effective Date, Term, Termination, and Disconnection**

#### 3.1 Effective Date

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Distribution Provider shall promptly file this Agreement with the FERC upon execution, if required.

#### 3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of ten years from the Effective Date or such other longer period as the Interconnection Customer may request and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

#### 3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

- 3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Distribution Provider 20 Business Days written notice.
- 3.3.2 Either Party may terminate this Agreement after Default pursuant to article 7.6.
- 3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Distribution Provider's Distribution System. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.
- 3.3.4 The provisions of this article shall survive termination or expiration of this Agreement.

#### 3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

##### 3.4.1 Emergency Conditions

"Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Distribution Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Distribution System, the Distribution Provider's Interconnection Facilities or any Affected Systems; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the Distribution Provider may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Distribution Provider shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection

Customer's operation of the Small Generating Facility. The Interconnection Customer shall notify the Distribution Provider promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Distribution Provider's Distribution System or other Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

#### 3.4.2 Routine Maintenance, Construction, and Repair

The Distribution Provider may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the Distribution Provider's Distribution System when necessary for routine maintenance, construction, and repairs on the Distribution Provider's Distribution System and/or Transmission System. The Distribution Provider shall provide the Interconnection Customer with five Business Days' notice prior to such interruption. The Distribution Provider shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

#### 3.4.3 Forced Outages

During any forced outage, the Distribution Provider may suspend interconnection service to effect immediate repairs on the Distribution Provider's Distribution System and/or Transmission System. The Distribution Provider shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Distribution Provider shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.



#### 3.4.4 Adverse Operating Effects

The Distribution Provider shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the Distribution Provider's Distribution System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Distribution Provider may disconnect the Small Generating Facility. The Distribution Provider shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

#### 3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the Distribution Provider before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the Distribution System and/or Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Distribution Provider's prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

#### 3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the Distribution Provider's Distribution System and/or Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

## **Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

### 4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Distribution Provider shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Distribution Provider.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Distribution Provider's Interconnection Facilities.

### 4.2 Distribution Upgrades

The Distribution Provider shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Distribution Provider and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, as well as costs associated with operating, maintaining, repairing, and replacing Distribution Provider's Distribution Upgrades shall be directly assigned to the Interconnection Customer.

## **Article 5. Cost Responsibility for Network Upgrades**

### 5.1 Applicability

No portion of this Article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

### 5.2 Network Upgrades

The Distribution Provider or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Distribution Provider and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Distribution Provider elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer unless Article 5.2.1 directs otherwise.

#### 5.2.1 Repayment of Amounts Advanced for Network Upgrades

To the extent the CAISO Tariff, Section 12.3.2 of Appendix Y and Section 14.3.2 of Appendix DD, and successor tariffs, provides for cash repayment or Congestion Revenue Rights to the Interconnection Customer for contribution to the cost of Network Upgrades, the Interconnection Customer shall be entitled to a cash repayment or Congestion Revenue Rights, equal to the total amount paid to the Distribution Provider and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer.

Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this

subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1 If the Interconnection Customer is entitled to a cash repayment pursuant to Article 5.2.1, the Interconnection Customer, the Distribution Provider, and Affected System operator may adopt any alternative payment schedule that is mutually agreeable so long as the Distribution Provider and Affected System operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Distribution Provider or Affected System operator(s) will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the commercial operation date.

5.2.1.2 If the Small Generating Facility fails to achieve commercial operation, but it or another generating facility is later constructed and requires use of the Network Upgrades, the Distribution Provider and Affected System operator shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades if the Interconnection Customer is entitled to a cash repayment pursuant to Article 5.2.1. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the generating facility, if different, is responsible for identifying the entity to which reimbursement must be made.

### 5.3 Special Provisions for Affected Systems

Unless the Distribution Provider provides, under this Agreement, for the repayment of amounts advanced to Affected System operator(s) for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

### 5.4 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

## **Article 6. Billing, Payment, Milestones, and Financial Security**

### 6.1 Billing and Payment Procedures and Final Accounting

6.1.1 The Distribution Provider shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within six months of completing the construction and installation of the Distribution Provider's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Distribution Provider shall provide the Interconnection Customer with a final accounting report of any difference

between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Distribution Provider for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Distribution Provider shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Distribution Provider within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Distribution Provider shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

## 6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than an Uncontrollable Force Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

## 6.3 Financial Security Arrangements

The Interconnection Customer shall provide the Distribution Provider an Interconnection Financial Security by the earliest date of either (i) no later than the financial security posting milestone date negotiated in Attachment 4 of this Agreement, (ii) no later than 180 Calendar Days after the effective date of this agreement, or (iii) at least twenty (20)

Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Distribution Provider's Interconnection Facilities and Upgrades. The Interconnection Customer shall provide the Distribution Provider, at the Interconnection Customer's option, a guarantee, letter of credit, escrow agreement or other form of security that is reasonably acceptable to the Distribution Provider and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Distribution Provider's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Distribution Provider under this Agreement during its term. In addition:

6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Distribution Provider, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

6.3.2 The letter of credit or escrow agreement must be issued by a financial institution or insured reasonably acceptable to the Distribution Provider and must specify a reasonable expiration date.

#### 6.4 Responsibility for any Outstanding Interconnection Study Costs

The Interconnection Customer must complete payment on all outstanding invoiced interconnection study costs no later than the financial security posting milestone date negotiated in Attachment 4 of this Agreement. Study costs not yet invoiced within thirty (30) Calendar Days of that financial security posting deadline must be paid by the Interconnection Customer within thirty (30) Calendar Days of the date of the invoice once they are invoiced to the Interconnection Customer.

Failure to complete payment on these interconnection study invoices by these deadlines will constitute Default on this Agreement by the Interconnection Customer, subject to the terms of Article 7.6 "Default".

## **Article 7. Assignment, Liability, Indemnity, Uncontrollable Force, Consequential Damages, and Default**

### **7.1 Assignment**

This Agreement may be assigned by either Party upon fifteen (15) Business Days prior written notice and opportunity to object by the other Party; provided that:

7.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement;

7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Distribution Provider, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Distribution Provider of any such assignment.

7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

### **7.2 Limitation of Liability**

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.



### 7.3 Indemnity

- 7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.
- 7.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 7.3.3 If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 7.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.
- 7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification

obligation unless such failure or delay is materially prejudicial to the indemnifying party.

#### 7.4 Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

#### 7.5 Uncontrollable Force

7.5.1 As used in this article, an Uncontrollable Force shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Distribution Provider or Interconnection Customer which could not be avoided through the exercise of Good Utility Practice. An Uncontrollable Force Event does not include an act of negligence or intentional wrongdoing by the Party claiming Uncontrollable Force."

7.5.2 If an Uncontrollable Force Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Uncontrollable Force Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Uncontrollable Force Event. The notification must specify in reasonable detail the circumstances of the Uncontrollable Force Event, its expected duration, and the steps that the Affected Party is taking to

mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Uncontrollable Force Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Uncontrollable Force Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

## 7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of an Uncontrollable Force Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

## **Article 8. Insurance**

- 8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Distribution Provider, except that the Interconnection Customer shall show proof of insurance to the Distribution Provider no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient creditworthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.
- 8.2 The Distribution Provider agrees to maintain general liability insurance or self-insurance consistent with the Distribution Provider's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Distribution Provider's liabilities undertaken pursuant to this Agreement.
- 8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

## **Article 9. Confidentiality**

- 9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and

metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1 b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond

before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### **Article 10. Disputes**

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- 10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.
- 10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.
- 10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

#### **Article 11. Taxes**

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.
- 11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Distribution Provider's tax exempt

status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

## **Article 12. Miscellaneous**

### 12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of California (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

### 12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

### 12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

### 12.4 Waiver

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement.

Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Distribution Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and



independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

#### 12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all transmission providers, market participants, and interconnection customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

#### 12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

#### 12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each

Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Distribution Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

## 12.12 Reservation of Rights

The Distribution Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**Article 13. Notices**

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

If to the Distribution Provider:

Distribution Provider: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

13.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Distribution Provider: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

If to the Distribution Provider:

Distribution Provider: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Distribution Provider's Operating Representative:

Distribution Provider: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

13.5 Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice prior to the effective date of the change.

**Article 14. Signatures**

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Distribution Provider

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

For the Interconnection Customer

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## Attachment 1

### Glossary of Terms

**Adverse System Impact** – A potential or actual negative effect due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** – An electric system other than the Distribution Provider's Distribution System that may be affected by the proposed interconnection, including but not limited to the Transmission System.

**Affected System Operator** – The entity that operates an Affected System.

**Affiliate** – With respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** – The reliability council applicable to the Distribution System to which the Generating Facility is directly interconnected.

**Applicable Reliability Standards** – The requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Distribution System to which the Generating Facility is directly interconnected, including the requirements pursuant to Section 215 of the Federal Power Act.

**Area Deliverability Constraint** – A transmission system operating limit, that would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified

geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains a quantity of generation in a local area of the grid that is larger than the generation amount identified in the applicable Transmission Planning Process (TPP) portfolio for the entire portfolio area. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

**Area Delivery Network Upgrade (ADNU)** – A transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint.

**Base Case** – The data including, but not limited to, base power flow, short circuit and stability data bases, underlying load, generation, and transmission facility assumptions, contingency lists, including relevant special protection systems, and transmission diagrams used to perform the Interconnection Studies. The Base Case may include Critical Energy Infrastructure Information (as that term is defined by FERC). The Base Case shall include transmission facilities as approved by the Distribution Provider or CAISO, as applicable, and Distribution Upgrades and Network Upgrades associated with generating facilities in (iv) below and generating facilities that (i) are directly interconnected to the Distribution System or CAISO Grid; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending request to interconnect to the Distribution System or an Affected System; or (iv) are not interconnected to the Distribution System or CAISO Grid, but are subject to a fully executed generator interconnection agreement (or its equivalent predecessor agreement) or for which an unexecuted generator interconnection agreement (or its equivalent predecessor agreement) has been requested to be filed with FERC.

**Breach** – The failure of a Party to perform or observe any material term or condition of the GIA.

**Breaching Party** – A Party that is in Breach of the GIA.

**Business Day** – Monday through Friday, excluding Federal Holidays and the Friday after Thanksgiving.



**Calendar Day** – Any day including Saturday, Sunday or a Federal Holiday.

**CAISO** – California Independent System Operator Corporation. See also ISO.

**Clustering** – The process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection System Impact Study.

**Commercial Operation** – The status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** – The date on which an Electric Generating Unit at a Generating Facility has received final written Permission to Operate from the Distribution Provider for operation of the generation facilities in parallel with the utility.

**Confidential Information** – Any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

**Construction Activities** – Actions by the Distribution Provider that result in irrevocable financial commitments for the purchase of major electrical equipment or land for Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades assigned to the Interconnection Customer that occur after receipt of all appropriate governmental approvals needed for the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

**Control Area** – An electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable Reliability Council.

**CPUC** – California Public Utilities Commission.

**Default** – The failure of a breaching Party to cure its Breach under the Small Generator Interconnection Agreement.

**Deliverability** – (1) The annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability assessment and measured in MW, which specifies the amount of resource adequacy capacity the Generating Facility is eligible to provide. (2) The annual Maximum Import Capability of an intertie, which specifies the amount of resource adequacy capacity, measured in MW, that Load-serving Entities collectively can procure from imports at that intertie to meet their resource adequacy requirements.

**Deliverability Assessment** – An evaluation of the On-Peak Deliverability Assessment set forth in GIP Section 5.8.3, and the Off-Peak Deliverability Assessment set forth in GIP Section 5.8.3 to determine if a Generating Facility or a group of Generating Facilities could provide Energy to the CAISO Controlled Grid and be delivered to the aggregate of Load on the CAISO Controlled Grid at Peak Load, under a variety of severely stressed conditions.

**Deliverability Status** – An attribute of a Generating Facility that is requested by an Interconnection Customer for the Generating Facility, assigned by the CAISO to the Generating Facility through the GIP, GIDAP, or other process specified in the CAISO tariff, and that affects the maximum Net Qualifying Capacity to which the Generating Facility could be entitled.

**Delivery Network Upgrades** – The transmission facilities at or beyond the point where the Distribution Provider's Distribution System interconnects to the ISO Grid, other than Reliability Network Upgrades, identified in the Interconnection Studies to relieve constraints on the ISO Grid. Delivery Network Upgrades may be further classified as Local Delivery Network Upgrades or Area Delivery Network Upgrades.

**Dispute Resolution** – The procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution Owner** – The entity that owns, leases, or otherwise possesses an interest in the portion of the Distribution System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

**Distribution Provider** – The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission or wholesale distribution service under the Tariff. The term Distribution Provider should be read to include the Distribution Owner when the Distribution Owner is separate from the Distribution Provider.

**Distribution Provider's Interconnection Facilities** – All facilities and equipment owned, controlled, or operated by the Distribution Provider from the Point of Change of Ownership to the Point of Interconnection as identified in the GIA, including any modifications, additions or upgrades to such facilities and equipment. Distribution Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Distribution Service** – The wholesale distribution service provided under the Tariff.

**Distribution System** – Those non-ISO transmission and distribution facilities owned, controlled and operated by the Distribution Provider that are used to provide distribution service under the Tariff, which facilities and equipment are used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** – The date on which the GIA becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Electric Generating Unit** – An individual electric generator and its associated plant and apparatus whose electrical output is capable of being separately identified and metered.

**Emergency Condition** – A condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Distribution Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Distribution Provider's Distribution System, Distribution Provider's Interconnection Facilities or the electric systems of others to which the Distribution Provider's Distribution System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a nondiscriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the GIA to possess black start capability.

**Energy-Only Deliverability Status** – A condition elected by an Interconnection Customer for a Generating Facility interconnected to Distribution System, the result of which is that the Interconnection Customer is responsible only for the costs of Reliability Network Upgrades and is not responsible for the costs of Delivery Network Upgrades, but the Generating Facility will be deemed to have a Net Qualifying Capacity (as defined in the ISO Tariff) of zero and, therefore, cannot be considered to be a Resource Adequacy Resource (as defined in the ISO Tariff).

**Environmental Law** – The applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** – The Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**FERC** – The Federal Energy Regulatory Commission (Commission) or its successor.

**Full Capacity Deliverability Status (FCDS)** – The condition whereby a Generating Facility interconnected with the Distribution System, under coincident ISO Control Area peak demand and a variety of severely stressed system conditions, can deliver the Generating Facility's full output to the aggregate of load on the ISO Grid, consistent with the ISO's reliability criteria and procedures and the ISO's On-Peak Deliverability Assessment.

**Generating Facility** – The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities. A Small Generating Facility is one that has maximum capacity of 20 MW or less. A Large Generating Facility is one that has a maximum capacity of more than 20 MW.

**Generating Facility Capacity** – The net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple Electric Generating Units.

**Generator Interconnection Agreement (GIA)** – Either the Small Generator Interconnection Agreement (SGIA), which is Attachment F to the Wholesale Distribution Tariff, unless the proposed interconnection is for a generating facility larger than 20 MW, in which case references to interconnection agreement are to the Large Generator Interconnection Agreement (LGIA), which is Attachment H to the Wholesale Distribution Tariff.

**Generator Interconnection and Deliverability Allocation Procedures (GIDAP)** – See ISO's Generator Interconnection and Deliverability Allocation Procedures (ISO Tariff GIDAP)

**Generator Interconnection Procedures (GIP)** – See the definition for either ISO's Tariff Generator Interconnection Procedures (ISO Tariff GIP), or Wholesale Distribution Tariff Generator Interconnection Procedures (WDT GIP).

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision,

legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Interconnection Provider, or any Affiliate thereof.

**Initial Synchronization Date** – The date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** – The date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Distribution Provider's Interconnection Facilities to obtain back feed power.

**Interconnection Customer** – Any entity, including the Distribution Provider, the Distribution Owner, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Distribution Provider's Distribution System.

**Interconnection Customer's Interconnection Facilities** – All facilities and equipment, as identified in the GIA, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Distribution Provider's Distribution System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** – The Distribution Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Distribution Provider's Distribution System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

**Interconnection Financial Security** – The financial instrument(s) submitted by the Interconnection Customer to the Distribution Provider prior to the start of any Construction Activities as a security for the Distribution Provider against the estimated costs of the Construction Activities described in the Generator Interconnection Agreement. The Interconnection Customer may post the Interconnection Financial Security using any of the financial instruments listed in the WDT GIP.

**Interconnection Handbook** - A handbook, developed by the Distribution Provider and posted on the Distribution Provider's website or otherwise made available by the Distribution Provider, describing the technical and operational requirements for wholesale generators and loads connected to the Distribution System, as such handbook may be modified or superseded from time to time. In the event of a conflict between the terms of this SGIA and the terms of the Distribution Provider's Interconnection Handbook, the terms in this SGIA shall govern.

**Interconnection Request** – The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Distribution Provider's Distribution System.

**Interconnection Service** – The service provided by the Distribution Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Distribution Provider's Distribution System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the GIA and, if applicable, the Distribution Provider's Tariff.

**IRS** – The Internal Revenue Service.

**ISO** – The California Independent System Operator Corporation, a state chartered, nonprofit, corporation that controls certain transmission facilities of all Participating Transmission Owners and dispatches certain generating units and loads. See also CAISO.

**ISO Grid** – The system of transmission lines and associated facilities of the Participating Transmission Owners that have been placed under the ISO's Operational Control.

**ISO's Generator Interconnection and Deliverability Allocation Procedures (ISO Tariff GIDAP)** – The procedures included in the ISO Tariff to interconnect a Generating Facility directly to the ISO Grid, as such procedures may be modified from time to time, and accepted by the Commission. See also GIDAP.

**ISO's Generator Interconnection Procedures (ISO Tariff GIP)** – The procedures included in the ISO Tariff to interconnect a Generating Facility directly to the ISO Grid, as such procedures may be modified from time to time, and accepted by the Commission. See also GIP.

**Large Generating Facility** – A Generating Facility having a Generating Facility Capacity of more than 20 MW.

**Letter Agreement** – An agreement that authorizes the Distribution Provider to begin engineering, design, procurement of long lead-time items, and/or construction necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Local Deliverability Constraint** – A transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign Full Capacity Deliverability Status or Partial Capacity Deliverability Status to one or more additional Generating Facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

**Local Delivery Network Upgrade (LDNU)** – A transmission upgrade or addition identified by the CAISO in the GIDAP Interconnection Study Process to relieve a Local Deliverability Constraint.

**Loss** – Any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the GIA on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.



**Material Modification** – A modification that has a material impact on the cost or timing of any Interconnection Request, or any other valid interconnection request to the Distribution Provider or the ISO with a later queue priority date.

**Metering Equipment** – All metering equipment installed or to be installed at the Generating Facility pursuant to the GIA at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** – The North American Electric Reliability Council or its successor organization.

**Network Upgrades** – Additions, modifications, and upgrades to the Distribution Provider's Transmission System required at or beyond the point at which the Distribution System connects to the Distribution Provider's Transmission System to accommodate the interconnection of the Small Generating Facility to the Distribution Provider's Distribution System. Network Upgrades do not include Distribution Upgrades. See also: **Area Delivery Network Upgrades; Delivery Network Upgrades; Local Delivery Network Upgrades; and Reliability Network Upgrades.**

**Notice of Dispute** – A written notice of a dispute or claim that arises out of or in connection with the GIA or its performance.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to Regional Transmission Organization, California Independent System Operator, control area, or the Distribution Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

**Participating Transmission Owner** – An entity which (i) owns, operates, and maintains transmission lines and associated facilities and/or has entitlements to use certain transmission lines and associated facilities; and (ii) has transferred to the ISO operational control of such facilities and/or entitlements to be made part of the ISO Grid.

**Party or Parties** – The Distribution Provider, Distribution Owner, Transmission Owner, Interconnection Customer or any combination of the above.

**Point of Change of Ownership** – The point set forth in the GIA where the Interconnection Customer's Interconnection Facilities connect to the Distribution Provider's Interconnection Facilities.

**Point of Interconnection** – The point set forth in the GIA where the Interconnection Facilities connect with the Distribution Provider's Distribution System.

**Pre-Construction Activities** – The actions by the Distribution Provider, other than those required by a Letter Agreement under Section 7 of the GIP, undertaken prior to Construction Activities in order to prepare for the construction of the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades assigned to the Interconnection Customer, including, but not limited to, preliminary engineering, permitting activities, environmental analysis, or other activities specifically needed to obtain governmental approvals for the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

**Qualifying Capacity** – The maximum Resource Adequacy Capacity that a Resource Adequacy Resource may be eligible to provide. The criteria and methodology for calculating the Qualifying Capacity of resources may be established by the CPUC or other applicable Local Regulatory Authority and provided to the CAISO. A resource's eligibility to provide Resource Adequacy Capacity may be reduced below its Qualifying Capacity through the CAISO's assessment of Net Qualifying Capacity.

**Queue Position** – The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Distribution Provider and is represented by a unique identifying code assigned to each Interconnection Request that is deemed complete.

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reliability Network Upgrades** – The transmission facilities at or beyond the point where the Distribution Provider’s Distribution System interconnects to the ISO Grid, necessary to interconnect one or more Generating Facility(ies) safely and reliably to the ISO Grid, which would not have been necessary but for the interconnection of one or more Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or thermal overloads. Reliability Network Upgrades shall only be deemed necessary for thermal overloads, occurring under any system condition, where such thermal overloads cannot be adequately mitigated through the ISO’s congestion management, operating procedures, or special protection systems based on the characteristics of the Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with the Applicable Reliability Council’s practice and Applicable Reliability Standards, the facilities necessary to mitigate any adverse impact the Generating Facility’s interconnection may have on a path’s Applicable Reliability Council rating.

**Resource Adequacy (RA)** – A mandatory planning and procurement process to ensure adequate resources to serve all customers in real time. The program requires that Load Serving Entities (LSEs) meet a Planning Reserve Margin for their obligations. The program provides deliverability criteria that each LSE must meet, as well as system and local capacity requirements. Rules are provided for "counting" resources towards meeting resource adequacy obligations. The resources that are counted for RA purposes must make themselves available to the California ISO for the capacity for which they were counted. The ISO's Interim Reliability Requirements Program and the resource adequacy under MRTU tariff provisions are intended to complement the State of California's efforts to implement resource adequacy programs.

**Site Control** – Documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose (see also: Site Exclusivity).

**Site Exclusivity** – The third option to prove Site Control and applies only in instances when the Interconnection Customer has a business (private) or government agency (public) relationship with the project site’s deed holder.

- (1) For private land, Site Exclusivity shall mean documentation reasonably demonstrating legal authorization from the land owner showing the Interconnection Customer has either (a) Ownership of, a leasehold interest in, or a right to develop property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility; or (b) an option to purchase or acquire a leasehold interest in property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility.

- (2) For public land, including that controlled or managed by any federal, state or local agency, Site Exclusivity shall mean documentation from the governing public agency providing a final, non-appealable permit, license, or other exclusive legal right to use the property for the purpose of generating electric power and in acreage reasonably necessary to accommodate the Generating Facility. Such documentation showing exclusive right to use public land under the management of a Local, State, or Federal agency shall be in a form specified by that agency.

**Smart Inverter** – A Generating Facility’s inverter that performs functions that when activated can autonomously contribute to grid support during excursions from normal operating voltage and frequency system conditions by providing dynamic reactive/real power support, voltage and frequency ride-through, ramp rate controls, communication systems with ability to accept external commands and other functions.

**Small Generating Facility** - An Interconnection Customer’s device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities, that has a generating capacity of 20 megawatts (MW) or less

**Stand Alone Network Upgrades** – Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Distribution Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in an Appendix to the GIA.

**System Protection Facilities** – The equipment, including necessary protection signal communications equipment, required to protect (1) the Distribution Provider's Distribution System, the ISO Controlled Grid, and Affected Systems from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Distribution Provider's Distribution System, the ISO Controlled Grid or on other delivery systems or other generating systems to which the Distribution Provider's Distribution System and Transmission System is directly connected..

**Tariff** – The Distribution Provider's Wholesale Distribution Tariff through which open access distribution service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission System** – Those facilities owned by the Distribution Provider that have been placed under the ISO's operational control and are part of the ISO Grid.

**Trial Operation** – The period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation. Also known as Permission to Parallel for Test Purposes.

**Uncontrollable Force** – Any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Distribution Provider or Interconnection Customer which could not be avoided through the exercise of Good Utility Practice. An Uncontrollable Force event does not include acts of negligence or intentional wrongdoing by the Party claiming Uncontrollable Force.

**Upgrades** – The required additions and modifications to the Distribution Provider's Distribution System, at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Wholesale Distribution Tariff Generator Interconnection Procedures (WDT GIP)** – The procedures included in the Distribution Provider's Wholesale Distribution Tariff (WDT) to interconnect a Generating Facility directly to the Distribution Provider's Distribution System, as such procedures may be modified from time to time, and accepted by the Commission.

## **Attachment 2**

### **Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment**

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer, the Distribution Provider, Distribution Owner or the Transmission Owner. The Distribution Provider will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

Actual costs incurred by the Interconnection Customer to install these Interconnection Facilities will be trued up with the Interconnection Customer once this project has achieved commercial operation, per Article 6.1 of this agreement. The Interconnection Customer will be responsible for payment of all actual costs incurred to install these facilities, and any additional facilities identified as necessary during the engineering, design, or construction phases. Should additional facilities be deemed necessary for the interconnection of this facility, Distribution Provider will identify these additional facilities as soon as possible in the construction phase, and will coordinate with the Interconnection Customer on the additional costs and timing needed to implement them. As needed, the costs of ownership for these Interconnection Facilities also will be updated once this project has achieved commercial operation.

### **Attachment 3**

## **One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades**



## Attachment 4

### Milestones

In-Service Date: \_\_\_\_\_

Critical milestones and responsibility as agreed to by the Parties:

	Milestone/Date	Responsible Party
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____
(10)	_____	_____

## **Attachment 5**

### **Additional Operating Requirements for the Distribution Provider's Distribution System, Transmission System and Affected Systems Needed to Support the Interconnection Customer's Needs**

The Distribution Provider shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Distribution Provider's Distribution System. At a minimum, the Interconnection Customer agrees to construct and interconnect the facility described in this agreement with the PG&E system in accordance with the standards and requirements described in the PG&E Transmission Interconnection Handbook (TIH) and the Distribution Interconnection Handbook (DIH).

## **Attachment 6**

### **Distribution Provider's Description of its Upgrades and Best Estimate of Upgrade Costs**

The Distribution Provider shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Distribution Provider shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

Actual costs incurred by the Interconnection Customer to install these Distribution Upgrades and Network Upgrades will be trued up with the Interconnection Customer once this project has achieved commercial operation, per Article 6.1 of this agreement. The Interconnection Customer will be responsible for payment of all actual costs incurred to install these facilities, and any additional facilities identified as necessary during the engineering, design, or construction phases. Should additional upgrades be deemed necessary for the interconnection of this facility, Distribution Provider will identify these additional upgrades as soon as possible in the construction phase, and will coordinate with the Interconnection Customer on the additional costs and timing needed to implement them. As needed, the costs of ownership for these Interconnection Facilities also will be updated once this project has achieved commercial operation.

Reliability Network Upgrades will be reimbursed pursuant to Article 5.2.1.

**ATTACHMENT G:**  
**Large Generator Interconnection Procedures (LGIP)**  
**(Applicable to Generating Facilities that exceed 20 MW)**

**Section 1. Definitions.**

**Adverse System Impact** shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** shall mean an electric system other than the Distribution Provider's Distribution System that may be affected by the proposed interconnection.

**Affected System Operator** shall mean the entity that operates an Affected System.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Ancillary Services** shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Distribution Provider's Distribution System in accordance with Good Utility Practice.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the Distribution System to which the Generating Facility is directly interconnected.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Distribution System to which the Generating Facility is directly interconnected.

**Base Case** shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by the Distribution Provider or Interconnection Customer

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Business Day** shall mean Monday through Friday, excluding Federal Holidays.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection System Impact Study.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** of an Electric Generating Unit shall mean the date on which an Electric Generating Unit at a Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to the Standard Large Generator Interconnection Agreement.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as

confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

**Control Area** shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable Reliability Council.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution Owner** shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Distribution System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

**Distribution Provider** shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Distribution Provider should be read to include the Distribution Owner when the Distribution Owner is separate from the Distribution Provider.

**Distribution Provider's Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Distribution Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Distribution Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Distribution Service** shall mean the wholesale distribution service provided under the Tariff.

**Distribution System** shall mean those non-ISO transmission and distribution facilities owned, controlled and operated by the Distribution Provider that are used to provide Distribution Service under the Tariff, which facilities and equipment are used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Distribution Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Electric Generating Unit** shall mean an individual electric generator and its associated plan and apparatus whose electrical output is capable of being separately identified and metered.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Distribution Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Distribution Provider's Distribution System, Distribution Provider's Interconnection Facilities or the electric systems of others to which the Distribution Provider's Distribution System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**FERC** shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

**Generating Facility** shall mean Interconnection Customer's Electric Generating Unit(s) used for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Generating Facility Capacity** shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple Electric Generating Units.

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Distribution Provider, or any Affiliate thereof.



**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Distribution Provider's Interconnection Facilities to obtain back feed power.

**Interconnection Customer** shall mean any entity, including the Distribution Provider, Distribution Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Distribution Provider's Distribution System.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Distribution Provider's Distribution System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Distribution Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Distribution

Provider's Distribution System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the Distribution Provider or a third party consultant for the Interconnection Customer to determine a list of facilities (including Distribution Provider's Interconnection Facilities and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Distribution Provider's Distribution System. The scope of the study is defined in Section 8 of the Standard Large Generator Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Generating Facility to the Distribution Provider's Distribution System, the scope of which is described in Section 6 of the Standard Large Generator Interconnection Procedures.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Handbook** shall mean a handbook, developed by the Distribution Provider and posted on the Distribution Provider's website or otherwise made available by the Distribution Provider, describing the technical and operational requirements for wholesale generators and loads connected to the Distribution System, as such handbook may be modified or superseded from time to time. Distribution Provider's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and Applicable Reliability Standards. In the event of a conflict between the terms of the Standard Large Generator Interconnection Procedures and the terms of the Distribution Provider's

Interconnection Handbook, the terms in the Standard Large Generator Interconnection Procedures shall govern.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Distribution Provider's Distribution System.

**Interconnection Service** shall mean the service provided by the Distribution Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Distribution Provider's Distribution System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Distribution Provider's Tariff.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Impact Study, and the Interconnection Facilities Study described in the Standard Large Generator Interconnection Procedures.

**Interconnection System Impact Study** shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Distribution Provider's Distribution System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, focusing on the Adverse System Impacts identified in the Interconnection Feasibility Study, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Standard Large Generator Interconnection Procedures.

**Interconnection System Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Standard Large Generator Interconnection Procedures for conducting the Interconnection System Impact Study.

**IRS** shall mean the Internal Revenue Service.

**ISO or CAISO** shall mean the California Independent System Operator Corporation, a state chartered, nonprofit corporation that controls certain transmission facilities of all Participating Transmission Owners and dispatches certain generating units and loads.

**ISO Grid** shall mean the system of transmission lines and associated facilities of the Participating Transmission Owners that have been placed under the ISO's Operational Control.

**ISO Tariff Large Generator Interconnection Procedures (ISO Tariff LGIP)** shall mean the procedures included in the ISO Tariff to interconnect a Large Generating Facility directly to the ISO Grid, as such procedures may be modified from time to time, and accepted by the Commission.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**Letter Agreement** shall mean an agreement that authorizes the Distribution Provider to begin engineering, design, procurement of long lead-time items, and/or construction necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

**Material Modification** shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at

the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**Network Upgrades** shall mean Reliability Network Upgrades.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Standard Large Generator Interconnection Procedures for conducting the Optional Interconnection Study.

**Party or Parties** shall mean Distribution Provider, Distribution Owner, Interconnection Customer or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Distribution Provider's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Distribution Provider's Distribution System.

**Queue Position** shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Distribution Provider.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reliability Network Upgrades** shall mean the transmission facilities at or beyond the point where the Distribution Provider's Distribution System interconnects to the ISO Grid, necessary to interconnect a Large Generating Facility safely and reliably to the ISO Grid, which would not have been necessary but for the interconnection of the Large Generating Facility, including Network Upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of the Large Generating Facility to the Distribution Provider's Distribution System. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Large Generating Facility's interconnection may have on a path's WECC rating.

**Scoping Meeting** shall mean the meeting between representatives of the Interconnection Customer and Distribution Provider conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose.

**Small Generating Facility** shall mean a Generating Facility that has a Generating Facility Capacity of no more than 20 MW.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System

during their construction. Both the Distribution Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

**Standard Large Generator Interconnection Agreement (LGIA)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Distribution Provider's Tariff.

**Standard Large Generator Interconnection Procedures (LGIP)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in the Distribution Provider's Tariff.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Distribution Provider's Distribution System, the ISO Controlled Grid and Affected Systems from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Distribution Provider's Distribution System, the ISO Controlled Grid or on other delivery systems or other generating systems to which the Distribution Provider's Distribution System and Transmission System is directly connected.

**Tariff** shall mean the Wholesale Distribution Tariff, the Distribution Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission System** shall mean those transmission facilities owned by the Distribution Provider or that have been placed under the ISO's operational control and are part of the ISO Grid.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

**Uncontrollable Force** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, fire, storm, flood, earthquake, breakage or accident to machinery or

equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Distribution Provider or Interconnection Customer which could not be avoided through the exercise of Good Utility Practice. An Uncontrollable Force event does not include acts of negligence or intentional wrongdoing by the Party claiming Uncontrollable Force.

## **Section 2. Scope and Application.**

### 2.1 Application of Standard Large Generator Interconnection Procedures.

Sections 2 through 13 apply to processing an Interconnection Request pertaining to a Large Generating Facility.

### 2.2 Comparability

Distribution Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this LGIP. Distribution Provider will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facilities are owned by Distribution Provider, its subsidiaries or Affiliates or others.

### 2.3 Base Case Data

Distribution Provider shall provide base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list upon request subject to confidentiality provisions in LGIP Section 13.1. Distribution Provider is permitted to require that Interconnection Customer sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such Base Cases shall include all (1) generation projects; and (2) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the applicable authority.



## 2.4 No Applicability to Distribution Service

Nothing in this LGIP shall constitute a request for transmission service or Distribution Service or confer upon an Interconnection Customer any right to receive transmission service or Distribution Service.

### **Section 3. Interconnection Requests.**

#### 3.1 General

An Interconnection Customer shall submit to Distribution Provider an Interconnection Request in the form of Appendix 1 to this LGIP and a refundable deposit of \$10,000. Distribution Provider shall apply the deposit toward the cost of an Interconnection Feasibility Study. Interconnection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. Interconnection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Interconnection Requests.

If the Interconnection Customer also desires Distribution Service, then the Interconnection Customer shall submit to the Distribution Provider an Application in accordance with Section 15.2 of the Tariff, including the required deposit. If the Application for Distribution Service is deemed a Completed Application, then the schedule for performing the System Impact Study and Facilities Study, and for executing the Service Agreement shall coincide with the schedule for performing the Interconnection System Impact Study and Interconnection Facilities Study, and executing the LGIA.

At Interconnection Customer's option, Distribution Provider and Interconnection Customer will identify alternative Point(s) of Interconnection and configurations at the Scoping Meeting to evaluate in this process and attempt to eliminate alternatives in a reasonable fashion given resources and information available. Interconnection Customer

will select the definitive Point(s) of Interconnection to be studied no later than the execution of the Interconnection Feasibility Study Agreement.

## 3.2 Interconnection Service

### **3.2.1 The Product**

Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Distribution System and be eligible to deliver the Large Generating Facility's output using the capacity of the Distribution System to the ISO Grid. Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or Point of Delivery.

### **3.2.2 The Interconnection Studies**

The Interconnection Studies consist of short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis would identify direct Interconnection Facilities, Distribution Upgrades, and any required Reliability Network Upgrades necessary to address short circuit issues associated with the Interconnection Facilities. The stability and steady state studies would identify any necessary Network Upgrades to allow full output of the proposed Large Generating Facility and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Large Generating Facility without Network Upgrades.

The Distribution Provider may also study the Distribution System under non-peak load conditions. However, upon request by the Interconnection Customer, the Distribution Provider must explain in writing to the Interconnection Customer why the study of nonpeak load conditions is required for reliability purposes.

### **3.2.3 Network Upgrades.**

Unless the Distribution Provider elects to fund the capital for Network Upgrades, they shall be solely funded by the Interconnection Customer.

### **3.2.4 Repayment of Amounts Advanced for Network Upgrades.**

The Interconnection Customer shall be entitled to a repayment for the cost of Network Upgrades in accordance with ISO Tariff LGIP Section 3.4.3.

## **3.3 Valid Interconnection Request**

### **3.3.1 Initiating an Interconnection Request.**

To initiate an Interconnection Request, Interconnection Customer must submit all of the following: (i) a \$10,000 deposit; (ii) a completed application in the form of Appendix 1; and (iii) demonstration of Site Control or a posting of an additional deposit of \$10,000. Such deposits shall be applied toward any Interconnection Studies pursuant to the Interconnection Request. If Interconnection Customer demonstrates Site Control within the cure period specified in Section 3.3.3 after submitting its Interconnection Request, the additional deposit shall be refundable; otherwise, all such deposit(s), additional and initial, become non-refundable.

The expected In-Service Date of the new Large Generating Facility or increase in capacity of the existing Generating Facility shall be no more than the process window for the regional expansion planning period (or in the absence of a regional planning process, the process window for Distribution Provider's expansion planning period) not to exceed seven years from the date the Interconnection Request is received by Distribution Provider, unless Interconnection Customer demonstrates that engineering, permitting and construction of the new Large Generating Facility or increase in capacity of the existing Generating Facility will take longer than the regional expansion planning period. The In-Service Date may succeed the date the Interconnection Request is received by Distribution Provider by a period up to ten years, or longer where Interconnection Customer and Distribution Provider agree, such agreement not to be unreasonably withheld.

### **3.3.2 Acknowledgment of Interconnection Request.**

Distribution Provider shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the request and attach a copy of the received Interconnection Request to the acknowledgment.

### **3.3.3 Deficiencies in Interconnection Request**

An Interconnection Request will not be considered to be a valid request until all items in Section 3.3.1 have been received by Distribution Provider. If an Interconnection Request fails to meet the requirements set forth in Section 3.3.1, Distribution Provider shall notify Interconnection Customer within five (5) Business Days of receipt of the initial Interconnection Request of the reasons for such failure and that the Interconnection Request does not constitute a valid request. Interconnection Customer shall provide Distribution Provider the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice. Failure by Interconnection Customer to comply with this Section 3.3.3 shall be treated in accordance with Section 3.6.

### **3.3.4 Scoping Meeting**

Within ten (10) Business Days after receipt of a valid Interconnection Request, Distribution Provider shall establish a date agreeable to Interconnection Customer for the Scoping Meeting, and such date shall be no later than thirty (30) Calendar Days from receipt of the valid Interconnection Request, unless otherwise mutually agreed upon by the Parties.

The purpose of the Scoping Meeting shall be to discuss alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such interconnection options, to analyze such information and to determine the potential feasible Points of Interconnection. Distribution Provider and Interconnection Customer will bring to

the meeting such technical data, including, but not limited to: (i) general facility loadings; (ii) general instability issues; (iii) general short circuit issues; (iv) general voltage issues; and (v) general reliability issues as may be reasonably required to accomplish the purpose of the meeting. Distribution Provider and Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer shall designate its Point of Interconnection, pursuant to Section 6.1, and one or more available alternative Point(s) of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

### 3.4 Internet Posting

Distribution Provider will maintain on its website a list of all Interconnection Requests. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, including Queue Position; and (vi) the availability of any studies related to the Interconnection Request; (vii) the date of the Interconnection Request; (viii) the type of Generating Facility to be constructed (combined cycle, base load or combustion turbine and fuel type); and (ix) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed. Except in the case of an Affiliate, the list will not disclose the identity of Interconnection Customer until Interconnection Customer executes an LGIA or requests that Distribution Provider file an unexecuted LGIA with FERC. Before holding a Scoping Meeting with its Affiliate, Distribution Provider shall post on its website an advance notice of its intent to do so. Distribution Provider shall post to its website any deviations from the study timelines set forth herein.

Interconnection Study reports and Optional Interconnection Study reports shall be posted to Distribution Provider's website subsequent to the meeting between Interconnection Customer and Distribution Provider to discuss the applicable study results. Distribution

Provider shall also post any known deviations in the Large Generating Facility's In-Service Date.

### 3.5 Coordination with Affected Systems

Distribution Provider will coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System Operators and, if possible, include those results (if available) in its applicable Interconnection Study within the time frame specified in this LGIP. Distribution Provider will include such Affected System Operators in all meetings held with Interconnection Customer as required by this LGIP. Interconnection Customer will cooperate with Distribution Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with Distribution Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

### 3.6 Withdrawal

Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Distribution Provider. In addition, if Interconnection Customer fails to adhere to all requirements of this LGIP, except as provided in Section 13.5 (Disputes), Distribution Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Upon receipt of such written notice, Interconnection Customer shall have fifteen (15) Business Days in which to either respond with information or action that cures the deficiency or to notify Distribution Provider of its intent to pursue Dispute Resolution.

Withdrawal shall result in the loss of Interconnection Customer's Queue Position. If an Interconnection Customer disputes the withdrawal and loss of its Queue Position, then during Dispute Resolution, Interconnection Customer's Interconnection Request is eliminated from the queue until such time that the outcome of Dispute Resolution would

restore its Queue Position. An Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to Distribution Provider all costs that Distribution Provider prudently incurs with respect to that Interconnection Request prior to Distribution Provider's receipt of notice described above. Interconnection Customer must pay all monies due to Distribution Provider before it is allowed to obtain any Interconnection Study data or results.

Distribution Provider shall (i) update the Internet Queue Position posting; and (ii) refund to Interconnection Customer any portion of Interconnection Customer's deposit or study payments that exceeds the costs that Distribution Provider has incurred, including interest calculated in accordance with section 35.19a(a)(2) of FERC's regulations. In the event of such withdrawal, Distribution Provider, subject to the confidentiality provisions of Section 13.1, shall provide, at Interconnection Customer's request, all information that Distribution Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

#### **Section 4. Queue Position.**

##### **4.1 General**

Distribution Provider shall assign a Queue Position based upon the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application form, and Interconnection Customer provides such information in accordance with Section 3.3.3, then Distribution Provider shall assign Interconnection Customer a Queue Position based on the date the application form was originally filed. Moving a Point of Interconnection shall result in a lowering of Queue Position if it is deemed a Material Modification under Section 4.4.3.

The Queue Position of each Interconnection Request will be used to determine the order of performing the Interconnection Studies and determination of cost responsibility for the facilities necessary to accommodate the Interconnection Request. A higher queued

Interconnection Request is one that has been placed "earlier" in the queue in relation to another Interconnection Request that is lower queued.

Distribution Provider may allocate the cost of the common upgrades for clustered Interconnection Requests without regard to Queue Position.

#### 4.2 Clustering

At Distribution Provider's option, Interconnection Requests may be studied serially or in clusters for the purpose of the Interconnection System Impact Study.

Clustering shall be implemented on the basis of Queue Position. If Distribution Provider elects to study Interconnection Requests using Clustering, all Interconnection Requests received within a period not to exceed one hundred and eighty (180) Calendar Days, hereinafter referred to as the "Queue Cluster Window" shall be studied together. The deadline for completing all Interconnection System Impact Studies for which an Interconnection System Impact Study Agreement has been executed during a Queue Cluster Window shall be in accordance with Section 7.4, for all Interconnection Requests assigned to the same Queue Cluster Window. Distribution Provider may study an Interconnection Request separately to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Large Generating Facility.

Clustering Interconnection System Impact Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the Distribution System's and Transmission System's capabilities at the time of each study.

The Queue Cluster Window shall have a fixed time interval based on fixed annual opening and closing dates. Any changes to the established Queue Cluster Window interval and opening or closing dates shall be announced with a posting on Distribution Provider's website beginning at least one hundred and eighty (180) Calendar Days in advance of the change and continuing thereafter through the end date of the first Queue Cluster Window that is to be modified.



#### 4.3 Transferability of Queue Position

An Interconnection Customer may transfer its Queue Position to another entity only if such entity acquires the specific Generating Facility identified in the Interconnection Request and the Point of Interconnection does not change.

#### 4.4 Modifications

Interconnection Customer shall submit to Distribution Provider, in writing, modifications to any information provided in the Interconnection Request. Interconnection Customer shall retain its Queue Position if the modifications are in accordance with Sections 4.4.1, 4.4.2 or 4.4.5, or are determined not to be Material Modifications pursuant to Section 4.4.3.

Notwithstanding the above, during the course of the Interconnection Studies, either Interconnection Customer or Distribution Provider may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to Distribution Provider and Interconnection Customer, such acceptance not to be unreasonably withheld, Distribution Provider shall modify the Point of Interconnection and/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 6.4, Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.

4.4.1 Prior to the return of the executed Interconnection System Impact Study Agreement to Distribution Provider, modifications permitted under this Section shall include specifically: (a) a decrease of up to 60 percent of electrical output (MW) of the proposed project; (b) modifying the technical parameters associated with the Large Generating Facility technology or the Large Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For plant increases, the incremental increase in

plant output will go to the end of the queue for the purposes of cost allocation and study analysis.

- 4.4.2 Prior to the return of the executed Interconnection Facility Study Agreement to Distribution Provider, the modifications permitted under this Section shall include specifically: (a) additional 15 percent decrease of electrical output (MW), and (b) Large Generating Facility technical parameters associated with modifications to Large Generating Facility technology and transformer impedances; provided, however, the incremental costs associated with those modifications are the responsibility of the requesting Interconnection Customer.
- 4.4.3 Prior to making any modification other than those specifically permitted by Sections 4.4.1, 4.4.2, and 4.4.5, Interconnection Customer may first request that Distribution Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Distribution Provider shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except those deemed acceptable under Sections 4.4.1, 6.1, 7.2 or so allowed elsewhere, shall constitute a Material Modification. Interconnection Customer may then withdraw the proposed modification or proceed with a new Interconnection Request for such modification.
- 4.4.4 Upon receipt of Interconnection Customer's request for modification permitted under this Section 4.4, Distribution Provider shall commence and perform any necessary additional studies as soon as practicable, but in no event shall Distribution Provider commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies resulting from such modification shall be done at Interconnection Customer's cost.

- 4.4.5 Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing.

**Section 5. Procedures for Interconnection Requests Submitted Prior to Effective Date of Standard Large Generator Interconnection Procedures.**

5.1 Queue Position for Pending Requests

- 5.1.1 Any Interconnection Customer assigned a Queue Position prior to the effective date of this LGIP shall retain that Queue Position.

5.1.1.1 If an Interconnection Study Agreement has not been executed as of the effective date of this LGIP, then such Interconnection Study, and any subsequent Interconnection Studies, shall be processed in accordance with this LGIP.

5.1.1.2 If an Interconnection Study Agreement has been executed prior to the effective date of this LGIP, such Interconnection Study shall be completed in accordance with the terms of such agreement. With respect to any remaining studies for which an Interconnection Customer has not signed an Interconnection Study Agreement prior to the effective date of the LGIP, Distribution Provider must offer Interconnection Customer the option of either continuing under Distribution Provider's existing interconnection study process or going forward with the completion of the necessary Interconnection Studies (for which it does not have a signed Interconnection Studies Agreement) in accordance with this LGIP.

5.1.1.3 If an LGIA has been submitted to FERC for approval before the effective date of the LGIP, then the LGIA would be grandfathered.

### **5.1.2 Transition Period.**

To the extent necessary, Distribution Provider and Interconnection Customers with an outstanding request (i.e., an Interconnection Request for which an LGIA has not been submitted to FERC for approval as of the effective date of this LGIP) shall transition to this LGIP within a reasonable period of time not to exceed sixty (60) Calendar Days. The use of the term "outstanding request" herein shall mean any Interconnection Request, on the effective date of this LGIP: (i) that has been submitted but not yet accepted by Distribution Provider; (ii) where the related interconnection agreement has not yet been submitted to FERC for approval in executed or unexecuted form; (iii) where the relevant Interconnection Study Agreements have not yet been executed, or (iv) where any of the relevant Interconnection Studies are in process but not yet completed. Any Interconnection Customer with an outstanding request as of the effective date of this LGIP may request a reasonable extension of any deadline, otherwise applicable, if necessary to avoid undue hardship or prejudice to its Interconnection Request. A reasonable extension shall be granted by Distribution Provider to the extent consistent with the intent and process provided for under this LGIP.

### **5.2 New Distribution Provider**

If Distribution Provider transfers control of its Distribution System to a successor Distribution Provider during the period when an Interconnection Request is pending, the original Distribution Provider shall transfer to the successor Distribution Provider any amount of the deposit or payment with interest thereon that exceeds the cost that it incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by this LGIP shall be paid by or refunded to the Interconnection Customer, as appropriate. The original Distribution Provider shall coordinate with the successor Distribution Provider to complete any Interconnection Study, as appropriate, that the original Distribution Provider has begun but has not completed. If Distribution Provider has tendered a draft LGIA to Interconnection Customer but Interconnection Customer has not either executed the LGIA or requested

the filing of an unexecuted LGIA with FERC, unless otherwise provided, Interconnection Customer must complete negotiations with the successor Distribution Provider.

## **Section 6. Interconnection Feasibility Study.**

### 6.1 Interconnection Feasibility Study Agreement

Simultaneously with the acknowledgement of a valid Interconnection Request Distribution Provider shall provide to Interconnection Customer an Interconnection Feasibility Study Agreement in the form of Appendix 2. The Interconnection Feasibility Study Agreement shall specify that Interconnection Customer is responsible for the actual cost of the Interconnection Feasibility Study. Within five (5) Business Days following the Scoping Meeting Interconnection Customer shall specify for inclusion in the attachment to the Interconnection Feasibility Study Agreement the Point(s) of Interconnection and any reasonable alternative Point(s) of Interconnection. Within five (5) Business Days following Distribution Provider's receipt of such designation, Distribution Provider shall tender to Interconnection Customer the Interconnection Feasibility Study Agreement signed by Distribution Provider, which includes a good faith estimate of the cost for completing the Interconnection Feasibility Study. Interconnection Customer shall execute and deliver to Distribution Provider the Interconnection Feasibility Study Agreement along with a \$10,000 deposit no later than thirty (30) Calendar Days after its receipt. On or before the return of the executed Interconnection Feasibility Study Agreement to Distribution Provider, Interconnection Customer shall provide the technical data called for in Appendix 1, Attachment A.

If the Interconnection Feasibility Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting, a substitute Point of Interconnection identified by either Interconnection Customer or Distribution Provider, and acceptable to the other, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and Re-studies shall be completed pursuant to Section 6.4 as applicable. For the purpose of this Section 6.1, if Distribution Provider and Interconnection Customer cannot agree on the

substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as specified in the Interconnection Feasibility Study Agreement, as specified pursuant to Section 3.3.4, shall be the substitute.

If Interconnection Customer and Distribution Provider agree to forgo the Interconnection Feasibility Study, Distribution Provider will initiate an Interconnection System Impact Study under Section 7 of this LGIP and apply the \$10,000 deposit towards the Interconnection System Impact Study.

## 6.2 Scope of Interconnection Feasibility Study

The Interconnection Feasibility Study shall preliminarily evaluate the feasibility of the proposed interconnection to the Distribution System. The Interconnection Feasibility Study will consider the Base Case as well as all generating facilities (and with respect to (iii), any identified Distribution Upgrades and Network Upgrades) that, on the date the Interconnection Feasibility Study is commenced: (i) are directly interconnected to the Distribution System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Distribution System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC. The Interconnection Feasibility Study will consist of a power flow and short circuit analysis. The Interconnection Feasibility Study will provide a list of facilities and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.

## 6.3 Interconnection Feasibility Study Procedures

Distribution Provider shall utilize existing studies to the extent practicable when it performs the study. Distribution Provider shall use Reasonable Efforts to complete the Interconnection Feasibility Study no later than forty-five (45) Calendar Days after Distribution Provider receives the fully executed Interconnection Feasibility Study Agreement. At the request of Interconnection Customer or at any time Distribution Provider determines that it will not meet the required time frame for completing the

Interconnection Feasibility Study, Distribution Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Feasibility Study. If Distribution Provider is unable to complete the Interconnection Feasibility Study within that time period, it shall notify Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. Upon request, Distribution Provider shall provide Interconnection Customer supporting documentation, workpapers and relevant power flow, short circuit and stability databases for the Interconnection Feasibility Study, subject to confidentiality arrangements consistent with Section 13.1.

#### 6.3.1 Meeting with Distribution Provider.

Within ten (10) Business Days of providing an Interconnection Feasibility Study report to Interconnection Customer, Distribution Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Feasibility Study.

#### 6.4 Re-Study

If Re-Study of the Interconnection Feasibility Study is required due to a higher queued project dropping out of the queue, or a modification of a higher queued project subject to Section 4.4, or re-designation of the Point of Interconnection pursuant to Section 6.1 Distribution Provider shall notify Interconnection Customer in writing. Such Re-Study shall take not longer than forty-five (45) Calendar Days from the date of the notice. Any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.

### **Section 7. Interconnection System Impact Study.**

#### 7.1 Interconnection System Impact Study Agreement

Unless otherwise agreed, pursuant to the Scoping Meeting provided in Section 3.3.4, simultaneously with the delivery of the Interconnection Feasibility Study to Interconnection Customer, Distribution Provider shall provide to Interconnection Customer an Interconnection System Impact Study Agreement in the form of Appendix 3

to this LGIP. The Interconnection System Impact Study Agreement shall provide that Interconnection Customer shall compensate Distribution Provider for the actual cost of the Interconnection System Impact Study. Within three (3) Business Days following the Interconnection Feasibility Study results meeting, Distribution Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection System Impact Study.

## 7.2 Execution of Interconnection System Impact Study Agreement

Interconnection Customer shall execute the Interconnection System Impact Study Agreement and deliver the executed Interconnection System Impact Study Agreement to Distribution Provider no later than thirty (30) Calendar Days after its receipt along with demonstration of Site Control, and a \$50,000 deposit.

If Interconnection Customer does not provide all such technical data when it delivers the Interconnection System Impact Study Agreement, Distribution Provider shall notify Interconnection Customer of the deficiency within five (5) Business Days of the receipt of the executed Interconnection System Impact Study Agreement and Interconnection Customer shall cure the deficiency within ten (10) Business Days of receipt of the notice, provided, however, such deficiency does not include failure to deliver the executed Interconnection System Impact Study Agreement or deposit.

If the Interconnection System Impact Study uncovers any unexpected result(s) not contemplated during the Scoping Meeting and the Interconnection Feasibility Study, a substitute Point of Interconnection identified by either Interconnection Customer or Distribution Provider, and acceptable to the other, such acceptance not to be unreasonably withheld, will be substituted for the designated Point of Interconnection specified above without loss of Queue Position, and restudies shall be completed pursuant to Section 7.6 as applicable. For the purpose of this Section 7.2, if Distribution Provider and Interconnection Customer cannot agree on the substituted Point of Interconnection, then Interconnection Customer may direct that one of the alternatives as



specified in the Interconnection Feasibility Study Agreement, as specified pursuant to Section 3.3.4, shall be the substitute.

### 7.3 Scope of Interconnection System Impact Study

The Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability of the Distribution System and Transmission System. The Interconnection System Impact Study will consider the Base Case as well as all generating facilities (and with respect to (iii) below, any identified Distribution Upgrades and Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced: (i) are directly interconnected to the Distribution System; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the Distribution System; and (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

The Interconnection System Impact Study will consist of a short circuit analysis, a stability analysis, and a power flow analysis. The Interconnection System Impact Study will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Interconnection System Impact Study will provide a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.

### 7.4 Interconnection System Impact Study Procedures

Distribution Provider shall coordinate the Interconnection System Impact Study with any Affected System that is affected by the Interconnection Request pursuant to Section 3.5 above. Distribution Provider shall utilize existing studies to the extent practicable when it

performs the study. Distribution Provider shall use Reasonable Efforts to complete the Interconnection System Impact Study within ninety (90) Calendar Days after the receipt of the Interconnection System Impact Study Agreement or notification to proceed, study payment, and technical data. If Distribution Provider uses Clustering, Distribution Provider shall use Reasonable Efforts to deliver a completed Interconnection System Impact Study within ninety (90) Calendar Days after the close of the Queue Cluster Window.

At the request of Interconnection Customer or at any time Distribution Provider determines that it will not meet the required time frame for completing the Interconnection System Impact Study, Distribution Provider shall notify Interconnection Customer as to the schedule status of the Interconnection System Impact Study. If Distribution Provider is unable to complete the Interconnection System Impact Study within the time period, it shall notify Interconnection Customer and provide an estimated completion date with an explanation of the reasons why additional time is required. Upon request, Distribution Provider shall provide Interconnection Customer all supporting documentation, workpapers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Interconnection System Impact Study, subject to confidentiality arrangements consistent with Section 13.1.

#### 7.5 Meeting with Distribution Provider

Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, Distribution Provider and Interconnection Customer shall meet to discuss the results of the Interconnection System Impact Study.

#### 7.6 Re-Study

If Re-Study of the Interconnection System Impact Study is required due to a higher queued project dropping out of the queue, a modification of a higher queued project subject to Section 4.4, or re-designation of the Point of Interconnection pursuant to Section 7.2 Distribution Provider shall notify Interconnection Customer in writing. Such

Re-Study shall take no longer than sixty (60) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.

## **Section 8. Interconnection Facilities Study.**

### 8.1 Interconnection Facilities Study Agreement

Simultaneously with the delivery of the Interconnection System Impact Study to Interconnection Customer, Distribution Provider shall provide to Interconnection Customer an Interconnection Facilities Study Agreement in the form of Appendix 4 to this LGIP. The Interconnection Facilities Study Agreement shall provide that Interconnection Customer shall compensate Distribution Provider for the actual cost of the Interconnection Facilities Study. Within three (3) Business Days following the Interconnection System Impact Study results meeting, Distribution Provider shall provide to Interconnection Customer a non-binding good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study. Interconnection Customer shall execute the Interconnection Facilities Study Agreement and deliver the executed Interconnection Facilities Study Agreement to Distribution Provider within thirty (30) Calendar Days after its receipt, together with the required technical data and the greater of \$100,000 or Interconnection Customer's portion of the estimated monthly cost of conducting the Interconnection Facilities Study.

8.1.1 Distribution Provider shall invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Distribution Provider shall continue to hold the amounts on deposit until settlement of the final invoice.

### 8.2 Scope of Interconnection Facilities Study

The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to

physically and electrically connect the Interconnection Facility to the Distribution System. The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

### 8.3 Interconnection Facilities Study Procedures

Distribution Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 3.5 above. Distribution Provider shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. Distribution Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within the following number of days after receipt of an executed Interconnection Facilities Study Agreement: ninety (90) Calendar Days, with no more than a +/- 20 percent cost estimate contained in the report; or one hundred eighty (180) Calendar Days, if Interconnection Customer requests a +/- 10 percent cost estimate.

At the request of Interconnection Customer or at any time Distribution Provider determines that it will not meet the required time frame for completing the Interconnection Facilities Study, Distribution Provider shall notify Interconnection Customer as to the schedule status of the Interconnection Facilities Study. If Distribution Provider is unable to complete the Interconnection Facilities Study and issue a draft Interconnection Facilities Study report within the time required, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required.

Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft report, provide written comments to Distribution Provider, which Distribution Provider shall include in the final report. Distribution Provider shall issue the final Interconnection

Facilities Study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Distribution Provider may reasonably extend such fifteen-day period upon notice to Interconnection Customer if Interconnection Customer's comments require Distribution Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. Upon request, Distribution Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 13.1. If Network Upgrades are required, or have been elected by the Interconnection Customer, to interconnect the Large Generating Facility to the Distribution System, the Distribution Provider may provide a copy of the Interconnection Facilities Study and supporting data to the ISO for informational purposes.

#### 8.4 Meeting with Distribution Provider

Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Distribution Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study. Within ten (10) Business Days of this meeting the Interconnection Customer shall make the election of which Network Upgrades identified in the Interconnection Facilities Study are to be installed.

#### 8.5 Re-Study

If Re-Study of the Interconnection Facilities Study is required due to a higher queued project dropping out of the queue or a modification of a higher queued project pursuant to Section 4.4, Distribution Provider shall so notify Interconnection Customer in writing. Such Re-Study shall take no longer than sixty (60) Calendar Days from the date of notice. Any cost of Re-Study shall be borne by the Interconnection Customer being re-studied.

## **Section 9. Letter Agreement.**

Prior to executing an LGIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Distribution Provider shall offer the Interconnection Customer, a Letter Agreement that authorizes Distribution Provider to begin engineering, design, procurement of long lead-time items, and/or construction necessary for the establishment of the interconnection. However, Distribution Provider shall not be obligated to offer a Letter Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the LGIP. The Letter Agreement is an optional procedure and it will not alter the Interconnection Customer's Queue Position or In-Service Date. The Letter Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Following an Interconnection Customer's request for a Letter Agreement, Distribution Provider shall prepare and tender to the Interconnection Customer a draft Letter Agreement in the form of the Distribution Provider's FERC-approved Letter Agreement as set forth in Attachment J to the GIP, including draft exhibits that include the proposed scope of work, estimated costs, payments, financial security and milestones, as applicable. The Interconnection Customer shall provide written comments, or notification of no comments, to the draft exhibits within thirty (30) Calendar Days. Distribution Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the exhibits to the draft Letter Agreement for not more than ninety (90) Calendar Days after the Distribution Provider tenders the draft Letter Agreement to the Interconnection Customer. If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft Letter Agreement and request submission of the unexecuted Letter Agreement with FERC or initiate Dispute Resolution procedures pursuant to GIP Section 6.2. If Interconnection Customer requests termination of the negotiations, but within ninety (90) Calendar Days after the Distribution Provider tenders the draft Letter Agreement to the Interconnection Customer, fails to request either the filing of the unexecuted Letter Agreement or initiate Dispute Resolution, it shall be deemed to have withdrawn its request for a Letter Agreement and the Distribution Provider shall have no further obligation to enter into a Letter Agreement, unless

an extension is mutually agreed to by the parties. Distribution Provider shall provide to Interconnection Customer a final Letter Agreement within fifteen (15) Business Days after the completion of the negotiation process.

Following submission of the final Letter Agreement to the Interconnection Customer, Interconnection Customer shall either: (i) execute two originals of the tendered Letter Agreement and return them to Distribution Provider; or (ii) request in writing that Distribution Provider file with FERC a Letter Agreement in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of the tendered Letter Agreement (if it does not conform with a FERC-approved Letter Agreement) or the request to file an unexecuted Letter Agreement, Distribution Provider shall file the Letter Agreement with FERC, together with its explanation of any matters as to which Interconnection Customer and Distribution Provider disagree and support for the costs that Distribution Provider proposes to charge to Interconnection Customer under the Letter Agreement. An unexecuted Letter Agreement should contain terms and conditions deemed appropriate by Distribution Provider for the Interconnection Request.

If Interconnection Customer executes the final Letter Agreement, Distribution Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the Letter Agreement, subject to modification by FERC. Upon submission of an unexecuted Letter Agreement, Interconnection Customer and Distribution Provider shall promptly comply with the unexecuted Letter Agreement, subject to modification by FERC.

## **Section 10. Optional Interconnection Study.**

### **10.1 Optional Interconnection Study Agreement**

On or after the date when Interconnection Customer receives Interconnection System Impact Study results, Interconnection Customer may request, and Distribution Provider shall perform a reasonable number of Optional Studies. The request shall describe the assumptions that Interconnection Customer wishes Distribution Provider to study within the scope described in Section 10.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, Distribution Provider shall provide to

Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 5.

The Optional Interconnection Study Agreement shall: (i) specify the technical data that Interconnection Customer must provide for each phase of the Optional Interconnection Study; (ii) specify Interconnection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case and assumptions as to the type of interconnection service for Interconnection Requests remaining in the Optional Interconnection Study case; and (iii) Distribution Provider's estimate of the cost of the Optional Interconnection Study. To the extent known by Distribution Provider, such estimate shall include any costs expected to be incurred by any Affected System whose participation is necessary to complete the Optional Interconnection Study. Notwithstanding the above, Distribution Provider shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request.

Interconnection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the technical data and a \$10,000 deposit to Distribution Provider.

#### 10.2 Scope of Optional Interconnection Study

The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by Interconnection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify Distribution Provider's Interconnection Facilities, Distribution Upgrades, and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional Interconnection Study. The Optional Interconnection Study shall be performed solely for informational purposes. Distribution Provider shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are



being studied. Distribution Provider shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

### 10.3 Optional Interconnection Study Procedures

The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to Distribution Provider within ten (10) Business Days of Interconnection Customer receipt of the Optional Interconnection Study Agreement. Distribution Provider shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed upon time period specified within the Optional Interconnection Study Agreement. If Distribution Provider is unable to complete the Optional Interconnection Study within such time period, it shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. Any difference between the study payment and the actual cost of the study shall be paid to Distribution Provider or refunded to Interconnection Customer, as appropriate. Upon request, Distribution Provider shall provide Interconnection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study, subject to confidentiality arrangements consistent with Section 13.1.

## **Section 11. Standard Large Generator Interconnection Agreement (LGIA).**

### 11.1 Tender

Interconnection Customer shall tender comments on the draft Interconnection Facilities Study Report within thirty (30) Calendar Days of receipt of the report. Within thirty (30) Calendar Days after the comments are submitted, Distribution Provider shall tender a draft LGIA, together with draft appendices completed to the extent practicable. The draft LGIA shall be in the form of Distribution Provider's FERC-approved standard form LGIA, which is Attachment H to the Tariff. Interconnection Customer shall execute and return the completed draft appendices within thirty (30) Calendar Days.

## 11.2 Negotiation

Notwithstanding Section 11.1, at the request of Interconnection Customer Distribution Provider shall begin negotiations with Interconnection Customer concerning the appendices to the LGIA at any time after Interconnection Customer executes the Interconnection Facilities Study Agreement. Distribution Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft LGIA for not more than sixty (60) Calendar Days after tender of the final Interconnection Facilities Study Report. If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft LGIA pursuant to Section 11.1 and request submission of the unexecuted LGIA with FERC or initiate Dispute Resolution procedures pursuant to Section 13.5. If Interconnection Customer requests termination of the negotiations, but within sixty (60) Calendar Days thereafter fails to request either the filing of the unexecuted LGIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if Interconnection Customer has not executed the LGIA, requested filing of an unexecuted LGIA, or initiated Dispute Resolution procedures pursuant to Section 13.5 within sixty (60) Calendar Days of tender of draft LGIA, it shall be deemed to have withdrawn its Interconnection Request. Distribution Provider shall provide to Interconnection Customer a final LGIA within fifteen (15) Business Days after the completion of the negotiation process.

## 11.3 Execution and Filing

Within fifteen (15) Business Days after receipt of the final LGIA, Interconnection Customer shall provide Distribution Provider (A) reasonable evidence that continued Site Control or (B) posting of \$250,000, non-refundable additional security, which shall be applied toward future construction costs. At the same time, Interconnection Customer also shall provide reasonable evidence that one or more of the following milestones in the development of the Large Generating Facility, at Interconnection Customer election, has been achieved: (i) the execution of a contract for the supply or transportation of fuel to

the Large Generating Facility; (ii) the execution of a contract for the supply of cooling water to the Large Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility; (iv) execution of a contract for the sale of electric energy or capacity from the Large Generating Facility; or (v) application for an air, water, or land use permit.

Interconnection Customer shall either: (i) execute two originals of the tendered LGIA and return them to Distribution Provider; or (ii) request in writing that Distribution Provider file with FERC an LGIA in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of the tendered LGIA (if it does not conform with a FERC-approved standard form of interconnection agreement) or the request to file an unexecuted LGIA, Distribution Provider shall file the LGIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Distribution Provider disagree and support for the costs that Distribution Provider proposes to charge to Interconnection Customer under the LGIA. An unexecuted LGIA should contain terms and conditions deemed appropriate by Distribution Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed upon terms of the unexecuted LGIA, they may proceed pending FERC action.

#### 11.4 Commencement of Interconnection Activities

If Interconnection Customer executes the final LGIA, Distribution Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the LGIA, subject to modification by FERC. Upon submission of an unexecuted LGIA, Interconnection Customer and Distribution Provider shall promptly comply with the unexecuted LGIA, subject to modification by FERC.

#### 11.5 Interconnection Customer to Meet Requirements of the Distribution Provider's Interconnection Handbook

The Interconnection Customer's Interconnection Facilities shall be designed, constructed, operated and maintained in accordance with the Distribution Provider's Interconnection

Handbook. In the event of a conflict between the terms of the Standard Large Generator Interconnection Procedures and the terms of the Distribution Provider's Interconnection Handbook, the terms in the Standard Large Generator Interconnection Procedures shall govern.

## **Section 12. Construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades.**

### 12.1 Schedule

Distribution Provider and Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and the Network Upgrades.

### 12.2 Construction Sequencing

#### **12.2.1 General**

In general, the In-Service Date of an Interconnection Customers seeking interconnection to the Distribution System will determine the sequence of construction of Distribution Upgrades and Network Upgrades.

#### 12.2.2 Advance Construction of Distribution Upgrades and Network Upgrades that are an Obligation of an Entity other than Interconnection Customer.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Distribution Provider advance to the extent necessary the completion of Distribution Upgrades and Network Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer; (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than Interconnection Customer that is seeking interconnection to the Distribution System, in time to support such In-Service Date. Upon such request, Distribution Provider will use Reasonable Efforts to advance the construction of such

Distribution Upgrades and Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Provider: (i) any associated expediting costs and (ii) the cost of such Distribution Upgrades and Network Upgrades.

Distribution Provider will refund to Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the LGIA. Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that Distribution Provider has not refunded to Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. Distribution Provider shall forward to Interconnection Customer the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to Interconnection Customer. Distribution Provider then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the LGIA.

#### 12.2.3 Advancing Construction of Distribution Upgrades and Network Upgrades that are Part of an Expansion Plan of the Distribution Provider.

An Interconnection Customer with an LGIA, in order to maintain its In-Service Date, may request that Distribution Provider advance to the extent necessary the completion of Distribution Upgrades and Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be completed, pursuant to an expansion plan of Distribution Provider, in time to support such In-Service Date. Upon such request, Distribution Provider will use Reasonable Efforts to advance the construction of such Distribution Upgrades and Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Distribution Provider any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any, in

accordance with the ISO Tariff LGIP and the LGIA, for any expediting costs paid.

#### **12.2.4 Amended Interconnection Study.**

An Interconnection Study will be amended to determine the facilities necessary to support the requested In-Service Date. This amended study will include those transmission and Large Generating Facilities that are expected to be in service on or before the requested In-Service Date.

### **Section 13. Miscellaneous.**

#### **13.1 Confidentiality**

Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of an LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

##### **13.1.1 Scope**

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a

disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of the LGIA; or (6) is required, in accordance with Section 13.1.6, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under the LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

### **13.1.2 Release of Confidential Information**

Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 13.1 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 13.1.

### **13.1.3 Rights**

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other

Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

#### **13.1.4 No Warranties**

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

#### **13.1.5 Standard of Care**

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under these procedures or its regulatory requirements.

#### **13.1.6 Order of Disclosure**

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of the LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.



### **13.1.7 Remedies**

The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Section 13.1. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Section 13.1, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Section 13.1, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 13.1.

### **13.1.8 Disclosure to FERC, its Staff, or a State**

Notwithstanding anything in this Section 13.1 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to the LGIP, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before

such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

13.1.9 Subject to the exception in Section 13.1.8, any information that a Party claims is competitively sensitive, commercial or financial information ("Confidential Information") shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIP or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a subregional, regional or national reliability organization or planning group. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

13.1.10 This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

13.1.11 Distribution Provider shall, at Interconnection Customer's election, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

### 13.2 Delegation of Responsibility

Distribution Provider may use the services of subcontractors as it deems appropriate to perform its obligations under this LGIP. Distribution Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance with its obligations of this LGIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

### 13.3 Obligation for Study Costs

Distribution Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to Interconnection Customer or offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. Interconnection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice therefore. Distribution Provider shall not be obligated to perform or continue to perform any studies unless Interconnection Customer has paid all undisputed amounts in compliance herewith.

### 13.4 Third Parties Conducting Studies

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study; (ii) Interconnection Customer receives notice pursuant to Sections 6.3, 7.4 or 8.3 that Distribution Provider will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study; or (iii) Interconnection Customer receives neither the Interconnection Study nor a notice under Sections 6.3, 7.4 or 8.3 within the applicable timeframe for such Interconnection Study, then Interconnection Customer may require Distribution Provider to utilize a third party consultant reasonably acceptable to

Interconnection Customer and Distribution Provider to perform such Interconnection Study under the direction of Distribution Provider. At other times, Distribution Provider may also utilize a third party consultant to perform such Interconnection Study, either in response to a general request of Interconnection Customer, or on its own volition.

In all cases, use of a third party consultant shall be in accord with Article 26 of the LGIA (Subcontractors) and limited to situations where Distribution Provider determines that doing so will help maintain or accelerate the study process for Interconnection Customer's pending Interconnection Request and not interfere with Distribution Provider's progress on Interconnection Studies for other pending Interconnection Requests. In cases where Interconnection Customer requests use of a third party consultant to perform such Interconnection Study, Interconnection Customer and Distribution Provider shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. Distribution Provider shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as soon as practicable upon Interconnection Customer's request subject to the confidentiality provision in Section 13.1. In any case, such third party contract may be entered into with either Interconnection Customer or Distribution Provider at Distribution Provider's discretion. In the case of (iii) Interconnection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such third party study. Such third party consultant shall be required to comply with this LGIP, Article 26 of the LGIA (Subcontractors), and the relevant Tariff procedures and protocols as would apply if Distribution Provider were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and for no other purposes. Distribution Provider shall cooperate with such third party consultant and Interconnection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

## 13.5 Disputes

### **13.5.1 Submission**

In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with the LGIA, the LGIP, or their performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be resolved in accordance with the Dispute Resolution Procedures set forth in Section 9 of the Tariff. Procedures set forth in Section 9 of the Tariff.

## 13.6 Local Furnishing Bonds

### **13.6.1 Distribution Providers That Own Facilities Financed by Local Furnishing Bonds.**

This provision is applicable only to a Distribution Provider that has financed facilities for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code ("local furnishing bonds"). Notwithstanding any other provision of this LGIA and LGIP, Distribution Provider shall not be required to provide Interconnection Service to Interconnection Customer pursuant to this LGIA and LGIP if the provision of such Distribution Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Distribution Provider's facilities that would be used in providing such Interconnection Service.

### **13.6.2 Alternative Procedures for Requesting Interconnection Service**

If Distribution Provider determines that the provision of Interconnection Service requested by Interconnection Customer would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance its facilities that would be used in providing such Interconnection Service, it shall advise the Interconnection Customer within thirty (30) Calendar Days of receipt of the Interconnection Request.

Interconnection Customer thereafter may renew its request for interconnection using the process specified in Article 4.2(ii) of the Distribution Provider's Tariff.

## Appendix 1 to LGIP

### INTERCONNECTION REQUEST FOR A LARGE GENERATING FACILITY

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Distribution Provider's Distribution System pursuant to a Tariff.
2. This Interconnection Request is for (check one):  
  
\_\_\_\_\_ A proposed new Large Generating Facility.  
  
\_\_\_\_\_ An increase in the generating capacity or a Material Modification of an existing Generating Facility.
3. Interconnection Customer provides the following information:
  - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
  - b. Maximum summer at \_\_\_\_\_ degrees C and winter at \_\_\_\_\_ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
  - c. General description of the equipment configuration;
  - d. Commercial Operation Date (Day, Month, and Year);
  - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
  - f. Approximate location of the proposed Point of Interconnection (optional); and
  - g. Interconnection Customer Data (set forth in Attachment A)
4. Applicable deposit amount as specified in the LGIP.

5. Evidence of Site Control as specified in the LGIP (check one)

\_\_\_\_\_ Is attached to this Interconnection Request

\_\_\_\_\_ Will be provided at a later date in accordance with this LGIP

6. This Interconnection Request shall be submitted to the representative indicated below:

Pacific Gas & Electric Company

[title]

[address]

Overnight address: [address]

Telefax Number:

7. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

8. If the Interconnection Customer also requests Distribution Service, additional information and an additional deposit is required in accordance with Section 15.4 of the Tariff.



9. This Interconnection Request is submitted by:

Name of Interconnection Customer:

---

By (signature):

---

Name (type or print):

---

Title:

---

Date: \_\_\_\_\_

**Attachment A  
to Appendix 1  
Interconnection Request**

**LARGE GENERATING FACILITY DATA UNIT RATINGS**

kVA: \_\_\_\_\_ °F: \_\_\_\_\_ Voltage: \_\_\_\_\_

Power Factor: \_\_\_\_\_

Speed (RPM): \_\_\_\_\_ Connection (e.g. Wye): \_\_\_\_\_

Short Circuit Ratio: \_\_\_\_\_ Frequency, Hertz: \_\_\_\_\_

Stator Amperes at Rated kVA: \_\_\_\_\_ Field Volts: \_\_\_\_\_

Max Turbine MW: \_\_\_\_\_ °F: \_\_\_\_\_

**COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA**

Inertia Constant, H = \_\_\_\_\_ kW sec/kVA

Moment-of-Inertia, WR<sup>2</sup> = \_\_\_\_\_ lb. ft.<sup>2</sup>

**REACTANCE DATA (PER UNIT-RATED KVA)**

**DIRECT AXIS  
QUADRATURE AXIS**

Synchronous – saturated X<sub>dv</sub> \_\_\_\_\_ X<sub>qv</sub> \_\_\_\_\_

Synchronous – unsaturated X<sub>di</sub> \_\_\_\_\_ X<sub>qi</sub> \_\_\_\_\_

Transient – saturated X' <sub>dv</sub> \_\_\_\_\_ X' <sub>qv</sub> \_\_\_\_\_

Transient – unsaturated X' <sub>di</sub> \_\_\_\_\_ X' <sub>qi</sub> \_\_\_\_\_

Subtransient – saturated X'' <sub>dv</sub> \_\_\_\_\_ X'' <sub>qv</sub> \_\_\_\_\_

Subtransient – unsaturated  $X''_{di}$  \_\_\_\_\_  $X''_{qi}$  \_\_\_\_\_

Negative Sequence – saturated  $X_{2v}$  \_\_\_\_\_

Negative Sequence – unsaturated  $X_{2i}$  \_\_\_\_\_

Zero Sequence – saturated  $X_{0v}$  \_\_\_\_\_

Zero Sequence – unsaturated  $X_{0i}$  \_\_\_\_\_

Leakage Reactance  $X_{lm}$  \_\_\_\_\_

**FIELD TIME CONSTANT DATA (SEC)**

Open Circuit  $T'_{do}$  \_\_\_\_\_  $T'_{qo}$  \_\_\_\_\_

Three-Phase Short Circuit Transient  $T'_{d3}$  \_\_\_\_\_  $T'_q$  \_\_\_\_\_

Line to Line Short Circuit Transient  $T'_{d2}$  \_\_\_\_\_

Line to Neutral Short Circuit Transient  $T'_{d1}$  \_\_\_\_\_

Short Circuit Subtransient  $T''_d$  \_\_\_\_\_  $T''_q$  \_\_\_\_\_

Open Circuit Subtransient  $T''_{do}$  \_\_\_\_\_  $T''_{qo}$  \_\_\_\_\_

**ARMATURE TIME CONSTANT DATA (SEC)**

Three Phase Short Circuit  $T_{a3}$  \_\_\_\_\_

Line to Line Short Circuit  $T_{a2}$  \_\_\_\_\_

Line to Neutral Short Circuit  $T_{a1}$  \_\_\_\_\_

NOTE: If requested information is not applicable, indicate by marking "N / A."

**MW CAPABILITY AND PLANT CONFIGURATION  
LARGE GENERATING FACILITY DATA**

**ARMATURE WINDING RESISTANCE DATA (PER UNIT)**

Positive R1 \_\_\_\_\_

Negative R2 \_\_\_\_\_

Zero R0 \_\_\_\_\_

Rotor Short Time Thermal Capacity I<sup>2</sup>t = \_\_\_\_\_

Field Current at Rated kVA, Armature Voltage and PF = \_\_\_\_\_ amps

Field Current at Rated kVA and Armature Voltage, 0 PF = \_\_\_\_\_ amps

Three Phase Armature Winding Capacitance = \_\_\_\_\_ microfarad

Field Winding Resistance = \_\_\_\_\_ ohms \_\_\_\_\_ °C

Armature Winding Resistance (Per Phase) = \_\_\_\_\_ ohms \_\_\_\_\_ °C

**CURVES**

Provide Saturation, Vee, Reactive Capability, Capacity Temperature Correction curves.

Designate normal and emergency Hydrogen Pressure operating range for multiple curves.

## GENERATOR STEP-UP TRANSFORMER DATA

### RATINGS

Capacity / Self-cooled/maximum nameplate

\_\_\_\_\_ / \_\_\_\_\_ kVA

Voltage Ratio Generator side / System side

\_\_\_\_\_ / \_\_\_\_\_ kV

Winding Connections Low V / High V (Delta or Wye)

\_\_\_\_\_ / \_\_\_\_\_

Fixed Taps Available \_\_\_\_\_

Present Tap Setting \_\_\_\_\_

### IMPEDANCE

Positive Z1 (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

Zero Z0 (on self-cooled kVA rating) \_\_\_\_\_ % \_\_\_\_\_ X/R

### EXCITATION SYSTEM DATA

Identify appropriate IEEE model block diagram of excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.

### GOVERNOR SYSTEM DATA

Identify appropriate IEEE model block diagram of governor system for computer representation in power system stability simulations and the corresponding governor system constants for use in the model.

## WIND GENERATORS

Number of generators to be interconnected pursuant to this Interconnection Request: \_\_\_\_\_

Elevation: \_\_\_\_\_                      Single Phase \_\_\_\_\_                      Three Phase \_\_\_\_\_

Inverter manufacturer, model name, number, and version:

---

List of adjustable setpoints for the protective equipment or software:

---

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet or other compatible formats, such as IEEE and PTI power flow models must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device then they shall be provided and discussed at Scoping Meeting.

## INDUCTION GENERATORS:

(\* Field Volts: \_\_\_\_\_

(\* Field Amperes: \_\_\_\_\_

(\* Motoring Power (kW): \_\_\_\_\_

(\* Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

I22t or K (Heating Time Constant): \_\_\_\_\_

(\* Rotor Resistance: \_\_\_\_\_

(\* Stator Resistance: \_\_\_\_\_

(\* Stator Reactance: \_\_\_\_\_

(\* Rotor Reactance: \_\_\_\_\_

(\*) Magnetizing Reactance: \_\_\_\_\_

(\*) Short Circuit Reactance: \_\_\_\_\_

(\*) Exciting Current \_\_\_\_\_

(\*) Temperature Rise: \_\_\_\_\_

(\*) Frame Size: \_\_\_\_\_

(\*) Design Letter: \_\_\_\_\_

(\*) Reactive Power Required In Vars (No Load): \_\_\_\_\_

(\*) Reactive Power Required In Vars (Full Load): \_\_\_\_\_

(\*) Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on KVA Base

Note: Please consult Distribution Provider prior to submitting the Interconnection Request to determine if the information designated by (\*) is required.

## Appendix 2 to LGIP

### INTERCONNECTION FEASIBILITY STUDY AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Distribution Provider "). Interconnection Customer and Distribution Provider each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Distribution System; and

**WHEREAS**, Interconnection Customer has requested Distribution Provider to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Large Generating Facility to the Distribution System, and of any Affected Systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Distribution Provider's FERC approved LGIP.
- 2.0 Interconnection Customer elects and Distribution Provider shall cause to be performed an Interconnection Feasibility Study consistent with Section 6.0 of this LGIP in accordance with the Tariff.



- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. Distribution Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study and as designated in accordance with Section 3.3.4 of the LGIP. If, after the designation of the Point of Interconnection pursuant to Section 3.3.4 of the LGIP, Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4, the time to complete the Interconnection Feasibility Study may be extended.
- 5.0 The Interconnection Feasibility Study report shall provide the following information:
- preliminary identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
  - preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection;
  - preliminary description and non-bonding estimated cost of facilities required to interconnect the Large Generating Facility to the Distribution System and to address the identified short circuit and power flow issues; and
- 6.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Interconnection Feasibility Study.

Upon receipt of the Interconnection Feasibility Study Distribution Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection Feasibility Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous.

7.1 Dispute Resolution.

7.1.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance, such Party (the “disputing Party”) shall provide the other Party with written notice of the dispute or claim (“Notice of Dispute”). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party’s receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of the LGIP.

7.1.2 External Arbitration Procedures. Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall

provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 7.4, the terms of this Section 7.4 shall prevail.

7.1.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

7.1.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

7.2 Confidentiality. Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.

- 7.3 Binding Effect. This Interconnection Feasibility Study Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 7.4 Conflicts. In the event of a conflict between the body of this Interconnection Feasibility Study Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Interconnection Feasibility Study Agreement shall prevail and be deemed the final intent of the Parties.
- 7.5 Rules of Interpretation. This Interconnection Feasibility Study Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Interconnection Feasibility Study Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Interconnection Feasibility Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Interconnection Feasibility Study Agreement or such Appendix to this Interconnection Feasibility Study Agreement, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Interconnection Feasibility Study Agreement as a whole and not to any particular Article or other provision hereof or thereof, (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to

the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

- 7.6 Entire Agreement. This Interconnection Feasibility Study Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Interconnection Feasibility Study Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party’s compliance with its obligations under this Interconnection Feasibility Study Agreement.
- 7.7 No Third Party Beneficiaries. This Interconnection Feasibility Study Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 7.8 Waiver. The failure of a Party to this Interconnection Feasibility Study Agreement to insist, on any occasion, upon strict performance of any provision of this Interconnection Feasibility Study Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Interconnection Feasibility Study Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this Interconnection Feasibility Study Agreement. Termination or default of this Interconnection Feasibility Study Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Distribution Provider. Any waiver of this Interconnection Feasibility Study Agreement shall, if requested, be provided in writing.

- 7.9 Headings. The descriptive headings of the various Articles and Sections of this Interconnection Feasibility Study Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Interconnection Feasibility Study Agreement.
- 7.10 Multiple Counterparts. This Interconnection Feasibility Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 7.11 Amendment. The Parties may by mutual agreement amend this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties.
- 7.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Interconnection System Impact Study Agreement upon satisfaction of all applicable laws and regulations.
- 7.13 Reservation of Rights. The Distribution Provider shall have the right to make a unilateral filing with FERC to modify this Interconnection Feasibility Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Interconnection Feasibility Study Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Interconnection Feasibility Study Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the parties otherwise mutually agree as provided herein.

- 7.14 **No Partnership.** This Interconnection Feasibility Study Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 7.15 **Assignment.** This Interconnection Feasibility Study Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Interconnection Feasibility Study Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Interconnection Feasibility Study Agreement; and provided further that the Interconnection Customer shall have the right to assign this Interconnection Feasibility Study Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Interconnection Feasibility Study Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Distribution Provider or Distribution Owner, if applicable]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**Attachment A to Appendix 2**  
**Interconnection Feasibility**  
**Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE**  
**INTERCONNECTION FEASIBILITY STUDY**

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Distribution Provider]

### Appendix 3 to LGIP

#### INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Distribution Provider”). Interconnection Customer and Distribution Provider each may be referred to as a “Party,” or collectively as the “Parties.”

#### RECITALS

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Distribution System; and

**WHEREAS**, Distribution Provider has completed an Interconnection Feasibility Study (the “Feasibility Study”) and provided the results of said study to Interconnection Customer (This recital to be omitted if Distribution Provider does not require the Interconnection Feasibility Study.); and

**WHEREAS**, Interconnection Customer has requested Distribution Provider to perform an Interconnection System Impact Study to assess the impact of interconnecting the Large Generating Facility to the Distribution System, and of any Affected Systems (This recital to be omitted if Distribution Provider does not require the Interconnection Feasibility Study);

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Distribution Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Distribution Provider shall cause to be performed an Interconnection System Impact Study consistent with Section 7.0 of this LGIP in accordance with the Tariff.
- 3.0 The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study and the technical information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with Section 4.4 of the LGIP. Distribution Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Customer System Impact Study. If Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
- 5.0 The Interconnection System Impact Study report shall provide the following information:
  - identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
  - identification of any thermal overload or voltage limit violations resulting from the interconnection;
  - identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and

- description and non-binding, good faith estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 Interconnection Customer shall provide a deposit of \$50,000 for the performance of the Interconnection System Impact Study. Distribution Provider's good faith estimate for the time of completion of the Interconnection System Impact Study is [insert date].

Upon receipt of the Interconnection System Impact Study, Distribution Provider shall charge and Interconnection Customer shall pay the actual costs of the Interconnection System Impact Study.

Any difference between the deposit and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.

7.0 Miscellaneous.

7.1 Dispute Resolution.

7.1.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance, such Party (the “disputing Party”) shall provide the other Party with written notice of the dispute or claim (“Notice of Dispute”). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party’s receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of the LGIP.

- 7.1.2 External Arbitration Procedures. Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three- member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 7.4, the terms of this Section 7.4 shall prevail.
- 7.1.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

- 7.1.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.
- 7.2 Confidentiality. Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.
- 7.3 Binding Effect. This Interconnection System Impact Study Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 7.4 Conflicts. In the event of a conflict between the body of this Interconnection System Impact Study Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Interconnection System Impact Study Agreement shall prevail and be deemed the final intent of the Parties.
- 7.5 Rules of Interpretation. This Interconnection System Impact Study Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Interconnection System Impact Study Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Interconnection System Impact Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or

Appendix means such Article or Section of this Interconnection System Impact Study Agreement or such Appendix to this Interconnection System Impact Study Agreement, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this Interconnection System Impact Study Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

- 7.6 Entire Agreement. This Interconnection System Impact Study Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Interconnection System Impact Study Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party’s compliance with its obligations under this Interconnection System Impact Study Agreement.
- 7.7 No Third Party Beneficiaries. This Interconnection System Impact Study Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 7.8 Waiver. The failure of a Party to this Interconnection System Impact Study Agreement to insist, on any occasion, upon strict performance of any provision of this Interconnection System Impact Study Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Interconnection System Impact Study Agreement shall not be deemed a continuing waiver or a waiver with respect to any other

failure to comply with any other obligation, right, or duty of this Interconnection System Impact Study Agreement. Termination or default of this Interconnection System Impact Study Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Distribution Provider. Any waiver of this Interconnection System Impact Study Agreement shall, if requested, be provided in writing.

- 7.9 Headings. The descriptive headings of the various Articles and Sections of this Interconnection System Impact Study Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Interconnection System Impact Study Agreement.
- 7.10 Multiple Counterparts. This Interconnection System Impact Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 7.11 Amendment. The Parties may by mutual agreement amend this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties.
- 7.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Interconnection System Impact Study Agreement upon satisfaction of all applicable laws and regulations.
- 7.13 Reservation of Rights. The Distribution Provider shall each have the right to make a unilateral filing with FERC to modify this Interconnection System Impact Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Interconnection System Impact Study Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations



thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Interconnection System Impact Study Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

- 7.14 No Partnership. This Interconnection System Impact Study Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 7.15 Assignment. This Interconnection System Impact Study Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Interconnection System Impact Study Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Interconnection System Impact Study Agreement; and provided further that the Interconnection Customer shall have the right to assign this Interconnection System Impact Study Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Interconnection System Impact Study Agreement shall not relieve a Party of its

obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Distribution Provider or Distribution Owner, if applicable]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A To Appendix 3**  
**Interconnection System Impact**  
**Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING**  
**THE INTERCONNECTION SYSTEM IMPACT STUDY**

The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study, subject to any modifications in accordance with Section 4.4 of the LGIP, and the following assumptions:

Designation of Point of Interconnection and configuration to be studied.

Designation of alternative Point(s) of Interconnection and configuration.

[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Distribution Provider]

## Appendix 4 to LGIP

### INTERCONNECTION FACILITIES STUDY AGREEMENT

**THIS AGREEMENT** is made and entered into this day \_\_\_\_\_ of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Distribution Provider”). Interconnection Customer and Distribution Provider each may be referred to as a “Party,” or collectively as the “Parties.”

#### RECITALS

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Large Generating Facility with the Distribution System;

**WHEREAS**, Distribution Provider has completed an Interconnection System Impact Study (the “System Impact Study”) and provided the results of said study to Interconnection Customer; and

**WHEREAS**, Interconnection Customer has requested Distribution Provider to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Large Generating Facility to the Distribution System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Distribution Provider's FERC-approved LGIP.

- 2.0 Interconnection Customer elects and Distribution Provider shall cause an Interconnection Facilities Study consistent with Section 8.0 of this LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to the assumptions set forth in Attachment A and the data provided in Attachment B to this Agreement.
- 4.0 The Interconnection Facilities Study report (i) shall provide a description, estimated cost (consistent with Attachment A), schedule for required facilities to interconnect the Large Generating Facility to the Distribution System and (ii) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
- 5.0 Interconnection Customer shall provide a deposit of \$100,000 for the performance of the Interconnection Facilities Study. The time for completion of the Interconnection Facilities Study is specified in Attachment A. Distribution Provider shall invoice Interconnection Customer on a monthly basis for the work to be conducted on the Interconnection Facilities Study each month. Interconnection Customer shall pay invoiced amounts within thirty (30) Calendar Days of receipt of invoice. Distribution Provider shall continue to hold the amounts on deposit until settlement of the final invoice.
- 6.0 Miscellaneous.
- 6.1 Dispute Resolution.
- 6.1.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance, such Party (the “disputing Party”) shall provide the other Party with written notice of the dispute or claim (“Notice of Dispute”). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar

Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of the LGIP.

6.1.2 External Arbitration Procedures. Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 6.4, the terms of this Section 6.4 shall prevail.

6.1.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court

having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

- 6.1.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.
- 6.2 Confidentiality. Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.
- 6.3 Binding Effect. This Interconnection Facilities Study Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 6.4 Conflicts. In the event of a conflict between the body of this Interconnection Facilities Study Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Interconnection Facilities Study Agreement shall prevail and be deemed the final intent of the Parties.
- 6.5 Rules of Interpretation. This Interconnection Facilities Study Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Interconnection Facilities Study Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Interconnection Facilities Study Agreement), document, instrument or tariff means such agreement, document,

instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Interconnection Facilities Study Agreement or such Appendix to this Interconnection Facilities Study Agreement, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this Interconnection Facilities Study Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

- 6.6 Entire Agreement. This Interconnection Facilities Study Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Interconnection Facilities Study Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party’s compliance with its obligations under this Interconnection Facilities Study Agreement.
- 6.7 No Third Party Beneficiaries. This Interconnection Facilities Study Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.



- 6.8 Waiver. The failure of a Party to this Interconnection Facilities Study Agreement to insist, on any occasion, upon strict performance of any provision of this Interconnection Facilities Study Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Interconnection Facilities Study Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this Interconnection Facilities Study Agreement. Termination or default of this Interconnection Facilities Study Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Distribution Provider. Any waiver of this Interconnection Facilities Study Agreement shall, if requested, be provided in writing.
- 6.9 Headings. The descriptive headings of the various Articles and Sections of this Interconnection Facilities Study Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Interconnection Facilities Study Agreement.
- 6.10 Multiple Counterparts. This Interconnection Facilities Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 6.11 Amendment. The Parties may by mutual agreement amend this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties.
- 6.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Interconnection System Impact Study Agreement upon satisfaction of all applicable laws and regulations.
- 6.13 Reservation of Rights. The Distribution Provider shall have the right to make a unilateral filing with FERC to modify this Interconnection Facilities Study Agreement with respect

to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Interconnection Facilities Study Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Interconnection Facilities Study Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

- 6.14 No Partnership. This Interconnection Facilities Study Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 6.15 Assignment. This Interconnection Facilities Study Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Interconnection Facilities Study Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Interconnection Facilities Study Agreement; and provided further that the Interconnection Customer shall have the right to assign this Interconnection Facilities Study Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the

Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Interconnection Facilities Study Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Distribution Provider or Distribution Owner, if applicable]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A To Appendix 4**  
**Interconnection Facilities**  
**Study Agreement**

**INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING  
THE INTERCONNECTION FACILITIES STUDY**

Distribution Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

ninety (90) Calendar Days with no more than a +/- 20 percent cost estimate contained in the report, or

one hundred eighty (180) Calendar Days with no more than a +/- 10 percent cost estimate contained in the report.

**Attachment B to Appendix 4**  
**Interconnection Facilities**  
**Study Agreement**

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER**  
**WITH THE INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing Distribution Provider station. Number of generation connections: \_\_\_\_\_

On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT)  
Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?

\_\_\_\_\_ Yes \_\_\_\_\_ No (Please indicate on one line diagram).

What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

\_\_\_\_\_

What protocol does the control system or PLC use?

---

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

---

Bus length from generation to interconnection station:

---

Line length from interconnection station to Distribution Provider's transmission line.

---

Tower number observed in the field. (Painted on tower leg)\* \_\_\_\_\_

Number of third party easements required for transmission lines\*:

---

\* To be completed in coordination with Distribution Provider.

Is the Large Generating Facility in the Distribution Provider's service area?

\_\_\_\_\_ Yes \_\_\_\_\_ No      Local provider: \_\_\_\_\_

Please provide proposed schedule dates:

Begin Construction Date: \_\_\_\_\_

Generator step-up transformer receives back feed power Date: \_\_\_\_\_

Generation Testing Date: \_\_\_\_\_

Commercial Operation Date: \_\_\_\_\_



## Appendix 5 to LGIP

### OPTIONAL INTERCONNECTION STUDY AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and \_\_\_\_\_ a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (“Distribution Provider”). Interconnection Customer and Distribution Provider each may be referred to as a “Party, ” or collectively as the “Parties.”

### RECITALS

**WHEREAS**, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_;

**WHEREAS**, Interconnection Customer is proposing to establish an interconnection with the Distribution System; and

**WHEREAS**, Interconnection Customer has submitted to Distribution Provider an Interconnection Request; and

**WHEREAS**, on or after the date when Interconnection Customer receives the Interconnection System Impact Study results, Interconnection Customer has further requested that Distribution Provider prepare an Optional Interconnection Study;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Distribution Provider's FERC-approved LGIP.



- 2.0 Interconnection Customer elects and Distribution Provider shall cause an Optional Interconnection Study consistent with Section 10.0 of this LGIP to be performed in accordance with the Tariff.
- 3.0 The scope of the Optional Interconnection Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Optional Interconnection Study shall be performed solely for informational purposes.
- 5.0 The Optional Interconnection Study report shall provide a sensitivity analysis based on the assumptions specified by Interconnection Customer in Attachment A to this Agreement. The Optional Interconnection Study will identify Distribution Provider's Interconnection Facilities, Distribution Upgrades, and the Network Upgrades, and the estimated cost thereof that may be required to provide transmission service or interconnection service based upon the assumptions specified by Interconnection Customer in Attachment A.
- 6.0 Interconnection Customer shall provide a deposit of \$10,000 for the performance of the Optional Interconnection Study. Distribution Provider's good faith estimate for the time of completion of the Optional Interconnection Study is \_\_\_\_\_ [insert date]. Upon receipt of the Optional Interconnection Study, Distribution Provider shall charge and Interconnection Customer shall pay the actual costs of the Optional Study. Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.
- 7.0 Miscellaneous.
- 7.1 Dispute Resolution.
- 7.1.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis

as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of the LGIP.

7.1.2 External Arbitration Procedures. Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 7.4, the terms of this Section 7.4 shall prevail.

7.1.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this

Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

- 7.1.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.
- 7.2 Confidentiality. Confidential Information shall be treated in accordance with Section 13.1 of the LGIP.
- 7.3 Binding Effect. This Optional Interconnection Study Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 7.4 Conflicts. In the event of a conflict between the body of this Optional Interconnection Study Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Optional Interconnection Study Agreement shall prevail and be deemed the final intent of the Parties.
- 7.5 Rules of Interpretation. This Optional Interconnection Study Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Optional Interconnection Study Agreement, and

reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Optional Interconnection Study Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Optional Interconnection Study Agreement or such Appendix to this Optional Interconnection Study Agreement, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this Optional Interconnection Study Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

7.6 Entire Agreement. This Optional Interconnection Study Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Optional Interconnection Study Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party’s compliance with its obligations under this Optional Interconnection Study Agreement.

7.7 No Third Party Beneficiaries. This Optional Interconnection Study Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and

the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

- 7.8 Waiver. The failure of a Party to this Optional Interconnection Study Agreement to insist, on any occasion, upon strict performance of any provision of this Optional Interconnection Study Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Optional Interconnection Study Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this Optional Interconnection Study Agreement. Termination or default of this Optional Interconnection Study Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Distribution Provider. Any waiver of this Optional Interconnection Study Agreement shall, if requested, be provided in writing.
- 7.9 Headings. The descriptive headings of the various Articles and Sections of this Optional Interconnection Study Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Optional Interconnection Study Agreement.
- 7.10 Multiple Counterparts. This Optional Interconnection Study Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 7.11 Amendment. The Parties may by mutual agreement amend this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties.
- 7.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Interconnection System Impact Study Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Interconnection System Impact Study Agreement upon satisfaction of all applicable laws and regulations.

- 7.13 **Reservation of Rights.** The Distribution Provider shall have the right to make a unilateral filing with FERC to modify this Optional Interconnection Study Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Optional Interconnection Study Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Optional Interconnection Study Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 7.14 **No Partnership.** This Optional Interconnection Study Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 7.15 **Assignment.** This Optional Interconnection Study Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Optional Interconnection Study Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Optional Interconnection Study Agreement; and provided further that the Interconnection Customer shall have the right to assign this Optional Interconnection Study Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the

Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Optional Interconnection Study Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Distribution Provider or Distribution Owner, if applicable]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment A to Appendix 5**  
**Optional Interconnection**  
**Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING**  
**THE OPTIONAL INTERCONNECTION STUDY**

[To be completed by Interconnection Customer consistent with Section 10 of the LGIP.]



## **Appendix 6 to LGIP**

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## **Appendix 7 to LGIP**

### **Interconnection Procedures for a Wind Generation Plant**

Appendix 7 sets forth procedures specific to a wind generating plant. All other requirements of this LGIP continue to apply to wind generating plant interconnections.

#### **A. Special Procedures Applicable to Wind Generators**

The wind plant Interconnection Customer, in completing the Interconnection Request required by Section 3.3 of this LGIP, may provide to the Distribution Provider a set of preliminary electrical design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request conditions, the wind plant may enter the queue and receive the base case data as provided for in this LGIP.

No later than six months after submitting an Interconnection Request completed in this manner, the wind plant Interconnection Customer must submit completed detailed electrical design specifications and other data (including collector system layout data) needed to allow the Distribution Provider to complete the System Impact Study.

**ATTACHMENT H:  
Large Generator Interconnection Agreement (LGIA)**

**STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT**

**THIS STANDARD LARGE GENERATOR INTERCONNECTION AGREEMENT**

(“Agreement”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_ 20\_\_, by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State/Commonwealth of \_\_\_\_\_ (“Interconnection Customer” with a Large Generating Facility), and Pacific Gas & Electric Company, a corporation organized and existing under the laws of the State of California (“Distribution Provider” and/or “Distribution Owner”). Interconnection Customer and Distribution Provider each may be referred to as a “Party” or collectively as the “Parties.”

**Recitals**

**WHEREAS**, Distribution Provider operates the Distribution System; and

**WHEREAS**, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Large Generating Facility in Appendix C to this Agreement; and,

**WHEREAS**, Interconnection Customer and Distribution Provider have agreed to enter into this Agreement for the purpose of interconnecting the Large Generating Facility with the Distribution System;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

When used in this Standard Large Generator Interconnection Agreement, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used or the Tariff.

## Article 1. Definitions

**Adverse System Impacts** shall mean any potential or actual negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** shall mean an electric system other than the Distribution Provider's Distribution System that may be affected by the proposed interconnection.

**Affected System Operator** shall mean the entity that operates an Affected System.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Ancillary Services** shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Distribution Provider's Distribution System in accordance with Good Utility Practice.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the Distribution System to which the Generating Facility is directly interconnected.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Distribution System to which the Generating Facility is directly interconnected.

**Area Deliverability Constraint** shall mean a transmission system operating limit, that would constrain the deliverability of a substantial number of generators if the CAISO were to

assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains a quantity of generation in a local area of the grid that is larger than the generation amount identified in the applicable Transmission Planning Process (TPP) portfolio for the entire portfolio area. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

**Area Delivery Network Upgrade** shall mean a transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint.

**Base Case** shall mean data including, but not limited to, base power flow, short circuit and stability data bases, underlying load, generation, and transmission facility assumptions, contingency lists, including relevant special protection systems, and transmission diagrams used to perform the Interconnection Studies. The Base Case may include Critical Energy Infrastructure Information (as that term is defined by FERC). The Base Case shall include transmission facilities as approved by the Distribution Provider or ISO, as applicable, and Distribution Upgrades and Network Upgrades associated with generating facilities in (iv) below and generating facilities that (i) are directly interconnected to the Distribution System or ISO Grid; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending request to interconnect to the Distribution System or an Affected System; or (iv) are not interconnected to the Distribution System or ISO Grid, but are subject to a fully executed generator interconnection agreement (or its equivalent predecessor agreement) or for which an unexecuted generator interconnection agreement (or its equivalent predecessor agreement) has been requested to be filed with FERC.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the Standard Large Generator Interconnection Agreement.

**Breaching Party** shall mean a Party that is in Breach of the Standard Large Generator Interconnection Agreement.

**Business Day** shall mean Monday through Friday, excluding Federal Holidays and the Friday after Thanksgiving.

**CAISO** – California Independent System Operator Corporation. See also ISO.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection System Impact Study.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** shall mean the date on which an Electric Generating Unit at a Generating Facility has received final written Permission to Operate from the Distribution Provider for operation of the generation facilities in parallel with the utility.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

**Construction Activities** shall mean actions by the Distribution Provider that result in irrevocable financial commitments for the purchase of major electrical equipment or land for Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades assigned to the Interconnection Customer that occur after receipt of all appropriate governmental approvals needed for the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

**Control Area** shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule

with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by the Applicable Reliability Council.

**CPUC** shall mean the California Public Utilities Commission.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Standard Large Generator Interconnection Agreement.

**Deliverability** shall mean (1) The annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability assessment and measured in MW, which specifies the amount of resource adequacy capacity the Generating Facility is eligible to provide. (2) The annual Maximum Import Capability of an intertie, which specifies the amount of resource adequacy capacity, measured in MW, that Load-serving Entities collectively can procure from imports at that intertie to meet their resource adequacy requirements.

**Deliverability Assessment(s)** shall mean an evaluation of the On-Peak Deliverability Assessment set forth in GIP Section 5.8.3, and the Off-Peak Deliverability Assessment set forth in GIP Section 5.8.3 to determine if a Generating Facility or a group of Generating Facilities could provide Energy to the CAISO Controlled Grid and be delivered to the aggregate of Load on the CAISO Controlled Grid at Peak Load, under a variety of severely stressed conditions.

**Deliverability Status** shall mean an attribute of a Generating Facility that is requested by an Interconnection Customer for the Generating Facility, assigned by the CAISO to the Generating Facility through the GIP, GIDAP or other process specified in the CAISO tariff, and that affects the maximum Net Qualifying Capacity to which the Generating Facility could be entitled.

**Delivery Network Upgrades** shall mean the transmission facilities at or beyond the point where the Distribution Provider's Distribution System interconnects to the ISO Grid, other than Reliability Network Upgrades, identified in the Interconnection Studies to relieve constraints on the ISO Grid. Delivery Network Upgrades may be further classified as Local Delivery Network Upgrades or Area Delivery Network Upgrades.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution Owner** shall mean an entity that owns, leases or otherwise possesses an interest in the portion of the Distribution System at the Point of Interconnection and may be a Party to the Standard Large Generator Interconnection Agreement to the extent necessary.

**Distribution Provider** shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Distribution Provider should be read to include the Distribution Owner when the Distribution Owner is separate from the Distribution Provider.

**Distribution Provider's Interconnection Facilities** shall mean all facilities and equipment owned, controlled or operated by the Distribution Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Distribution Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Distribution Service** shall mean the wholesale distribution service provided under the Tariff.

**Distribution System** shall mean those non-ISO transmission and distribution facilities owned, controlled and operated by the Distribution Provider that are used to provide Distribution Service under the Tariff, which facilities and equipment are used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Distribution Provider's Distribution System at or beyond the Point of Interconnection to facilitate



interconnection of the Generating Facility and render the transmission service necessary to effect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the Standard Large Generator Interconnection Agreement becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Electric Generating Unit** shall mean an individual electric generator and its associated plant and apparatus whose electrical output is capable of being separately identified and metered.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Distribution Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Distribution Provider's Distribution System, Distribution Provider's Interconnection Facilities or the electric systems of others to which the Distribution Provider's Distribution System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Energy-Only Deliverability Status** shall mean a condition elected by an Interconnection Customer for a Generating Facility interconnected to Distribution System, the result of which is that the Interconnection Customer is responsible only for the costs of Reliability Network Upgrades and is not responsible for the costs of Delivery Network Upgrades, but the Generating Facility will be deemed to have a Net Qualifying Capacity (as defined in the ISO Tariff) of zero and, therefore, cannot be considered to be a Resource Adequacy Resource (as defined in the ISO Tariff).

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**FERC** shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

**Full Capacity Deliverability Status (FCDS)** shall mean the condition whereby a Generating Facility interconnected with the Distribution System, under coincident ISO Control Area peak demand and a variety of severely stressed system conditions, can deliver the Generating Facility's full output to the aggregate of load on the ISO Grid, consistent with the ISO's reliability criteria and procedures and the ISO's On-Peak Deliverability Assessment.

**Generating Facility** shall mean Interconnection Customer's Electric Generating Unit(s) used for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities. A Small Generating Facility is one that has maximum capacity of 20 MW or less. A Large Generating Facility is one that has a maximum capacity of more than 20 MW.

**Generating Facility Capacity** shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple Electric Generating Units.

**Generator Interconnection Agreement (GIA)** shall mean Small Generator Interconnection Agreement (SGIA), which is Attachment F to this Wholesale Distribution Tariff, unless the proposed interconnection is for a generating facility larger than 20 MW, in which case references to interconnection agreement are to the Large Generator Interconnection Agreement (LGIA), which is Attachment H to this Wholesale Distribution Tariff.

**Generator Interconnection and Deliverability Allocation Procedures (GIDAP)** shall mean the ISO's Generator Interconnection and Deliverability Allocation Procedures (ISO Tariff GIDAP)

**Generator Interconnection Procedures (GIP)** shall mean either the definition for either ISO's Tariff Generator Interconnection Procedures (ISO Tariff GIP), or Wholesale Distribution Tariff Generator Interconnection Procedures (WDT GIP).

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Distribution Provider, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Distribution Provider's Interconnection Facilities to obtain back feed power.

**Interconnection Customer** shall mean any entity, including the Distribution Provider, Distribution Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Distribution Provider's Distribution System.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in Appendix A of the Standard Large Generator Interconnection Agreement, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Distribution Provider's Distribution System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Distribution Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Distribution Provider's Distribution System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Interconnection Financial Security** shall mean the financial instrument(s) submitted by the Interconnection Customer to the Distribution Provider prior to the start of any Construction Activities as a security for the Distribution Provider against the estimated costs of the Construction Activities described in the Generator Interconnection Agreement. The Interconnection Customer may post the Interconnection Financial Security using any of the financial instruments listed in the WDT GIP.

**Interconnection Handbook** shall mean a handbook, developed by the Distribution Provider and posted on the Distribution Provider's website or otherwise made available by the

Distribution Provider, describing the technical and operational requirements for wholesale generators and loads connected to the Distribution System, as such handbook may be modified or superseded from time to time. Distribution Provider's standards contained in the Interconnection Handbook shall be deemed consistent with Good Utility Practice and Applicable Reliability Standards. In the event of a conflict between the terms of this LGIA and the terms of the Distribution Provider's Interconnection Handbook, the terms in this LGIA shall govern.

**Interconnection Request** shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Standard Large Generator Interconnection Procedures, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Distribution Provider's Distribution System.

**Interconnection Service** shall mean the service provided by the Distribution Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Distribution Provider's Distribution System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Standard Large Generator Interconnection Agreement and, if applicable, the Distribution Provider's Tariff.

**IRS** shall mean the Internal Revenue Service.

**ISO or CAISO** shall mean the California Independent System Operator Corporation, a state chartered, nonprofit, corporation that controls certain transmission facilities of all Participating Transmission Owners and dispatches certain generating units and loads.

**ISO Grid** shall mean the system of transmission lines and associated facilities of the Participating Transmission Owners that have been placed under the ISO's Operational Control.

**ISO's Generator Interconnection and Deliverability Allocation Procedures (ISO Tariff GIDAP)** shall mean the procedures included in the ISO Tariff to interconnect a Generating Facility directly to the ISO Grid, as such procedures may be modified from time to time, and accepted by the Commission. See also GIDAP.

**ISO's Generator Interconnection Procedures (ISO Tariff GIP)** shall mean the procedures included in the ISO Tariff to interconnect a Generating Facility directly to the ISO Grid, as such procedures may be modified from time to time, and accepted by the Commission. See also GIP.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**Letter Agreement** shall mean an agreement that authorizes the Distribution Provider to begin engineering, design, procurement of long lead-time items, and/or construction necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Local Deliverability Constraint** shall mean a transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign Full Capacity Deliverability Status or Partial Capacity Deliverability Status to one or more additional Generating Facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

**Local Delivery Network Upgrade (LDNU)** shall mean a transmission upgrade or addition identified by the CAISO in the GIDAP Interconnection Study Process to relieve a Local Deliverability Constraint.

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the Standard Large Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

**Material Modification** shall mean a modification that has a material impact on the cost or timing of any Interconnection Request or any other deemed complete interconnection request to the Distribution Provider or the ISO with a later queue priority date.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the Standard Large Generator Interconnection Agreement at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**Network Upgrades** shall mean additions, modifications, and upgrades to the Distribution Provider's Transmission System required at or beyond the point at which the Distribution System connects to the Distribution Provider's Transmission System to accommodate the interconnection of the Generating Facility to the Distribution Provider's Transmission System. Network Upgrades do not include Distribution Upgrades. See also: **Area Delivery Network Upgrades; Delivery Network Upgrades; Local Delivery Network Upgrades; and Reliability Network Upgrades.**

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the Standard Large Generator Interconnection Agreement or its performance.

**Operating Requirements** shall mean any operating and technical requirements that may be applicable due to Regional Transmission Organization, California Independent System Operator, control area, or the Distribution Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

**Operational Control** shall mean the rights of the ISO under the Transmission Control Agreement and the ISO Tariff to direct the parties to the Transmission Control Agreement how to operate their transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the purpose of affording comparable non-discriminatory transmission access and meeting applicable reliability criteria.

**Participating Transmission Owner** shall mean an entity which (i) owns, operates, and maintains transmission lines and associated facilities and/or has entitlements to use certain

transmission lines and associated facilities; and (ii) has transferred to the ISO operational control of such facilities and/or entitlements to be made part of the ISO Grid.

**Party or Parties** shall mean Distribution Provider, Distribution Owner, Interconnection Customer or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Distribution Provider's Interconnection Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to the Standard Large Generator Interconnection Agreement, where the Interconnection Facilities connect to the Distribution Provider's Distribution System.

**Pre-Construction Activities** shall mean the actions by the Distribution Provider, other than those required by an Letter Agreement under Section 7 of the GIP, undertaken prior to Construction Activities in order to prepare for the construction of the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades assigned to the Interconnection Customer, including, but not limited to, preliminary engineering, permitting activities, environmental analysis, or other activities specifically needed to obtain governmental approvals for the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

**Qualifying Capacity** shall mean the maximum Resource Adequacy Capacity that a Resource Adequacy Resource may be eligible to provide. The criteria and methodology for calculating the Qualifying Capacity of resources may be established by the CPUC or other applicable Local Regulatory Authority and provided to the CAISO. A resource's eligibility to provide Resource Adequacy Capacity may be reduced below its Qualifying Capacity through the CAISO's assessment of Net Qualifying Capacity.

**Queue Position** shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of



receipt of the valid Interconnection Request by the Distribution Provider and that is represented by a unique identifying code assigned to each Interconnection Request that is deemed complete.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the Standard Large Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reliability Network Upgrades** shall mean the transmission facilities at or beyond the point where the Distribution Provider's Distribution System interconnects to the ISO Grid, necessary to interconnect a Large Generating Facility safely and reliably to the ISO Grid, which would not have been necessary but for the interconnection of the Large Generating Facility, including Network Upgrades necessary to remedy short circuit or stability problems resulting from the interconnection of the Large Generating Facility to the Distribution Provider's Distribution System. Reliability Network Upgrades also include, consistent with WECC practice, the facilities necessary to mitigate any adverse impact the Large Generating Facility's interconnection may have on a transmission path's WECC rating.

**Resource Adequacy (RA)** shall mean a mandatory planning and procurement process to ensure adequate resources to serve all customers in real time. The program requires that Load Serving Entities (LSEs) meet a Planning Reserve Margin for their obligations. The program provides deliverability criteria that each LSE must meet, as well as system and local capacity requirements. Rules are provided for "counting" resources towards meeting resource adequacy obligations. The resources that are counted for RA purposes must make themselves available to the California ISO for the capacity for which they were counted. The ISO's Interim Reliability Requirements Program and the resource adequacy under MRTU tariff provisions are intended to complement the State of California's efforts to implement resource adequacy programs.

**Scoping Meeting** shall mean the meeting between representatives of the Interconnection Customer and Distribution Provider conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier

study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose (see also: Site Exclusivity).

**Site Exclusivity** is the third option to prove Site Control and applies only in instances when the Interconnection Customer has a business (private) or government agency (public) relationship with the project site's deed holder.

- (1) For private land, Site Exclusivity shall mean documentation reasonably demonstrating legal authorization from the land owner showing the Interconnection Customer has either (a) Ownership of, a leasehold interest in, or a right to develop property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility; or (b) an option to purchase or acquire a leasehold interest in property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility.
- (2) For public land, including that controlled or managed by any federal, state or local agency, Site Exclusivity shall mean documentation from the governing public agency providing a final, non-appealable permit, license, or other exclusive legal right to use the property for the purpose of generating electric power and in acreage reasonably necessary to accommodate the Generating Facility. Such documentation showing exclusive right to use public land under the management of a Local, State, or Federal agency shall be in a form specified by that agency.

**Small Generating Facility** shall mean an Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities, that has a generating capacity of 20 megawatts (MW) or less.

**Smart Inverter** shall mean a Generating Facility's inverter that performs functions that when activated can autonomously contribute to grid support during excursions from normal operating voltage and frequency system conditions by providing dynamic reactive/real power support, voltage and frequency ride-through, ramp rate controls, communication systems with ability to accept external commands and other functions.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Distribution Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement.

**Standard Large Generator Interconnection Agreement (LGIA)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Distribution Provider's Tariff.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Distribution Provider's Distribution System, other portions of the Distribution Provider's electric system, and Affected Systems from faults or other electrical disturbances occurring at the Generating Facility; and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Distribution Provider's Distribution System, other portions of the Distribution Provider's electric system or on other delivery systems or other generating systems to which the Distribution Provider's Distribution System and Transmission System is directly connected.

**Tariff** shall mean the Wholesale Distribution Tariff, the Distribution Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission Control Agreement** shall mean ISO FERC Electric Tariff No. 7.

**Transmission System** shall mean those transmission facilities owned by the Distribution Provider that have been placed under the ISO's Operational Control and are part of the ISO Grid.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation. Also known as Permission to Parallel for Test Purposes.

**Uncontrollable Force** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Distribution Provider or Interconnection Customer which could not be avoided through the exercise of Good Utility Practice. An Uncontrollable Force event does not include acts of negligence or intentional wrongdoing by the Party claiming Uncontrollable Force.

**Upgrades** shall mean the required additions and modifications to the Distribution Provider's Transmission System and Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Wholesale Distribution Tariff Generator Interconnection Procedures (WDT GIP)** shall mean the procedures included in the Distribution Provider's Wholesale Distribution Tariff (WDT) to interconnect a Generating Facility directly to the Distribution Provider's Distribution System, as such procedures may be modified from time to time, and accepted by the Commission.

## **Article 2. Effective Date, Term, and Termination**

**2.1 Effective Date.** This LGIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. Distribution Provider shall promptly file this LGIA with FERC upon execution in accordance with Article 3.1, if required.

**2.2 Term of Agreement.** Subject to the provisions of Article 2.3, this LGIA shall remain in effect for a period of ten (10) years from the Effective Date or such other longer period as Interconnection Customer may request (Term to be specified in individual agreements) and shall be automatically renewed for each successive one-year period thereafter.

**2.3 Termination Procedures.**

**2.3.1 Written Notice.** This LGIA may be terminated by Interconnection Customer after giving Distribution Provider ninety (90) Calendar Days advance written notice, or by Distribution Provider notifying FERC after the Generating Facility permanently ceases Commercial Operation.

**2.3.2 Default.** Either Party may terminate this LGIA in accordance with Article 17.

**2.3.3** Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this LGIA, which notice has been accepted for filing by FERC.

**2.4 Termination Costs.** If a Party elects to terminate this Agreement pursuant to Article 2.3 above, each Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment) or charges assessed by the other Party, as of the date of the other Party's receipt of such notice of termination, that are the responsibility of the Terminating Party under this LGIA. In the event of termination by a Party, the Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this LGIA, unless otherwise ordered or approved by FERC:

**2.4.1** With respect to any portion of Distribution Provider's Interconnection Facilities that have not yet been constructed or installed, Distribution Provider shall to the extent possible and with Interconnection Customer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection

Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and Distribution Provider shall deliver such material and equipment, and, if necessary, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Distribution Provider for any or all such costs of materials or equipment not taken by Interconnection Customer, Distribution Provider shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by Distribution Provider to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this LGIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any Distribution Upgrades and Network Upgrades for which Distribution Provider has incurred expenses and has not been reimbursed by Interconnection Customer.

**2.4.2** Distribution Provider may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Distribution Provider shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

**2.4.3** With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this LGIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

**2.5 Disconnection.** Upon termination of this LGIA, the Parties will take all appropriate steps to disconnect the Large Generating Facility from the Distribution System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless

such termination resulted from the non-terminating Party's Default of this LGIA or such non-terminating Party otherwise is responsible for these costs under this LGIA.

- 2.6 Survival.** This LGIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this LGIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this LGIA was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this LGIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

### **Article 3. Regulatory Filings**

- 3.1 Filing.** Distribution Provider shall file this LGIA (and any amendment hereto) with the appropriate Governmental Authority, if required. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Article 22. If Interconnection Customer has executed this LGIA, or any amendment thereto, Interconnection Customer shall reasonably cooperate with Distribution Provider with respect to such filing and to provide any information reasonably requested by Distribution Provider needed to comply with applicable regulatory requirements.

### **Article 4. Scope of Service**

- 4.1 Interconnection Service.** Interconnection Service allows Interconnection Customer to connect the Large Generating Facility to the Distribution System and be eligible to deliver the Large Generating Facility's output using the capacity of the Distribution System to the ISO Grid. To the extent Interconnection Customer wants to receive Interconnection Service, Distribution Provider shall construct facilities identified in Appendices A and C that the Distribution Provider is responsible to construct.
- 4.1.1 Distribution Service Implications.** Interconnection Customer will be eligible to inject power from the Large Generating Facility into Distribution Provider's Distribution System pursuant to the Tariff. The Interconnection Customer may

not deliver power over the Distribution Provider's Distribution System absent procuring Distribution Service. The Interconnection Customer must apply for Distribution Service pursuant to Section 15.2 of the Tariff and meet the conditions specified in Section 14 of the Tariff to be eligible for Distribution Service.

- 4.1.2 Transmission Service Implications.** Interconnection Service does not necessarily provide Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on the ISO Grid without incurring congestion costs. In the event of transmission constraints on the ISO Grid, Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in the ISO Tariff in the same manner as all other resources. The Interconnection Customer shall be solely responsible for completing all of the necessary arrangements required under the ISO Tariff to be eligible to schedule the output of its resource.
- 4.2 Provision of Service.** Distribution Provider shall provide Interconnection Service for the Large Generating Facility at the Point of Interconnection.
- 4.3 Performance Standards.** Each Party shall perform all of its obligations under this LGIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice, and to the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this LGIA for its compliance therewith. If such Party is a Distribution Provider or Distribution Owner, then that Party shall amend the LGIA and submit the amendment to FERC for approval.
- 4.4 No Distribution Service or Transmission Service.** The execution of this LGIA does not constitute a request for, nor the provision of, Distribution Service under the Tariff or any transmission service under the ISO Tariff.
- 4.5 Interconnection Customer Provided Services.** The services provided by Interconnection Customer under this LGIA are set forth in Article 9.6 and Article 13.5.1.



## **Article 5. Interconnection Facilities Engineering, Procurement, and Construction**

**5.1 Options.** Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either Standard Option or Alternate Option set forth below for completion of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades as set forth in Appendix A, Interconnection Facilities, Distribution Upgrades, and Network Upgrades, and such dates and selected option shall be set forth in Appendix B, Milestones.

**5.1.1 Standard Option.** Distribution Provider shall design, procure, and construct Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades, using Reasonable Efforts to complete Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades by the dates set forth in Appendix B, Milestones. Distribution Provider shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event Distribution Provider reasonably expects that it will not be able to complete Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades by the specified dates, Distribution Provider shall promptly provide written notice to Interconnection Customer and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

**5.1.2 Alternate Option.** If the dates designated by Interconnection Customer are acceptable to Distribution Provider, Distribution Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of Distribution Provider's Interconnection Facilities and Distribution Upgrades by the designated dates. If Distribution Provider subsequently fails to complete Distribution Provider's Interconnection Facilities and Distribution Upgrades by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete

Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, Milestones; Distribution Provider shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each day that the ISO refuses to grant clearances to install equipment.

**5.1.3 Option to Build.** If the dates designated by Interconnection Customer are not acceptable to Distribution Provider, Distribution Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades on the dates specified in Article 5.1.2. Distribution Provider and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

**5.1.4 Negotiated Option.** If Interconnection Customer elects not to exercise its option under Article 5.1.3, Option to Build, Interconnection Customer shall so notify Distribution Provider within thirty (30) Calendar Days, and the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades by Interconnection Customer) pursuant to which Distribution Provider is responsible for the design, procurement and construction of Distribution Provider's Interconnection

Facilities, Distribution Upgrades, and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, Distribution Provider shall assume responsibility for the design, procurement and construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades pursuant to 5.1.1, Standard Option.

**5.2 General Conditions Applicable to Option to Build.** If Interconnection Customer assumes responsibility for the design, procurement and construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades, (1) Interconnection Customer shall engineer, procure equipment, and construct Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Distribution Provider;(2) Interconnection Customer's engineering, procurement and construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law to which Distribution Provider would be subject in the engineering, procurement or construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades;(3) Distribution Provider shall review and approve the engineering design, equipment acceptance tests, and the construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades;(4) prior to commencement of construction, Interconnection Customer shall provide to Distribution Provider a schedule for construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Distribution Provider;(5) at any time during construction, Distribution Provider shall have the right to gain unrestricted access to Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;(6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Distribution Provider, Interconnection Customer shall be obligated to remedy deficiencies in that portion of Distribution Provider's Interconnection Facilities and Stand

Alone Network Upgrades; (7) Interconnection Customer shall indemnify Distribution Provider for claims arising from Interconnection Customer's construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1 Indemnity; (8) Interconnection Customer shall transfer control of Distribution Provider's Interconnection Facilities to the Distribution Provider and shall transfer Operational Control of Stand Alone Network Upgrades to the ISO; (9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of Distribution Provider's Interconnection Facilities and Stand-Alone Network Upgrades to Distribution Provider; (10) Distribution Provider shall approve and accept for operation and maintenance Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2; and (11) Interconnection Customer shall deliver to Distribution Provider "as-built" drawings, information, and any other documents that are reasonably required by Distribution Provider to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by Distribution Provider.

**5.3 Liquidated Damages.** The actual damages to Interconnection Customer, in the event Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades are not completed by the dates designated by Interconnection Customer and accepted by Distribution Provider pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by Distribution Provider to Interconnection Customer in the event that Distribution Provider does not complete any portion of Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades by the applicable dates, shall be an amount equal to  $\frac{1}{2}$  of 1 percent per day of the actual cost of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades, in the aggregate, for which Distribution Provider has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades for which Distribution Provider has assumed responsibility to design, procure, and construct. The foregoing payments will be made by Distribution Provider to Interconnection Customer as just compensation for the damages caused to Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this LGIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Distribution Provider's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades to take the delivery of power for the Large Generating Facility's Trial Operation or to export power from the Large Generating Facility on the specified dates, unless Interconnection Customer would have been able to commence use of Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades to take the delivery of power for Large Generating Facility's Trial Operation or to export power from the Large Generating Facility, but for Distribution Provider's delay; (2) Distribution Provider's failure to meet the specified dates is the result of the action or inaction of Interconnection Customer or any other Interconnection Customer who has entered into an LGIA with Distribution Provider, action or inaction by the ISO, or any cause beyond Distribution Provider's reasonable control or reasonable ability to cure; (3) the Interconnection Customer has assumed responsibility for the design, procurement and construction of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades; or (4) the Parties have otherwise agreed.

**5.4 Power System Stabilizers.** The Interconnection Customer shall procure, install, maintain and operate Power System Stabilizers in accordance with the guidelines and procedures established by the Applicable Reliability Council and in accordance with the provisions

of Section 5.4.1 of the ISO Tariff. Distribution Provider reserves the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, Interconnection Customer shall immediately notify Distribution Provider and Distribution Provider's system operator, or its designated representative. The requirements of this paragraph shall not apply to wind generators of the induction type.

**5.5 Equipment Procurement.** If responsibility for construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades is to be borne by Distribution Provider, then Distribution Provider shall commence design of Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:

**5.5.1** Distribution Provider has completed the Interconnection Facilities Study pursuant to the Interconnection Facilities Study Agreement;

**5.5.2** Distribution Provider has received written authorization to proceed with design and procurement from Interconnection Customer by the date specified in Appendix B, Milestones; and

**5.5.3** Interconnection Customer has provided security to Distribution Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.

**5.6 Construction Commencement.** Distribution Provider shall commence construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

**5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

- 5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades;
- 5.6.3** Distribution Provider has received written authorization to proceed with construction from Interconnection Customer by the date specified in Appendix B, Milestones; and
- 5.6.4** Interconnection Customer has provided security to Distribution Provider in accordance with Article 11.5 by the dates specified in Appendix B, Milestones.
- 5.7 Work Progress.** The Parties will keep each other advised periodically as to the progress of their respective design, procurement and construction efforts. Either Party may, at any time, request a progress report from the other Party. If, at any time, Interconnection Customer determines that the completion of Distribution Provider's Interconnection Facilities will not be required until after the specified In-Service Date, Interconnection Customer will provide written notice to Distribution Provider of such later date upon which the completion of Distribution Provider's Interconnection Facilities will be required.
- 5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Parties' Interconnection Facilities and compatibility of the Interconnection Facilities with Distribution Provider's Distribution System, and shall work diligently and in good faith to make any necessary design changes.
- 5.9 Limited Operation.** If any of Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Large Generating Facility, Distribution Provider shall, upon the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Large Generating Facility and Interconnection Customer's Interconnection Facilities may operate prior to the completion of Distribution Provider's Interconnection Facilities,

Distribution Upgrades, or Network Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this LGIA. Distribution Provider shall permit Interconnection Customer to operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with the results of such studies.

**5.10 Interconnection Customer's Interconnection Facilities ("ICIF").** Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

**5.10.1 Interconnection Customer's Interconnection Facility Specifications.**

Interconnection Customer shall submit initial specifications for the ICIF, including System Protection Facilities, to Distribution Provider at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Distribution Provider shall review such specifications to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Distribution Provider and comment on such specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

**5.10.2 Distribution Provider's Review.** Distribution Provider's review of

Interconnection Customer's final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the ICIF.

Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Distribution Provider, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control, and safety requirements of Distribution Provider.



**5.10.3 ICIF Construction.** The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Distribution Provider “as-built” drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with Interconnection Customer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facility. The Interconnection Customer shall provide Distribution Provider specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

**5.10.4 Interconnection Customer to Meet Requirements of the Distribution Provider’s Interconnection Handbook.** The Interconnection Customer shall comply with the Distribution Provider’s Interconnection Handbook. In the event of a conflict between the terms of this LGIA and the terms of the Distribution Provider’s Interconnection Handbook, the terms in this LGIA shall govern.

**5.11 Distribution Provider's Interconnection Facilities Construction.** Distribution Provider's Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Distribution Provider shall deliver to Interconnection Customer the following “as-built” drawings, information and documents for Distribution Provider's Interconnection Facilities [include appropriate drawings and relay diagrams].

Distribution Provider will obtain control for operating and maintenance purposes of Distribution Provider's Interconnection Facilities and Stand Alone Network Upgrades

upon completion of such facilities. Pursuant to Article 5.2, the ISO will obtain Operational Control of the Stand Alone Network Upgrades prior to the Commercial Operation Date.

**5.12 Access Rights.** Upon reasonable notice and supervision by a Party, and subject to any required or necessary regulatory approvals, a Party (“Granting Party”) shall furnish at no cost to the other Party (“Access Party”) any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the Distribution System; (ii) operate and maintain the Large Generating Facility, the Interconnection Facilities and the Distribution System; and (iii) disconnect or remove the Access Party’s facilities and equipment upon termination of this LGIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party’s business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

**5.13 Lands of Other Property Owners.** If any part of Distribution Provider or Distribution Owner's Interconnection Facilities, Distribution Upgrades, and/or Network Upgrades is to be installed on property owned by persons other than Interconnection Customer or Distribution Provider or Distribution Owner, Distribution Provider or Distribution Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove Distribution Provider or Distribution Owner's Interconnection Facilities, Distribution Upgrades, and/or Network Upgrades upon such property.

- 5.14 Permits.** Distribution Provider or Distribution Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Distribution Provider or Distribution Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to Distribution Provider's own, or an Affiliate's generation.
- 5.15 Early Construction of Base Case Facilities.** Interconnection Customer may request Distribution Provider to construct, and Distribution Provider shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Distribution Upgrades or Network Upgrades required for Interconnection Customer to be interconnected to the Distribution System which are included in the Base Case of the Facilities Study for Interconnection Customer, and which also are required to be constructed for another Interconnection Customer, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date.
- 5.16 Suspension.** Interconnection Customer reserves the right, upon written notice to Distribution Provider, to suspend at any time all work by Distribution Provider associated with the construction and installation of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and/or Network Upgrades required under this LGIA with the condition that Distribution System shall be left in a safe and reliable condition in accordance with Good Utility Practice and Distribution Provider's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Distribution Provider (i) has incurred pursuant to this LGIA prior to the suspension; and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Distribution System and Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Distribution Provider cannot reasonably avoid; provided, however, that prior to canceling or suspending any

such material, equipment or labor contract, Distribution Provider shall obtain Interconnection Customer's authorization to do so.

Distribution Provider shall invoice Interconnection Customer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Interconnection Customer suspends work by Distribution Provider required under this LGIA pursuant to this Article 5.16, and has not requested Distribution Provider to recommence the work required under this LGIA on or before the expiration of three (3) years following commencement of such suspension, this LGIA shall be deemed terminated. The three year period shall begin on the date the suspension is requested, or the date of the written notice to Distribution Provider, if no effective date is specified.

## **5.17 Taxes.**

**5.17.1 Interconnection Customer Payments Not Taxable.** The Parties intend that all payments or property transfers made by Interconnection Customer to Distribution Provider for the installation of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and the Network Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

**5.17.2 Representations and Covenants.** In accordance with IRS Notice 2001- 82 and IRS Notice 88-129, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Large Generating Facility will pass to another party prior to the transmission of the electricity on the Distribution System; (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to Distribution Provider for Distribution Provider's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years; and (iii) any portion of Distribution Provider's Interconnection

Facilities that is a “dual-use intertie,” within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Large Generating Facility. For this purpose, “de minimis amount” means no more than 5 percent of the total power flows in both directions, calculated in accordance with the “5 percent test” set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Distribution Provider’s request, Interconnection Customer shall provide Distribution Provider with a report from an independent engineer confirming its representation in clause (iii), above. Distribution Provider represents and covenants that the cost of Distribution Provider’s Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Distribution Provider.** Notwithstanding Article 5.17.1,

Interconnection Customer shall protect, indemnify and hold harmless Distribution Provider from the cost consequences of any current tax liability imposed against Distribution Provider as the result of payments or property transfers made by Interconnection Customer to Distribution Provider under this LGIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Distribution Provider.

Distribution Provider shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this LGIA unless (i) Distribution Provider has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Distribution Provider should be reported as income subject to taxation; or (ii) any Governmental Authority directs Distribution Provider to report payments or property as income subject to taxation; provided, however, that Distribution Provider may require Interconnection Customer to provide security for

Interconnection Facilities, in a form reasonably acceptable to Distribution Provider (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17.

Interconnection Customer shall reimburse Distribution Provider for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Distribution Provider of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten year testing period and the applicable statute of limitation, as it may be extended by Distribution Provider upon request of the IRS, to keep these years open for audit or adjustment; or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.** Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Distribution Provider, in addition to the amount paid for the Interconnection Facilities, Distribution Upgrades, and Network Upgrades, an amount equal to (1) the current taxes imposed on Distribution Provider ("Current Taxes") on the excess of (a) the gross income realized by Distribution Provider as a result of payments or property transfers made by Interconnection Customer to Distribution Provider under this LGIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit Distribution Provider to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Distribution Provider's composite federal and state tax rates at the time the payments or property transfers are received and Distribution Provider will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"); and (ii) the Present Value Depreciation Amount shall be computed by discounting Distribution Provider's anticipated tax depreciation deductions as a result of such payments or property transfers by Distribution Provider's current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer's liability to Distribution Owner pursuant to this Article 5.17.4 can be expressed as follows:  $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$ . Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

**5.17.5 Private Letter Ruling or Change or Clarification of Law.** At Interconnection Customer's request and expense, Distribution Provider shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Distribution Provider under this LGIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer's knowledge. Distribution Provider and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Distribution Provider shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Distribution Provider shall allow

Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

**5.17.6 Subsequent Taxable Events.** If, within 10 years from the date on which the relevant Distribution Provider's Interconnection Facilities are placed in service, (i) Interconnection Customer Breaches the covenants contained in Article 5.17.2; (ii) a “disqualification event” occurs within the meaning of IRS Notice 88-129; or (iii) this LGIA terminates and Transmission Provider retains ownership of the Interconnection Facilities, Distribution Upgrades, and Network Upgrades, Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Distribution Provider, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

**5.17.7 Contests.** In the event any Governmental Authority determines that Distribution Provider’s receipt of payments or property constitutes income that is subject to taxation, Distribution Provider shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Interconnection Customer and at Interconnection Customer's sole expense, Distribution Provider may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Distribution Provider may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Distribution Provider reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Distribution Provider shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably



permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Distribution Provider on a periodic basis, as invoiced by Distribution Provider, Distribution Provider's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Distribution Provider may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Distribution Provider, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully-grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Distribution Provider for the tax at issue in the contest.

**5.17.8 Refund.** In the event that (a) a private letter ruling is issued to Distribution Provider which holds that any amount paid or the value of any property transferred by Interconnection Customer to Distribution Provider under the terms of this LGIA is not subject to federal income taxation; (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Distribution Provider in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Distribution Provider under the terms of this LGIA is not taxable to Distribution Provider; (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Distribution Provider are not subject to federal income tax; or (d) if Distribution Provider receives a

refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Distribution Provider pursuant to this LGIA, Distribution Provider shall promptly refund to Interconnection Customer the following:

(i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon;

(ii) interest on any amounts paid by Interconnection Customer to Distribution Provider for such taxes which Distribution Provider did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 CFR §35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Distribution Provider refunds such payment to Interconnection Customer; and

(iii) with respect to any such taxes paid by Distribution Provider, any refund or credit Distribution Provider receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to Distribution Provider for such overpayment of taxes (including any reduction in interest otherwise payable by Distribution Provider to any Governmental Authority resulting from an offset or credit); provided, however, that Distribution Provider will remit such amount promptly to Interconnection Customer only after and to the extent that Distribution Provider has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to Distribution Provider's Interconnection Facilities.

The intent of this provision is to leave the Parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection

Facilities, Distribution Upgrades, and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

**5.17.9 Taxes Other Than Income Taxes.** Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Distribution Provider may appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Distribution Provider for which Interconnection Customer may be required to reimburse Distribution Provider under the terms of this LGIA. Interconnection Customer shall pay to Distribution Provider on a periodic basis, as invoiced by Distribution Provider, Distribution Provider's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Distribution Provider shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Distribution Provider for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Distribution Provider.

**5.17.10 Distribution Owners Who Are Not Distribution Providers.** If Distribution Provider is not the same entity as the Distribution Owner, then (i) all references in this Article 5.17 to Distribution Provider shall be deemed also to refer to and to include the Distribution Owner, as appropriate; and (ii) this LGIA shall not become effective until such Distribution Owner shall have agreed in writing to assume all of the duties and obligations of Distribution Provider under this Article 5.17 of this LGIA.

**5.18 Tax Status.** Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this LGIA is intended to adversely affect any Distribution Provider's

tax exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

## **5.19 Modification.**

**5.19.1 General.** Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party sufficient information regarding such modification so that the other Party may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be confidential hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Large Generating Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Distribution Provider shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Distribution System, Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof.

**5.19.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this LGIA and Good Utility Practice.

**5.19.3 Modification Costs.** Interconnection Customer shall not be directly assigned for the costs of any additions, modifications, or replacements that Distribution

Provider makes to Distribution Provider's Interconnection Facilities or the Distribution System to facilitate the interconnection of a third party to Distribution Provider's Interconnection Facilities or the Distribution System, or to provide transmission service to a third party under Distribution Provider's Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

## **Article 6. Testing and Inspection**

- 6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, Distribution Provider shall test Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades and Interconnection Customer shall test the Large Generating Facility and Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Party shall make any modifications to its facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Large Generating Facility only if it has arranged for the delivery of such test energy.
- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Large Generating Facility with the Distribution System in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.

- 6.3 Right to Observe Testing.** Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities. The other Party has the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this LGIA.

## **Article 7. Metering**

- 7.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. The Interconnection Customer shall comply with the provisions of the ISO Tariff regarding metering, including Section 10 and the Metering Protocol of the ISO Tariff. Unless otherwise agreed by the Parties, Distribution Provider may install additional Metering Equipment at the Point of Interconnection prior to any operation of the Large Generating Facility and shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Large Generating Facility shall be measured at or, at Distribution Provider's option, compensated to, the Point of Interconnection. Interconnection Customer's access to meter data shall be provided in accordance with the ISO Tariff. Interconnection Customer shall bear all reasonable documented costs

associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.

- 7.2 Check Meters.** Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check the ISO-pollled meters or Distribution Provider's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this LGIA, except in the case that no other means are available on a temporary basis at the option of the Distribution Provider. The check meters shall be subject at all reasonable times to inspection and examination by Distribution Provider or its designee. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.
- 7.3 Distribution Provider Retail Metering.** Distribution Provider may install retail revenue quality meters and associated equipment, pursuant to the Distribution Provider's applicable retail tariffs.

## **Article 8. Communications**

- 8.1 Interconnection Customer Obligations.** Interconnection Customer shall maintain satisfactory operating communications with Distribution Provider's Distribution System dispatcher or representative designated by Distribution Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Distribution Provider as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by Distribution Provider. Any required maintenance of such

communications equipment shall be performed by Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.

**8.2 Remote Terminal Unit.** Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Interconnection Customer, or by Distribution Provider at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Distribution Provider through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Distribution Provider. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Distribution Provider.

Each Party will promptly advise the other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by the other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

**8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.

## **Article 9. Operations**

**9.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. Each Party shall provide to the other Party all information that may reasonably be required by the other Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.



- 9.2 Control Area Notification.** At least three months before Initial Synchronization Date, Interconnection Customer shall notify Distribution Provider in writing of the Control Area in which the Large Generating Facility will be located. If Interconnection Customer elects to locate the Large Generating Facility in a Control Area other than the Control Area in which the Large Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this LGIA, and remote Control Area generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Large Generating Facility in the other Control Area.
- 9.3 Distribution Provider Obligations.** Distribution Provider shall cause the Distribution System and Distribution Provider's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner and in accordance with this LGIA. Distribution Provider may provide operating instructions to Interconnection Customer consistent with this LGIA and Distribution Provider's operating protocols and procedures as they may change from time to time. Distribution Provider will consider changes to its operating protocols and procedures proposed by Interconnection Customer.
- 9.4 Interconnection Customer Obligations.** Interconnection Customer shall at its own expense operate, maintain and control the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA. Interconnection Customer shall operate the Large Generating Facility and Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of the Control Area of which it is part, as such requirements are set forth in Appendix C, Interconnection Details, of this LGIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. Either Party may request that the other Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this LGIA.

**9.5 Start-Up and Synchronization.** Consistent with the Parties' mutually acceptable procedures, Interconnection Customer is responsible for the proper synchronization of the Large Generating Facility to Distribution Provider's Distribution System.

**9.6 Reactive Power and Primary Frequency Response.**

**9.6.1 Power Factor Design Criteria.**

9.6.1.1 Synchronous Generation. Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Distribution Provider has established different requirements that apply to all synchronous generators in the Control Area on a comparable basis.

9.6.1.2 Non-Synchronous Generation. Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Distribution Provider has established a different power factor range that applies to all non-synchronous generators in the Control Area on a comparable basis. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet executed a Facilities Study Agreement as of the effective date of the Final Rule establishing this requirement (Order No. 827).

**9.6.2 Voltage Schedules.** Once Interconnection Customer has synchronized the Large Generating Facility with the Distribution System, Distribution Provider shall require Interconnection Customer to operate the Large Generating Facility to

produce or absorb reactive power within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). Distribution Provider's voltage schedules shall treat all sources of reactive power interconnected with the Distribution System in an equitable and not unduly discriminatory manner and consistent with the applicable requirements of the ISO Tariff. Distribution Provider shall exercise Reasonable Efforts to provide Interconnection Customer with such schedules at least one (1) day in advance, and may make changes to such schedules as necessary to maintain the reliability of the Distribution System and Transmission System. Interconnection Customer shall operate the Large Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design limitations of the Large Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify the Distribution Provider and the ISO.

**9.6.2.1 Voltage Regulators.** Whenever the Large Generating Facility is operated in parallel with the Distribution System and voltage regulators are capable of operation, Interconnection Customer shall operate the Large Generating Facility with its voltage regulators in automatic operation. If the Large Generating Facility's voltage regulators are not capable of such automatic operation, Interconnection Customer shall immediately notify Distribution Provider and the ISO, and ensure that the Electric Generating Unit operates as specified in Article 9.6.2 through manual operation and that such Large Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Large Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the Distribution System or trip any generating unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency

condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Control Area on a comparable basis.

**9.6.3 Payment for Reactive Power.** Payment to Interconnection Customer for reactive power that Interconnection Customer provides or absorbs from the Large Generating Facility when the ISO requests Interconnection Customer to operate its Large Generating Facility outside the range specified in Article 9.6.1 will be made by the ISO in accordance with the applicable provisions of the ISO Tariff.

**9.6.4 Primary Frequency Response.** Interconnection Customer shall ensure the primary frequency response capability of its Large Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term “functioning governor or equivalent controls” as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Large Generating Facility’s real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Interconnection Customer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop and +/- 0.036 Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved NERC Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Large Generating Facility, and shall be linear in the range of frequencies between 59 to 61 Hz that are outside of the deadband parameter; or (2) based on an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Large Generating Facility’s real power output in response to frequency deviations. The deadband shall be implemented: (1)

without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Large Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under-frequency deviations) or decrease (for over-frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved NERC Reliability Standard providing for an equivalent or more stringent parameter. Interconnection Customer shall notify Transmission Provider that the primary frequency response capability of the Large Generating Facility has been tested and confirmed during commissioning. Once Interconnection Customer has synchronized the Large Generating facility with the Transmission System, Interconnection Customer shall operate the Large Generating Facility consistent with the provisions specified in Sections 9.6.4.1 and 9.6.4.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Large Generating Facilities.

**9.6.4.1 Governor or Equivalent Controls.** Whenever the Large Generating Facility is operated in parallel with the Transmission System, Interconnection Customer shall operate the Large Generating Facility with its governor or equivalent controls in service and responsive to frequency. Interconnection Customer shall: (1) in coordination with Transmission Provider and/or the relevant balancing authority, set the deadband parameter to: (1) a maximum of  $\pm 0.036$  Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved NERC Reliability Standard that provides for equivalent or more stringent parameters. Interconnection Customer shall be required to provide the status and settings of the governor or equivalent controls to Transmission Provider and/or the relevant balancing authority upon request. If Interconnection Customer needs to operate the Large Generating Facility with its governor or equivalent controls not in service, Interconnection Customer shall

immediately notify Transmission Provider and the relevant balancing authority, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Interconnection Customer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Interconnection Customer shall make Reasonable Efforts to keep outages of the Large Generating Facility's governor or equivalent controls to a minimum whenever the Large Generating Facility is operated in parallel with the Transmission System.

**9.6.4.2 Timely and Sustained Response.** Interconnection Customer shall ensure that the Large Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Large Generating Facility has operating capability in the direction needed to correct the frequency deviation. Interconnection Customer shall not block or otherwise inhibit the ability of the governor or equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Large Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. A Commission-approved Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.

**9.6.4.3 Exemptions.** Large Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Sections 9.6.4, 9.6.4.1, and 9.6.4.2 of this Agreement. Large Generating Facilities that are behind the meter generation that is sized-to-load (i.e., the thermal load and the generation are near-balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability in accordance with the droop and deadband capability requirements specified in Section 9.6.4, but shall be otherwise exempt from the operating requirements in Sections 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.4 of this Agreement.

**9.6.4.4 Electric Storage Resources.** Interconnection Customer interconnecting an electric storage resource shall establish an operating range in Appendix C of its LGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Sections 9.6.4, 9.6.4.1, 9.6.4.2, and 9.6.4.3 of this Agreement. Appendix C shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resource due to manufacturer specifications; and (6) any other relevant factors agreed to by Transmission Provider and Interconnection Customer, and in consultation with the relevant transmission owner or balancing authority as appropriate. If the operating range is dynamic, then Appendix C must establish how frequently the

operating range will be reevaluated and the factors that may be considered during its reevaluation. Interconnection Customer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Section 9.6.4.2 of this Agreement when it is online and dispatched to inject electricity to the Transmission System and/or receive electricity from the Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the Transmission System and/or dispatched to receive electricity from the Transmission System. If Interconnection Customer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over-frequency deviations) or decrease (for underfrequency deviations) the rate at which it is charging in accordance with its droop parameter. Interconnection Customer's electric storage resource is not required to change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.

## **9.7 Outages and Interruptions.**

### **9.7.1 Outages.**

**9.7.1.1 Outage Authority and Coordination.** Each Party may in accordance with Good Utility Practice in coordination with the other Party remove from service any of its respective Interconnection Facilities or Network Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to the Parties. In all circumstances, any Party planning to remove such facility(ies) from



service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.

**9.7.1.2 Outage Schedules.** Interconnection Customer shall submit its planned maintenance schedules for the Large Generating Facility to Distribution Provider for a minimum of a rolling twenty-four month period.

Interconnection Customer shall update its planned maintenance schedules as necessary. Distribution Provider may request Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the Distribution System and Transmission System. Distribution Provider shall compensate Interconnection Customer for any additional direct costs that Interconnection Customer incurs as a result of having to reschedule maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost Interconnection Customer would have incurred absent Distribution Provider's request to reschedule maintenance. Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, Interconnection Customer had modified its schedule of maintenance activities. Distribution Provider shall have no obligation to pay Interconnection Customer any costs the Interconnection Customer incurs as the result of being directed by the ISO to reschedule maintenance.

**9.7.1.3 Outage Restoration.** If an outage on a Party's Interconnection Facilities or Network Upgrades adversely affects the other Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Party, to the extent such information is known, information on the nature of the Emergency Condition, an estimated time of restoration,

and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.

**9.7.2 Interruption of Service.** If required by Good Utility Practice to do so, Distribution Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect Distribution Provider's ability to perform such activities as are necessary to safely and reliably operate and maintain the Distribution System and Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

**9.7.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;

**9.7.2.2** Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Distribution System;

**9.7.2.3** When the interruption or reduction must be made under circumstances which do not allow for advance notice, Distribution Provider shall notify Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;

**9.7.2.4** Except during the existence of an Emergency Condition, when the interruption or reduction can be scheduled without advance notice, Distribution Provider shall notify Interconnection Customer in advance regarding the timing of such scheduling and further notify Interconnection Customer of the expected duration. Distribution Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the

interruption or reduction during periods of least impact to Interconnection Customer and Distribution Provider;

**9.7.2.5** The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Interconnection Facilities, and the Distribution System and Transmission System to their normal operating state, consistent with system conditions and Good Utility Practice.

**9.7.3 Voltage and Frequency Ride-Through Conditions.** The Interconnection Customer shall ensure “frequency ride through” capability and “voltage ride through” capability of its Large Generating Facility in accordance with the standards and requirements described in the PG&E Transmission Interconnection Handbook (TIH) and the Distribution Interconnection Handbook (DIH). The Interconnection Customer shall enable these capabilities such that its Large Generating Facility shall not disconnect automatically or instantaneously from the system or equipment of the Distribution Provider and any Affected Systems for a defined under-frequency or over-frequency condition, or an under-voltage or over-voltage condition, as tested pursuant to Article 2.1 of this Agreement. The defined conditions shall be in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The Large Generating Facility’s protective equipment settings shall comply with the Distribution Provider’s automatic load-shed program. The Distribution Provider shall review the protective equipment settings to confirm compliance with the automatic load-shed program. The term “ride through” as used herein shall mean the ability of a Large Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems during system disturbances within a range of conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority on a

comparable basis. The term “frequency ride through” as used herein shall mean the ability of a Large Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis. The term “voltage ride through” as used herein shall mean the ability of a Large Generating Facility to stay connected to and synchronized with the system or equipment of the Distribution Provider and any Affected Systems during system disturbances within a range of under-voltage and over-voltage conditions, in accordance with Good Utility Practice and consistent with any standards and guidelines that are applied to other generating facilities in the Balancing Authority Area on a comparable basis.

#### **9.7.4 System Protection and Other Control Requirements.**

**9.7.4.1 System Protection Facilities.** Interconnection Customer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or Interconnection Customer’s Interconnection Facilities. Distribution Provider shall install at Interconnection Customer’s expense any System Protection Facilities that may be required on Distribution Provider’s Interconnection Facilities, Distribution System, or the Transmission System as a result of the interconnection of the Large Generating Facility and Interconnection Customer’s Interconnection Facilities.

**9.7.4.2** Each Party’s protection facilities shall be designed and coordinated with other systems in accordance with Good Utility Practice.

**9.7.4.3** Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.

**9.7.4.4** Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of Interconnection Customer's units.

**9.7.4.5** Each Party will test, operate and maintain System Protection Facilities in accordance with Good Utility Practice and, if applicable, the requirements of the Distribution Provider's Interconnection Handbook.

**9.7.4.6** Prior to the In-Service Date, and again prior to the Commercial Operation Date, each Party or its agent shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice, the standards and procedures of the Distribution Provider, including, if applicable, the requirements of the Distribution Provider's Interconnection Handbook, and following any apparent malfunction of the System Protection Facilities, each Party shall perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.

**9.7.5 Requirements for Protection.** In compliance with Good Utility Practice and, if applicable, the requirements of the Distribution Provider's Interconnection Handbook, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the Distribution System not otherwise isolated by Distribution Provider's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Distribution System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load

interrupting capability located between the Large Generating Facility and the Distribution System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Large Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Large Generating Facility and Interconnection Customer's other equipment if conditions on the Distribution System could adversely affect the Large Generating Facility.

**9.7.6 Power Quality.** Neither Party's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI standard C84.1-1989, or any applicable superseding electric industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.

**9.8 Switching and Tagging Rules.** Each Party shall provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

**9.9 Use of Interconnection Facilities by Third Parties.**

**9.9.1 Purpose of Interconnection Facilities.** Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the Distribution System and shall be used for no other purpose.

**9.9.2 Third Party Users.** If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use Distribution Provider's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Distribution Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any third party users based upon the pro rata use of the Interconnection Facilities by Distribution Provider, all third party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

**9.10 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another in the analysis of disturbances to either the Large Generating Facility or Distribution Provider's Distribution System and Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

## **Article 10. Maintenance**

**10.1 Distribution Provider Obligations.** Distribution Provider shall maintain the Distribution System, Transmission System and Distribution Provider's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.

- 10.2 Interconnection Customer Obligations.** Interconnection Customer shall maintain the Large Generating Facility and Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this LGIA.
- 10.3 Coordination.** The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Interconnection Facilities.
- 10.4 Secondary Systems.** Each Party shall cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Party. Each Party shall provide advance notice to the other Party before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.
- 10.5 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Distribution Provider's Interconnection Facilities.



## **Article 11. Performance Obligation**

- 11.1 Interconnection Customer Interconnection Facilities.** Interconnection Customer shall design, procure, construct, install, own and/or control Interconnection Customer Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at its sole expense.
- 11.2 Distribution Provider's Interconnection Facilities.** Distribution Provider or Distribution Owner shall design, procure, construct, install, own and/or control the Distribution Provider's Interconnection Facilities described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades, at the sole expense of the Interconnection Customer.
- 11.3 Network Upgrades and Distribution Upgrades.** Distribution Provider or Distribution Owner shall design, procure, construct, install, and own the Network Upgrades and Distribution Upgrades described in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades. The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades. Unless Distribution Provider or Distribution Owner elects to fund the capital for the Distribution Upgrades and Network Upgrades, they shall be solely funded by Interconnection Customer.
- 11.4 Transmission Credits.**

### **11.4.1 Repayment of Amounts Advanced for Network Upgrades.**

To the extent the CAISO Tariff, Section 12.3.2 of Appendix Y and Section 14.3.2 of Appendix DD, and successor tariffs, provides for cash repayment or Congestion Revenue Rights to the Interconnection Customer for contribution to the cost of Network Upgrades, the Interconnection Customer shall be entitled to a cash repayment or Congestion Revenue Rights, equal to the total amount paid to Distribution Provider and Affected System Operator, if any, for the Network Upgrades, including any tax gross-up or other tax-related payments associated

with Network Upgrades, and not refunded to Interconnection Customer pursuant to Article 5.17.8 or otherwise.

Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interconnection Customer may assign such repayment rights to any person.

Notwithstanding the foregoing, Interconnection Customer, Distribution Provider, and Affected System Operator may adopt any alternative payment schedule that is mutually agreeable so long as Distribution Provider and Affected System Operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to Interconnection Customer any amounts advanced for Network Upgrades not previously repaid; or (2) declare in writing that Distribution Provider or Affected System Operator will continue to provide payments to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the Commercial Operation Date.

If the Large Generating Facility fails to achieve commercial operation, but it or another Generating Facility is later constructed and makes use of the Network Upgrades, Distribution Provider and Affected System Operator shall at that time reimburse Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which reimbursement must be made.

**11.4.2 Special Provisions for Affected Systems.** Unless Distribution Provider provides, under the LGIA, for the repayment of amounts advanced to Affected System Operator for Network Upgrades, Interconnection Customer and Affected System Operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by Interconnection Customer to the Affected System Operator as well as the repayment by the Affected System Operator.

**11.4.3** Notwithstanding any other provision of this LGIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that Interconnection Customer, shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Large Generating Facility.

**11.5 Provision of Security.** The Interconnection Customer shall provide the Distribution Provider an Interconnection Financial Security by the earliest date of either (i) no later than the financial security posting milestone date negotiated in Appendix B of this Agreement, (ii) no later than 180 Calendar Days after the effective date of this agreement, or (iii) at least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Distribution Provider's Interconnection Facilities and Upgrades. The Interconnection Customer shall provide Distribution Provider, at Interconnection Customer's option, a guarantee, letter of credit, escrow agreement, or other form of security that is reasonably acceptable to Distribution Provider and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment shall be in an amount sufficient to cover the costs for constructing, procuring and installing the applicable portion of Distribution Provider's Interconnection Facilities, Network Upgrades, or

Distribution Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to Distribution Provider for these purposes.

In addition:

**11.5.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Distribution Provider, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.

**11.5.2** The letter of credit or escrow agreement must be issued by a financial institution reasonably acceptable to Distribution Provider and must specify a reasonable expiration date.

**11.6 Responsibility for any Outstanding Interconnection Study Costs.** The Interconnection Customer must complete payment on all outstanding invoiced interconnection study costs no later than the financial security posting milestone date negotiated in Appendix B of this Agreement. Study costs not yet invoiced within thirty (30) Calendar Days of that financial security posting deadline must be paid by the Interconnection Customer within thirty (30) Calendar Days of the date of the invoice once they are invoiced to the Interconnection Customer.

Failure to complete payment on these interconnection study invoices by these deadlines will constitute Default on this Agreement by the Interconnection Customer, subject to the terms of Article 17 "Default".

## **Article 12. Invoice**

**12.1 General.** Each Party shall submit to the other Party, on a monthly basis, invoices for actual costs accrued during the preceding month(s). Each invoice shall state the month(s) to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other

Party under this LGIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

**12.2 Final Invoice.** Within twelve months after completion of the construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and the Network Upgrades in the Appendices to this Agreement, the Distribution Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Distribution Provider for such facilities or Upgrades.

If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Distribution Provider shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Distribution Provider within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Distribution Provider shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

**12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by either Party will not constitute a waiver of any rights or claims either Party may have under this LGIA.

**12.4 Disputes.** In the event of a billing dispute between Distribution Provider and Interconnection Customer, Distribution Provider shall continue to provide Interconnection Service under this LGIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Distribution Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two

requirements for continuation of service, then Distribution Provider may provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

### **Article 13. Emergencies**

- 13.1 Definition.** “Emergency Condition” shall mean a condition or situation: (i) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (ii) that, in the case of Distribution Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Distribution System, Distribution Provider's Interconnection Facilities or the Transmission Systems of others to which the Distribution System is directly connected; or (iii) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Large Generating Facility or Interconnection Customer's Interconnection Facilities' System restoration and black start shall be considered Emergency Conditions; provided, that Interconnection Customer is not obligated by this LGIA to possess black start capability.
- 13.2 Obligations.** Each Party shall comply with the Emergency Condition procedures of the ISO, NERC, the Applicable Reliability Council, Applicable Laws and Regulations, and any emergency procedures set forth in this LGIA.
- 13.3 Notice.** Distribution Provider shall notify Interconnection Customer promptly when it becomes aware of an Emergency Condition that affects Distribution Provider's Interconnection Facilities, Distribution System or the Transmission System that may reasonably be expected to affect Interconnection Customer's operation of the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Interconnection Customer shall notify Distribution Provider promptly when it becomes aware of an Emergency Condition that affects the Large Generating Facility or

Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Distribution System, Transmission System or Distribution Provider's Interconnection Facilities. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Distribution Provider's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

**13.4 Immediate Action.** Unless, in Interconnection Customer's reasonable judgment, immediate action is required, Interconnection Customer shall obtain the consent of Distribution Provider, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Distribution Provider or otherwise regarding the Distribution System.

**13.5 Distribution Provider Authority.**

**13.5.1 General.** Distribution Provider may take whatever actions or inactions with regard to the Distribution System and Transmission System or Distribution Provider's Interconnection Facilities it deems necessary during an Emergency Condition in order to (i) preserve public health and safety; (ii) preserve the reliability of the Distribution System and Transmission System or Distribution Provider's Interconnection Facilities; (iii) limit or prevent damage; and (iv) expedite restoration of service.

Distribution Provider shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or Interconnection Customer's Interconnection Facilities. Distribution Provider may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut down, start-up, increase or decrease the real or reactive power

output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.5.2; directing Interconnection Customer to assist with blackstart (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of Distribution Provider's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.5.2 Reduction and Disconnection.** Distribution Provider may reduce Interconnection Service or disconnect the Large Generating Facility or Interconnection Customer's Interconnection Facilities, when such, reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of the ISO pursuant to the ISO Tariff. When Distribution Provider can schedule the reduction or disconnection in advance, Distribution Provider shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Distribution Provider shall coordinate with Interconnection Customer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer and Distribution Provider. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Interconnection Facilities, and the Distribution System to their normal operating state as soon as practicable consistent with Good Utility Practice.

**13.6 Interconnection Customer Authority.** Consistent with Good Utility Practice and the LGIA and the LGIP, Interconnection Customer may take actions or inactions with regard to the Large Generating Facility or Interconnection Customer's Interconnection Facilities



during an Emergency Condition in order to (i) preserve public health and safety; (ii) preserve the reliability of the Large Generating Facility or Interconnection Customer's Interconnection Facilities; (iii) limit or prevent damage; and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Distribution System and Distribution Provider's Interconnection Facilities. Distribution Provider shall use Reasonable Efforts to assist Interconnection Customer in such actions.

- 13.7 Limited Liability.** Neither Party shall be liable to the other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.

#### **Article 14. Regulatory Requirements and Governing Law**

- 14.1 Regulatory Requirements.** Each Party's obligations under this LGIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this LGIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 1935, as amended, or the Public Utility Regulatory Policies Act of 1978.

**14.2 Governing Law.**

**14.2.1** The validity, interpretation and performance of this LGIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.

**14.2.2** This LGIA is subject to all Applicable Laws and Regulations.

**14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

## **Article 15. Notices.**

**15.1 General.** Unless otherwise provided in this LGIA, any notice, demand or request required or permitted to be given by either Party to the other and any instrument required or permitted to be tendered or delivered by either Party in writing to the other shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings. Either Party may change the notice information in this LGIA by giving five (5) Business Days written notice prior to the effective date of the change.

**15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F.

**15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.

**15.4 Operations and Maintenance Notice.** Each Party shall notify the other Party in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

## **Article 16. Uncontrollable Force**

**16.1 Uncontrollable Force.**

**16.1.1** Economic hardship is not considered a Uncontrollable Force event.

**16.1.2** Neither Party shall be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Uncontrollable Force. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of an Uncontrollable Force shall give notice and the full particulars of such Uncontrollable Force to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Uncontrollable Force, the time and date when the Uncontrollable Force occurred and when the Uncontrollable Force is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

## **Article 17. Default**

### **17.1. Default**

**17.1.1 General.** No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of an Uncontrollable Force as defined in this LGIA or the result of an act of omission of the other Party. Upon a Breach, the non-Breaching Party shall give written notice of such Breach to the Breaching Party. Except as provided in Article 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Default notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Default notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

**17.1.2 Right to Terminate.** If a Breach is not cured as provided in this article, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Party shall have the right to declare a Default and terminate this LGIA by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this LGIA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this LGIA.

## **Article 18. Indemnity, Consequential Damages and Insurance**

**18.1 Indemnity.** The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this LGIA on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

**18.1.1 Indemnified Person.** If an Indemnified Person is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1, to assume the defense of such claim, such Indemnified Person may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

**18.1.2 Indemnifying Party.** If an Indemnifying Party is obligated to indemnify and hold any Indemnified Person harmless under this Article 18, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

**18.1.3 Indemnity Procedures.** Promptly after receipt by an Indemnified Person of any claim or notice of the commencement of any action or administrative or legal

proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Person shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the Indemnifying Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the Indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses.

The Indemnified Person shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Person; and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be reasonably withheld, conditioned or delayed.

**18.2 Consequential Damages.** Other than the Liquidated Damages heretofore described, in no event shall either Party be liable under any provision of this LGIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

**18.3 Insurance.** Each party shall, at its own expense, maintain in force throughout the period of this LGIA, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business in the state where the Point of Interconnection is located:

**18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

**18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

**18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public

roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.

**18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.

**18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Party, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this LGIA against the Other Party Group and provide thirty (30) Calendar Days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.

**18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.

**18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2)

years after termination of this LGIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Parties.

**18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by the Parties under this LGIA.

**18.3.9** Within ten (10) days following execution of this LGIA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, each Party shall provide certification of all insurance required in this LGIA, executed by each insurer or by an authorized representative of each insurer.

**18.3.10** Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior secured debt is rated at investment grade or better by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this article, it shall notify the other Party that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

**18.3.11** The Parties agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this LGIA.



## **Article 19. Assignment**

**19.1 Assignment.** This LGIA may be assigned by either Party only with the written consent of the other; provided that either Party may assign this LGIA without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this LGIA; and provided further that Interconnection Customer shall have the right to assign this LGIA, without the consent of Distribution Provider, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that Interconnection Customer will promptly notify Distribution Provider of any such assignment. Any financing arrangement entered into by Interconnection Customer pursuant to this article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Distribution Provider of the date and particulars of any such exercise of assignment right(s), including providing the Distribution Provider with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this article is void and ineffective. Any assignment under this LGIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## **Article 20. Severability**

**20.1 Severability.** If any provision in this LGIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this LGIA; provided that if Interconnection Customer (or any third party, but only if such third party is not acting at the direction of Distribution Provider) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

## **Article 21. Comparability**

**21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **Article 22. Confidentiality**

**22.1 Confidentiality.** Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of this LGIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential.

If requested by either Party, the other Party shall provide in writing, the basis for asserting that the information referred to in this Article 22 warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**22.1.1 Term.** During the term of this LGIA, and for a period of three (3) years after the expiration or termination of this LGIA, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

**22.1.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was

under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this LGIA; or (6) is required, in accordance with Article 22.1.7 of the LGIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this LGIA. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

**22.1.3 Release of Confidential Information.** Neither Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be or considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this LGIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.

**22.1.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**22.1.5 No Warranties.** By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness. In addition, by

supplying Confidential Information, neither Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

**22.1.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this LGIA or its regulatory requirements.

**22.1.7 Order of Disclosure.** If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this LGIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**22.1.8 Termination of Agreement.** Upon termination of this LGIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.

**22.1.9 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.

**22.1.10 Disclosure to FERC, its Staff, or a State.** Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this LGIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this LGIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Party to the LGIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR section 388.112. Requests from a state regulatory body

conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

**22.1.11** Subject to the exception in Article 22.1.10, any information that a Party claims is competitively sensitive, commercial or financial information under this LGIA (“Confidential Information”) shall not be disclosed by the other Party to any person not employed or retained by the other Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this LGIA or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. The Party asserting confidentiality shall notify the other Party in writing of the information it claims is confidential. Prior to any disclosures of the other Party’s Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

### **Article 23. Environmental Releases.**

**23.1** Each Party shall notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Large Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party

copies of any publicly available reports filed with any Governmental Authorities addressing such events.

## **Article 24. Information Requirements**

- 24.1 Information Acquisition.** Distribution Provider and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by Distribution Provider.** The initial information submission by Distribution Provider shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include Distribution System and Transmission System information necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties. On a monthly basis Distribution Provider shall provide Interconnection Customer a status report on the construction and installation of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.
- 24.3 Updated Information Submission by Interconnection Customer.** The updated information submission by Interconnection Customer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. Interconnection Customer shall submit a completed copy of the Large Generating Facility data requirements contained in Appendix 1 to the LGIP. It shall also include any additional information provided to Distribution Provider for the Feasibility and Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Distribution Provider standard models. If there is no compatible model, Interconnection Customer will work with a consultant

mutually agreed to by the Parties to develop and supply a standard model and associated information.

If Interconnection Customer's data is materially different from what was originally provided to Distribution Provider pursuant to the Interconnection Study Agreement between Distribution Provider and Interconnection Customer, then Distribution Provider will conduct appropriate studies to determine the impact on Distribution Provider Distribution System and Transmission System based on the actual data submitted pursuant to this Article 24.3. The Interconnection Customer shall not begin Trial Operation until such studies are completed.

**24.4 Information Supplementation.** Prior to the Trial Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all “as-built” Large Generating Facility information or “as-tested” performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Interconnection Customer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit “step voltage” test on the Large Generating Facility to verify proper operation of the Large Generating Facility’s automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Large Generating Facility’s terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to Distribution Provider for each individual generating unit in a station. Subsequent to the Commercial Operation Date, Interconnection Customer shall provide



Distribution Provider any information changes due to equipment replacement, repair, or adjustment. Distribution Provider shall provide Interconnection Customer any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Distribution Provider-owned substation that may affect Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

## **Article 25. Information Access and Audit Rights.**

- 25.1 Information Access.** Each Party (the “disclosing Party”) shall make available to the other Party information that is in the possession of the disclosing Party and is necessary in order for the other Party to: (i) verify the costs incurred by the disclosing Party for which the other Party is responsible under this LGIA; and (ii) carry out its obligations and responsibilities under this LGIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this LGIA.
- 25.2 Reporting of Non-Uncontrollable Force Events.** Each Party (the “notifying Party”) shall notify the other Party when the notifying Party becomes aware of its inability to comply with the provisions of this LGIA for a reason other than an Uncontrollable Force event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this LGIA.
- 25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this LGIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Party, to audit at its own expense the other Party's accounts

and records pertaining to either Party's performance or either Party's satisfaction of obligations under this LGIA. Such audit rights shall include audits of the other Party's costs, calculation of invoiced amounts, Distribution Provider's efforts to allocate responsibility for interruption or reduction of generation on the Distribution System, and each Party's actions in an Emergency Condition. Any audit authorized by this article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of obligations under this LGIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

#### **25.4 Audit Rights Periods.**

**25.4.1** Audit Rights Period for Construction-Related Accounts and Records. Accounts and records related to the design, engineering, procurement, and construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades shall be subject to audit for a period of twenty-four months following Distribution Provider's issuance of a final invoice in accordance with Article 12.2.

**25.4.2** Audit Rights Period for All Other Accounts and Records. Accounts and records related to either Party's performance or satisfaction of all obligations under this LGIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

**25.5 Audit Results.** If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be

given to the other Party together with those records from the audit which support such determination.

## **Article 26. Subcontractors.**

- 26.1 General.** Nothing in this LGIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this LGIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this LGIA in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.
- 26.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this LGIA. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall Distribution Provider be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this LGIA. Any applicable obligation imposed by this LGIA upon the Hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 26.3 No Limitation by Insurance.** The obligations under this Article will not be limited in any way by any limitation of subcontractor's insurance.

## **Article 27. Disputes.**

- 27.1 Submission.** In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this LGIA or its performance, such Party (the "disputing Party") shall provide the other Party with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within

thirty (30) Calendar Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this LGIA.

**27.2 External Arbitration Procedures.** Any arbitration initiated under this LGIA shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

**27.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this LGIA and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself,

violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

- 27.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

**Article 28. Representations, Warranties, and Covenants.**

- 28.1 General.** Each Party makes the following representations, warranties and covenants:

**28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Large Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this LGIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this LGIA.

**28.1.2 Authority.** Such Party has the right, power and authority to enter into this LGIA, to become a Party hereto and to perform its obligations hereunder. This LGIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**28.1.3 No Conflict.** The execution, delivery and performance of this LGIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

**28.1.4 Consent and Approval.** Such Party has sought or obtained, or, in accordance with this LGIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this LGIA, and it will provide to any Governmental Authority notice of any actions under this LGIA that are required by Applicable Laws and Regulations.

**Article 29. [Reserved]**

**Article 30. Miscellaneous.**

**30.1 Binding Effect.** This LGIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

**30.2 Conflicts.** In the event of a conflict between the body of this LGIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this LGIA shall prevail and be deemed the final intent of the Parties.

**30.3 Rules of Interpretation.** This LGIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this LGIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this LGIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and

Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this LGIA or such Appendix to this LGIA, or such Section to the LGIP or such Appendix to the LGIP, as the case may be; (6) “hereunder”, “hereof”, “herein”, “hereto” and words of similar import shall be deemed references to this LGIA as a whole and not to any particular Article or other provision hereof or thereof; (7) “including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

**30.4 Entire Agreement.** This LGIA, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this LGIA. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party’s compliance with its obligations under this LGIA.

**30.5 No Third Party Beneficiaries.** This LGIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

**30.6 Waiver.** The failure of a Party to this LGIA to insist, on any occasion, upon strict performance of any provision of this LGIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this LGIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation,

right, duty of this LGIA. Termination or Default of this LGIA for any reason by Interconnection Customer shall not constitute a waiver of Interconnection Customer's legal rights to obtain an interconnection from Distribution Provider. Any waiver of this LGIA shall, if requested, be provided in writing.

- 30.7 Headings.** The descriptive headings of the various Articles of this LGIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this LGIA.
- 30.8 Multiple Counterparts.** This LGIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.
- 30.9 Amendment.** The Parties may by mutual agreement amend this LGIA by a written instrument duly executed by the Parties.
- 30.10 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this LGIA by a written instrument duly executed by the Parties. Such amendment shall become effective and a part of this LGIA upon satisfaction of all Applicable Laws and Regulations.
- 30.11 Reservation of Rights.** Distribution Provider shall have the right to make a unilateral filing with FERC to modify this LGIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this LGIA pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this LGIA shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.



**30.12 No Partnership.** This LGIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

**IN WITNESS WHEREOF,** the Parties have executed this LGIA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

**[Insert name of Distribution Provider or Distribution Owner, if applicable]**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **Appendix A to LGIA**

### **Interconnection Facilities, Network Upgrades and Distribution Upgrades**

#### **1. Interconnection Facilities:**

- (a) [insert Interconnection Customer's Interconnection Facilities]:
- (b) [insert Distribution Provider's Interconnection Facilities]:

#### **2. Network Upgrades:**

- (a) [insert Stand Alone Network Upgrades]:
- (b) [insert Other Network Upgrades]:

#### **3. Distribution Upgrades:**

## **Appendix B to LGIA**

### **Milestones**

**Appendix C to LGIA**

**Interconnection Details**

## **Appendix D to LGIA**

### **Security Arrangements Details**

Infrastructure security of Distribution System and Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day Distribution System reliability and operational security. FERC will expect the ISO, all transmission providers, market participants, and interconnection customers interconnected to the Distribution System and Transmission System to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

## **Appendix E to LGIA**

### **Commercial Operation Date**

This Appendix E is a part of the LGIA between Distribution Provider and Interconnection Customer.

[Date]

[Distribution Provider Address]

Re: \_\_\_\_\_ Large Generating Facility

Dear \_\_\_\_\_:

On [Date] [Interconnection Customer] has completed Trial Operation of Unit No. \_\_\_\_.  
This letter confirms that [Interconnection Customer] commenced commercial operation of Unit No. \_\_\_\_ at the Large Generating Facility, effective as of [Date plus one day].

Thank you.

[Signature]

[Interconnection Customer Representative]

## **Appendix F to LGIA**

### **Addresses for Delivery of Notices and Billings**

#### **Notices:**

Distribution Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

#### **Billings and Payments:**

Distribution Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

#### **Alternative Forms of Delivery of Notices (telephone, facsimile or email):**

Distribution Provider:

[To be supplied.]

Interconnection Customer:

[To be supplied.]

## **Appendix G to LGIA**

### **Requirements of Generators Relying on Newer Technologies**

#### **INTERCONNECTION REQUIREMENTS FOR A WIND GENERATING PLANT**

Appendix G sets forth requirements and provisions specific to a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

##### **A. Technical Standards Applicable to a Wind Generating Plant**

###### **i. Low Voltage Ride-Through (LVRT) Capability**

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

##### **Transition Period LVRT Standard**

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three- phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the Distribution Provider. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the



wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the interconnection voltage or “GSU”), after which, if the fault remains following the location-specific normal clearing time for three phase faults, the wind generating plant may disconnect from the electric system.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.

3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.

4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.

5. Existing individual generator units that are, or have been, interconnected the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

### **Post-transition Period LVRT Standard**

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the Distribution Provider. The

maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the electric system. A wind generating plant shall remain interconnected during such a fault on the electric system for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.

3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.

4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.

5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

## **ii. Power Factor Design Criteria (Reactive Power)**

The following reactive power requirements apply only to a newly interconnecting wind generating plant that has executed a Facilities Study Agreement as of the effective date of the Final Rule establishing the reactive power requirements for non-synchronous generators in section 9.6.1 of this LGIA (Order No. 827). A wind generating plant to which this provision applies shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if the Distribution Provider's System Impact Study shows that such a requirement is necessary to ensure safety or reliability. The

power factor range standard can be met by using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by the Distribution Provider, or a combination of the two. The Interconnection Customer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the System Impact Study shows this to be required for system safety or reliability.

**iii. Supervisory Control and Data Acquisition (SCADA) Capability**

The wind plant shall provide SCADA capability to transmit data and receive instructions from the Distribution Provider to protect system reliability. The Distribution Provider and the wind plant Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and electric system reliability in its area.

**ATTACHMENT I:  
Generator Interconnection Procedures (GIP)**

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## **Section 1. Application**

### 1.1 Applicability

1.1.1 The objective of this GIP is to implement the requirements for Generating Facility interconnections to the Distribution System. This GIP applies to all Generating Facilities regardless of size. Please refer to the following sections for applicability and eligibility requirements of the five (5) study processes under this GIP:

- (1) Fast Track Process: Section 2.1
- (2) Independent Study Process (ISP): Section 3.1
- (3) Distribution Group Study Process (DGSP): Section 4.1
- (4) Cluster Study Process (CSP): Section 5.1
- (5) 10kW Inverter Process: Attachment 5

1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of these procedures.

1.1.3 (not used)

1.1.4 Prior to submitting its Interconnection Request (Attachment 2), the Interconnection Customer may ask the Distribution Provider's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The Distribution Provider shall respond within fifteen (15) Business Days.

1.1.5 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Federal Energy Regulatory Commission expects all Distribution and Transmission Providers, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered



by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

- 1.1.6 References in these procedures to “interconnection agreement” or GIA are to the Small Generator Interconnection Agreement (SGIA) unless the proposed interconnection is for a Generating Facility larger than 20 MW, in which case references to interconnection agreement are to the Large Generator Interconnection Agreement (LGIA), or unless the Interconnection Customer is eligible to interconnect under state jurisdiction and elects to opt for a Rule 21 GIA, in which case references to interconnection agreement are to the Rule 21 GIA.

## 1.2 Pre-Application

### 1.2.1 Standard Pre-Application Report

Upon receipt of a completed Pre-Application Report Request and a non-refundable processing fee of \$300, Distribution Provider shall provide pre-application data described in this section within ten (10) Business Days of receipt. The Pre-Application Report Request shall include a proposed Point of Interconnection, generation technology and fuel source. The proposed Point of Interconnection shall be defined by latitude and longitude, site map, street address, utility equipment number (e.g. pole number), meter number, account number or some combination of the above sufficient to clearly identify the location of the Point of Interconnection.

The Standard Pre-Application Report will include the following information if available:

1. Total Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.

2. Allocated Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.
3. Queued Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.
4. Available Capacity (MW) of substation/area bus or bank and circuit most likely to serve proposed site.
5. Substation nominal distribution voltage or transmission nominal voltage if applicable.
6. Nominal distribution circuit voltage at the proposed site.
7. Approximate circuit distance between the proposed site and the substation.
8. Relevant Line Section(s) peak load estimate, and minimum load data, when available.
9. Number of protective devices and number of voltage regulating devices between the proposed site and the substation/area.
10. Whether or not three-phase power is available at the site.
11. Limiting conductor rating from proposed Point of Interconnection to distribution substation.
12. Based on proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
13. Nominal distribution circuit voltage and wiring configuration.

### 1.2.2 Enhanced Pre-Application Report

The Enhanced Pre-Application Report Request shall be submitted in parallel with the Standard Pre-Application Report. Requests that exclude the Standard Pre-Application Report and select only the Enhanced Pre-Application Report package shall be assessed an additional non-refundable fee of \$100.

The Enhanced Pre-Application Report Request shall include a proposed Point of Interconnection, generation technology and fuel source. The proposed Point of Interconnection shall be defined by latitude and longitude, site map, street address, utility equipment number (e.g. pole number), meter number, account number or some combination of the above sufficient to clearly identify the location of the Point of Interconnection.

The information included in the Enhanced Pre-Application Report is dependent upon the data package selected by Interconnection Customer.

#### (i) Primary Service Package

Upon receipt of a completed Enhanced Pre-Application Report Request for Primary Service Package and a non-refundable fee of \$225, and additional \$100 fee if applicable, Distribution Provider shall provide the enhanced pre-application data described in this section within ten (10) Business Days of receipt.

The Primary Service Package will include the following information if available:

1. Relevant line section(s) absolute minimum load and minimum load during the 10 AM – 4 PM period (provided when SCADA data is available).
2. Existing upstream protection including:

- (a) Device type (Fuse Breaker, Recloser)
- (b) Device controller (device make/model ex: 50E/50T)
- (c) Phase settings [IEEE Curve, Lever, Min Trip (A), Inst Trip(A)]
- (d) Ground settings [IEEE Curve, Lever, Min Trip (A), Inst Trip(A)]
- (e) Rated continuous current
- (f) Short Circuit interrupting capability
- (g) Confirm if the device is capable of bi-directional operation

3. Provide the Available Fault Current at the proposed Point of Interconnection including existing distributed generation fault contribution.

### 1.3 Interconnection Request

Any Interconnection Customer for Interconnection to Distribution Provider's Distribution System must submit a complete and valid Interconnection Request via the Distribution Provider's online application process. An Interconnection Request will be considered complete and valid when all items required for an Interconnection Request have been received by Distribution Provider and deemed valid by Distribution Provider along with the receipt of the nonrefundable \$800 Interconnection Request fee and Interconnection Study Deposit as specified in Section 1.6 of this GIP:

After an Interconnection Request is deemed complete and valid, Distribution Provider will proceed to the requested study process unless the Interconnection Request is proposing to interconnect to a substation or circuit common to another Interconnection Request undergoing Interconnection Request validation.

### 1.3.1 Smart Inverter Requirement for Inverter-based Generators

In accordance with UL-1741 Supplement SA, any new Interconnection Requests for inverter-based generation received on or after September 9, 2017, must employ UL-1741 Supplement SA certified Smart Inverters.

Replacement of existing non-smart inverters with a smart inverter is allowed without a new Interconnection Request by mutual agreement between the Interconnection Customer and the Distribution Provider, assuming there are no additional facility changes that might warrant a new interconnection request.

Replacement of an existing non-smart inverter with another equivalent non-smart inverter also is allowed without a new Interconnection Request by mutual agreement between the Interconnection Customer and the Distribution Provider, provided that:

- The replacement inverter has the same rating;
- The replacement inverter has equal or greater functionality;
- The replacement inverter is certified to UL-1741; and
- There are no additional facility changes that might warrant a new Interconnection Request.

### 1.3.2 Acknowledgement of Interconnection Request

Distribution Provider shall provide a first written notification to the Interconnection Customer within ten (10) Business Days of receipt of the Interconnection Request, which notice shall state whether the Interconnection Request is deemed complete and valid.

### 1.3.3 Deficiencies in Interconnection Request

#### **1.3.3.1 First Notification of Deficiency**

If an Interconnection Request fails to meet the requirements, Distribution Provider shall state in its first written notification the reasons for such failure and that the Interconnection Request does not constitute a valid request.

Interconnection Customer shall provide Distribution Provider the additional requested information needed to constitute a complete and valid request within ten (10) Business Days from the date of the first written notification that the Interconnection Request is invalid.

#### **1.3.3.2 Second Notification of Deficiency**

Distribution Provider shall provide a second written notification to Interconnection Customer within ten (10) Business Days of receipt of the additional requested information, stating whether the Interconnection Request is valid or the reasons for any failure.

Interconnection Customer shall provide Distribution Provider the additional requested information needed to constitute a complete and valid request within five (5) Business Days from the date of the second written notification that the Interconnection Request is invalid.

#### **1.3.3.3 Extension Request**

Upon request, Interconnection Customer can receive one extension of up to twenty (20) Business Days to resolve deficiencies in the Interconnection Request.

#### **1.3.3.4 Failure to Resolve Deficiencies**

If Interconnection Customer does not resolve deficiencies in the Interconnection Request within the time frames set out above, Distribution Provider will deem the Interconnection Request withdrawn. Interconnection Customer may submit a new Interconnection Request.

Interconnection Customers with invalid Interconnection Requests under this Section may seek relief under the dispute resolution provisions in Section 6.2 by so notifying Distribution Provider within two (2) Business Days of receipt of the first or second written notification that the Interconnection Request is incomplete and/or invalid.

#### **1.3.4 Assignment of Queue Position**

If there were no deficiencies in the Interconnection Request, the queue position will be based on the date Distribution Provider received the Interconnection Request. If there were deficiencies in the Interconnection Request, the queue position will be based on the date Distribution Provider determines an Interconnection Request to be complete and valid. Should Distribution Provider not meet any deadline for providing the first or second written notification to Interconnection Customer regarding the Interconnection Request, Interconnection Customer's queue position shall be set on the final day of the period in which Distribution Provider was obligated to provide such written notification, provided, however, that Interconnection Customer meets deadlines as set out above to submit any additional information required for a valid Interconnection Request following such written notification, and that Distribution Provider determines that the Interconnection Request is valid. An Interconnection Request for the expansion of capacity of an existing Generating Facility shall be treated the same as an Interconnection Request for a new Generating Facility pursuant to this GIP.

#### 1.4 Modification of the Interconnection Request

Any modification to machine data or equipment configuration or to the interconnection site of the Generating Facility not agreed to in writing by the Distribution Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

#### 1.5 Site Exclusivity

Documentation of Site Exclusivity must be submitted with the Interconnection Request. Site Exclusivity may be demonstrated through:

- 1.5.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility;
- 1.5.2 An option to purchase or acquire a leasehold site for such purpose; or
- 1.5.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

#### 1.6 Study Costs

The following table summarizes the deposits or fees required for each of the Distribution studies. In each case, the Interconnection Customer will be invoiced for the appropriate amount during the application process or as needed between studies. For all Wholesale Distribution study processes described in this procedure, the Interconnection Customer is still responsible for all actual costs to complete the study(-ies) (See Sections 9.5 and 9.6 for more information on this requirement).



**Table 1-1 Interconnection Study Deposits and Fees**

<b>Study Process</b>	<b>Study Type(s)</b>	<b>Application Fee (1)</b>	<b>Study Deposit (2)</b>
Fast Track (Section 2)	Initial Review	\$800	\$1,000 (4)
	Supplemental Review	\$0 (unless not paid for Initial Review)	\$2,500 (4)
Independent Study Process (ISP) (Section 3) For projects <=5 MW (3)	System Impact Study (SIS)	\$800	\$10,000 (4)
	Facility Study (FAS)	\$0 (unless not paid for SIS)	\$15,000 (4)
Independent Study Process (ISP) (Section 3) For projects >5 MW (3)	SIS & FAS Studies	\$800	\$50,000 + \$1,000 / MW, up to \$250,000 (4)
Distribution Group Study Process (DGSP) (Section 4) For projects <=5 MW (3)	Phase I	\$800	\$10,000 (5)
	Phase II	\$0	\$15,000 (5)
Distribution Group Study Process (DGSP) (Section 4) For projects >5 MW (3)	Phase I & Phase II studies	\$800	\$50,000 + \$1,000 / MW, up to \$250,000 (5)
Cluster Study Process (CSP) (Section 5)	Phase 1 & Phase 2 Study	\$800	\$50,000 + \$1,000 / MW up to \$250,000 (4)
10 kW Inverter Process (Attachment 5)		\$100	---
<b>Deliverability Capacity Studies (Section 5)</b>			
Full Capacity Deliverability Assessment (FCDS)	Phase 1 & Phase 2 Studies	\$0 (paid as part of ISP, DGSP, or CSP application)	\$50,000 deposit (4)
Annual Full Capacity Deliverability Assessment (AFCDS)	Annual Study Process	\$800	\$10,000 fee (6)
Distributed Generation Deliverability (DGD)	Annual Assessment	\$0	\$0

**Table 1-1 Notes:**

(1) All Application Fees are non-refundable.

- (2) Per Sections 9.5 and 9.6, the Interconnection Customer is responsible for actual costs required to perform the study. The Interconnection Study Deposit amounts shown are upfront payments to initiate the study processes.
- (3) Project size is determined based on Section 6.10 of this tariff.
- (4) Refundable study deposit depending on actual study costs incurred.
- (5) Conditionally refundable study deposit – see Section 4 “Distribution Group Study Process” of this GIP.
- (6) The AFCDS study fee is a one-time, non-refundable payment. There are no additional study costs charged to the customer.

## **Section 2. Fast Track Process**

### **2.1 Applicability**

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its certified Generating Facility with the Distribution Provider's Distribution System if the Generating Facility's capacity does not exceed the size limits identified in the table below. Generating Facilities below these limits are eligible for Fast Track review. However, Fast Track eligibility is distinct from the Fast Track Process itself, and eligibility does not imply or indicate that a Generating Facility will pass the Fast Track screens in section 2.2.1 below or the Supplemental Review screens in section 2.4 below.

Fast Track eligibility is determined based upon the generator type, the size of the generator, and voltage of the line. All Generating Facilities connecting to lines greater than 69 kilovolt (kV) are ineligible for the Fast Track Process regardless of size. All synchronous and induction machines must be less than or equal to 2 MW to be eligible for the Fast Track Process, regardless of location. For certified inverter-based systems, the size limit varies according to the voltage of the line at the proposed Point of Interconnection. Certified inverter-based Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) are eligible for the Fast Track Process under the higher thresholds according to the table below. Interconnection Customers seeking to use the greater size limits for Certified inverter-based Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) must first request a Pre-Application report per Section 1.2 above to determine the electrical circuit distance

between the proposed POI and the substation that will serve that Generating Facility. The screens in section 2.2 provide the actual capacity limits for each Interconnection Request. In addition to the size threshold, the Interconnection Customer's proposed Generating Facility must meet the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the Distribution Provider has reviewed the design or tested the proposed Generating Facility and is satisfied that it is safe to operate. All Generating Facilities interconnected under the Fast Track Process will have Energy Only deliverability status. Entities may apply for full capacity using the Additional Deliverability Assessment Options under Section 4.22.

No changes may be made to the planned Point of Interconnection or Generating Facility machine data, equipment configuration or generation size identified in the original Interconnection Request during the Fast Track Process, unless such changes are suggested and agreed to by the Distribution Provider. Where agreement has not been reached, Interconnection Customers choosing to change the Point of Interconnection or Generating Facility size must withdraw the current project and submit a new Interconnection Request for the new project configuration. If the Interconnection Customer makes changes to any of these items without agreement from the Distribution Provider, the Interconnection Request will be deemed withdrawn.

**Table 2-1 Fast Track Eligibility for Smart Inverter-Based Systems**

Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline <sup>1</sup> and $\leq 2.5$ Electrical Circuit Miles from Substation <sup>2</sup>
$< 5$ kV	$\leq 500$ kW	$\leq 500$ kW
$\geq 5$ kV and $< 15$ kV	$\leq 2$ MW	$\leq 3$ MW
$\geq 15$ kV and $< 30$ kV	$\leq 3$ MW	$\leq 4$ MW
$\geq 30$ kV and $\leq 69$ kV	$\leq 4$ MW	$\leq 5$ MW

<sup>1</sup>For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil and 795 kcmil.

<sup>2</sup>An Interconnection Customer must determine this information about its proposed

interconnection location in advance by requesting a pre-application report pursuant to section 1.2.

## 2.2 Initial Review

Upon receipt of a complete and valid Interconnection Request pursuant to Section 1.3, Distribution Provider shall perform Initial Review using the process in Section 2.2.1. The Initial Review determines if (i) the Generating Facility qualifies for Fast Track Interconnection through Initial Review, or (ii) the Generating Facility requires a Supplemental Review. Absent extraordinary circumstances, Distribution Provider shall notify Interconnection Customer in writing of the results of Initial Review within fifteen (15) Business Days following validation of an Interconnection Request.

The Interconnection Customer shall be responsible for the Distribution Provider's actual costs for conducting the Initial Review. The Interconnection Request fee will be applied toward the costs for conducting the Initial Review. The Interconnection Customer must pay any review costs that exceed the Interconnection Request fee within thirty (30) Calendar Days of receipt of the invoice or resolution of any dispute. Failure to submit payment for any costs in excess of the Interconnection Study Deposit will result in the withdrawal of the Interconnection Request as well as the termination of any agreements with the Interconnection Customer. If the deposit exceeds the invoiced costs, the Distribution Provider will return such excess within thirty (30) Calendar Days of the invoice with interest.

### 2.2.1 Screens

2.2.1.1 The proposed Generating Facility's Point of Interconnection must be on a portion of the Distribution Provider's Distribution System that is subject to the Tariff.

2.2.1.2 For interconnection of a proposed Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation. A line

section is that portion of a Distribution Provider's Distribution System connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

2.2.1.3 For interconnection of a proposed Generating Facility to the load side of Spot Network protectors, the proposed Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of a spot network's maximum load or 50 kW<sup>FN-1</sup> to ensure continuous import of power. Under no condition shall the interconnection of a Generating Facility result in a backfeed of a spot network or cause unnecessary operation of any Spot Network protectors.

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FN-1 A Spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11th edition, Donald Fink, McGraw Hill Book Company

2.2.1.4 The proposed Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 % to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

2.2.1.5 The proposed Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

2.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for

creating over-voltages on the Distribution Provider's Distribution System due to a loss of ground during the operating time of any anti-islanding function.

<b>Primary Distribution Line</b>	<b>Type of Interconnection to Primary Distribution Line</b>	<b>Result/Criteria Type</b>
Three-phase, three wire	3-phase or single phase, phase to phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single phase line-to-neutral	Pass screen

2.2.1.7 If the proposed Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Generating Facility, shall not exceed the service transformer or secondary conductor rating.

2.2.1.8 If the proposed Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20 % of the nameplate rating of the service transformer.

2.2.1.9 The Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

2.2.1.10 No construction of facilities by the Distribution Provider on its own system shall be required to accommodate the Generating Facility.

2.2.2 For Interconnection Requests that pass Initial Review and do not require Interconnection Facilities or Distribution Upgrades, Distribution Provider shall tender a draft Generator Interconnection Agreement (GIA), together with draft

appendices, within fifteen (15) Business Days of providing notice of Initial Review results.

For Interconnection Requests that pass Initial Review but do require Interconnection Facilities or Distribution Upgrades, Distribution Provider shall provide Interconnection Customer with a non-binding cost estimate of the Interconnection Facilities or Distribution Upgrades within fifteen (15) Business Days of providing Initial Review results. Following the receipt of a cost estimate for any Distribution Upgrades and/or Interconnection Facilities that have been identified, Interconnection Customer shall notify Distribution Provider within fifteen (15) Business Days whether Interconnection Customer: (i) requests a GIA (see Section 2.6), or (ii) withdraws its Interconnection Request. Interconnection Customer may request one extension of no more than fifteen (15) Business Days to respond. If Interconnection Customer fails to notify Distribution Provider within fifteen (15) Business Days, or at the end of the extension, if one was requested, the Interconnection Request shall be deemed withdrawn. If Interconnection Customer elects to proceed to the Generator Interconnection Agreement, Distribution Provider shall tender a draft GIA, together with draft appendices, within fifteen (15) Business Days of Interconnection Customer's request.

### 2.3 Optional Initial Review Results Meeting

For all Interconnection Requests that pass Initial Review, refer to Section 2.2.2 for next steps in this study process.

For Interconnection Requests that fail one or more Initial Review screens, the Distribution Provider shall provide notice to the Interconnection Customer of the technical reason, data and analysis supporting the Initial Review results in writing. Interconnection Customer shall notify Distribution Provider within ten (10) Business Days following such notification whether to (i) proceed to an Initial Review Results Meeting, (ii) proceed to Supplemental Review, or (iii) withdraw the Interconnection

Request. Interconnection Customer may request one extension of no more than ten (10) Business Days to respond.

If Interconnection Customer fails to provide a decision to the Distribution Provider within ten (10) Business Days of notification to the Interconnection Customer of the Initial Review results, or at the end of the extension, if one was requested, the Interconnection Request shall be deemed withdrawn.

Within five (5) Business Days of Interconnection Customer's request for an Initial Review Results Meeting, Distribution Provider shall contact Interconnection Customer and offer to convene a meeting at a mutually acceptable time to review the Initial Review screen analysis and related results to determine what modifications, if any, may permit the Generating Facility to be connected safely and reliably without Supplemental Review.

If, during the Initial Review Results Meeting, the Interconnection Customer and the Distribution Provider identify and agree to mitigations or modifications that obviate the need for Supplemental Review and if no Interconnection Facilities or Distribution Upgrades are required, the Distribution Provider shall provide the Interconnection Customer with a Generator Interconnection Agreement in accordance with Section 2.6 of this GIP . If Interconnection Facilities or Distribution Upgrades are required, Distribution Provider shall provide the Interconnection Customer with a non-binding cost estimate of any Interconnection Facilities or Distribution Upgrades within fifteen (15) Business Days of the Initial Review results meeting. Interconnection Customer shall notify Distribution Provider within ten (10) Business Days following such notification whether to (i) proceed to a GIA, (ii) proceed to Supplemental Review, or (iii) withdraw the Interconnection Request.

If the Interconnection Customer and Distribution Provider are unable to identify or agree to modifications that enable the Interconnection Request to pass Initial Review, the Interconnection Customer shall notify Distribution Provider within ten (10) Business Days of the Initial Review results meeting whether it would like to proceed with Supplemental Review or withdraw its Interconnection Request.



If Interconnection Customer fails to notify Distribution Provider, within ten (10) Business Days of the Initial Review results meeting, the Interconnection Request shall be deemed withdrawn.

If the Interconnection Customer requests to proceed to Supplemental Review, the Distribution Provider shall provide a Supplemental Review agreement and an invoice for the study deposit to the Interconnection Customer within ten (10) Business Days. The Interconnection Customer shall execute the agreement and complete payment of the deposit within ten (10) Business Days of invoice delivery.

2.3.1 (not used)

2.3.2 (not used)

2.3.3 (not used)

2.3.4 (not used)

## 2.4 Supplemental Review

If Interconnection Customer requests a Supplemental Review and submits to the Distribution Provider an executed Supplemental Review agreement and deposit, Distribution Provider shall complete Supplemental Review using the screens set forth below, notify in writing the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Distribution Provider's determinations under the screens within twenty (20) Business Days, absent extraordinary circumstances, following authorization and receipt of the Supplemental Review agreement or study deposit, whichever is later.

The Supplemental Review will determine if (i) the Generating Facility qualifies for Fast Track Interconnection, or (ii) the Generating Facility requires further study in either the Independent Study Process or Cluster Study Process. The Interconnection Customer may specify the order in which the Distribution Provider will complete the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any

of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the Distribution Provider shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in section 2.4.1, within two (2) Business Days of making such determination to obtain the Interconnection Customer's permission to: (1) continue evaluating the proposed interconnection under this section 2.4; (2) terminate the supplemental review and continue evaluating the Generating Facility under the Independent Study Process (see Section 3.0 of this GIP); or (3) terminate the supplemental review upon voluntary withdrawal of the Interconnection Request by the Interconnection Customer.

The Interconnection Customer shall be responsible for the Distribution Provider's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within thirty (30) Calendar Days of receipt of the invoice or resolution of any dispute. Failure to submit payment for any costs in excess of the Interconnection Study Deposit will result in the withdrawal of the Interconnection Request as well as the termination of any agreements with the Interconnection Customer. If the deposit exceeds the invoiced costs, the Distribution Provider will return such excess within thirty (30) Calendar Days of the invoice with interest.

For Interconnection Requests that pass Supplemental Review and do not require Interconnection Facilities or Distribution Upgrades, Distribution Provider shall tender a draft GIA, together with draft appendices, within fifteen (15) Business Days of providing notice of Supplemental Review results. Refer to Section 2.6 of this GIP for information about completing the GIA.

For Interconnection Requests that pass Supplemental Review and do require Interconnection Facilities or Distribution Upgrades, the Distribution Provider shall provide Interconnection Customer with a non-binding cost estimate of any Interconnection Facilities or Distribution Upgrades within fifteen (15) Business Days of providing notice of Supplemental Review results. For all Interconnection Requests that

pass Supplemental Review, refer to Section 2.6 of this GIP for information about completing the GIA.

For Interconnection Requests that fail Supplemental Review, Distribution Provider shall provide the technical reason, data and analysis supporting the Supplemental Review results in writing, including, if Distribution Provider can make the determination, which additional study process Interconnection Customer qualifies for, and provide Interconnection Customer the option to attend a Supplemental Review Results Meeting or proceed directly to the Independent Study Process or Cluster Study Process. Interconnection Customer shall notify Distribution Provider within fifteen (15) Business Days following such notification whether to (i) proceed to a Supplemental Review Results Meeting, (ii) proceed to Independent Study Process, Distribution Group Study Process, or Cluster Study Process (held for next window), or (iii) voluntarily withdraw the Interconnection Request. Interconnection Customer may request one extension of no more than fifteen (15) Business Days to respond.

If Interconnection Customer fails to notify Distribution Provider within fifteen (15) Business Days of such notification, or at the end of the extension, if one was requested, the Interconnection Request shall be deemed withdrawn.

2.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed Generating Facility) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line section bounded by automatic sectionalizing devices upstream of the proposed Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the Distribution Provider shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 2.4.

- 2.4.1.1 The type of generation used by the proposed Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 2.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.
- 2.4.1.2 When this screen is being applied to a Generating Facility that serves some station service load, only the net injection into the Distribution Provider's electric system will be considered as part of the aggregate generation.
- 2.4.1.3 Distribution Provider will not consider as part of the aggregate generation for purposes of this screen generating facility capacity known to be already reflected in the minimum load data.
- 2.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.
- 2.4.3 Safety and Reliability Screen: The location of the proposed Generating Facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Distribution Provider shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

- 2.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customer).
- 2.4.3.2 Whether the loading along the line section is uniform or even.
- 2.4.3.3 Whether the proposed Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a Mainline rated for normal and emergency ampacity.
- 2.4.3.4 Whether the proposed Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.
- 2.4.3.5 Whether operational flexibility is reduced by the proposed Generating Facility, such that transfer of the line section(s) of the Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.
- 2.4.3.6 Whether the proposed Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

## 2.5 Optional Supplemental Review Results Meeting

Within five (5) Business Days of Interconnection Customer's request for a Supplemental Review Results Meeting, Distribution Provider shall contact Interconnection Customer and offer to convene a meeting at a mutually acceptable time to review the Supplemental Review screen analysis and related results to determine what modifications, if any, may

permit the Generating Facility to be connected safely and reliably without the need to proceed to the Independent Study Process or Cluster Study Process.

If modifications that obviate the need to proceed to the Independent Study Process or Cluster Study Process are identified and Interconnection Customer and Distribution Provider agree to such modifications, Distribution Provider shall tender a draft GIA, together with draft appendices, within fifteen (15) Business Days of the Supplemental Review Results Meeting if no Interconnection Facilities or Distribution Upgrades are required. If Interconnection Facilities or Distribution Upgrades are required, Distribution Provider shall provide Interconnection Customer with a non-binding cost estimate of any Interconnection Facilities or Distribution Upgrades within fifteen (15) Business Days of the Supplemental Review Results Meeting. For all Interconnection Requests that pass Supplemental Review, refer to Section 2.6 for completing the GIA

If Interconnection Customer and Distribution Provider are unable to identify or agree to modifications that enable the Interconnection Request to pass Supplemental Review, Interconnection Customer shall notify Distribution Provider within twenty (20) Business Days of the Supplemental Review Results Meeting whether it would like to proceed to Independent Study Process, Distribution Group Study Process, Cluster Study Process (next window), or withdraw its Interconnection Request. If the Interconnection Customer proceeds to Independent Study Process, Distribution Group Study Process, or Cluster Study Process, the original Interconnection Request cannot be modified until the chosen Interconnection Study Process allows. Interconnection Customer may request one extension of no more than twenty (20) Business Days to respond. If Interconnection Customer fails to notify Distribution Provider within twenty (20) Business Days of the Supplemental Review Results Meeting, or at the end of the extension, if one was requested, the Interconnection Request shall be deemed withdrawn.

If the Interconnection Customer that elects to proceed to Independent Study Process, Distribution Group Study Process, or Cluster Study Process, the Interconnection

Customer shall provide the applicable study deposit set forth in Section 3.2.1 for Independent Study Process, Section 4.1 for Distribution Group Study Process, and Section 5.2 for Cluster Study Process, within twenty (20) Business Days.

## 2.6 Generator Interconnection Agreement (GIA)

### 2.6.1 Tender

If Interconnection Customer elects to proceed to a Generator Interconnection Agreement, Distribution Provider shall tender a draft GIA, together with draft appendices, within fifteen (15) Business Days of Interconnection Customer's request.

### 2.6.2 Negotiation

Upon receipt of a draft GIA, Interconnection Customer has ninety (90) Calendar Days to sign and return the GIA. Interconnection Customer shall provide written comments, or notification of no comments, to the draft GIA and appendices within thirty (30) Calendar Days. At the request of Interconnection Customer, Distribution Provider shall begin negotiations with Interconnection Customer at any time after Distribution Provider provides Interconnection Customer with the draft GIA, which contains in its appendices the cost estimate for any Distribution Upgrades and/or Interconnection Facilities that have been identified by Distribution Provider. Distribution Provider and Interconnection Customer shall negotiate concerning the cost estimate, or any disputed provisions of the appendices to a draft GIA, for not more than ninety (90) Calendar Days after Distribution Provider provides Interconnection Customer with the GIA.

If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations and initiate Dispute Resolution procedures pursuant to Section 6.2. If Interconnection Customer fails to sign the GIA or initiate Dispute Resolution within ninety (90) Calendar Days, the Interconnection Request shall be deemed withdrawn.

### 2.6.3 Execution and Filing

Interconnection Customer shall either: (i) execute two originals of the tendered GIA and return them to Distribution Provider; or (ii) request in writing that Distribution Provider file with FERC a GIA in unexecuted form. As soon as practicable, Distribution Provider shall file the unexecuted GIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Distribution Provider disagree and support for the costs that Distribution Provider proposes to charge to Interconnection Customer under the GIA. An unexecuted GIA should contain terms and conditions deemed appropriate by Distribution Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed upon terms of the unexecuted GIA, they may proceed pending FERC action.

Interconnection Customer retains financial responsibility for any Interconnection Facilities, Distribution Upgrades, or Network Upgrades determined by subsequent engineering or study work , such as final engineering and design work, or other future operational or other technical study, such as to identify and determine the cost of any Distribution Provider's Interconnection Facilities required by the Generating Facility, or of short circuit duty-related Reliability Network Upgrades as assigned to the Interconnection Request during the Fast Track Process as set forth in Section 2, that are attributable to the Interconnection Request. If future engineering or other study work determines that the Interconnection Customer is financially responsible for Interconnection Facilities, Distribution Upgrades, or Network Upgrades identified in these future studies, the GIA will be amended to assign the Interconnection Customer financial responsibility for such facilities and upgrades.



## **Section 3. Independent Study Process**

### 3.1 Applicability

The Independent Study Process shall be used by an Interconnection Customer proposing to interconnect its Generating Facility with the Distribution Provider's Distribution System if the proposed Generating Facility passes the electrical independence screen to qualify for the Independent Study Process.

#### 3.1.1 Independent Study Process Screen

To qualify for inclusion under the Independent Study Process, an Interconnection Customer must pass the electrical independence screen:

The Distribution Provider will determine whether an Interconnection Request can be eligible for study under the Independent Study Process by performing the Electrical Independence Test. The Electrical Independence Test for Interconnection Requests proposing to interconnect to the Distribution System will consist of two parts, (1) the determination of electrical independence for the ISO Grid, and (2) an evaluation by the Distribution Provider of known or reasonably anticipated, in the engineering judgment of the Distribution Provider, relationships to yet-to-be completed Interconnection Studies of earlier queued Generating Facilities to which the Generating Facility under consideration for the Electrical Independence Test is electrically related. The Interconnection Request must pass the determination of electrical independence for the ISO Grid, as well as the Distribution Provider's evaluation of electrical independence for the Distribution System in order to be eligible for the Independent Study Process.

##### 3.1.1.1 The Determination of Electrical Independence for the ISO Grid

If the Interconnection Request to the Distribution System is of sufficient MW size to be reasonably anticipated, in the engineering judgment of the Distribution Provider in consultation with the ISO, to require or contribute to the need for Network Upgrades, Distribution Provider will perform (or

request that the ISO perform) the incremental power flow, and aggregate power flow, tests as set forth in the ISO Tariff, or any successor provision. If the Interconnection Request does not pass the ISO Grid incremental power flow, aggregate power flow, and short-circuit duty tests, then it fails the evaluation of electrical independence for the ISO Grid.

If Distribution Provider does not reasonably anticipate, in the engineering judgment of the Distribution Provider, to require or contribute to the need for Network Upgrades, then the Interconnection Request will be deemed to have passed the determination of electrical independence for the ISO Grid, and will be separately evaluated by Distribution Provider, as set forth in Section 3.1.1.2.

In the event that the Interconnection Request fails the determination of electrical independence for the ISO Grid, the Interconnection Request will be required to enter into the Cluster Study Process as set forth in GIP Section 5 or withdraw.

#### 3.1.1.2 The Distribution Provider evaluation of Electrical Independence for the Distribution System

Distribution Provider will evaluate each Interconnection Request for known or reasonably anticipated, in the engineering judgment of the Distribution Provider, relationships between the Interconnection Request and any earlier-queued Interconnection Requests in the Fast Track Process, the Independent Study Process, the Cluster Study Process, any predecessor interconnection procedures, or under Rule 21, that have yet to complete their respective studies or reviews. Distribution Provider will use existing Interconnection Studies, Base Case Data, overall system knowledge, and engineering judgment to determine whether an Interconnection Request can be studied independently of earlier-queued Interconnection Requests. If the Interconnection Request being evaluated

for electrical independence on the Distribution System may be related to earlier-queued Generating Facilities that have yet to complete their respective studies or reviews, then it fails the evaluation of electrical independence for the Distribution System.

In the event that the Interconnection Request passes the determination of electrical independence for the ISO Grid, but does not pass the determination of electrical independence for the Distribution System, the Interconnection Request will be required to enter into the Distribution Group Study Process as set forth in GIP Section 4 or withdraw.

3.1.1.3 The Distribution Provider will inform an Interconnection Customer whether it has satisfied the requirements set forth in Section 3.1.1 within twenty (20) Business Days from deeming the Interconnection Request complete pursuant to Section 1.3. Any Interconnection Request that does not satisfy the criteria set forth in Section 3.1.1 shall be given the option of entering into the Distribution Group Study Process or Cluster Study Process (as applicable). The Interconnection Customer shall inform the Distribution Provider within 15 BD of the notification of failure of the Electrical Independence Test of its choice to enter the Distribution Group Study Process or Cluster Study Process. If the Interconnection Customer fails to inform the Distribution Provider of their decision within the timeframe above, the Interconnection Request will be deemed withdrawn.

An Interconnection Request that fails the Electrical Independence Test, including either the ISO test for independence under GIP Section 3.1.1.1 or the Distribution Provider test for independence under Section 3.1.1.2, will be required to wait until the next Distribution Group Study Window, Cluster Window, or twelve (12) months from the date the Interconnection Customer was informed of the failure of the Electrical Independence Test to resubmit an Interconnection Request within a similar Point of Interconnection, unless all of the relevant studies or reviews have been

completed for the queued-ahead Interconnection Requests that were the cause of the Interconnection Request failing the Section 3.1.1.2 test. A similar Point of Interconnection is any Point of Interconnection that would be electrically related to the original Interconnection Request that failed the Electrical Independence Test.

## 3.2 Processing of Interconnection Request

### 3.2.1 Initiating an Interconnection Request

To initiate an Interconnection Customer under the Independent Study Process, Interconnection Customer must submit all of the following:

- (i) A nonrefundable \$800 Interconnection Request fee and Interconnection Study Deposit:

For a Generating Facility with a Gross Nameplate Rating of 5 MW or less, Interconnection Customer must submit an Interconnection Study Deposit of \$10,000 for the Interconnection System Impact Study, and where an Interconnection Facilities Study is required, an additional \$15,000 deposit must be submitted pursuant to Section 3.6.1;

For a Generating Facility with a Gross Nameplate Rating above 5 MW, Interconnection Customer must submit an Interconnection Study Deposit equal to \$50,000 plus \$1,000 per MW of electrical output of the Generating Facility, or the increase in electrical output of the existing Generating Facility, as applicable, rounded up to the nearest whole megawatt, up to a maximum of \$250,000;

- (ii) A completed Interconnection Request in the form of Appendix 1, including requested deliverability status, preferred Point of Interconnection and voltage level, and all other technical data; and

- (iii) Demonstration of Site Exclusivity. The demonstration of Site Exclusivity, at a minimum, must be through the Commercial Operation Date of the new Generating Facility or increase in capacity of the existing Generating Facility.

### 3.2.2 Use of Interconnection Study Deposit

The Interconnection Study Deposit shall be applied to pay for prudent costs incurred by the Distribution Provider, the ISO, or third parties at the direction of the Distribution Provider or ISO, as applicable, to perform and administer the Interconnection Studies. The Interconnection Study Deposits shall be refundable as follows:

- (i) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the Distribution Provider by written notice under GIP Section 9.1 on or before thirty (30) Calendar Days following the Scoping Meeting, the Distribution Provider shall refund to the Interconnection Customer any portion of the Interconnection Customer's Interconnection Study Deposit that exceeds the costs the Distribution Provider, ISO, and third parties have incurred on the Interconnection Customer's behalf, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).
- (ii) Should an Interconnection Request made under GIP Section 3.2.1 be withdrawn by the Interconnection Customer or be deemed withdrawn by the Distribution Provider by written notice under GIP Section 9.1 more than thirty (30) Calendar Days after the Scoping Meeting, but on or before thirty (30) Calendar Days following the Results Meeting (or the latest date permitted under this GIP for a Results Meeting if an Interconnection Customer elects not to have a Results Meeting) for the Interconnection

System Impact Study, the Distribution Provider shall refund to the Interconnection Customer the greater of the difference between the costs the Distribution Provider, ISO, and third parties have incurred on the Interconnection Customer's behalf or one-half of the original Interconnection Study Deposit up to a maximum of \$100,000, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

- (iii) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the Distribution Provider by written notice under GIP Section 9.1 at any time more than thirty (30) Calendar Days after the Results Meeting (or the latest date permitted under this GIP for a Results Meeting if an Interconnection Customer elects not to have a Results Meeting) for the Interconnection System Impact Study, the Interconnection Study Deposit shall be nonrefundable.
- (iv) Upon execution of a GIA by an Interconnection Customer and the Distribution Provider, or the approval by FERC of an unexecuted GIA, the Distribution Provider shall refund to the Interconnection Customer any portion of the Interconnection Customer's Interconnection Study Deposit that exceeds the costs the Distribution Provider, ISO, and third parties have incurred on the Interconnection Customer's behalf, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

Notwithstanding the foregoing, an Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall be obligated to pay to the Distribution Provider all costs in excess of the Interconnection Study

Deposit that have been prudently incurred or irrevocably have been committed to be incurred with respect to that Interconnection Request prior to withdrawal. The Distribution Provider will reimburse the ISO or third parties, as applicable, for all work performed on behalf of the withdrawn Interconnection Request at the Distribution Provider's direction. The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results. Any proceeds of the Interconnection Study Deposit not otherwise reimbursed to the Interconnection Customer or applied to costs incurred or irrevocably committed to be incurred for the Interconnection Studies shall be remitted to the ISO and treated in accordance with ISO Tariff Section 37.9.4., or any successor tariff.

### 3.3 Scoping Meeting

- 3.3.1 A Scoping Meeting will be scheduled within ten (10) Business Days after the Interconnection Request is deemed complete pursuant to Section 1.3 and is deemed to have passed the electrical independence screen, or as otherwise mutually agreed to by the Parties. The Distribution Provider and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.
- 3.3.2 The purpose of the Scoping Meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties shall further discuss whether the Distribution Provider should perform an Interconnection System Impact Study, or proceed directly to an Interconnection Facilities Study, or an interconnection agreement. If the Parties agree that an Interconnection System Impact Study should be performed, the Distribution Provider shall provide the Interconnection Customer, as soon as possible, but not later than fifteen (15) Business Days after the Scoping Meeting, an Interconnection System Impact Study agreement (Attachment 7) including an outline of the scope of the study.

3.3.3 The Scoping Meeting may be omitted by mutual agreement. Within five (5) Business Days following the Scoping Meeting, or after the Interconnection Request has been deemed complete if Scoping Meeting is omitted, the Interconnection Customer shall designate the Point of Interconnection for the Interconnection System Impact Study otherwise, Distribution Provider shall use the information provided in the Interconnection Request. The Distribution Provider shall provide the Interconnection Customer, no later than fifteen (15) Business Days after the Scoping Meeting or after the Interconnection Request has been deemed complete if Scoping Meeting is omitted, an Interconnection System Impact Study agreement including an outline of the scope of the study. In order to remain in consideration for interconnection, an Interconnection Customer must return the executed Interconnection System Impact Study (Attachment 7) agreement within thirty (30) Business Days after the Distribution Provider provides the Interconnection Customer with the Interconnection System Impact Study agreement. In the case where one or both Interconnection Studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.

#### 3.4 Request for Full Capacity Deliverability Under The Independent Study Process

Unless specified otherwise in the Interconnection Request, Generating Facilities studied under the Independent Study Process will be assumed to have selected Energy-Only Deliverability Status. If an Interconnection Customer requests Full Capacity Deliverability Status in its Interconnection Request for the Independent Study Process, the Generating Facility will initially be studied in the Independent Study Process as Energy-Only Deliverability Status. The Deliverability Assessment for Interconnection Requests in the Independent Study Process that request Full Capacity Deliverability Status will be performed in conjunction with the next available Cluster Study Process pursuant to Section 5.8.3 of this GIP, or as part of the additional Deliverability Assessment options as set forth in Section 5.22 of this GIP.



### 3.5 Interconnection System Impact Study

- 3.5.1 An Interconnection System Impact Study shall identify and detail the electric system impacts that would result if the proposed Generating Facility were interconnected without project modifications or electric system modifications or to study potential impacts, including but not limited to those identified in the Scoping Meeting. An Interconnection System Impact Study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.
- 3.5.2 If potential Adverse System Impacts on the Distribution System are identified in the Scoping Meeting, an Interconnection System Impact Study must be performed. The Distribution Provider shall send the Interconnection Customer an Interconnection System Impact Study agreement pursuant to Section 3.3.
- 3.5.3 In order to remain under consideration for interconnection, the Interconnection Customer must return executed Interconnection System Impact Study agreements pursuant to Section 3.3.3.
- 3.5.4 The scope of and cost responsibilities for an Interconnection System Impact Study are described in the attached Interconnection System Impact Study agreement.
- 3.5.5 Where Transmission Systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") – whether investor-owned or not – the Interconnection Customer may apply to the nearest transmission provider (transmission owner, regional transmission operator, or independent transmission provider) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.
- 3.5.6 Once the required Interconnection System Impact Study is completed, an Interconnection System Impact Study report shall be prepared and transmitted to the Interconnection Customer. The Interconnection Customer shall request a results meeting within ten (10) Business Days of the issuance of the System

Impact Study Report. This Results Meeting shall be held among the Distribution Provider, the ISO, if applicable, and the Interconnection Customer to discuss the results of the Interconnection System Impact Study, including assigned cost responsibility. Within five (5) Business Days of such request, Distribution Provider shall contact Interconnection Customer to establish a date agreeable to Interconnection Customer, Distribution Provider and the ISO, if applicable, for the Results Meeting.

If the Interconnection Customer does not request a results meeting within the time specified above, the results meeting will be deemed waived.

Within either (i) five (5) Business Days following the results meeting, or (ii) within twenty-five (25) Business Days of the transmittal of the Interconnection System Impact Study report to the Interconnection Customer, the Distribution Provider will provide to the Interconnection Customer an Interconnection Facilities Study agreement and an invoice to perform the Interconnection Facilities Study for Generating Facilities with gross nameplate rating of 5MW or less. In the case where one or both Interconnection Studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.

### 3.5.7 Initial Posting of Interconnection Financial Security

The Interconnection Customer shall make its initial posting of Interconnection Financial Security in accordance with the requirements of Section 6.9 of this GIP, or its Interconnection Request shall be deemed withdrawn.

### 3.5.8 Modifications in Between the Interconnection System Impact Study and Interconnection Facilities Study

At any time during the course of the Interconnection Studies, the Interconnection Customer, the Distribution Provider, or the ISO, as applicable, may identify changes to the planned interconnection that may improve the costs and benefits,

including reliability, of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the Distribution Provider, the ISO, as applicable, and Interconnection Customer, such acceptance not to be unreasonably withheld, Distribution Provider shall modify the Point of Interconnection and/or configuration in accordance with such changes without altering the Interconnection Request's eligibility for participating in Interconnection Studies.

At the Interconnection System Impact Study Results Meeting, the Interconnection Customer should be prepared to discuss any desired modifications to the Interconnection Request. After the Distribution Provider issues the Interconnection System Impact Study, but no later than five (5) Business Days following the Interconnection System Impact Study Results Meeting, the Interconnection Customer shall submit to Distribution Provider, in writing, modifications to any information provided in the Interconnection Request. The Distribution Provider will forward the Interconnection Customer's request for modification to the ISO, if applicable, within two (2) Business Days of receipt.

Modifications permitted under this Section shall include specifically: (a) a decrease in the electrical output (MW) of the proposed project; (b) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. As the Interconnection Requests in the Independent Study Process are studied as Energy-Only Deliverability Status for purposes of the Interconnection System Impact Study and the Interconnection Facilities Study, and the Deliverability Assessment is performed only as part of the next available Cluster Study Process, there is no ability for the Interconnection Customer to switch from Full Capacity Deliverability Status to Energy-Only Deliverability Status in between the Interconnection System Impact Study and Interconnection Facilities Study.

If the proposed modification is determined to be a Material Modification, the Interconnection Customer may either withdraw the proposed modification or proceed with a new Interconnection Request for such modification.

Interconnection Customer shall make such determination within ten (10) Business Days after being provided the Material Modification determination results.

For any other modification, the Interconnection Customer may first request that Distribution Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Distribution Provider, in coordination with the ISO and any Affected System Operator, if applicable, shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except for that specified by the Distribution Provider in an Interconnection Study or otherwise allowed under this GIP Section 3.5.8, shall constitute a Material Modification. Interconnection Customer may then either withdraw the proposed modification or proceed with a new Interconnection Request for such modification. The Interconnection Customer shall remain eligible to proceed with the Facilities Study if the modifications are in accordance with this Section 3.5.8.

### 3.6 Interconnection Facilities Study

- 3.6.1 In order to remain under consideration for interconnection, or, as appropriate, in the Distribution Provider's interconnection queue, the Interconnection Customer must submit the Interconnection Facilities Study deposit and return the executed Interconnection Facilities Study agreement within thirty (30) Business Days of receipt of the Interconnection Facilities Study agreement. The Interconnection Customer may forgo this Interconnection Facilities Study and move directly to an Interconnection Agreement pursuant to Section 6.8 if it agrees in writing to be responsible for all actual costs of all required facilities deemed necessary by the Distribution Provider.

- 3.6.2 The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Interconnection System Impact Study(ies).
- 3.6.3 Design for any required Interconnection Facilities and/or Upgrades shall be performed under the Interconnection Facilities Study agreement. The Distribution Provider may contract with consultants to perform activities required under the Interconnection Facilities Study agreement. The Interconnection Customer and the Distribution Provider may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Distribution Provider, under the provisions of the Interconnection Facilities Study agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Distribution Provider shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.
- 3.6.4 The scope of and cost responsibilities for the Interconnection Facilities Study are described in the attached Interconnection Facilities Study agreement.
- 3.6.5 Second Posting of Interconnection Financial Security

The Interconnection Customer will post its second posting of Interconnection Financial Security in accordance with the instructions provided in Section 6.9 of this GIP, or its Interconnection Request shall be deemed withdrawn.

- 3.6.6 If requested by the Interconnection Customer, a Results Meeting shall be held among Distribution Provider, the ISO, if applicable, and Interconnection Customer to discuss the results of the Interconnection Facilities Study, including assigned cost responsibility. Within five (5) Business Days of the request,

Distribution Provider shall contact Interconnection Customer to establish a date agreeable to Interconnection Customer, Distribution Provider and the ISO, if applicable, for the Results Meeting.

3.6.7 Distribution Provider shall tender a draft GIA, together with draft appendices within thirty (30) Calendar Days of the Distribution Provider issuing the Interconnection Facilities Study report to Interconnection Customer, or within thirty (30) Calendar Days of an Interconnection Facilities Study Results Meeting if requested. Refer to Section 6.8 for time frames for completing the GIA.

### 3.7 Deliverability Assessment

Interconnection Customers that request Full Capacity Deliverability Status will have a Deliverability Assessment performed as part of the next available Cluster Study Process. If the succeeding Deliverability Assessment identifies any Delivery Network Upgrades that are triggered by the Interconnection Request, the Interconnection Customer will be responsible to pay its proportionate share of the costs of those Upgrades, pursuant to Section 3.10 of this GIP. If the Generating Facility achieves its Commercial Operation Date before the Deliverability Assessment is completed and any necessary Delivery Network Upgrades are yet to be constructed, the proposed Generating Facility will be treated as an Energy-Only Deliverability Status Generating Facility until such time as the Delivery Network Upgrades are constructed and in service. If the Interconnection Customer and Distribution Provider have executed a GIA before the Deliverability Assessment is completed and any necessary Delivery Network Upgrades are allocated to Interconnection Customer, the GIA will be amended to include the Interconnection Customer's financial responsibility for the Delivery Network Upgrades.

### 3.8 Extensions of Commercial Operation Date

Extensions of the Commercial Operation Date will be agreed upon in the executed GIA. Reasonable Commercial Operation Dates will be discussed at the Interconnection Facilities Study Results Meeting or the System Impact Study Results Meeting if the Interconnection Facilities Study is waived. Interconnection Requests under the

Independent Study Process will not be granted extensions except in circumstances beyond the control of Interconnection Customer. This provision has no impact on any power purchase agreement terms.

3.9 Financing of Distribution Provider’s Interconnection Facilities, Distribution Upgrades and Reliability Network Upgrades

The responsibility to finance Distribution Provider’s Interconnection Facilities, Distribution Upgrades, and Reliability Network Upgrades identified in the Interconnection Facilities Study shall be assigned solely to the applicable Interconnection Customer.

3.10 Financing of Delivery Network Upgrades

The responsibility to finance Delivery Network Upgrades identified in the On-Peak Deliverability Assessment and Off-Peak Deliverability Assessment as part of the Cluster Study Process for Interconnection Requests seeking Full Capacity Deliverability Status, including Interconnection Requests studied under the Independent Study Process shall be assigned to all Interconnection Requests selecting Full Capacity Deliverability Status based on the flow impact of each such Generating Facility on each Delivery Network Upgrade as determined by the generation distribution factor methodology set forth in ISO Tariff GIP.

3.11 Final Interconnection Financial Security For Generating Facilities In The Independent Study Process

The Interconnection Customer must post Final Interconnection Financial Security following execution of the GIA pursuant to Section 6.9 of this GIP in order to remain in the interconnection process. Failure to do so will result in Interconnection Customer Default on the executed Agreement.

## **Section 4. Distribution Group Study Process**

4.1 Initiation of Distribution Group Study Process

Interconnection Customers that apply for the Independent Study Process and have passed the determination of independence on the ISO Grid, but did not pass the determination of electrical independence for the Distribution System, are eligible for inclusion in a Distribution Study Group. Alternatively, an Interconnection Customer can apply directly to the Distribution Group Study Process (DGSP) by submitting an Interconnection Request during the Distribution Group Study window.

#### 4.2 Timing for Submitting Interconnection Requests

Interconnection Requests applying directly for the DGSP must apply during the Distribution Group Study Application Window available twice each year. The first DGSP Application Window will open on March 1 and close on March 31 of each year. The second DGSP Application Window will open on September 1 and close on September 30 of each year. Each of these Windows will result in a list of participating projects. These projects will be placed into Distribution Groups by the Distribution Provider and the Electrical Interdependence Test completed for each group. Each Distribution Study Group will proceed into the Phase 1 Distribution Group Study once the Electrical Interdependence Test and Scoping Meeting are completed.

#### 4.3 Processing of Interconnection Request

##### 4.3.1 Initiating an Interconnection Request

To initiate an Interconnection Request under the Distribution Group Study Process, Interconnection Customer must submit all of the following:

- (i) A nonrefundable \$800 Interconnection Request fee and conditionally refundable Interconnection Study Deposit (See Section 4.3.2 of this GIP for situations in which a deposit is non-refundable):

For a Generating Facility with a Gross Nameplate Rating of 5 MW or less, Interconnection Customer must submit an Interconnection Study Deposit of \$10,000 for the DGSP Phase I Interconnection Study, and where a



DGSP Phase II Interconnection Study is required, an additional \$15,000 deposit must be submitted;

For a Generating Facility with a Gross Nameplate Rating above 5 MW, Interconnection Customer must submit an Interconnection Study Deposit equal to \$50,000 plus \$1,000 per MW of electrical output of the Generating Facility, or the increase in electrical output of the existing Generating Facility, as applicable, rounded up to the nearest whole megawatt, up to a maximum of \$250,000;

- (ii) A completed Interconnection Request including Appendix A, the requested deliverability status, preferred Point of Interconnection and associated voltage level, and all other technical data; and
- (iii) Demonstration of Site Exclusivity. The demonstration of Site Exclusivity, at a minimum, must be through the Commercial Operation Date of the new Generating Facility or increase in capacity of the existing Generating Facility.

#### 4.3.2 Use of Interconnection Study Deposit

The Interconnection Study Deposit shall be applied to pay for prudent costs incurred by the Distribution Provider, the ISO, or third parties at the direction of the Distribution Provider or ISO, as applicable, to perform and administer the Interconnection Studies. The Interconnection Study Deposits shall be refundable as follows:

- (i) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the Distribution Provider by written notice under GIP Section 9.1 on or before thirty (30) Calendar Days following the Scoping Meeting, the Distribution Provider shall refund to the Interconnection Customer any portion of the Interconnection Customer's Interconnection Study Deposit that exceeds the costs the Distribution

Provider, ISO, and third parties have incurred on the Interconnection Customer's behalf, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

(ii) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the Distribution Provider by written notice under GIP Section 9.1 more than thirty (30) Calendar Days after the Scoping Meeting, but on or before thirty (30) Calendar Days following the Results Meeting (or the latest date permitted under this GIP for a Results Meeting if an Interconnection Customer elects not to have a Results Meeting) for the DGSP Phase I Interconnection Study, the Distribution Provider shall refund to the Interconnection Customer the greater of the difference between the costs the Distribution Provider, ISO, and third parties have incurred on the Interconnection Customer's behalf or one-half of the original Interconnection Study Deposit up to a maximum of \$100,000, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

(iii) Should an Interconnection Request be withdrawn by the Interconnection Customer or be deemed withdrawn by the Distribution Provider by written notice under GIP Section 9.1 at any time more than thirty (30) Calendar Days after the Results Meeting (or the latest date permitted under this GIP for a Results Meeting if an Interconnection Customer elects not to have a Results Meeting) for the DGSP Phase I Interconnection Study, the Interconnection Study Deposit shall be nonrefundable.

(iv) Upon execution of a GIA by an Interconnection Customer and the Distribution Provider, or the approval by FERC of an unexecuted GIA, the Distribution Provider shall refund to the Interconnection Customer any

portion of the Interconnection Customer's Interconnection Study Deposit that exceeds the costs the Distribution Provider, ISO, and third parties have incurred on the Interconnection Customer's behalf, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the FERC's regulations at 18 CFR § 35.19a(a)(2)(iii).

Notwithstanding the foregoing, an Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall be obligated to pay to the Distribution Provider all costs in excess of the Interconnection Study Deposit that have been prudently incurred or irrevocably committed to be incurred with respect to that Interconnection Request prior to withdrawal.

Using the withdrawn Interconnection Customer's study deposit or payments made by the Interconnection Customer in addition to that deposit, the Distribution Provider will reimburse the ISO or third parties, as applicable, for all work performed on behalf of the withdrawn Interconnection Request at the Distribution Provider's direction. The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results.

Non-refundable Study Deposits for Interconnection Requests in a Distribution Study Group shall be applied first to the costs associated with any following Interconnection Study or restudy work performed by Distribution Provider, CAISO, or third party for the withdrawn Interconnection Request's Distribution Study Group. Any remaining proceeds of the Study Deposit, after the withdrawn Interconnection Request's Distribution Study Group has completed all relevant Interconnection Studies or restudies, or all Interconnection Requests associated with the specific Distribution Study Group have withdrawn, not otherwise applied to costs incurred, or irrevocably committed to be incurred for the Interconnection Studies or restudies, shall be allocated to individual Interconnection Customers on a kVA basis who have remained in the Distribution Study Group by executing a GIA.

Such funds shall be allocated to Interconnection Customers sixty (60) Calendar Days following the conclusion of the GIA negotiation pursuant to Section 6.8.

#### 4.4 Electrical Independence Test

In order for Distribution Study Groups to qualify for the Distribution Group Study Process, the Distribution Study Group must first be determined to independent from the ISO Grid utilizing the methodology shown in Section 3.1.1.1 above. Distribution Provider shall provide this assessment to each Interconnection Customer in a Distribution Study Group within thirty (30) Business Days of the close of the window, using the best available information about projects that have entered the Distribution Group Study Process under both PG&E's Rule 21 and WDT. If a Distribution Study Group is found to be dependent on the ISO Grid, then all of the Interconnection Requests contained within the Distribution Study Group will be transitioned to the Cluster Study Process in the next available Cluster Application Window, unless withdrawn by the Interconnection Customer. In the event that the Cluster Study Process and the Distribution Group Study Process align (during the March windows), the Interconnection Requests in the Distribution Study Group (both Federal and State jurisdiction) will immediately be transitioned to the Cluster Study Process under these procedures.

#### 4.5 Scoping Meeting

Within five (5) Business Days after Distribution Provider provides the results of the Electrical Independence Test, it will contact the Interconnection Customer(s) to notify them that they are eligible for the Distribution Group Study Process and establish a date agreeable to the Interconnection Customer and Distribution Provider for a scoping meeting.

The Distribution Provider, in coordination with the ISO, shall determine whether the Interconnection Request is at or near the boundary of an Affected System(s) so as to potentially impact such Affected System(s). If a determination of potential impact is made, the Distribution Provider shall invite the Affected System Operator(s) in

accordance with GIP Section 6.10 to the Scoping Meeting by informing them of the time and place of the scheduled Scoping Meeting as soon as practicable.

The purpose of the Scoping Meeting shall be to discuss reasonable Commercial Operation Dates, alternative interconnection options, to exchange information including any distribution data or transmission data that would reasonably be expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection and eliminate unviable alternatives given resources and other available information.

The Distribution Provider will bring to the meeting, as reasonably necessary to accomplish its purpose, the following: (a) already available technical data, including, but not limited to, (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues, and (b) general information regarding the number, location, and capacity of other Interconnection Requests in the Interconnection Study Process that may potentially form a Distribution Study Group with the Interconnection Customer's Interconnection Request. The Interconnection Customer will bring to the Scoping Meeting, in addition to the technical data in Appendix A to GIP Attachment 2, any system studies previously performed. The Distribution Provider, the ISO if applicable, and the Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. During the meeting, the Interconnection Customer shall designate its Point of Interconnection. The duration of the meeting shall be only what is sufficient to accomplish its purpose.

With fifteen (15) Business Days after the scoping meeting, Distribution Provider shall provide the Interconnection Customer with a Generator Interconnection Study Process Agreement (GISPA), which shall contain an outline of the scope of the DGSP Phase I Interconnection Study and the DGSP Phase II Interconnection Study and shall specify that the Interconnection Customer is responsible for the actual cost of the Interconnection Studies, including reasonable administrative costs. The Interconnection Customer shall execute and deliver to Distribution Provider the GISPA no later than thirty (30) Business

Days after the scoping meeting or the start date of the DGSP Phase I Interconnection Study, whichever is earlier, or the Interconnection Request shall be deemed withdrawn.

#### 4.6 Grouping of Interconnection Requests for a Distribution Group Study

The results of the Electrical Independence Test with respect to the Distribution System, as described in Section 3.1.1.2, will determine the Interconnection Requests to be grouped together for each Distribution Group Study. Each Distribution Study Group will consist of Interconnection Requests that are determined to be electrically interdependent. No later than the date the DGSP Phase I Interconnection Study begins, the Distribution Provider send to each Interconnection Customer in a Distribution Study Group a list of the Interconnection Requests in its Distribution Study Group.

At the Distribution Provider's option, an Interconnection Request received during a particular Distribution Group Study Process Application Window may be studied individually (Independent Study Process) or in a Distribution Group Study for the purpose of conducting one or more of the analyses forming the Interconnection Studies. For each Interconnection Study received within the same Distribution Group Study Application Window, the Distribution Provider may develop one or more Distribution Study Groups.

#### 4.7 Timing of the DGSP Phase I Interconnection Study

Absent extraordinary circumstances, Distribution Provider shall complete and issue a DGSP Phase I Interconnection Study report within sixty (60) Business Days from the start of the study.

At any time Distribution Provider determines that it will not meet the required time frame for completing the DGSP Phase I Interconnection Study, Distribution Provider shall notify all Interconnection Customers in the Distribution Study Group as to the status of the DGSP Phase I Interconnection Study and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, Distribution Provider shall provide any Interconnection Customer in the Distribution Study Group all relevant supporting documentation, work papers, and pre-Interconnection Request and post-Interconnection Request power flow, short circuit and dynamic/stability databases, and currently planned Distribution Upgrades relevant to the Interconnection Request for the DGSP Phase I Interconnection Study. Interconnection Customer may be required to sign a non-disclosure agreement with terms consistent with Section 6.5 “Confidentiality”.

If applicable, Distribution Provider will share the applicable study results with the CAISO for review and comment, and will incorporate CAISO comments, if any, into the study report prior to issuing a DGSP Phase I Interconnection Study report to Interconnection Customers in the Distribution Study Group.

#### 4.8 DGSP Phase I Interconnection Study Results Meeting

If requested by an Interconnection Customer in a Distribution Study Group or Distribution Provider, a results meeting shall be held among Distribution Provider, the CAISO, if applicable, and the Interconnection Customer to discuss the results of the DGSP Phase I Interconnection Study, including assigned cost responsibility. Within five (5) Business Days of such request, Distribution Provider shall contact the Interconnection Customer to establish a date agreeable to the Interconnection Customer, Distribution Provider, and the CAISO, if applicable, for the results meeting. If the Interconnection Customer or Distribution Provider has requested a results meeting, it must be completed within thirty (30) Calendar Days after issuance of the DGSP Phase I Interconnection Study report, unless otherwise agreed upon by the Distribution Provider and the Interconnection Customer.

At the DGSP Phase I Interconnection Study results meeting, the Interconnection Customer shall provide a schedule outlining key milestones including environmental survey start date, expected environmental permitting submittal date, expected procurement date of project equipment, back-feed date for project construction, and expected project construction date. This will assist the parties in determining if proposed

Commercial Operation Dates are reasonable. If large scale Distribution Provider's Interconnection Facilities or Distribution Upgrades for the Generating Facility have been identified in the DGSP Phase I Interconnection Study, such as telecommunications equipment, distribution feeders to support back feed, a new substation, and/or expanded substation work, permitting and material procurement lead times may result in the need to alter the proposed Commercial Operation Date, the Interconnection Customer and Distribution Provider may agree to a new Commercial Operation Date. In addition, where an Interconnection Customer intends to establish Commercial Operation separately for different Electric Generating Units or project phases at its Generating Facility, it may only do so in accordance with an implementation plan agreed to in advance by the Distribution Provider and the CAISO, if applicable, which agreement shall not be unreasonably withheld.

Where the parties cannot agree to a revised Commercial Operation Date, the Commercial Operation Date determined reasonable by the Distribution Provider will be used for the DGSP Phase II Interconnection Study, or the GIA if the DGSP Phase II Interconnection Study is waived, where the revised Commercial Operation Date is needed to accommodate the anticipated completion, assuming Reasonable Efforts by the Distribution Provider of necessary Distribution Upgrades and/or Distribution Provider's Interconnection Facilities, pending the outcome of any relief sought by the Interconnection Customer. The Interconnection Customer must notify the Distribution Provider within five (5) Business Days following the results meeting if it is initiating dispute procedures under Section 5.2.

Within five (5) Business Days following the DGSP Phase I Interconnection Study results meeting, the Interconnection Customer shall submit to the Distribution Provider all requested information. If no DGSP Phase I Interconnection Study results meeting is held, the Interconnection Customer shall submit to Distribution Provider any requested information within thirty (30) Calendar Days of the issuance of the DGSP Phase I Interconnection Study report.



#### 4.9 Initial Postings of Interconnection Financial Security

Following completion of the DGSP Phase 1 Study, the Interconnection Customer must post an initial Interconnection Financial Security in accordance with the instructions provided in Section 6.9 of this GIP in order to remain in the Interconnection Distribution Group Study Process.

#### 4.10 Modifications

At any time during the course of the Interconnection Studies but no later than five (5) Business Days after the Phase 1 Study results meeting, the Interconnection Customer, Distribution Provider, or the CAISO, as applicable, may identify changes to the planned Interconnection that may improve the costs and benefits (including reliability) of the Interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the Distribution Provider, the CAISO, as applicable, and the Interconnection Customer, such acceptance not to be unreasonably withheld, Distribution Provider shall modify the project configuration in accordance with such changes without altering the Interconnection Request's eligibility for participating in Interconnection Studies.

At the DGSP Phase I Interconnection Study results meeting, if elected by the Interconnection Customer or Distribution Provider, the Interconnection Customer should be prepared to discuss any desired modifications to the Interconnection Request. After the issuance of the DGSP Phase I Interconnection Study report, but no later than five (5) Business Days following the DGSP Phase I Interconnection Study results meeting, the Interconnection Customer shall submit to the Distribution Provider, in writing, modifications to any information provided in the Interconnection Request. Distribution Provider will forward the Interconnection Customer's request for modification to the CAISO, if applicable, within two (2) Business Days of receipt.

If no DGSP Phase I Interconnection Study results meeting is held, the Interconnection Customer shall submit to Distribution Provider any requested modifications within thirty (30) Calendar Days of the issuance of the Phase I Interconnection Study report.

Modifications permitted under this section shall include specifically:

- (i) a decrease in the electrical output (MW) of the proposed Generating Facility;
- (ii) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics;
- (iii) modifying the interconnection configuration

For any modifications other than those permitted above, Distribution Provider, in coordination with CAISO, if applicable, will evaluate whether the proposed modification to the Interconnection Request constitutes a Material Modification. Distribution Provider will inform the Interconnection Customer in writing whether the modifications would constitute a Material Modification within ten (10) Business Days of receipt of the propose request for modification. Any change to the Point of Interconnection, except for that specified by the Distribution Provider in an Interconnection Study or otherwise allowed under this section, shall constitute a Material Modification.

If the proposed Modification is determined to be a Material Modification, the Interconnection Customer may either withdraw the proposed modification or proceed with a new Interconnection Request for such modification. The Interconnection Customer shall make such determination within ten (10) Business Days after being provided the Material Modification results.

Proposed modifications determined not to be Material Modifications may still necessitate a re-evaluation of the DGSP Phase I Interconnection Study to determine modifications to the Interconnection Facilities, Distribution Upgrades, and Network Upgrades. Such re-evaluation will occur at the start of the DGSP Phase II Interconnection Study.

#### 4.11 Scope and Purpose of the DGSP Phase II Interconnection Study and Study Deposit

Within either (i) five (5) Business Days following the DGSP Phase I Interconnection Study results meeting, or (ii) within thirty (30) Calendar Days of the issuance of the

DGSP Phase I Interconnection Study report if no DGSP Phase I Interconnection Study results meeting is held, the Interconnection Customer shall submit to the Distribution Provider the data required by Distribution Provider, including a completed GISPA Appendix B and associated submittals. Within thirty (30) Business Days of the issuance of the DGSP Phase I Interconnection Study report, for Generating Facilities 5 MW or less, the Interconnection Customer shall submit the DGSP Phase II Interconnection Study deposit, as set out in Section 4.3.1, unless the DGSP Phase II Interconnection Study is waived in accordance with Section 4.12.

#### 4.12 Waiver of the DGSP Phase II Interconnection Study

The DGSP Phase II Interconnection Study may be waived if Distribution Provider and all Interconnection Customers included in the DGSP Phase II Interconnection Study mutually agree to such waiver within thirty (30) Calendar Days of the issuance of the DGSP Phase I Interconnection Study report. Within thirty (30) Calendar Days after the Distribution Provider and Interconnection Customers agree to waive the DGSP Phase II Interconnection Study, Distribution Provider shall tender a draft GIA, together with draft appendices, to the Interconnection Customers. The Interconnection Customer is responsible for all costs associated with Parallel Operation to support the safe and reliable operation of the Distribution and Transmission System.

#### 4.13 DGSP Phase II Interconnection Study Procedures

Distribution Provider shall utilize existing studies to the extent practicable in conducting the DGSP Phase II Interconnection Study. The Distribution Provider shall commence the DGSP Phase II Interconnection Study within sixty (60) Calendar Days of the issuance of the DGSP Phase I Interconnection Study report.

Distribution Provider shall complete and distribute to Interconnection Customers the DGSP Phase II Interconnection Study reports within sixty (60) Business Days after the commencement of each DGSP Phase II Interconnection Study. The Distribution Provider will issue a DGSP Phase II Interconnection Study report to the Interconnection Customer.

At the request of the Interconnection Customer, or at any time the Distribution Provider determines that it will not meet the required time frame for completing the DGSP Phase II Interconnection Study, Distribution Provider shall notify the Interconnection Customer as to the schedule status of the DGSP Phase II Interconnection Study and provide an estimated completion date. If the Distribution Provider is unable to complete the DGSP Phase II Interconnection Study in the time specified, such notice shall provide an explanation of the reasons why additional time is required.

Upon request of the Interconnection Customer, Distribution Provider shall provide the Interconnection Customer all supporting documentation, work papers, and relevant pre-Interconnection Request and post-Interconnection Request power, short circuit, and stability databases for the DGSP Phase II Interconnection Study, subject to confidentiality arrangements consistent with Section 6.5.

The Distribution Provider will conduct a DGSP Phase II Interconnection Study that will incorporate eligible Interconnection Requests from the previous DGSP Phase I Interconnection Study. The DGSP Phase II Interconnection Study shall (i) update, as necessary, analyses performed in the DGSP Phase I Interconnection Study to account for the withdrawal of Interconnection Requests or other projects in the Interconnection Study Process, (ii) identify Distribution Upgrades need to physically interconnect the Generating Facility, (iii) assign cost responsibility for the Distribution Upgrades, (iv) identify for each Interconnection Request a final Point of Interconnection and Distribution Provider's Interconnection Facilities, (v) provide an estimate for each Interconnection Request of the Distribution Provider's Interconnection Facilities, and (vi) optimize in-service timing requirements based on operational studies in order to maximize achievement of the Commercial Operation Dates of the Generating Facilities, as applicable.

#### 4.14 DGSP Phase II Interconnection Study Results Meeting

If requested by an Interconnection Customer in a Distribution Study Group, a results meeting shall be held among Distribution Provider, the CAISO, if applicable, and the Interconnection Customer to discuss the results of the DGSP Phase II Interconnection Study, including selection of the final Commercial Operation Date and assigned cost responsibility. Within five (5) Business Days of such request, Distribution Provider shall contact the Interconnection Customer to establish a date agreeable to the Interconnection Customer, Distribution Provider, and the CAISO, if applicable, for the results meeting. If the Interconnection Customer wants to have a meeting, it must be completed within (30) Calendar Days after issuance of the DGSP Phase II Interconnection Study report, unless mutually agreed upon by the Distribution Provider and the Interconnection Customer.

#### 4.15 Second Posting of Interconnection Financial Security

Following completion of the Phase 2 Study, the Interconnection Customer must post a Second Interconnection Financial Security pursuant to Section 6.9 of this GIP in order to remain in the Interconnection Distribution Group Study Process.

If no Phase 2 Study is performed, or if the start date for Construction Activities of Network Upgrades, Distribution Provider Interconnection Facilities, and Distribution Upgrades on behalf of the Interconnection Customer is prior to one hundred twenty (120) Calendar Days after publication of the final Distributed Group Study report, that start date must be set forth in the Interconnection Customer's GIA and the Interconnection Customer shall make its next Interconnection Financial Security posting in accordance with the Final Financial Security Posting instructions provided in this GIP Section 6.9.

#### 4.16 Withdrawal and Reallocation

If at any time, an Interconnection Request is withdrawn or a Generator Interconnection Agreement is terminated, the upgrades identified in the Interconnection Studies will be

re-evaluated to determine if they are still needed. If the Distribution Provider determines that a restudy is needed, it will be conducted pursuant to this GIP Section 4.17. Any costs identified in the Distribution Group Study not already funded by Interconnection Financial Security that has been posted by the withdrawing Interconnection Customer, will be the responsibility of remaining Interconnection Customers in the Distribution Group and will be reallocated per this GIP Section 4.18

#### 4.17 Restudy

If a restudy is required following the issuance of the DGSP Phase II Interconnection Study, or the DGSP Phase I Interconnection Study if the DGSP Phase II Interconnection Study is waived, due to a project withdrawal, Distribution Provider shall notify the remaining Interconnection Customers in writing.

The restudy report shall be completed and provided to each Interconnection Customer remaining in the Distribution Study Group within sixty (60) Business Days of the withdrawal of the Interconnection Request that caused the restudy. The remaining Interconnection Requests in the Distribution Study Group will be responsible for the cost of the restudy.

#### 4.18 Cost Allocation

The costs of Interconnection Facilities will be assigned to the triggering Interconnection Request. Costs of Distribution Upgrades or Network Upgrades identified through a Distribution Group Study shall be allocated pro rata among the Interconnection Requests in a Distribution Study Group based on nameplate kilovolt amperes (kVA) and, in some instances, based on an Interconnection Request's specific contributions to the upgrade costs as determined by the Distribution Provider. Costs for upgrades will be allocated based upon an Interconnection Request's specific contributions to a particular upgrade only if the Distribution Provider determines that, based on overall fairness to the Distribution Study Group, the individual Interconnection Request should be responsible for the costs rather than the entire Distribution Study Group. Cost allocation within the Distribution Study Group will not always align with cost contribution under a per kVA

plus specific contribution allocation method. The DGSP Phase I and Phase II study reports will indicate how cost allocation is determined. Examples of possible shared costs include but are not limited to: upgraded transformers, reconductoring, circuit switchers, and breakers.

#### 4.19 Automatic Timing Extension

If during any six month period, the number of Interconnection Requests exceeds by fifty (50) percent the number of active Interconnection Requests in the preceding six month period, the study timelines for Distribution Group Studies begun during the next twelve (12) months will automatically increase as follows. The time to complete the DGSP Phase I Interconnection Study will increase from sixty (60) Business Days to one hundred twenty (120) Business Days. The time to complete the DGSP Phase II Interconnection will increase from sixty (60) Business Days to one hundred twenty (120) Business Days. The time to tender a draft Generator Interconnection Agreement will increase from thirty (30) Calendar Days to forty-five (45) Calendar Days. The Distribution Provider will notify Interconnection Customers in the Distribution Study Group of the extension in writing after commencement of DGSP Phase I Interconnection Study.

#### 4.20 Final Interconnection Financial Security For Generating Facilities In The Distribution Group Study Process

The Interconnection Customer must post a final Interconnection Financial Security following execution of the GIA pursuant to Section 6.9 of this GIP in order to remain in the interconnection process. Failure to do so will result in Interconnection Customer Default on the executed Agreement.

## Section 5. Cluster Study Process

### 5.1 Timing for Submitting Interconnection Requests

Interconnection Requests must be submitted during a Cluster Application Window. There will be two Cluster Application Windows associated with each study cycle. The first Cluster Application Window will open on October 15 and close on November 15 of the year prior to the year in which the Interconnection Studies are performed. The second Cluster Application Window will open on March 1 and close on March 31 of the year in which the Interconnection Studies are performed. In the event that any date set for in this section is not a Business Day, then the applicable date shall be the next Business Day thereafter.

The Distribution Provider may change the Cluster Application Window interval and opening or closing dates. Any changes to the Cluster Application Window interval and opening or closing dates will be posted on the Distribution Provider's website. If there is a conflict between the Cluster application Window interval and opening or closing dates posted on the Distribution Provider's website and the dates identified in the paragraph above, the dates posted on the Distribution Provider's website shall control.

### 5.2 Materials to be Submitted at the Time of the Interconnection Request

The Interconnection Customer selecting the Cluster Study Process must submit all of the following materials at the time of the Interconnection Request via the Distribution Provider's online application process:

- (i) A completed Interconnection Request in the form of Attachment 2, including requested deliverability status, requested study process (Cluster Study Process), preferred Point of Interconnection and voltage level, and all other technical data required in the Interconnection Request;
- (ii) A nonrefundable \$800 Interconnection Request fee and Interconnection Study Deposit equal to \$50,000 plus \$1,000 per MW of electrical output of the Generating Facility, up to a maximum of \$250,000; and



- (iii) A demonstration of Site Exclusivity. The Site Exclusivity must be demonstrated to exist, at a minimum, through the Commercial Operation Date of the new Generating Facility or increase in capacity of the existing Generating Facility.

### 5.3 Phase I and Phase II Interconnection Studies Overview

The Interconnection Studies performed under the Cluster Study Process consist of a Phase I Interconnection Study and a Phase II Interconnection Study as set forth in Section 5.8 of this GIP. These Interconnection Studies will include, but not be limited to, short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The Phase I and Phase II Interconnection Studies will identify Distribution Provider's Interconnection Facilities, Distribution Upgrades and Reliability Network Upgrades required to mitigate thermal overloads and voltage violations, and address short circuit, stability, and other reliability issues associated with the requested Interconnection Service. The Cluster Study Process may also include operational or other technical studies required to evaluate the interconnection of a Generating Facility to the Distribution System.

### 5.4 Deliverability Assessment Options for Interconnection Requests Seeking Full Capacity Deliverability Status

For those Interconnection Requests requesting Full Capacity Deliverability Status, the Phase I and Phase II Interconnection Studies will include a Deliverability Assessment as set forth in GIP Section 5.8.3.2 performed by the ISO, which will identify Delivery Network Upgrades to allow the full output of a Generating Facility selecting Full Capacity Deliverability Status. The Deliverability Assessment, if applicable, will also evaluate the maximum allowed output of the interconnecting Generating Facility without one or more Delivery Network Upgrades in accordance with the On-Peak Deliverability Assessment and Off-Peak Deliverability Assessment set forth in GIP Section 5.8.3.2.

## 5.5 Validation of Interconnection Request

### 5.5.1 Acknowledgment of Interconnection Request

Distribution Provider shall provide a first written notification to the Interconnection Customer within ten (10) Business Days of receipt of the Interconnection Request, which notice shall state whether the Interconnection Request is deemed complete and valid.

### 5.5.2 Deficiencies in Interconnection Request

An Interconnection Request will not be considered to be deemed complete until the Distribution Provider determines that the information contained in the Interconnection Request is complete and the Interconnection Customer has provided all items required by Section 5.2. If an Interconnection Request fails to meet the requirements set forth in Section 5.2, Distribution Provider shall include in its notification to the Interconnection Customer under Section 5.5.1 the reasons for such failure. Interconnection Customer shall provide Distribution Provider any additional information needed to constitute a deemed complete request. Whenever the additional information is provided by the Interconnection Customer, the Distribution Provider shall notify the Interconnection Customer within five (5) Business Days of receipt of the additional information and whether the Interconnection Request is now deemed complete. The Interconnection Customer must submit all information necessary to meet the requirements of Section 5.2 no later than twenty (20) Business Days after the close of the applicable Cluster Application Window or ten (10) Business Days after the Distribution Provider first provided notice that the Interconnection Request was not deemed complete, whichever is later. Interconnection Requests that have not met the requirements of Section 5.2 within twenty (20) Business Days after the close of the applicable Cluster Application Window or ten (10) Business Days after the Distribution Provider first provided notice that the Interconnection Request was not deemed complete, whichever is later, will be deemed incomplete and withdrawn. Such

Interconnection Request(s) will not be included in an Interconnection Study Process or otherwise studied. Interconnection Requests deemed incomplete under this Section 5.5.2 are not subject to Section 9.1. Interconnection Customers with deemed incomplete Interconnection Request may also initiate dispute resolution under Section 6.2 by so notifying the Distribution Provider within two (2) Business Days of the notification that the Interconnection Request is deemed incomplete.

#### 5.6 Scoping Meeting

Within ten (10) Business Days after the Distribution Provider notifies the Interconnection Customer of an Interconnection Request that is deemed complete, and ready for study, the Distribution Provider shall establish a date agreeable to the Interconnection Customer and the ISO, if applicable, for the Scoping Meeting. All Scoping Meetings shall occur no later than sixty (60) Calendar Days after the close of the Cluster Application Window, unless otherwise mutually agreed upon by the Parties. The Distribution Provider, in coordination with the ISO, shall determine whether the Interconnection Request is at or near the boundary of an Affected System(s) so as to potentially impact such Affected System(s). If a determination of potential impact is made, the Distribution Provider shall invite the Affected System Operator(s) in accordance with GIP Section 6.9 to the Scoping Meeting by informing them of the time and place of the scheduled Scoping Meeting as soon as practicable.

The purpose of the Scoping Meeting shall be to discuss reasonable Commercial Operation Dates, alternative interconnection options, to exchange information including any distribution data or transmission data that would reasonably be expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection and eliminate unviable alternatives given resources and other available information.

The Distribution Provider will bring to the meeting, as reasonably necessary to accomplish its purpose, the following: (a) already available technical data, including, but

not limited to, (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues, and (v) general reliability issues, and (b) general information regarding the number, location, and capacity of other Interconnection Requests in the Interconnection Study Process that may potentially form a Study Group with the Interconnection Customer's Interconnection Request. The Interconnection Customer will bring to the Scoping Meeting, in addition to the technical data in Appendix A to GIP Attachment 2, any system studies previously performed. The Distribution Provider, the ISO if applicable, and the Interconnection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, the Interconnection Customer shall designate its Point of Interconnection. The duration of the meeting shall be sufficient to accomplish its purpose.

#### 5.7 Generator Interconnection Study Process Agreement

Within sixty (60) Calendar Days of the close of the Cluster Application Window, the Distribution Provider shall provide to each Interconnection Customer that had submitted an Interconnection Request that has been deemed complete in the Cluster Application Window a pro forma Generator Interconnection Study Process Agreement (GISPA) in the form set forth in Attachment 6 of this GIP. Within five (5) Business Days following the Scoping Meeting, the Interconnection Customer shall designate the Point of Interconnection for the Phase I Interconnection Study. Within ten (10) Business Days following the Distribution Provider's receipt of such designation, the Distribution Provider shall provide to the Interconnection Customer a Generator Interconnection Study Process Agreement which shall include the designated Point of Interconnection. The Interconnection Customer shall execute and deliver to the Distribution Provider a signed Generator Interconnection Study Process Agreement no later than thirty (30) Calendar Days from the receipt of the GISPA.

## 5.8 Performance of Interconnection Studies

### 5.8.1 Grouping of Interconnection Requests

At the Distribution Provider's option, and in coordination with the ISO as applicable, an Interconnection Request received during a particular Cluster Application Window may be studied individually (Independent Study Process) or in a Group Study for the purpose of conducting one or more of the analyses forming the Interconnection Studies. For each Interconnection Study received within the same Cluster Application Window, the Distribution Provider, in coordination with the ISO, may develop one or more Study Groups.

A Study Group will include Interconnection Requests that electrically affect one another with respect to the analysis being performed without regard to the nature of the underlying Interconnection Service. Grouping of Interconnection Requests for the purpose of determining Distribution System impacts and mitigation, as determined by the Distribution Provider, may differ from the grouping required for determining impacts and mitigation on the ISO Grid as determined by the Distribution Provider, in coordination with the ISO, given the non-network nature of the Distribution System. The Distribution Provider may also, in coordination with the ISO, as applicable, conduct an Interconnection Study for an Interconnection Request separately (i.e., a cluster of one) to the extent warranted by Good Utility Practice based upon the electrical remoteness of the proposed Generating Facility from other Generating Facilities with Interconnection Requests in the two Cluster Application Windows for a particular year.

Study Groups will be determined using engineering judgment as to electrical relatedness. Generally, all Interconnection Requests in a given Cluster Application Window that are interconnecting at the distribution feeder level (less than 60kV) up to and including interconnections to the lower-voltage side of the point of demarcation between the Distribution System and the ISO grid will be included in the same Study Group. Interconnection Requests interconnecting to

the ISO Grid (including interconnections at the higher voltage side of the line of demarcation between the Distribution System and the ISO Grid) will be in separate Study Groups (managed by the CAISO) from Interconnection Requests to the Distribution System.

Notwithstanding the structure of the Study Groups, the cost of Network Upgrades required by the Interconnection Studies can be allocated to Interconnection Requests interconnecting to the Distribution System, if such Interconnection Requests to the Distribution System contribute to the need for such Network Upgrades.

#### 5.8.2 Scope and Purpose of the Phase I Interconnection Study

The Phase I Interconnection Study shall (i) evaluate the impact of all Interconnection Requests received during the Cluster Application Windows for a particular year on the Distribution System and ISO Grid, (ii) preliminarily identify the Distribution Upgrades needed to address the impacts on the Distribution System; (iii) preliminarily identify the Network Upgrades needed to address the impacts on the ISO Grid, (iv) preliminarily identify for each Interconnection Request the required Distribution Provider's Interconnection Facilities, (v) assess the Point of Interconnection selected by each Interconnection Customer and potential alternatives to evaluate potential efficiencies in overall system upgrade costs, (vi) establish the maximum cost responsibility for Network Upgrades assigned to each Interconnection Request in accordance with Section 5.8.3, and (vii) provide a good faith estimate of the cost of Distribution Upgrades and Interconnection Facilities for each Interconnection Request. The portion of the Phase I Interconnection Study required to evaluate impacts on the ISO Grid, if applicable, will be conducted in coordination with the ISO in a manner consistent with the procedures set forth in the ISO Tariff GIP.

The Phase I Interconnection Study will consist of a short circuit analysis, a stability analysis to the extent the Distribution Provider and ISO reasonably

expect transient or voltage stability concerns, a power flow analysis, including off-peak analysis, and an On-Peak and Off-Peak Deliverability Assessment(s), as applicable, in accordance with GIP Section 5.8.3.2. The short circuit analysis will include an evaluation of the short circuit duty impacts of all generation interconnecting to the Distribution System on the Transmission System, including generation being studied under the Independent Study Process. The Phase I Interconnection Study will state for each Study Group or Interconnection Request studied individually (i) the assumptions upon which it is based, (ii) the results of the analyses, and (iii) the requirements or potential impediments to providing the requested Interconnection Service to all Interconnection Requests in a Study Group or to the Interconnection Request studied individually. The Phase I Interconnection Study will provide, without regard to the requested Commercial Operation Dates of the Interconnection Requests, a list of Distribution Upgrades and Network Upgrades that are preliminarily identified as required as a result of the Interconnection Requests in a Study Group or as a result of any Interconnection Request studied individually, along with the Distribution Provider's Interconnection Facilities associated with each Interconnection Request.

### 5.8.3 Identification and Cost Allocation Methods for Network Upgrades and Distribution Upgrades in Phase I Interconnection Study

#### 5.8.3.1 Reliability Network Upgrades

The Distribution Provider, in coordination with the ISO, will perform short circuit and stability analyses for each Interconnection Request either individually or as part of a Group Study to preliminarily identify the Reliability Network Upgrades, if any, needed to interconnect the Generating Facilities to the Distribution System. The Distribution Provider, in coordination with the ISO, shall also perform power flow analyses, under a variety of system conditions, for each Interconnection Request either individually or as part of a Group Study to identify

reliability criteria violations, including applicable thermal overloads, that must be mitigated by Reliability Network Upgrades. The estimated costs of short circuit related Reliability Network Upgrades identified through a Group Study shall be assigned to all Interconnection Requests in that Study Group pro rata on the basis of the short circuit duty contribution of each Generating Facility. The estimated costs of all other Reliability Network Upgrades identified through a Group Study shall be assigned to all Interconnection Requests in that Study Group pro rata on the basis of the maximum megawatt electrical output of each proposed new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request. The estimated costs of Reliability Network Upgrades identified as a result of an Interconnection Request studied separately shall be assigned solely to that Interconnection Request.

### 5.8.3.2 Delivery Network Upgrades

#### 5.8.3.2.1 The On-Peak Deliverability Assessment

An On-Peak Deliverability Assessment will be performed, in coordination with the ISO, for Interconnection Customers selecting Full Capacity Deliverability Status in their Interconnection Requests. The On-Peak Deliverability Assessment shall determine the Interconnection Customer's Generating Facility's ability to deliver its Energy to the ISO Grid under peak load conditions, and identify preliminary Delivery Network Upgrades required to provide the Generating Facility with Full Capacity Deliverability Status. The preliminary Delivery Network Upgrades identified by the On-Peak Deliverability Assessment will be used to establish the maximum cost responsibility for Delivery Network Upgrades for each Interconnection Customer selecting Full Capacity



Deliverability Status. Deliverability of a new Generating Facility will be assessed on the same basis as all other existing resources interconnected to the Distribution System or ISO Grid.

The On-Peak Deliverability Assessment will identify the Delivery Network Upgrades that are required to enable the Generating Facility of each Interconnection Customer requesting Full Capacity Deliverability Status to meet the requirements for deliverability. Deliverability requires that the Generating Facility Capacity, as set forth in the Interconnection Request, can be delivered to the aggregate of Load (as defined in the ISO Tariff) on the ISO Grid, consistent with reliability criteria, under ISO Grid peak load and contingency conditions, and assuming the aggregate output of existing Generating Facilities with established Net Qualifying Capacity (as defined in the ISO Tariff) values and other Generating Facilities in the Interconnection Study Process seeking Full Capacity Deliverability Status identified within the On-Peak Deliverability Assessment based on the effect of transmission constraints.

The On-Peak Deliverability Assessment will further include an analysis to estimate the MW of deliverable generation capacity for the individual or Study Group if the highest cost Delivery Network Upgrade component was removed from the preliminary Delivery Network Upgrade plan, or, at the Distribution Provider's and ISO's sole discretion, if any other identified Delivery Network Upgrade component(s) was removed from the preliminary Delivery Network Upgrade plan. This information is provided to allow Interconnection Customers to address at the Results Meeting potential modifications under GIP Section 5.11.2 or change the

Interconnection Request's Full Capacity Deliverability Status for purposes of financing under GIP Section 8.3.

The methodology for the On-Peak Deliverability Assessment will be as set forth in the ISO Tariff. The On-Peak Deliverability Assessment does not convey any right to deliver electricity to any specific customer or delivery point on the ISO Grid or Distribution System.

The estimated costs of Delivery Network Upgrades identified in the On-Peak Deliverability Assessment shall be assigned to all Interconnection Requests selecting Full Capacity Deliverability Status based on the flow impact of each such Generating Facility on the Delivery Network Upgrades as determined by the generation distribution factor methodology set forth in the ISO Tariff GIP.

#### 5.8.3.2.2 The Off-Peak Deliverability Assessment

An Off-Peak Deliverability Assessment will be performed, in coordination with the ISO, for Interconnection Customers selecting Full Capacity Deliverability Status in their Interconnection Requests to determine Delivery Network Upgrades in addition to those identified in the On-Peak Deliverability Assessment, if any, for a Group Study or individual Phase I Interconnection Study that includes one or more Location Constrained Resource Interconnection Generators (LCRIG) as defined in the ISO Tariff, where the fuel source or source of energy for the LCRIG substantially occurs during off-peak conditions. Delivery Network Upgrades will be identified under this Section to ensure that the full maximum megawatt electrical output of each proposed new LCRIG or the amount of megawatt increase in the generating

capacity of each existing LCRIG as listed by the Interconnection Customer in its Interconnection Request, whether studied individually or as a Study Group, is deliverable to the aggregate of Load on the ISO Grid under the Generation dispatch conditions studied. The methodology for the Off-Peak Deliverability Assessment will be published pursuant to the ISO Tariff.

At the Distribution Provider's and ISO's discretion, an additional Off-Peak Deliverability Assessment may be performed to estimate the MW of deliverable generation capacity from the LCRIG studied individually or from the Study Group if the highest cost, or any other, Delivery Network Upgrade component were removed from the preliminary Delivery Network Upgrade plan. This information is provided to allow Interconnection Customers to address at the Results Meeting potential modifications under GIP Section 5.11.2 or change the Interconnection Request's Full Capacity Deliverability Status for purposes of financing under GIP Section 8.3.

The estimated costs of Delivery Network Upgrades identified in the Off-Peak Deliverability Assessment shall be assigned to each Interconnection Request included in the Study Group or studied individually based on the flow impact of each such LCRIG on the Delivery Network Upgrades as determined by the generation distribution factor methodology set forth in ISO Tariff GIP.

#### 5.8.3.3 Distribution Upgrades

The Distribution Provider will perform short circuit analyses and stability analyses, if required, for each Interconnection Request either individually or as part of a Study Group to preliminarily identify the Distribution Upgrades needed to interconnect the Generating Facility to the

Distribution System. The Distribution Provider shall also perform power flow analyses under a variety of system conditions, for each Interconnection Request either individually or as part of a Study Group to identify reliability criteria violations on the Distribution System, including applicable thermal overloads, that must be mitigated by Distribution Upgrades. The estimated costs of Distribution Upgrades identified as a result of an Interconnection Request studied separately shall be assigned solely to that Interconnection Request. The estimated costs of Distribution Upgrades identified through a Group Study shall be assigned to all Interconnection Requests in that Study Group pro rata based on each Interconnection Request's contribution to the need for the upgrade.

5.9 Costs Identified in the Phase I Interconnection Study Form the Basis of Interconnection Financial Security

The costs assigned to Interconnection Customers for Network Upgrades under this GIP Section 5.8.3.1 and Section 5.8.3.2 shall establish the maximum value for the Interconnection Financial Security required from each Interconnection Customer under GIP Section 5.23 for such Network Upgrades. In contrast, the costs assigned to Interconnection Customers for Distribution Provider's Interconnection Facilities and Distribution Upgrades under GIP Section 5.8.2 and Section 5.8.3.3 are estimates only that establish the basis for the initial Interconnection Financial Security required from each Interconnection Customer under GIP Section 5.23.

5.10 Phase I Interconnection Study Procedures

The Distribution Provider shall coordinate the Phase I Interconnection Study with the ISO pursuant to GIP Section 6.9, as applicable, and any Affected System Operator that is affected by the Interconnection Request pursuant to GIP Section 6.9. Existing studies shall be used to the extent practicable when conducting the Phase I Interconnection Study. The Distribution Provider will coordinate Base Case development with the ISO, as applicable, to ensure the Base Cases are accurately developed for the assessment of

impacts on the ISO Grid. Interconnection Requests from the two most recent Cluster Application Windows, as set forth in GIP Section 5.1 with deemed complete Interconnection Requests and executed Generator Interconnection Study Process Agreements shall be included in the Phase I Interconnection Study. The Distribution Provider shall use Reasonable Efforts to ensure all necessary project information is provided to the ISO in a timely manner so the Phase I interconnection Study may be started by the date determined by the ISO each year, and to complete and publish to Interconnection Customers the Phase I Interconnection Study report within one hundred seventy (170) Calendars Days after the annual commencement of the Phase I Interconnection Study; however, each individual study or Group Studies may be completed prior to this maximum time where practicable based on factors, including, but not limited to, the number of Interconnection Requests received in the two associated Cluster Application Windows, study complexity, and reasonable availability of subcontractors as provided under GIP Section 6.12. The Distribution Provider will share applicable study results with the ISO and Affected System Operators, if applicable, for review and comment and will incorporate comments into the final study report. The Distribution Provider will issue a final Phase I Interconnection Study report to the Interconnection Customer and a copy of the final Phase I study report to the ISO and Affected System Operators, if applicable. At the time of completion of the Phase I Interconnection Study, the Distribution Provider may, at the Interconnection Customer's request, determine whether the provisions of GIP Section 5.18 apply.

If at any time the Distribution Provider determines that it will not meet the required time frame for completing the Phase I Interconnection Study due to the large number of Interconnection Requests in the two associated Cluster Application Windows, study complexity, coordination with the ISO Tariff GIP study processes, or unavailability of subcontractors on a reasonable basis to perform the study in the required time frame, the Distribution Provider shall notify the Interconnection Customer(s) as to the schedule status of the Phase I Interconnection Study and provide an estimated completion date with an explanation of the reasons why additional time is required.

Upon request, the Distribution Provider shall provide the Interconnection Customer all supporting documentation, work papers and relevant pre-Interconnection Request and post-Interconnection Request power flow, short circuit and stability databases for the Phase I Interconnection Study, subject to confidentiality arrangements as outlined in GIP Section 6.5.

#### 5.11 Phase I Interconnection Study Results Meeting

Within thirty (30) Calendar Days of providing the final Phase I Interconnection Study report to the Interconnection Customer; the Distribution Provider, the ISO and any Affected System Operators, if applicable, and the Interconnection Customer shall hold a Results Meeting to discuss the results of the Phase I Interconnection Study, including assigned cost responsibility.

##### 5.11.1 Commercial Operation Date

At the Results Meeting, the Interconnection Customer shall provide a schedule outlining key milestones including environmental survey start date, expected environmental permitting submittal date, expected procurement date of project equipment, back-feed date for project construction, and expected project construction date. This will assist the parties in determining if proposed Commercial Operation Dates are reasonable. If large-scale Distribution Provider's Interconnection Facilities or Distribution Upgrades for the Generating Facility have been identified in the Phase I Interconnection Study, such as telecommunications equipment to support a possible special protection system (SPS), distribution feeders to support back feed, a new substation, and/or expanded substation work, permitting and material procurement lead times may result in the need to alter the proposed Commercial Operation Date. The Parties may agree to a new Commercial Operation Date. In addition, where an Interconnection Customer intends to establish Commercial Operation separately for different Electric Generating Units or project phases at its Generating Facility, it may only do so in accordance with an implementation plan agreed to in advance

by the Distribution Provider and ISO, if applicable, which agreement shall not be unreasonably withheld. Where the parties cannot agree to a revised Commercial Operation Date, the Commercial Operation Date determined reasonable by the Distribution Provider, in coordination with the ISO, if applicable, will be used for the Phase II Interconnection Study where the revised Commercial Operation Date is needed to accommodate the anticipated completion, assuming Reasonable Efforts by the Distribution Provider, of necessary Distribution Upgrades, Reliability Network Upgrades and/or Distribution Provider's Interconnection Facilities, pending the outcome of any relief sought by the Interconnection Customer under GIP Section 6.2. The Interconnection Customer must notify the Distribution Provider within five (5) Business Days following the Results Meeting if it is initiating dispute procedures under GIP Section 6.2.

#### 5.11.2 Modifications in between the Phase I and Phase II Interconnection Studies

At any time during the course of the Interconnection Studies, the Interconnection Customer, the Distribution Provider, or the ISO, as applicable, may identify changes to the planned interconnection that may improve the costs and benefits, including reliability of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the Distribution Provider, the ISO as applicable, and Interconnection Customer, such acceptance not to be unreasonably withheld, Distribution Provider shall modify the Point of Interconnection and/or configuration in accordance with such changes without altering the Interconnection Request's eligibility for participating in Interconnection Studies.

At the Phase I Interconnection Study Results Meeting, the Interconnection Customer should be prepared to discuss any desired modifications to the Interconnection Request. After the publication of the final Phase I Interconnection Study, but no later than five (5) Business Days following the Phase I Interconnection Study Results Meeting, the Interconnection Customer shall submit to Distribution Provider, in writing, modifications to any information

provided in the Interconnection Request. The Distribution Provider will forward the Interconnection Customer's request for modification to the ISO, if applicable, within two (2) Business Days of receipt.

Modifications permitted under this Section shall include specifically: (a) a decrease in the electrical output (MW) of the proposed project; (b) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics; and (c) modifying the interconnection configuration. For any modification other than these, the Interconnection Customer may first request that Distribution Provider evaluate whether such modification is a Material Modification. In response to Interconnection Customer's request, Distribution Provider, in coordination with the ISO if applicable, and any Affected System Operator if applicable, shall evaluate the proposed modifications prior to making them and inform Interconnection Customer in writing of whether the modifications would constitute a Material Modification. Any change to the Point of Interconnection, except for that specified by the Distribution Provider in an Interconnection Study or otherwise allowed under this GIP Section 5.11.2, shall constitute a Material Modification. Interconnection Customer may then either withdraw the Interconnection Request with the proposed modification or proceed with a new Interconnection Request for such modification. The Interconnection Customer shall remain in the Interconnection Study Process and be eligible for the Phase II Interconnection Study if the modifications are in accordance with this Section 5.11.2 and are not deemed Material Modifications.

#### 5.12 Initial Financial Security Posting

Following completion of the Phase 1 Study, the Interconnection Customer must post an initial Interconnection Financial Security pursuant to Section 6.9 of this GIP in order to remain in the Interconnection Cluster Study Process.



### 5.13 Scope of Phase II Interconnection Study

Within five (5) Business Days following the Phase I Interconnection Study Results Meeting, the Interconnection Customer shall submit to the Distribution Provider the completed form of Appendix B to Attachment 6 (“Data Form To Be Provided by the Interconnection Customer Prior to Commencement of the Phase II Interconnection Study”) to its Generator Interconnection Study Process Agreement, a pro forma version of which is Attachment 6 to this GIP. Within such Appendix B to Attachment 6, the Interconnection Customer shall either (i) confirm the desired deliverability status that the Interconnection Customer had previously designated in the completed form of Appendix A to Attachment 6 to the Generator Interconnection Study Process Agreement (“Assumptions Used in Conducting the Phase I Interconnection Study”); or (ii) change the status of desired deliverability from Full Capacity Deliverability Status to Energy-Only Deliverability Status.

The Distribution Provider, in coordination with the ISO, as applicable, will conduct a Phase II Interconnection Study that will incorporate eligible Interconnection Requests from the previous Phase I Interconnection Study. The Phase II Interconnection Study shall (i) update, as necessary, analyses performed in the Phase I Interconnection Study to account for the withdrawal of Interconnection Requests or other projects in the Interconnection Study Process, (ii) identify Distribution Upgrades needed to physically interconnect the Generating Facility, (iii) assign cost responsibility for the Distribution Upgrades, (iv) identify final Reliability Network Upgrades needed to physically interconnect the Generating Facilities, (v) allocate estimated cost responsibility for financing the identified final Reliability Network Upgrades, (vi) identify, following coordination with the ISO’s transmission planning process, final Delivery Network Upgrades needed to interconnect those Generating Facilities selecting Full Capacity Deliverability Status, (vii) allocate estimated cost responsibility for financing Delivery Network Upgrades needed to interconnect those Generating Facilities selecting Full Capacity Deliverability Status, (viii) identify for each Interconnection Request a final Point of Interconnection and Distribution Provider’s Interconnection Facilities, (ix)

provide an estimate for each Interconnection Request of the Distribution Provider's Interconnection Facilities, and (x) optimize in-service timing requirements based on operational studies in order to maximize achievement of the Commercial Operation Dates of the Generating Facilities, as applicable.

With respect to the foregoing items, the Phase II Interconnection Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the updated Phase II Interconnection Study technical analyses in accordance with Good Utility Practice to physically and electrically connect the Generating Facility to the Distribution System. The Phase II Interconnection Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

#### 5.14 Phase II Interconnection Study Procedures

Distribution Provider shall coordinate the Phase II Interconnection Study with the ISO pursuant to GIP Section 6.9, and any Affected System Operator that is affected by the Interconnection Request pursuant to GIP Section 6.9. Distribution Provider shall utilize existing studies to the extent practicable in conducting the Phase II Interconnection Study. Distribution Provider will coordinate Base Case development with the ISO to ensure the Base Cases are accurately developed for the assessment of impacts on the ISO Grid. The Distribution Provider shall use Reasonable Efforts to ensure all necessary project information is provided to the ISO in a timely manner so the Phase II Interconnection Study may be started by the date determined by the ISO each year, and to complete and distribute to Interconnection Customers the Phase II Interconnection Study report within two hundred five (205) Calendar Days after the annual commencement of the Phase II Interconnection Study. The Distribution Provider will share the applicable study results with the ISO and any Affected System Operator, if applicable, for review

and comment, and will incorporate comments into the final study report. The Distribution Provider will issue a final Phase II Interconnection Study report to Interconnection Customer, and a copy of the final report to the ISO and any Affected System Operator, if applicable.

At the request of Interconnection Customer or at any time Distribution Provider determines that it will not meet the required time frame for completing the Phase II Interconnection Study, Distribution Provider shall notify Interconnection Customer as to the schedule status of the Phase II Interconnection Study and provide an estimated completion date. If the Distribution Provider is unable to complete the Phase II Interconnection Study, such notice shall provide an explanation of the reasons why additional time is required.

Upon request of the Interconnection Customer, Distribution Provider shall provide Interconnection Customer all supporting documentation, work papers, and relevant pre-Interconnection Request and post-Interconnection Request power, short circuit and stability databases for the Phase II Interconnection Study, subject to confidentiality arrangements consistent with GIP Section 6.5.

5.15 Coordination of the Phase II Interconnection Study with the ISO's Transmission Planning Process

The Distribution Provider, in cooperation with the ISO, shall coordinate the analysis of impacts on the ISO Grid under the Phase II Interconnection Studies with the ISO's transmission planning process in accordance with the ISO Tariff.

5.16 Financing of Distribution Upgrades

The responsibility to finance Distribution Upgrades identified in the Phase II Interconnection Study or an Interconnection Request studied separately shall be assigned solely to that Interconnection Request. The responsibility to finance Distribution Upgrades identified through a Group Study in the Phase II Interconnection Study shall be

assigned to all Interconnection Requests in that Study Group pro rata on the basis of the each Interconnection Request's contribution to the need for the Distribution Upgrade.

#### 5.17 Financing of Reliability Network Upgrades

The responsibility to finance Reliability Network Upgrades identified in the final Phase II Interconnection Study of an Interconnection Request studied separately shall be assigned solely to that Interconnection Request up to the cost assignment for Reliability Network Upgrades under Section 5.8.3.1. The responsibility to finance final short circuit related Reliability Network Upgrades identified through a Group Study in the Phase II Interconnection Study shall be assigned to all Interconnection Requests in that Study Group pro rata on the basis of short circuit duty contribution of each Generating Facility up to the cost assignment for Reliability Network Upgrades under Section 5.8.3.1. The responsibility to finance all other Reliability Network Upgrades identified through a Group Study in the final Phase II Interconnection Study shall be assigned to all Interconnection Requests in that Study Group pro rata on the basis of the maximum megawatt electrical output of each proposed new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request up to the cost assignment for Reliability Network Upgrades under Section 5.8.3.1.

#### 5.18 Financing of Delivery Network Upgrades

The responsibility to finance all Delivery Network Upgrades identified in the On-Peak Deliverability Assessment and Off-Peak Deliverability Assessment as part of Phase II Interconnection Study shall be assigned to all Interconnection Requests selecting Full Capacity Deliverability Status based on the flow impact of each such Generating Facility on each Delivery Network Upgrade as determined by the generation distribution factor methodology set forth in the On-Peak and Off-Peak Deliverability Assessment methodologies. The financing responsibility shall be up to, but no greater than, the cost assignment for Delivery Network Upgrades for each Interconnection Request under Sections 5.8.3.2.1 and 5.8.3.2.2.

#### 5.19 Accelerated Phase II Interconnection Study Process

The Phase II Interconnection Study shall be completed within one hundred fifty (150) Calendar Days following the posting of the initial Interconnection Financial Security under GIP Section 5.23.2 where the Interconnection Request meets the following criteria: (i) the Interconnection Request is no longer grouped with any other Interconnection Requests as a result of Phase I Interconnection Study withdrawals.

In addition to the above criteria, the Distribution Provider may apply to FERC in coordination with the Interconnection Customer and ISO, as applicable, for a waiver of the timelines in this GIP to meet the schedule required by an order, ruling, or regulation of the Governor of the State of California, the California Public Utilities Commission, or the California Energy Commission.

#### 5.20 Phase II Interconnection Study Results Meeting

Within thirty (30) Calendar Days of providing the final Phase II Interconnection Study report to Interconnection Customer; the Distribution Provider, the ISO, any Affected System Operator, if applicable, and Interconnection Customer shall meet to discuss the results of the Phase II Interconnection Study, including selection of the final Commercial Operation Date.

#### 5.21 Second Interconnection Financial Security Posting

Following completion of the Phase 2 Study, the Interconnection Customer must post an initial Interconnection Financial Security pursuant to Section 6.9 of this GIP in order to remain in the Interconnection Cluster Study Process.

#### 5.22 Re-Evaluation of Network Upgrades and/or Distribution Upgrades Following Phase II Study

If an assessment following the issuance of the final Phase II Interconnection Study is required to re-evaluate an Interconnection Customer's required Distribution Upgrades and/or Network Upgrades due to a project withdrawal, Distribution Provider shall so

notify the Interconnection Customer in writing. Such re-evaluation shall take no longer than sixty (60) Calendar Days from the date of notice. Any cost of the re-evaluation shall be borne by the Interconnection Customer being re-evaluated.

## 5.23 Additional Deliverability Assessment Options

### 5.23.1 One-Time Full Capacity Deliverability Study

(No longer used.)

### 5.23.2 Annual Full Capacity Deliverability Study (AFCDS)

A Generating Facility previously studied as Energy-Only Deliverability Status under the GIP, Rule 21 (export), or any approved predecessor interconnection procedures will have an annual option to be studied to determine whether it can be designated for Full Capacity Deliverability Status using available transmission capacity (i.e. with no responsibility to finance delivery network upgrades). An Interconnection Customer must make a request for such a study within a Cluster Application Window, beginning with the Cluster Application Window closing on March 31, 2012. The Annual Full Capacity Deliverability Study will be performed for any Interconnection Customer selecting this option immediately following the Phase II Interconnection Studies associated with the Queue Cluster during which the Interconnection Customer submits its request typically June through August annually.

#### 5.23.2.1 Request for Participation in the Annual Full Capacity Deliverability Study

Interconnection Customers that wish to participate in the Annual Full Capacity Deliverability Study must submit an Interconnection Request as set forth in Appendix 1 to the GIP along with a non-refundable \$10,000 study fee.

#### 5.23.2.2 Performance of the Annual Full Capacity Deliverability Study

After allocating transmission system capability, including capability associated with both existing capability and capability relating to approved transmission upgrades to Interconnection Customers in the Cluster Study Process that originally requested Full Capacity Deliverability Status in the Phase II Interconnection Study, the ISO, in consultation with the Distribution Provider, will perform additional studies using the Deliverability Assessment procedures set forth in Section 5.8.3.2 of this GIP to determine the availability of any remaining Transmission System capability for those Interconnection Customers requesting Full Capacity Deliverability Status as part of the Annual Full Capacity Deliverability Study process described in this Section 5.22.2.

If there is sufficient available transmission capability for the Interconnection Customer to deliver the full output of its Generating Unit, then the Interconnection Customer's Generating Facility will be considered to have Full Capacity Deliverability Status.

#### 5.23.2.3 Priority

In determining available transmission capability, priority will be given to Interconnection Customers with Generating Facilities that have the lowest generation distribution factors, calculated according to the Deliverability Assessment procedures set forth in Section 5.8.3.2 of this GIP.

#### 5.23.2.4 Partial Deliverability Based on Available Transmission Capacity

If the assessment of available transmission capability conducted under this GIP Section 5.22.2 indicates that there is some transmission capacity available for use by the Interconnection Customer, but less than is necessary to deliver the full output of the Interconnection Customer's Generating Facility, then the Interconnection Customer's Generating

Facility will be considered to be partially deliverable, and the amount of transmission capability made available to that Interconnection Customer's Generating Facility will be equal to the determination of available transmission capability for the Generating Facility rounded down to the nearest MW increment.

#### 5.23.2.5 Study Costs

The Distribution Provider and the CAISO shall execute any necessary agreements for reimbursement of study costs incurred and to assure cost attribution for any Network Upgrades relating to any deliverability status conferred to such customers.

### 5.23.3 Distributed Generation Deliverability Study (DGD)

A Generating Facility previously studied as Energy-Only Deliverability Status under the WDT GIP or Rule 21 (export), or any approved predecessor interconnection procedures have another annual option to be studied to determine whether it can be designated for Full Capacity Deliverability Status using available transmission capacity (i.e. with no responsibility to finance delivery network upgrades). An Interconnection Customer must make a request for such a study within the Application Window defined and announced by the CAISO in late February or early March each year. The Distribution Provider performs the Distributed Generation Deliverability Study according to CAISO Tariff, "Deliverability of Distributed Generation" for any exporting Interconnection Customer selecting this option immediately following the close of the annual application window.

#### 5.23.3.1 Study Costs

There are no Interconnection Study Deposits or fees required to participate in this study process, and no study costs will be charged to the customer for the Distribution Provider's efforts to perform this study process.



### 5.23.3.2 Applying for the Distributed Generation Deliverability Study Process

The CAISO will release via Market Notice the “Distributed Generation Deliverability Study Results” in late February of each year listing the transmission nodes (substations) studied by the CAISO for excess deliverability capacity available to allocate to other Generating Facilities. Not all substations on this list will have deliverability capacity available to allocate. This is the list against which the Distributed Generation Deliverability study is performed.

Following release of the DGD Study Results, the CAISO will release another Market Notice announcing the DGD Application Window. The Distribution Provider will provide a follow-up notice to Interconnection Customers with active projects that do not yet have Full Capacity Deliverability Status. This notice will include details about the study process, the current year’s study schedule, and an application form with instructions for how to complete and submit the application. This application form includes a preliminary eligibility worksheet that must be completed by the Interconnection Customer before completing and submitting the application. This eligibility worksheet will walk the Interconnection Customer through the CAISO eligibility criteria to determine if the Generating Facility in question is eligible to apply for that year’s DGD process.

Interconnection Customers that wish to participate in the Distributed Generation Deliverability Study must submit a unique application for each eligible Generating Facility to the Distribution Provider before close of business (Pacific Time) on the last day of the application window announced by the CAISO Market Notice.

#### 5.23.3.3 Performance of the Distributed Generation Deliverability Study

After the close of the annual application window, the Distribution Provider will verify which applications are eligible to participate in this study process based on the criteria defined by the CAISO Tariff and detailed on the application form. The Distribution Provider will notify the Interconnection Customer of this determination on or before the end of the first week following the close of the application window.

Once the Distribution Provider determines the final list of eligible Generating Facilities, the Distribution Provider will allocate the deliverability capacity available at each substation that received an application based on the prioritization requirements described by the CAISO Tariff, and summarized in GIP Section 5.22.3.3.

#### 5.23.3.4 Priority for Allocating Available Deliverability Capacity

For substations with available deliverability capacity that receive only a single DGD application, the applying Generating Facility will receive a deliverability capacity allocation equal to the lesser of (i) the amount of deliverability capacity available at that substation, or (ii) the amount deliverability capacity requested by that Generating Facility, up to the full net generating size of that Generating Facility.

For substations that receive more than one application for the available deliverability capacity, the Distribution Provider first will prioritize those applications in the following manner:

- (i) First priority for allocation of available capacity will be given to Generating Facilities that already have achieved commercial operation. Within this group of commercially operating Generating Facilities, the Distribution Provider will allocate available deliverability capacity first to the Generating

Facility with the earliest commercial operation date, followed by allocations to any additional Generating Facilities with more recent commercial operation dates; And

(ii) Second priority for allocation of available capacity will be given to active Generating Facilities in the distribution interconnection queue, based on the assigned queue number.

Within this group of projects, the Distribution Provider will allocate available deliverability capacity first to the lowest queued Generating Facility first, followed by allocations to any additional Generating Facilities with more recent, higher interconnection queue numbers.

For this study process, an active project is defined as any Generating Facility that at the least has had its Interconnection Request deemed complete, has been assigned a queue number by the Distribution Provider before the current DGD application window closes, and is actively pursuing interconnection to the Distribution Providers system.

Allocations will be made by the Distribution Provider to eligible and prioritized Generating Facilities by assigning the maximum amount of deliverability capacity to the highest priority Generating Facility in an amount equal to lesser of (i) the amount of deliverability capacity available at that substation, or (ii) the amount of deliverability capacity requested by that Generating Facility, up to the full net generating size of that Generating Facility. If any deliverability capacity remains at the substation after this initial allocation, the same allocation process will be performed with the second priority Generating Facility. This will continue until either the substation deliverability capacity is fully allocated or there are no more Generating Facilities to which capacity may be allocated.

The CAISO reviews the draft deliverability allocations proposed by the Distribution Provider, providing comments and corrections as needed. Within one week of the final CAISO approval of the allocations, the Distribution Provider will send final results to the Interconnection Customers with eligible Generating Facilities.

5.23.3.5 Partial Deliverability Based on Available Deliverability Capacity

If the allocation of available deliverability capacity conducted under this GIP Section indicates that there is some deliverability capacity available for use by the Interconnection Customer, but less than is necessary to deliver the full output of the Interconnection Customer's Generating Facility, then the Interconnection Customer's Generating Facility will be considered to be partially deliverable.

5.23.3.6 Retaining Deliverability Allocations from this Study Process

Once a deliverability allocation is made to a project under this study process, the Interconnection Customer does not need to reapply to this or any other study process in subsequent years to retain that allocation for this Generating Facility. The Generating Facility will retain its assigned deliverability status for as long as it remains in Commercial Operation.

Generating Facilities that receive only a partial deliverability allocation using this study process may continue to reapply to this study process in subsequent years for the additional deliverability capacity allocation needed to bring the Generating Facility to Full Capacity Deliverability Status, as long as deliverability capacity has been identified and is available for allocation at the applicable substation.

Per CAISO Tariff, any non-commercial Generating Facility that receives a deliverability allocation under this study process must attain commercial operation within three (3) years of the close of the application window for the DGD Study process from which the

allocation was received. Failure to achieve commercial operation within that three year time frame will result in the Generating Facility losing the deliverability capacity allocation received from this study process.

#### 5.24 Final Interconnection Financial Security For Generating Facilities In The Cluster Study Process

The Interconnection Customer must post Final Interconnection Financial Security following execution of the GIA pursuant to Section 6.9 of this GIP in order to remain in the interconnection process. Failure to do so will result in Interconnection Customer Default on the executed Agreement.

#### 5.25 Generator Interconnection Agreement (GIA)

##### 5.25.1 Tender of draft GIA

Within thirty (30) Calendar Days after the Distribution Provider provides the final Phase II Interconnection Study report or Results Meeting if held,, the Distribution Provider shall tender a draft GIA, together with draft appendices. The draft GIA shall be in the form of Distribution Provider's FERC-approved form GIA, which is in Appendix 5 to this GIP. The Interconnection Customer shall provide written comments, or notification of no comments, to the draft GIA and appendices within thirty (30) Calendar Days of receipt of the draft GIA.

##### 5.25.2 Negotiation

Notwithstanding Section 5.24.1, at the request of Interconnection Customer Distribution Provider shall begin negotiations with Interconnection Customer concerning the appendices to the GIA at any time after the Distribution Provider provides the Interconnection Customer with the final Phase II Interconnection Study report. Distribution Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft GIA for not more than ninety (90) Calendar Days after the Distribution Provider provides the Interconnection Customer with the final Phase II Interconnection Study report.

Distribution Provider shall provide to Interconnection Customer a final GIA within fifteen (15) Business Days following the completion of the negotiation period.

If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft GIA pursuant to Section 5.24.3 and request submission of the unexecuted GIA to FERC or initiate Dispute Resolution procedures pursuant to Section 6.2. Unless otherwise agreed by the Parties, if Interconnection Customer requests termination of the negotiations within ninety (90) Calendar Days after issuance of the final Phase II Interconnection Study report, but fails to request either the filing of the unexecuted GIA or to initiate Dispute Resolution, the Interconnection Customer shall be deemed to have withdrawn its Interconnection Request.

#### 5.25.3 Execution and Filing

Interconnection Customer shall either: (i) execute two originals of the tendered GIA and return them to Distribution Provider; or (ii) request in writing that Distribution Provider file with FERC a GIA in unexecuted form. As soon as practicable, Distribution Provider shall file the unexecuted GIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Distribution Provider disagree and support for the costs that Distribution Provider proposes to charge to the Interconnection Customer under the GIA. An unexecuted GIA should contain terms and conditions deemed appropriate by Distribution Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed-upon terms of the unexecuted GIA, they may proceed, pending FERC action.

5.25.4 Impact of Executed or Unexecuted GIA on Commencement of Interconnection Activities

Regardless of whether the Interconnection Customer executes the final GIA, or requests submission of an unexecuted GIA, Distribution Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the GIA, subject to modification by FERC.

5.25.5 Interconnection Customer To Meet Requirements of the Distribution Provider's Interconnection Handbook

The Interconnection Customer's Interconnection Facilities shall be designed, constructed, operated and maintained in accordance with the Distribution Provider's Interconnection Handbook. In the event of a conflict between the terms of the GIP and the terms of the Distribution Provider's Interconnection Handbook, the terms in the GIP shall govern.

5.26 Construction of Network Upgrades that are or were an Obligation of an Entity other than Interconnection Customer

The Distribution Provider shall be responsible for financing and constructing the Network Upgrades, that meet conditions as specified below, necessary to support the interconnection of the Generating Facility of an Interconnection Customer with a GIA under this GIP, whenever either:

- (i) the Network Upgrades were included in the Base Case for a Phase II Interconnection Study on the basis that they were Network Upgrades associated with Generating Facilities of Interconnection Customers that have an executed GIA (or its equivalent predecessor agreement) or unexecuted GIA (or its equivalent predecessor agreement) filed with FERC, but the Network Upgrades will not otherwise be completed because such GIA or equivalent predecessor agreement was subsequently terminated or the Interconnection Request has otherwise been withdrawn; or

- (ii) the Network Upgrades were included in the Base Case for a Phase II Interconnection Study on the basis that they were Network Upgrades associated with Generating Facilities of Interconnection Customers that have an executed GIA (or its equivalent predecessor agreement) or unexecuted GIA (or its equivalent predecessor agreement) filed with FERC, but the Network Upgrades will not otherwise be completed in time to support the Interconnection Customer's In-Service Date because construction has not commenced in accordance with the terms of such GIA (or its equivalent predecessor agreement). The obligation under this GIP Section 5.25 arises only after the Distribution Provider, in coordination with the ISO, if applicable, determines that the Network Upgrades remain needed to support the interconnection of the Interconnection Customer's Generating Facility notwithstanding, as applicable, the absence or delay of the Generating Facility that is contractually, or was previously contractually, associated with the Network Upgrades.

Further, to the extent the timing of such Network Upgrades was not accounted for in determining a reasonable Commercial Operation Date among the Distribution Provider, ISO, as applicable, and the Interconnection Customer as part of the Phase II Interconnection Study, the Distribution Provider will use Reasonable Efforts to ensure that the construction of such Network Upgrades can accommodate the Interconnection Customer's proposed Commercial Operation Date. If, despite Reasonable Efforts, it is anticipated that the Network Upgrades cannot be constructed in time to accommodate the Interconnection Customer's proposed Commercial Operation Date, the Interconnection Customer may commit to pay the Distribution Provider any costs associated with expediting construction of the Network Upgrades to meet the original proposed Commercial Operation Date. The expediting costs under this GIP Section 5.26 shall be in addition to the Interconnection Customer's cost responsibility assigned under GIP Section 5.8.3.



## Section 6. Provisions that Apply to All Interconnection Requests

### 6.1 Reasonable Efforts

The Distribution Provider shall make reasonable efforts to meet all time frames provided in these procedures, including the payment of refunds, unless the Distribution Provider and the Interconnection Customer agree to a different schedule. If the Distribution Provider cannot meet a deadline or timeline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

### 6.2 Disputes

- 6.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 6.2.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 6.2.3 If the dispute has not been resolved within two (2) Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- 6.2.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at [Dispute Resolution Service | Federal Energy Regulatory Commission \(ferc.gov\)](#)
- 6.2.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

6.2.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

### 6.3 Interconnection Metering

Any metering necessitated by the use of the Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Federal Energy Regulatory Commission, state, or local regulatory requirements or the Distribution Provider's specifications.

### 6.4 Commissioning

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards. The Distribution Provider must be given at least fifteen (15) Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

### 6.5. Confidentiality

6.5.1 Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." All design, operating specifications, and metering data provided by the Interconnection Customer and all Interconnection Studies, including Facility Modifications, and other types of studies specific to a project shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.

6.5.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to

the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

6.5.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

6.5.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

6.5.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1 b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

## 6.6 Comparability

The Distribution Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this document. The Distribution Provider shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facility is owned or operated by the Distribution Provider, its subsidiaries or affiliates, or others.

## 6.7 Record Retention

The Distribution Provider shall maintain for three years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

## 6.8 Generator Interconnection Agreement (GIA)

This section applies to all Interconnection Requests except as described in Section 2 Fast Track Process.

### 6.8.1 Tender

The Distribution Provider shall tender a draft GIA, together with draft appendices, within thirty (30) Calendar Days of the following:

- (i) After the Distribution Provider provides the final Interconnection Facilities Study report (or Interconnection Facilities Study Results Meeting if held); or
- (ii) After the Distribution Provider provides the final Interconnection System Impact Study report (or Interconnection System Impact Study Results Meeting if held) if the Interconnection Facilities Study is waived; or
- (iii) After the Distribution Provider provides the final Phase II Study report (or Phase II Study Results Meeting if held).

The Distribution Provider shall tender a draft GIA, together with draft appendices. The draft GIA shall be in the form of Distribution Provider's FERC-approved form GIA, which is in Appendix 6 to this GIP. The Interconnection Customer shall provide written comments, or notification of no comments, to the draft appendices within thirty (30) Calendar Days.

#### 6.8.1.1 Rule 21 Interconnection Requests and One-Time Election of WDT GIA

Interconnection Customers with Interconnection Requests originally submitted under CPUC Rule 21 may elect a WDT GIA by notifying the Distribution Provider in writing after completion of the study process but no later than seven (7) Calendar Days after completion of the ninety (90) Calendar Day negotiation period pursuant to Rule 21, Section F.2.e or Rule 21, Section F.3.e., or after notice period pursuant to Rule 21, Section 3.3.3 of the Fast Track Interconnection Agreement (Form 79-1144) or Detailed Study Interconnection Agreement. On the date the WDT GIA is executed by the Interconnection Customer and Distribution Provider, jurisdiction over the Interconnection Service reverts to the FERC, except as otherwise provided in the WDT GIA. Interconnection Customers converting from CPUC to FERC jurisdiction will be subject to Section 8.6 and will be invoiced for any outstanding charges prior to any construction beginning in accordance with the WDT GIA. Failure to pay such invoices within thirty (30) Calendar Days will result in a Notice of Default.

#### 6.8.1.2 Rule 21 Interconnection Requests under the Transmission Cluster Study Process

Interconnection Requests originally submitted under CPUC Rule 21 that fail Rule 21, Section G.3.a (Screen Q) or elect to be studied under the Transmission Cluster Study Process must file an Interconnection Request under the WDT Cluster Study Process pursuant to Rule 21, Section F.3.d. Upon completion of the Cluster Study Process, an eligible Interconnection

Customer may make a one-time election to opt for a Rule 21 GIA by notifying the Distribution Provider in writing no later than seven (7) Calendar Days after the Distribution Provider provides the final Phase II Interconnection Study report to the Interconnection Customer. The draft Rule 21 GIA shall be in the form of Distribution Provider's CPUC-approved form Rule 21 GIA. On the date the Rule 21 GIA is executed by the Interconnection Customer and Distribution Provider, jurisdiction over the Interconnection Service reverts to the CPUC, except as otherwise provided in the Rule 21 GIA.

#### 6.8.2 Negotiation

Notwithstanding Section 6.8.1, at the request of Interconnection Customer Distribution Provider shall begin negotiations with Interconnection Customer concerning the appendices to the GIA at any time after the Distribution Provider provides the Interconnection Customer with the final Interconnection Facilities Study report (or final Interconnection System Impact Study report if the Interconnection Facilities Study is waived) or Phase II Study report. Distribution Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the appendices to the draft GIA for not more than ninety (90) Calendar Days after the Distribution Provider provides the Interconnection Customer with the final Interconnection Facilities Study report (or final Interconnection System Impact Study report if the Interconnection Facilities Study is waived) or Phase II Study report. If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft GIA pursuant to Section 6.8.1 and request submission of the unexecuted GIA with FERC or initiate Dispute Resolution procedures pursuant to Section 6.2. If Interconnection Customer requests termination of the negotiations, but within ninety (90) Calendar Days after issuance of the final Interconnection Facilities Study report (or final Interconnection System Impact Study report if the Interconnection Facilities

Study is waived) or Phase II Study report, fails to request either the filing of the unexecuted GIA or initiate Dispute Resolution, it shall be deemed to have withdrawn its Interconnection Request. Unless otherwise agreed by the Parties, if Interconnection Customer has not executed the GIA, requested filing of an unexecuted GIA, or initiated Dispute Resolution procedures pursuant to Section 6.2 within ninety (90) Calendar Days after issuance of the final Interconnection Facilities Study report (or final Interconnection System Impact Study report if the Interconnection Facilities Study is waived) or Phase II Study report, it shall be deemed to have withdrawn its Interconnection Request.

### 6.8.3 Execution and Filing

Interconnection Customer shall either: (i) execute two originals of the tendered GIA and return them to Distribution Provider; or (ii) request in writing that Distribution Provider file with FERC a GIA in unexecuted form. As soon as practicable, Distribution Provider shall file the unexecuted GIA with FERC, together with its explanation of any matters as to which Interconnection Customer and Distribution Provider disagree and support for the costs that Distribution Provider proposes to charge to Interconnection Customer under the GIA. An unexecuted GIA should contain terms and conditions deemed appropriate by Distribution Provider for the Interconnection Request. If the Parties agree to proceed with design, procurement, and construction of facilities and upgrades under the agreed upon terms of the unexecuted GIA, they may proceed pending FERC action.

## 6.9 Interconnection Financial Security Posting Requirements

### 6.9.1 General Financial Security Posting Requirements

The Interconnection Customer must post Interconnection Financial Security pursuant to the requirements of this section of the GIP in order to remain in the Interconnection Study Process.

Information about the types of Interconnection Financial Securities accepted by the Distribution Provider is provided in Section 6.9.2.

Interconnection Customers with a project being studied under the Fast Track process are only responsible for posting a Final Interconnection Financial Security after execution of the Interconnection Agreement, pursuant to Section 6.9.5.

Interconnection Customers with a project being studied under the Independent Study Process, the Distribution Group Study Process, or the Cluster Study Process must post an Initial Interconnection Financial Security following completion of the first interconnection study (SIS or Phase 1 study) pursuant to Section 6.9.3 in order to remain in those study processes.

Interconnection Customers with a project that completes a Facilities Study in the Independent Study Process, or a Phase 2 study in either the Distribution Group Study Process or the Cluster Study Process, also must post a Second Interconnection Financial Security pursuant to Section 6.9.4 in order to remain in those study processes

All Interconnection Customers that execute a Generator Interconnection Agreement must post a Final Interconnection Financial Security pursuant to Section 6.9.5 in order to move that project into interconnection engineering, design, and construction activities.

#### 6.9.2 Types of Interconnection Financial Security

For the financial security requirements described in Sections 6.9.3 through 6.9.5, the Interconnection Financial Security posted by an Interconnection Customer may be any combination of the following types of financial instruments, provided in favor of the Distribution Provider:

- (i) An irrevocable and unconditional letter of credit issued by a bank or financial institution that has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's;



(ii) An unconditional and irrevocable guaranty issued by a company has a credit rating of A or better by Standard and Poor's or A2 or better by Moody's;

(iii) A cash deposit standing to the credit of the Distribution Provider and in an interest-bearing escrow account maintained at a bank or financial institution that is reasonably acceptable to the Distribution Provider.

To the greatest extent possible, the Interconnection Customer will use industry standard forms for the instruments of Interconnection Financial Security used in this Section, such as standard forms used within the financial and electrical industries. The instruments of Interconnection Financial Security listed in this Section shall be in such form and format as the Distribution Provider may reasonably require from time to time by notice to Interconnection Customers, or in such other form as has been evaluated and approved as reasonably acceptable by the Distribution Provider.

If at any time the guarantor of the Interconnection Financial Security fails to maintain the credit rating required by this Section, the Interconnection Customer shall provide to the Distribution Provider replacement Interconnection Financial Security that meets the requirements of this Section within five (5) Business Days of the change in credit rating.

Interest on a cash deposit standing to the credit of the Distribution Provider in an interest-bearing escrow account under subpart (iii) of this Section will accrue to the Interconnection Customer's benefit.

### 6.9.3 Initial Posting of Interconnection Financial Security

Interconnection Customers with a project studied in the Fast Track Study process do not need to post an initial Interconnection Financial Security. Please refer to Section 6.9.5 for information about posting the Final Interconnection Financial Security.

For projects being studied under the Independent Study Process, the Distribution Group Study Process, or the Cluster Study Process, the Interconnection Customer must post an Initial Interconnection Financial Security pursuant to this section in order to remain in those study processes.

The Interconnection Customer shall post two separate Interconnection Financial Security instruments, as applicable: (i) a posting relating to the Network Upgrades; and (ii) a posting relating to the Distribution Provider's Interconnection Facilities and Distribution Upgrades. The Interconnection Customer shall provide the Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.

#### 6.9.3.1 Timing of Initial Postings of Interconnection Financial Security

For interconnection projects studied in the Independent Study Process or in the Distribution Group Study Process, this initial financial security posting shall be made on or before sixty (60) Calendar Days after the Distribution Provider first provides the ISP System Impact Study results or the DGSP Phase 1 study results to the Interconnection Customer.

For interconnection projects studied in the Cluster Study Process, this initial financial security posting shall be made on or before ninety (90) Calendar Days after the Distribution Provider first provides the CSP Phase 1 Study results to the Interconnection Customer.

#### 6.9.3.2 Initial Posting Amounts For Network Upgrades for a Small Generating Facility

With respect to Network Upgrades, the Interconnection Customer for a Generating Facility shall post an Interconnection Financial Security instrument in an amount equal to the lesser of the following:

- (i) Fifteen percent (15%) of the total cost responsibility assigned to the Interconnection Customer in the Interconnection System Impact Study or in the Cluster Phase 1 Study (as applicable) for Network Upgrades;

Or

(ii) \$20,000 per megawatt of electrical output of the Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto.

#### 6.9.3.3 Initial Posting Amounts for Network Upgrades for a Large Generating Facility

With respect to Network Upgrades, the Interconnection Customer for a Large Generating Facility shall post an Interconnection Financial Security instrument in an amount equal to the lesser of the following:

(i) Fifteen percent (15%) of the total cost responsibility assigned to the Interconnection Customer in the Interconnection System Impact Study or in the Cluster Phase 1 Study (as applicable) for Network Upgrades;

Or

(ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto;

Or

(iii) \$7,500,000.

#### 6.9.3.4 Initial Posting Amounts for Distribution Provider's Interconnection Facilities and Distribution Upgrades

The Interconnection Customer also shall post an Interconnection Financial Security instrument in the amount of the lesser of:

(i) Twenty percent (20%) of the total estimated cost responsibility assigned to the Interconnection Customer in the Interconnection System Impact Study or in the Cluster Phase 1 Study (as applicable) for the Distribution Provider's Interconnection Facilities and Distribution Upgrades,

Or

(ii) \$20,000 per megawatt of electrical output of the Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generation Facility as listed by the Interconnection Customer in its Interconnection Request.

#### 6.9.4 Second Posting of Interconnection Financial Security

Interconnection Customers with a project studied in the Fast Track Study process do not need to post a second Interconnection Financial Security. Please refer to Section 6.9.5 for information about posting the Final Interconnection Financial Security.

Interconnection Customers that have opted to forgo the Facilities Study in the Independent Study Process or the Phase 2 Study in the Distribution Group Study Process and proceed directly to the Interconnection Agreement should refer to Sections 6.9.4.5 and 6.9.5 for instructions for posting the final Interconnection Financial Security instead of this second Interconnection Financial Security.

Following completion of the second interconnection study in the Independent Study Process, the Distribution Group Study Process, or the Cluster Study Process, the Interconnection Customer shall make second postings of two separate Interconnection Financial Security instruments: (i) a second posting relating to the Network Upgrades; and (ii) a second posting relating to the Distribution Provider's Interconnection Facilities and Distribution Upgrades. Instructions for the amounts to be posted are provided in Sections 6.9.4.2 through 6.9.4.4, below. The Interconnection Customer shall provide the

Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.

#### 6.9.4.1 Timing of Second Postings of Interconnection Financial Security

For interconnection projects studied in the Independent Study Process or in the Distribution Group Study Process, this second financial security posting shall be made on or before one hundred twenty (120) Calendar Days after the Distribution Provider first provides the ISP Facilities Study results or the DGSP Phase 2 study results to the Interconnection Customer.

For interconnection projects studied in the Cluster Study Process, this second financial security posting shall be made on or before one hundred eighty (180) Calendar Days after the Distribution Provider first provides the Interconnection Phase 2 Study results to the Interconnection Customer.

#### 6.9.4.2 Second Posting Amounts for Network Upgrades for a Small Generating Facility

With respect to Network Upgrades, the Interconnection Customer for a Generating Facility shall post an Interconnection Financial Security instrument such that the total Interconnection Financial Security posted by the Interconnection Customer for equals the lesser of the following:

(i) \$1 million;

Or

(ii) Thirty percent (30%) of the total cost responsibility assigned to the Interconnection Customer for Network Upgrades in the Interconnection System Impact Study, or Interconnection Facilities Study, whichever is lower.

#### 6.9.4.3 Second Posting Amounts for Network Upgrades for a Large Generating Facility

With respect to Network Upgrades, the Interconnection Customer for a Large Generating shall post an Interconnection Financial Security instrument such that the total Interconnection Financial Security posted by the Interconnection Customer equals the lesser of the following:

(i) \$15 million;

Or

(ii) Thirty percent (30%) of the total cost responsibility assigned to the Interconnection Customer for Network Upgrades in the Interconnection System Impact Study, or Interconnection Facilities Study, whichever is lower.

#### 6.9.4.4 Second Posting Amounts for Distribution Provider's Interconnection Facilities and Distribution Upgrades for Interconnection Requests

The Interconnection Customer also shall post an Interconnection Financial Security instrument such that the total Interconnection Financial Security posted by the Interconnection Customer for Distribution Provider's Interconnection Facilities and Distribution Upgrades equals thirty percent (30%) of the total cost responsibility assigned to the Interconnection Customer in the final Interconnection Facilities Study for Distribution Provider's Interconnection Facilities and Distribution Upgrades.

#### 6.9.4.5 Alteration of Second Posting Date due to Early Commencement of Construction Activities

If the start date for Construction Activities of Network Upgrades, Distribution Provider's Interconnection Facilities and Distribution Upgrades on behalf of the Interconnection Customer is prior to the due date for this second interconnection

financial security posting, that start date must be set forth in the Interconnection Customer's GIA (in Attachment 4, "Milestones") and the Interconnection Customer shall make its next posting of Interconnection Financial Security pursuant to Section 6.9.5 rather than GIP Section 6.9.4.

#### 6.9.5 Final Posting of Interconnection Financial Security

At least twenty (20) Business Days prior to the start of Construction Activities for Network Upgrades, or Distribution Provider's Interconnection Facilities, or Distribution Upgrades on behalf of the Interconnection Customer, or on or before the financial security posting milestone date agreed to in the executed GIA (no later than one hundred and eighty (180) Calendar Days after the effective date of the GIA), whichever is earlier, the Interconnection Customer shall post/modify two separate Interconnection Financial Security instruments as follows:

- (i) With respect to the Interconnection Financial Security instrument for Network Upgrades, the Interconnection Customer shall modify this instrument so that it equals one hundred percent (100%) of the total cost responsibility assigned to the Interconnection Customer for Network Upgrades in the executed Interconnection Agreement.
- (ii) With respect to the Interconnection Financial Security instrument for Distribution Provider's Interconnection Facilities and/or Distribution Upgrades, the Interconnection Customer shall modify this instrument so that it equals one hundred percent (100%) of the total cost responsibility assigned to the Interconnection Customer for Distribution Provider's Interconnection Facilities in the executed Interconnection Agreement.

The Interconnection Customer shall provide the Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.

#### 6.9.6 Consequences for Failure to Post Interconnection Financial Security

Failure to post the first or second Interconnection Financial Security per Sections 6.9.3 or 6.9.4, or notify that the Interconnection Financial Security was posted, within the required timeframe will result in a Notice of Deemed Withdrawn to be sent to the Interconnection Customer per Section 9.1 “Withdrawal” of this GIP.

Failure to post the final Interconnection Financial Security per Section 6.9.5, or notify that the Interconnection Financial Security was posted, within the required timeframe shall constitute breach of the executed GIA, resulting in a Notice of Default to be sent to the Interconnection Customer, per the effective GIA.

#### 6.9.7 General Effect of Withdrawal of Interconnection Request or Termination of the GIA on Interconnection Financial Security

Withdrawal of an Interconnection Request or termination of a GIA shall allow the Distribution Provider to liquidate the Interconnection Financial Security, or balance thereof, posted by the Interconnection Customer for Network Upgrades at the time of withdrawal. To the extent the amount of the liquidated Interconnection Financial Security plus capital, if any had been separately provided by the Interconnection Customer to satisfy its obligation to finance Network Upgrades in accordance with GIP Section 7.3, exceeds the total cost responsibility for Network Upgrades assigned to the Interconnection Customer by the final Interconnection System Impact Study or Interconnection Facilities Study, whichever is lower, the Distribution Provider shall remit to the Interconnection Customer the excess amount.

Withdrawal of an Interconnection Request or termination of a GIA shall result in the release to the Interconnection Customer of any Interconnection Financial Security posted by the Interconnection Customer for Distribution Provider’s Interconnection Facilities and Distribution Upgrades, except with respect to any amounts necessary to pay for costs incurred or irrevocably committed by the Distribution Provider on behalf of the Interconnection Customer for the Distribution Provider’s Interconnection Facilities and Distribution Upgrades and for which the Distribution Provider has not been reimbursed.



Notwithstanding the foregoing in Section 6.9.6, if Interconnection Customer withdraws for the reasons specified in Section 6.9.7.1, the Interconnection Customer may receive partial recovery of its Interconnection Financial Security, as set forth in Section 6.9.7.2.

6.9.7.1 Conditions for Partial Recovery of Interconnection Financial Security  
Upon Withdrawal of Interconnection Request or Termination of GIA

A portion of the Interconnection Financial Security shall be released to the Interconnection Customer, consistent with GIP Section 6.9.7.2, if the withdrawal of the Interconnection Request or termination of the GIA occurs for any of the following reasons:

(i) Failure to Secure a Power Purchase Agreement.

At the time of withdrawal of the Interconnection Request or termination of the GIA, the Interconnection Customer demonstrates to the Distribution Provider that it has failed to secure an acceptable power purchase agreement for the Energy or capacity of the Generating Facility after a good faith effort to do so. A good faith effort can be established by demonstrating participation in a competitive solicitation process or bilateral negotiations with an entity other than an Affiliate that progressed, at minimum, to the mutual exchange by all counter-parties of proposed term sheets.

(ii) Failure to Secure a Necessary Permit.

At the time of withdrawal of the Interconnection Request or termination of the GIA, the Interconnection Customer demonstrates to the Distribution Provider that it has received a final denial from the primary issuing Governmental Authority of any permit or other authorization necessary for the construction or operation of the Generating Facility.

(iii) Increase in the Cost of Distribution Provider's Interconnection Facilities or Distribution Upgrades.

The Interconnection Customer withdraws the Interconnection Request or terminates the GIA based on an increase of: (a) more than 30% or \$300,000, whichever is greater, in the estimated cost of Distribution Provider's Interconnection Facilities; or (b) more than 30% or \$300,000, whichever is greater, in the estimated cost of Distribution Upgrades allocated to the Interconnection Customer from the Interconnection System Impact Study to the Interconnection Facilities Study. This Section 6.9.7.1 (iii) shall not apply if the cause of the cost increase under 6.9.7.1 (i) or 6.9.7.1 (ii) above is the result of a change requested by the Interconnection Customer pursuant to Section 3.5.8 or 4.11.2 of this GIP, as applicable.

(iv) Material Change in Interconnection Customer's Interconnection Facilities Created by the Distribution Provider's Change in the Point of Interconnection.

The Interconnection Customer withdraws the Interconnection Request or terminates the GIA based on a material change from the Interconnection System Impact Study in the Point of Interconnection for the Generating Facility mandated by the Distribution Provider and included in the final Interconnection Facilities Study. A material change in the Point of Interconnection shall be where the Point of Interconnection has moved to (a) a different substation, (b) a different line on a different right of way, or (c) a materially different location than previously identified on the same line.

#### 6.9.7.2 Schedule for Determining Non-Refundable Portion of the Interconnection Financial Security for Network Upgrades

(i) Up to One Hundred Twenty (120) Calendar Days After the Final Interconnection Facilities Study Report.

If, at any time after the initial posting of the Interconnection Financial Security for Network Upgrades under GIP Section 6.9.3 and on or before one hundred twenty (120) Calendar Days after the date the Distribution Provider first issues the Interconnection Facilities Study results, the Interconnection Customer withdraws the Interconnection Request or terminates the GIA, as applicable, in accordance with GIP Section 6.9.7.1, the Distribution Provider shall liquidate the Interconnection Financial Security for Network Upgrades under GIP Section 6.9 and reimburse the Interconnection Customer in an amount of:

(a) any posted amount less fifty percent (50%) of the value of the posted Interconnection Financial Security for Network Upgrades (with a maximum of \$10,000 per requested and approved megawatt value of the Generating Facility Capacity at the time of withdrawal being retained by the Distribution Provider), or

(b) if the Interconnection Financial Security has been drawn down to finance Pre-Construction Activities for Network Upgrades on behalf of the Interconnection Customer, the lesser of the remaining balance of the Interconnection Financial Security or the amount calculated under (a) above.

If the Interconnection Customer has separately provided capital apart from the Interconnection Financial Security to finance Pre-Construction Activities for Network Upgrades, the Distribution Provider will credit the capital provided as if drawn from the Interconnection Financial Security and apply (b) above.

(ii) Between One Hundred Eighty-One (181) Calendar Days and After the Final Interconnection Facilities Study Results and the Commencement of Construction Activities. If, at any time between one hundred eighty-one (181) Calendar Days and after the date of issuance of the final

Interconnection Facilities Study Report, and the commencement of Construction Activities for either Network Upgrades or Distribution Provider's Interconnection Facilities or Distribution Upgrades, the Interconnection Customer withdraws the Interconnection Request or terminates the GIA, as applicable, in accordance with GIP Section 6.9.7.1 the Distribution Provider shall liquidate the Interconnection Financial Security for Network Upgrades under GIP Section 6.9 and reimburse the Interconnection Customer in an amount of

(a) any posted amounts less fifty percent (50%) of the value of the posted Interconnection Financial Security for Network Upgrades (with a maximum of \$20,000 per requested and approved megawatt value of the Generating Facility Capacity at the time of withdrawal being retained by the Distribution Provider), or

(b) if the Interconnection Financial Security has been drawn down to finance Pre-Construction Activities for Network Upgrades on behalf of the Interconnection Customer, the lesser of the remaining balance of the Interconnection Financial Security or the amount calculated under (a) above. If the Interconnection Customer has separately provided capital apart from the Interconnection Financial Security to finance Pre-Construction Activities for Network Upgrades, the Distribution Provider will credit the capital provided as if drawn from the Interconnection Financial Security and apply (b) above.

#### 6.9.7.3 Special Treatment Based on Failure to Obtain Necessary Permit or Authorization from Governmental Authority

If at any time after the posting requirement under GIP Section 6.9, the Interconnection Customer withdraws the Interconnection Request or terminates the GIA, as applicable, in accordance with GIP Section 6.9.7.1 (ii), and the Delivery Network Upgrades to be financed by the

Interconnection Customer under GIP Section 3.10 or 4.17, as applicable, that are also to be financed by one or more other Interconnection Customers, then GIP Section 6.9.7.1 (i) shall apply, except that the Interconnection Customer shall not be reimbursed for its share of any actual costs incurred or irrevocably committed by the Distribution Provider for Construction Activities.

#### 6.9.7.4 No Refund of Interconnection Financial Security if Withdrawal After Commencement of Construction Activities

Except as otherwise provided in GIP Section 6.9.7.3, if Interconnection Customer withdraws its Interconnection Request or terminates the GIA at any time after the commencement of Construction Activities on behalf of the Interconnection Customer for Network Upgrades, Distribution Upgrades, or Distribution Provider's Interconnection Facilities, any withdrawal of the Interconnection Request or termination of the GIA by the Interconnection Customer will be treated in accordance with this GIP Section 6.9.7.

#### 6.9.7.5 Notification to Interconnection Customer and Accounting by Distribution Provider

The Distribution Provider will notify the Interconnection Customer within three (3) Business Days of liquidating any Interconnection Financial Security. Within seventy-five (75) Calendar Days of any liquidating event, the Distribution Provider will provide the Interconnection Customer with an accounting of the disposition of the proceeds of the liquidated Interconnection Financial Security and remit to the Interconnection Customer all proceeds not otherwise reimbursed to the Interconnection Customer or applied to costs incurred or irrevocably committed by the Distribution Provider on behalf of the Interconnection Customer in accordance with this GIP Section 6.9.

#### 6.10 Coordination with Affected Systems

The Distribution Provider shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The Distribution Provider will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Distribution Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System(s) shall cooperate with the Distribution Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

#### 6.11 Capacity of the Generating Facility

6.11.1 If the Interconnection Request is for an increase in capacity for an existing Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Generating Facility.

6.11.2 If the Interconnection Request is for a Generating Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks

a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

6.11.3 The Interconnection Request shall be evaluated using the maximum capacity that the Generating Facility is capable of injecting into the Distribution Provider's electric system. However, if the maximum capacity that the Generating Facility is capable of injecting into the Distribution Provider's electric system is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the Distribution Provider's agreement, with such agreement not to be unreasonably withheld, that the manner in which the Interconnection Customer proposes to implement such a limit will not adversely affect the safety and reliability of the Distribution Provider's system. If the Distribution Provider does not so agree, then the Interconnection Request must be withdrawn or revised to specify the maximum capacity that the Generating Facility is capable of injecting into the Distribution Provider's electric system without such limitations. Furthermore, nothing in this section shall prevent a Distribution Provider from considering an output higher than the limited output, if appropriate, when evaluating system protection impacts.

6.12 Interconnection Customer To Meet Requirements for the Distribution Provider's Interconnection Handbook

The Interconnection Customer's Interconnection Facilities shall be designed, constructed, operated and maintained in accordance with the Distribution Provider's Interconnection Handbook. In the event of a conflict between the terms of the GIP and the terms of the Distribution Provider's Interconnection Handbook, the terms of the GIP shall govern.

6.13 Delegation of Responsibility

Distribution Provider may use the services of subcontractors as it deems appropriate to perform its obligations under this GIP. Distribution Provider shall remain primarily liable to Interconnection Customer for the performance of such subcontractors and compliance

with its obligations of this GIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and no other purpose.

### **Section 7. Generally Applicable Provisions for the Letter Agreement**

This Section 7 shall apply to Letter Agreements for Interconnection Requests processed under the Cluster Study Process, the Independent Study Process or the Fast Track Process. Prior to executing a GIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Distribution Provider shall offer the Interconnection Customer, a Letter Agreement that authorizes Distribution Provider to begin engineering, design, procurement of long lead-time items, and/or construction necessary for the establishment of the interconnection. However, Distribution Provider shall not be obligated to offer a Letter Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the GIP. The Letter Agreement is an optional procedure. The Letter Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Following an Interconnection Customer's request for a Letter Agreement, Distribution Provider shall prepare and tender to the Interconnection Customer a draft Letter Agreement in the form of the Distribution Provider's FERC-approved Letter Agreement as set forth in Attachment J to the GIP, including draft exhibits that include the proposed scope of work, estimated costs, payments, financial security and milestones, as applicable. The Interconnection Customer shall provide written comments, or notification of no comments, to the draft exhibits within thirty (30) Calendar Days. Distribution Provider and Interconnection Customer shall negotiate concerning any disputed provisions of the exhibits to the draft Letter Agreement for not more than ninety (90) Calendar Days after the Distribution Provider tenders the draft Letter Agreement to the Interconnection Customer. If Interconnection Customer determines that negotiations are at an impasse, it may request termination of the negotiations at any time after tender of the draft Letter Agreement and request submission of the unexecuted Letter Agreement with FERC or initiate



Dispute Resolution procedures pursuant to GIP Section 6.2. If Interconnection Customer requests termination of the negotiations, but within ninety (90) Calendar Days after the Distribution Provider tenders the draft Letter Agreement to the Interconnection Customer, fails to request either the filing of the unexecuted Letter Agreement or initiate Dispute Resolution, it shall be deemed to have withdrawn its request for a Letter Agreement and the Distribution Provider shall have no further obligation to enter into a Letter Agreement, unless an extension is mutually agreed to by the parties. Distribution Provider shall provide to the Interconnection Customer a final Letter Agreement within fifteen (15) Business Days after the completion of the negotiation process.

Following submission of the final Letter Agreement to the Interconnection Customer, Interconnection Customer shall either: (i) execute two originals of the tendered Letter Agreement and return them to Distribution Provider; or (ii) request in writing that Distribution Provider file with FERC a Letter Agreement in unexecuted form. As soon as practicable, but not later than ten (10) Business Days after receiving either the two executed originals of the tendered Letter Agreement (if it does not conform with a FERC-approved Letter Agreement) or the request to file an unexecuted Letter Agreement, Distribution Provider shall file the Letter Agreement with FERC, together with its explanation of any matters as to which Interconnection Customer and Distribution Provider disagree and support for the costs that Distribution Provider proposes to charge to Interconnection Customer under the Letter Agreement. An unexecuted Letter Agreement should contain terms and conditions deemed appropriate by Distribution Provider for the Interconnection Request.

If Interconnection Customer executes the final Letter Agreement, Distribution Provider and Interconnection Customer shall perform their respective obligations in accordance with the terms of the Letter Agreement, subject to modification by FERC. Upon submission of an unexecuted Letter Agreement, Interconnection Customer and Distribution Provider shall promptly comply with the unexecuted Letter Agreement, subject to modification by FERC.

**Section 8. General Provisions Concerning Construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades. General Provisions Concerning Funding of Network Upgrades**

This Section 8 shall apply, as pertinent, to Interconnection Requests processed under the Cluster Study Process, the Independent Study Process, the Fast Track Process, or the Under 10 kW Inverter Process.

8.1 Schedule

Distribution Provider and Interconnection Customer shall negotiate in good faith concerning a schedule for the construction of Distribution Provider's Interconnection Facilities, Distribution Upgrades, and the Network Upgrades.

8.2 Construction Sequencing

8.2.1 General

In general, the sequence of construction of Distribution Upgrades, Stand Alone Network Upgrades or other Network Upgrades for a single Interconnection Request, or Distribution Upgrades or Network Upgrades identified for the interconnection of Generating Facilities associated with multiple Interconnection Requests, shall be determined, to the maximum extent practical, in a manner that accommodates the proposed Commercial Operation Date set forth in the GIA of the Interconnection Customer(s) associated with the Distribution Upgrades, Stand Alone Network Upgrades or other Network Upgrades.

8.2.2 Advancing Construction of Distribution Upgrades and Network Upgrades that are Part of an Expansion Plan of the Distribution Provider

An Interconnection Customer with a GIA, in order to maintain its In-Service Date, may request that Distribution Provider advance to the extent necessary the completion of Distribution Upgrades and Network Upgrades that: (i) are necessary to support such In-Service Date and (ii) would otherwise not be

completed, pursuant to an expansion plan of Distribution Provider or approved ISO transmission plan covering the Distribution Provider's service territory, in time to support such In-Service Date. Upon such request, Distribution Provider will use Reasonable Efforts to advance the construction of such Distribution Upgrades and Network Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Distribution Provider any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any, in accordance with the GIA, for any expediting costs paid for Network Upgrades.

### 8.3 Network Upgrades

#### 8.3.1 Initial Funding of Network Upgrades

Unless the Distribution Provider elects to fund the full capital for identified Reliability and Delivery Network Upgrades, they shall be funded by the Interconnection Customer(s) either by means of drawing down the Interconnection Financial Security or by the provision of additional capital, at each Interconnection Customer's election, up to a maximum amount no greater than that established by the cost responsibility assigned to each Interconnection Customer(s) established under the respective Interconnection Study Process.

Where the Distribution Provider does not elect to fund the full capital for specific Reliability and Delivery Network Upgrades, the Distribution Provider shall be responsible for funding any capital costs for the Reliability and Delivery Network Upgrades that exceed the total cost responsibility for Reliability and Delivery Network Upgrades assigned to the Interconnection Customer(s) under the respective Interconnection Study Process.

- (i) Where the funding responsibility for any Reliability Network Upgrade or Delivery Network Upgrade has been assigned to a single Interconnection Customer in accordance with this GIP, and the Distribution Provider has elected not to fund the full capital of the Reliability Network Upgrade or

Delivery Network Upgrade, the Distribution Provider shall invoice the Interconnection Customer up to a maximum amount no greater than that established by the cost responsibility assigned to such Interconnection Customer under the respective Interconnection Study Process.

- (ii) Where the funding responsibility for a Reliability Network Upgrade has been assigned to more than one Interconnection Customer in accordance with this GIP, and the Distribution Provider has elected not to fund the full capital of the Reliability Network Upgrade, the Distribution Provider shall invoice each Interconnection Customer for such Reliability Network Upgrade based on the ratio of the maximum megawatt electrical output of each new Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed the Generating Facility's Interconnection Request to the aggregate maximum megawatt electrical output of all such new Generating Facilities and increases in the generating capacity of existing Generating Facilities assigned responsibility for such Reliability Network Upgrade. Each Interconnection Customer may be invoiced up to a maximum amount no greater than that established by the cost responsibility for Reliability Network Upgrades assigned to that Interconnection Customer under the respective Interconnection Study Process.
- (iii) Where the funding responsibility for a Delivery Network Upgrade has been assigned to more than one Interconnection Customer in accordance with this GIP, and the Distribution Provider has elected not to fund the full capital of the Delivery Network Upgrade, the Distribution Provider shall invoice each Interconnection Customer for such Delivery Network Upgrade based on the percentage flow impact of each assigned Generating Facility on each Delivery Network Upgrade as determined by the generation distribution factor methodology as set forth in the ISO Tariff GIP. Each Interconnection Customer may be invoiced up to a maximum

amount no greater than that established by the cost responsibility for Delivery Network Upgrades assigned to that Interconnection Customer under the respective Interconnection Study Process.

Any permissible extension of the Commercial Operation Date of a Generating Facility will not alter the Interconnection Customer's obligation to finance Network Upgrades where the Network Upgrades are required to meet the earlier Commercial Operation Date(s) of other Generating Facilities that have also been assigned cost responsibility for the Network Upgrades.

#### 8.3.2 Reimbursement of Network Upgrade Payments after Commercial Operation Date

After receiving Permission to Operate from the Distribution Provider and achieving Commercial Operation of the Generating Facility, the Interconnection Customer shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades, in accordance with Article 5.2 of the SGIA or Article 11.4 of the LGIA.

### **Section 9. Generally Applicable Provisions Regarding, Withdrawal, Transferability of Interconnection Request, Use of Study Deposits, Refunds of Study Deposits, and Other Cost Responsibilities**

#### 9.1 Withdrawal

Interconnection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Distribution Provider, and the Distribution Provider will notify the ISO and Affected System Operator(s), if any, within three (3) Business Days of receipt of such a notice. In addition, after confirmation by the Distribution Provider of a valid Interconnection Request the Interconnection Customer fails to adhere to the requirements of this GIP, Distribution Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal

within five (5) Business Days of the deemed withdrawal. Upon receipt of notice of deemed withdrawal, Interconnection Customer shall have five (5) Business Days in which to either: (i) respond with information or action that either cures the deficiency or supports its position that the deemed withdrawal was erroneous; or (ii) notify the Distribution Provider of its intent to pursue Dispute Resolution under GIP Section 6.2.

Withdrawal shall result in the removal of the Interconnection Request from the Interconnection Study Process. If an Interconnection Customer disputes the withdrawal and removal from the Interconnection Study Process and has elected to pursue Dispute Resolution as set forth in GIP Section 6.2, Interconnection Customer's Interconnection Request will not be considered in any ongoing Interconnection Study during the Dispute Resolution process.

In the event of a withdrawal, Distribution Provider, subject to the provisions GIP Section 9.1, shall provide, at Interconnection Customer's request, all information that Distribution Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

## 9.2 Transferability of Interconnection Request

Prior to execution of a GIA, an Interconnection Customer may transfer its Interconnection Request to another entity only under the following conditions:

- (a) The current Interconnection Customer provides Distribution Provider at least fifteen (15) Business Days prior written notice and opportunity to object;
- (b) The new entity acquires the specific Generating Facility identified in the Interconnection Request;
- (c) The Point of Interconnection does not change; and
- (d) The current Interconnection Customer has resolved and paid in full all study and other interconnection costs incurred for the project up to the date of the notice of intent to transfer ownership.

### 9.3 Use of Interconnection Study Deposit

The Interconnection Study Deposit shall be applied to pay for actual costs incurred by the Distribution Provider, the ISO, or third parties at the direction of the Distribution Provider to perform and administer the Interconnection Studies and to meet and otherwise communicate with Interconnection Customers with respect to their Interconnection Requests.

### 9.4 Refunds Of Interconnection Study Deposits

#### 9.4.1 Prior to the Execution of the GIA

The Interconnection Study Deposits shall be refundable as follows:

- (i) Should an Interconnection Customer withdraw the Interconnection Request, or the Interconnection Request be deemed withdrawn by the Distribution Provider by written notice under Section 9.1 on or before thirty (30) Calendar Days following the Scoping Meeting, the Distribution Provider shall refund to the Interconnection Customer any portion of the Interconnection Customer's Interconnection Study Deposit that exceeds the actual costs the Distribution Provider, ISO, and third parties have incurred on the Interconnection Customer's behalf, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the Commission's regulations at 18 CFR § 35.19a(a)(2)(iii);
- (ii) Should an Interconnection Customer withdraw the Interconnection Request, or the Interconnection Request be deemed withdrawn by the Distribution Provider by written notice under Section 9.1 more than thirty (30) Calendar Days after the Scoping Meeting, but on or before thirty (30) Calendar Days following the Results Meeting (or the latest date permitted under this GIP for a Results Meeting if an Interconnection Customer elects

not to have a Results Meeting) for the Phase I Interconnection Study for Interconnection Requests processed under the Cluster Study Process or the Interconnection System Impact Study for Interconnection Requests processed under the Independent Study Process, the Distribution Provider shall refund to the Interconnection Customer the difference between (a) the Interconnection Customer's Interconnection Study Deposit and (b) the greater of the costs the Distribution Provider, ISO, and third parties have incurred on the Interconnection Customer's behalf or one-half of the original Interconnection Study Deposit, up to a maximum of \$100,000, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the Commission's regulations at 18 CFR § 35.19a(a)(2)(iii);

- (iii) Should an Interconnection Customer withdraw the Interconnection Request, or the Interconnection Request be deemed withdrawn by the Distribution Provider by written notice under Section 9.1 at any time more than thirty (30) Calendar Days after the Results Meeting (or the latest date permitted under this GIP for a Results Meeting if an Interconnection Customer elects not to have a Results Meeting) for the Phase I Interconnection Study for Interconnection Requests processed under the Cluster Study Process or the Interconnection System Impact Study for Interconnection Requests processed under the Independent Study Process , the Interconnection Study Deposit shall be non-refundable.

#### 9.4.2 Upon Execution of the GIA

Upon execution of a GIA by an Interconnection Customer and the Distribution Provider, or the approval by FERC of an unexecuted GIA, the Distribution Provider shall refund to the Interconnection Customer any portion of the Interconnection Customer's Interconnection Study Deposit that exceeds the costs the Distribution Provider, ISO, and third parties have incurred on the



Interconnection Customer's behalf, including interest from the date of receipt by the Distribution Provider to the date of payment to the Interconnection Customer. The applicable interest shall be computed in accordance with the Commission's regulations at 18 CFR § 35.19a(a)(2)(iii).

#### 9.5 Responsibility for Actual Costs in Excess of Deposit

Notwithstanding the foregoing, an Interconnection Customer that withdraws or is deemed to have withdrawn its Interconnection Request during an Interconnection Study Process shall be obligated to pay to the Distribution Provider all costs in excess of the Interconnection Study Deposit that actually have been incurred or irrevocably have been committed to be incurred prior to withdrawal of that Interconnection Request. The Distribution Provider will reimburse the ISO or third parties, as applicable, for all work performed on behalf of the withdrawn Interconnection Request at the Distribution Provider's direction. The Interconnection Customer must pay all monies due before it is allowed to obtain any Interconnection Study data or results of studies performed on its behalf.

#### 9.6 Obligation for Study Costs

Except as otherwise provided in GIP Section 9.6, the Distribution Provider shall charge and the Interconnection Customer(s) shall pay the actual costs of the Interconnection Studies. Where an Interconnection Study is performed by means of a Group Study, the cost of the Group Study will be charged pro rata to each Interconnection Request assigned to the Study Group. The cost of Interconnection Studies performed for an individual Interconnection Request, not part of a Group Study, or as part of the Independent Study Process, will be charged solely to the Interconnection Customer that submitted the Interconnection Request.

The Distribution Provider shall issue invoices for Interconnection Studies that shall include a detailed and itemized accounting of the cost of each Interconnection Study. Whenever the actual cost of performing the Interconnection Studies exceeds the Interconnection Study Deposit, the Interconnection Customer shall pay the undisputed

difference in accordance with the Distribution Provider issued invoice within thirty (30) Calendar Days of the invoice date. The Distribution Provider shall not be obligated to continue conducting any interconnection studies nor perform any work toward the project's physical interconnection with the Distribution Provider's Distribution System unless the Interconnection Customer has paid all amounts for Study Costs. Any invoiced study costs still outstanding from the Interconnection Customer at the time the Interconnection Agreement is executed for the Interconnection Customer's project must be paid by the Interconnection Customer no later than the financial security posting milestone negotiated in Attachment 4 of the Interconnection Agreement. Failure to complete payment on those invoices by that date will result in Interconnection Customer default on that executed Agreement.

Any interconnection study costs invoiced to the customer after execution of the Interconnection Agreement must be paid by the Interconnection Customer with thirty (30) Calendar Days of the date of that invoice. Failure to complete payment on these invoices will result in Interconnection Customer default on the executed Agreement.

## **Attachment 1**

### **Glossary of Terms**

**10 kW Inverter Process** shall mean the procedure for evaluating an Interconnection Request for a certified inverter-based Generating Facility no larger than 10 kW that uses the section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See GIP Attachment 5.

**Adverse System Impact** shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

**Affected System** shall mean an electric system other than the Distribution Provider's Distribution System that may be affected by the proposed interconnection, including but not limited to the Transmission System.

**Affected System Operator** shall mean the entity that operates an Affected System.

**Affiliate** shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

**Annual Full Capacity Deliverability Study (AFCDS)** shall mean the annual deliverability study performed by the ISO described in GIP Section 5.22.2, under which a Generating Facility previously studied as Energy-Only Deliverability Status will have an option to determine whether it can be designated for Full Capacity Deliverability Status using available transmission capacity.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Applicable Reliability Council** shall mean the reliability council applicable to the Distribution System to which the Generating Facility is directly interconnected.

**Applicable Reliability Standards** shall mean the requirements and guidelines of NERC, the Applicable Reliability Council, and the Control Area of the Distribution System to which the Generating Facility is directly interconnected, including the requirements pursuant to Section 215 of the Federal Power Act.

**Area Deliverability Constraint** shall mean a transmission system operating limit, that would constrain the deliverability of a substantial number of generators if the CAISO were to assign full capacity or partial capacity deliverability status to additional generating facilities in one or more specified geographic or electrical areas of the CAISO Controlled Grid in a total amount that is greater than the TP Deliverability for those areas. May also be a transmission system operating limit that constrains a quantity of generation in a local area of the grid that is larger than the generation amount identified in the applicable Transmission Planning Process (TPP) portfolio for the entire portfolio area. May also be a transmission system operating limit that constrains all or most of the same generation already constrained by a previously identified Area Deliverability Constraint.

**Area Delivery Network Upgrade (ADNU)** shall mean a transmission upgrade or addition identified by the CAISO to relieve an Area Deliverability Constraint. **Base Case** shall mean data including, but not limited to, base power flow, short circuit and stability data bases, underlying load, generation, and transmission facility assumptions, contingency lists, including relevant special protection systems, and transmission diagrams used to perform the Interconnection Studies. The Base Case may include Critical Energy Infrastructure Information (as that term is defined by FERC). The Base Case shall include transmission facilities as approved by the Distribution Provider or ISO, as applicable, and Distribution Upgrades and Network Upgrades associated with generating facilities in (iv) below and generating facilities that (i) are directly interconnected to the Distribution System or ISO Grid; (ii) are interconnected to Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending request to interconnect to the Distribution System or an Affected System; or (iv) are not interconnected to the Distribution System or ISO Grid, but are subject to a fully executed generator

interconnection agreement (or its equivalent predecessor agreement) or for which an unexecuted generator interconnection agreement (or its equivalent predecessor agreement) has been requested to be filed with FERC.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of the GIA.

**Breaching Party** shall mean a Party that is in Breach of the GIA.

**Business Day** shall mean only Monday through Friday, excluding Federal Holidays and the Friday after Thanksgiving.

**CAISO** shall mean California Independent System Operator Corporation. See also ISO.

**Calendar Day** shall mean any day including Saturday, Sunday or a Federal Holiday.

**Cluster Application Window** shall mean the time period for submitting Interconnection Requests as set forth in GIP Section 5.1.

**Cluster Study Process** shall mean the Interconnection Study Process set forth in GIP Section 5.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection System Impact Study.

**Commercial Operation** shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

**Commercial Operation Date** shall mean the date on which an Electric Generating Unit at a Generating Facility has received final written Permission to Operate from the Distribution Provider for operation of the generation facilities in parallel with the utility.

**Confidential Information** shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the

Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise.

**Construction Activities** shall mean actions by the Distribution Provider that result in irrevocable financial commitments for the purchase of major electrical equipment or land for Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades assigned to the Interconnection Customer that occur after receipt of all appropriate governmental approvals needed for the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

**Control Area** shall mean an electrical system or systems bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. A Control Area must be certified by an Applicable Reliability Council.

**CPUC** shall mean the California Public Utilities Commission.

**Default** shall mean the failure of a Breaching Party to cure its Breach in accordance with the GIA.

**Deliverability** shall mean (1) The annual Net Qualifying Capacity of a Generating Facility, as verified through a Deliverability assessment and measured in MW, which specifies the amount of resource adequacy capacity the Generating Facility is eligible to provide. (2) The annual Maximum Import Capability of an intertie, which specifies the amount of resource adequacy capacity, measured in MW, that Load-serving Entities collectively can procure from imports at that intertie to meet their resource adequacy requirements.

**Deliverability Assessment(s)** shall mean an evaluation of the On-Peak Deliverability Assessment set forth in GIP Section 5.8.3.2.1, and the Off-Peak Deliverability Assessment set forth in GIP Section 5.8.3.2.2 to determine if a Generating Facility or a group of Generating Facilities could provide Energy to the CAISO Controlled Grid and be delivered to the aggregate of Load on the CAISO Controlled Grid at Peak Load, under a variety of severely stressed conditions.

**Deliverability Status** shall mean an attribute of a Generating Facility that is requested by an Interconnection Customer for the Generating Facility, assigned by the CAISO to the Generating Facility through the GIP, GIDAP or other process specified in the CAISO tariff, and that affects the maximum Net Qualifying Capacity to which the Generating Facility could be entitled.

**Delivery Network Upgrades** shall mean the transmission facilities at or beyond the point where the Distribution Provider's Distribution System interconnects to the ISO Grid, other than Reliability Network Upgrades, identified in the Interconnection Studies to relieve constraints on the ISO Grid. Delivery Network Upgrades may be further classified as Local Delivery Network Upgrades or Area Delivery Network Upgrades.

**Dispute Resolution** shall mean the procedure for resolution of a dispute between the Parties in which they will first attempt to resolve the dispute on an informal basis.

**Distribution Group Study Process** shall mean the procedure for evaluating an Interconnection Request for a certified Generating Facility that meets the eligibility requirements of Section 4 of the Wholesale Distribution Tariff, Attachment I.

**Distribution Owner** shall mean the entity that owns, leases or otherwise possesses an interest in the portion of the Distribution System at the Point of Interconnection and may be a Party to the Generator Interconnection Agreement to the extent necessary.

**Distribution Provider** shall mean the public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission or wholesale distribution service under the Tariff. The term Distribution Provider should be read to include the Distribution Owner when the Distribution Owner is separate from the Distribution Provider.

**Distribution Provider's Interconnection Facilities** shall mean all facilities and equipment owned, controlled, or operated by the Distribution Provider from the Point of Change of Ownership to the Point of Interconnection as identified in the GIA, including any modifications, additions or upgrades to such facilities and equipment. Distribution Provider's Interconnection

Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades.

**Distribution Service** shall mean the wholesale distribution service provided under the Tariff.

**Distribution System** shall mean those non-ISO transmission and distribution facilities owned, controlled and operated by the Distribution Provider that are used to provide distribution service under the Tariff, which facilities and equipment are used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Distribution Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the service necessary to affect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** shall mean the date on which the GIA becomes effective upon execution by the Parties subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC.

**Electric Generating Unit** shall mean an individual electric generator and its associated plant and apparatus whose electrical output is capable of being separately identified and metered.

**Electrical Independence Test** shall mean the test set forth in GIP Section 3.1.1 used to determine eligibility for the Independent Study Process.

**Emergency Condition** shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Distribution Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Distribution Provider's Distribution System, Distribution Provider's Interconnection Facilities or the electric systems of others to which the Distribution Provider's Distribution System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a



nondiscriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the GIA to possess black start capability.

**Energy-Only Deliverability Status** shall mean a condition elected by an Interconnection Customer for a Generating Facility interconnected to Distribution System, the result of which is that the Interconnection Customer is responsible only for the costs of Reliability Network Upgrades and is not responsible for the costs of Delivery Network Upgrades, but the Generating Facility will be deemed to have a Net Qualifying Capacity (as defined in the ISO Tariff) of zero and, therefore, cannot be considered to be a Resource Adequacy Resource (as defined in the ISO Tariff).

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Fast Track Process** shall mean the procedure for evaluating an Interconnection Request for a certified Generating Facility that meets the eligibility requirements of section 2.1 and includes the section 2 screens, customer options meeting, and optional supplemental review.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a et seq.

**FERC** shall mean the Federal Energy Regulatory Commission (Commission) or its successor.

**Full Capacity Deliverability Status (FCDS)** shall mean the condition whereby a Generating Facility interconnected with the Distribution System, under coincident ISO Control Area peak demand and a variety of severely stressed system conditions, can deliver the Generating Facility's full output to the aggregate of load on the ISO Grid, consistent with the ISO's reliability criteria and procedures and the ISO's On-Peak Deliverability Assessment as set forth in Section 5.8.3.2.1.

**Generating Facility** shall mean the Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities. A Small Generating Facility is

one that has maximum capacity of 20 MW or less. A Large Generating Facility is one that has a maximum capacity of more than 20 MW.

**Generating Facility Capacity** shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple Electric Generating Units.

**Generator Interconnection Agreement (GIA)** shall mean Small Generator Interconnection Agreement (SGIA), which is Attachment F to this Wholesale Distribution Tariff, unless the proposed interconnection is for a generating facility larger than 20 MW, in which case references to interconnection agreement are to the Large Generator Interconnection Agreement (LGIA), which is Attachment H to this Wholesale Distribution Tariff.

**Generator Interconnection and Deliverability Allocation Procedures (GIDAP)** shall mean the ISO's Generator Interconnection and Deliverability Allocation Procedures (ISO Tariff GIDAP)

**Generator Interconnection Procedures (GIP)** shall mean either the definition for either ISO's Tariff Generator Interconnection Procedures (ISO Tariff GIP), or Wholesale Distribution Tariff Generator Interconnection Procedures (WDT GIP).

**Generator Interconnection Study Process Agreement** shall mean the agreement entered into by the Interconnection Customer and the Distribution Provider which sets forth the Parties' agreement to perform Interconnection Studies under the Cluster Study Process, a *pro forma* version of which is set forth in Attachment 6 of the GIP.

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method,

or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Distribution Provider, or any Affiliate thereof.

**Group Study** shall mean the process whereby more than one Interconnection Request is studied together, instead of individually, for the purpose of conducting one or more of the Interconnection Studies or analyses therein.

**Independent Study Process** shall mean the Interconnection Study Process set forth in GIP Section 3.

**Initial Synchronization Date** shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Interconnection Customer reasonably expects it will be ready to begin use of the Distribution Provider's Interconnection Facilities to obtain back feed power.

**Interconnection Customer** shall mean any entity, including the Distribution Provider, the Distribution Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Distribution Provider's Distribution System.

**Interconnection Customer's Interconnection Facilities** shall mean all facilities and equipment, as identified in the GIA, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the

Distribution Provider's Distribution System. Interconnection Customer's Interconnection Facilities are sole use facilities.

**Interconnection Facilities** shall mean the Distribution Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Distribution Provider's Distribution System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

**Interconnection Facilities Study** shall mean a study conducted by the Distribution Provider for an Interconnection Customer under the Independent Study Process to determine a list of facilities (including Distribution Provider's Interconnection Facilities, Distribution Upgrades, and Network Upgrades as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Distribution Provider's Distribution System. The scope of the study is defined in GIP Section 3.6

**Interconnection Facilities Study Agreement** shall mean the agreement between the Interconnection Customer and Distribution Provider for conducting the Interconnection Facilities Study.

**Interconnection Financial Security** shall mean the financial instrument(s) submitted by the Interconnection Customer to the Distribution Provider prior to the start of any Construction Activities as a security for the Distribution Provider against the estimated costs of the Construction Activities described in the Generator Interconnection Agreement. The Interconnection Customer may post the Interconnection Financial Security using any of the financial instruments listed in the WDT GIP.

**Interconnection Handbook** shall mean a handbook, developed by the Distribution Provider and posted on the Distribution Provider's website or otherwise made available by the Distribution Provider, describing the technical and operational requirements for wholesale generators and loads connected to the Distribution System or to the Transmission System, as such handbooks

may be modified or superseded from time to time. In the event of a conflict between the terms of the Generator Interconnection Procedures and the terms of the Distribution Provider's Interconnection Handbook(s), the terms in the Generator Interconnection Procedures shall govern.

**Interconnection Request** shall mean the Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Distribution Provider's Distribution System.

**Interconnection Service** shall mean the service provided by the Distribution Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Distribution Provider's Distribution System and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the GIA and, if applicable, the Distribution Provider's Tariff.

**Interconnection Study** shall mean any of the Interconnection Studies described in Attachment I "Generator Interconnection Procedures" of the Wholesale Distribution Tariff.

**Interconnection Study Deposit** shall mean the cash deposit provided to the Distribution Provider by the Interconnection Customer as a requirement of the GIP for a valid Interconnection Request, this deposit to be used to offset the cost of the Interconnection Studies.

**Interconnection Study Process** shall mean all requirements, actions, and respective obligations of the Distribution Provider and Interconnection Customer under any of the study processes described in the GIP and applicable to an Interconnection Request submitted to the Distribution Provider.

**Interconnection System Impact Study** shall mean an engineering study conducted by the Distribution Provider for an Interconnection Customer under the Independent Study Process that evaluates the impact of the proposed interconnection on the safety and reliability of Distribution Provider's Distribution System and, if applicable, an Affected System. The scope of the study is defined in GIP Section 3.5.

**IRS** shall mean the Internal Revenue Service.

**ISO** shall mean the California Independent System Operator Corporation, a state chartered, nonprofit, corporation that controls certain transmission facilities of all Participating Transmission Owners and dispatches certain generating units and loads.

**ISO Grid** shall mean the system of transmission lines and associated facilities of the Participating Transmission Owners that have been placed under the ISO's Operational Control.

**ISO's Generator Interconnection and Deliverability Allocation Procedures (ISO Tariff GIDAP)** shall mean the procedures included in the ISO Tariff to interconnect a Generating Facility directly to the ISO Grid, as such procedures may be modified from time to time, and accepted by the Commission. See also GIDAP.

**ISO's Generator Interconnection Procedures (ISO Tariff GIP)** shall mean the procedures included in the ISO Tariff to interconnect a Generating Facility directly to the ISO Grid, as such procedures may be modified from time to time, and accepted by the Commission. See also GIP.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**Letter Agreement** shall mean an agreement that authorizes the Distribution Provider to begin engineering, design, procurement of long lead-time items, and/or construction necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Local Deliverability Constraint** shall mean a transmission system operating limit modeled in the GIDAP study process that would be exceeded if the CAISO were to assign Full Capacity Deliverability Status or Partial Capacity Deliverability Status to one or more additional Generating Facilities interconnecting to the CAISO Controlled Grid in a specific local area, and that is not an Area Deliverability Constraint.

**Local Delivery Network Upgrade (LDNU)** shall mean a transmission upgrade or addition identified by the CAISO in the GIDAP Interconnection Study Process to relieve a Local

Deliverability Constraint. **Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under the GIA on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnifying Party.

**Material Modification** shall mean a modification that has a material impact on the cost or timing of any Interconnection Request or any other deemed complete interconnection request to the Distribution Provider or the ISO with a later queue priority date.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to the GIA at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**Network Upgrades** shall mean additions, modifications, and upgrades to the Distribution Provider's Transmission System required at or beyond the point at which the Distribution System connects to the Distribution Provider's Transmission System to accommodate the interconnection of the Generating Facility to the Distribution Provider's Transmission System. Network Upgrades do not include Distribution Upgrades. See also: **Area Delivery Network Upgrades; Delivery Network Upgrades; Local Delivery Network Upgrades; and Reliability Network Upgrades.**

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with the GIA or its performance.

**Off-Peak Deliverability Assessment** shall mean the technical study performed under Section 5.8.3.2.2 of the GIP.

**On-Peak Deliverability Assessment** shall mean the technical study performed under Section 5.8.3.2.1 of the GIP.

**Operating Requirements** shall mean any operating and technical requirements that may be applicable due to Regional Transmission Organization, California Independent System Operator, control area, or the Distribution Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

**Participating Transmission Owner** shall mean an entity which (i) owns, operates, and maintains transmission lines and associated facilities and/or has entitlements to use certain transmission lines and associated facilities; and (ii) has transferred to the ISO operational control of such facilities and/or entitlements to be made part of the ISO Grid.

**Party or Parties** shall mean the Distribution Provider, Distribution Owner, Interconnection Customer or any combination of the above.

**Phase I Interconnection Study** shall mean an engineering study conducted by the Distribution Provider, that evaluates the impact of the proposed interconnection on the safety and reliability of the Distribution System, ISO Grid and, if applicable, an Affected System. The portion of the study required to evaluate the impacts on the ISO Grid will be coordinated with the ISO and will be completed in a manner consistent with the ISO Tariff GIP. The study shall identify and detail the system impacts that would result if the Generating Facility(ies) were interconnected without identified project modifications or system modifications, as provided in the On-Peak Deliverability Assessment or Off-Peak Deliverability Assessment, and other potential impacts, including but not limited to those identified in the Scoping Meeting as described in the GIP. The study will also identify the approximate total costs of mitigating these impacts, along with an equitable allocation of those costs to Interconnection Customers for their individual Generating Facilities.

**Phase II Interconnection Study** shall mean an engineering and operational study conducted by the Distribution Provider to determine the Point of Interconnection and a list of facilities (including Distribution Provider's Interconnection Facilities, Network Upgrades, Distribution Upgrades, and Stand Alone Network Upgrades), the estimated cost of those facilities, and the estimated time required to interconnect the Generating Facility(ies) with the Distribution System.



The portion of the study required to evaluate the impacts on the ISO Grid will be coordinated with the ISO and will be completed in a manner consistent with the ISO Tariff GIP.

**Point of Change of Ownership** shall mean the point set forth in the GIA where the Interconnection Customer's Interconnection Facilities connect to the Distribution Provider's Interconnection Facilities.

**Point of Interconnection** shall mean the point set forth in the GIA where the Interconnection Facilities connect with the Distribution Provider's Distribution System.

**Pre-Construction Activities** shall mean the actions by the Distribution Provider, other than those required by a Letter Agreement under Section 7 of the GIP, undertaken prior to Construction Activities in order to prepare for the construction of the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades assigned to the Interconnection Customer, including, but not limited to, preliminary engineering, permitting activities, environmental analysis, or other activities specifically needed to obtain governmental approvals for the Distribution Provider's Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

**Qualifying Capacity** shall mean the maximum Resource Adequacy Capacity that a Resource Adequacy Resource may be eligible to provide. The criteria and methodology for calculating the Qualifying Capacity of resources may be established by the CPUC or other applicable Local Regulatory Authority and provided to the CAISO. A resource's eligibility to provide Resource Adequacy Capacity may be reduced below its Qualifying Capacity through the CAISO's assessment of Net Qualifying Capacity.

**Queue Position** shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Distribution Provider and that is represented by a unique identifying code assigned to each Interconnection Request that is deemed complete.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under the GIA, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reliability Network Upgrades** shall mean the transmission facilities at or beyond the point where the Distribution Provider's Distribution System interconnects to the ISO Grid, necessary to interconnect one or more Generating Facility(ies) safely and reliably to the ISO Grid, which would not have been necessary but for the interconnection of one or more Generating Facility(ies), including Network Upgrades necessary to remedy short circuit or stability problems, or thermal overloads. Reliability Network Upgrades shall only be deemed necessary for thermal overloads, occurring under any system condition, where such thermal overloads cannot be adequately mitigated through the ISO's congestion management, operating procedures, or special protection systems based on the characteristics of the Generating Facilities included in the Interconnection Studies, limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. Reliability Network Upgrades also include, consistent with the Applicable Reliability Council's practice and Applicable Reliability Standards, the facilities necessary to mitigate any adverse impact the Generating Facility's interconnection may have on a path's Applicable Reliability Council rating.

**Resource Adequacy (RA)** shall mean a mandatory planning and procurement process to ensure adequate resources to serve all customers in real time. The program requires that Load Serving Entities (LSEs) meet a Planning Reserve Margin for their obligations. The program provides deliverability criteria that each LSE must meet, as well as system and local capacity requirements. Rules are provided for "counting" resources towards meeting resource adequacy obligations. The resources that are counted for RA purposes must make themselves available to the California ISO for the capacity for which they were counted. The ISO's Interim Reliability Requirements Program and the resource adequacy under MRTU tariff provisions are intended to complement the State of California's efforts to implement resource adequacy programs.

**Results Meeting** shall mean the meeting among the Distribution Provider, the Interconnection Customer, and if applicable, the ISO and other Affected System Operators to discuss the results of the Interconnection Studies as set forth in the GIP.

**Rule 21** shall mean PG&E's Electric Tariff Rule 21.

**Scoping Meeting** shall mean the meeting between representatives of the Interconnection Customer and Distribution Provider, and if applicable, the ISO, conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Site Control** shall mean documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose (see also: Site Exclusivity).

**Site Exclusivity** is the third option to prove Site Control and applies only in instances when the Interconnection Customer has a business (private) or government agency (public) relationship with the project site's deed holder.

- (1) For private land, Site Exclusivity shall mean documentation reasonably demonstrating legal authorization from the land owner showing the Interconnection Customer has either (a) Ownership of, a leasehold interest in, or a right to develop property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility; or (b) an option to purchase or acquire a leasehold interest in property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility.
- (2) For public land, including that controlled or managed by any federal, state or local agency, Site Exclusivity shall mean documentation from the governing public agency providing a final, non-appealable permit, license, or other exclusive legal

right to use the property for the purpose of generating electric power and in acreage reasonably necessary to accommodate the Generating Facility. Such documentation showing exclusive right to use public land under the management of a Local, State, or Federal agency shall be in a form specified by that agency.

**Small Generating Facility** shall mean an Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities, that has a generating capacity of 20 megawatts (MW) or less..

**Smart Inverter** shall mean a Generating Facility's inverter that performs functions that when activated can autonomously contribute to grid support during excursions from normal operating voltage and frequency system conditions by providing dynamic reactive/real power support, voltage and frequency ride-through, ramp rate controls, communication systems with ability to accept external commands and other functions.

**Stand Alone Network Upgrades** shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Distribution Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in an Appendix to the GIA.

**Standard Large Generator Interconnection Agreement (LGIA)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility that is included in the Distribution Provider's Tariff.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Distribution Provider's Distribution System, the ISO Controlled Grid, and Affected Systems from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Distribution Provider's Distribution System, the ISO Controlled Grid or on other delivery systems or other generating systems to which the Distribution Provider's Distribution System and Transmission System is directly connected.

**Tariff** shall mean the Distribution Provider's Wholesale Distribution Tariff through which open access distribution service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission Control Agreement** shall mean ISO FERC Electric Tariff No. 7.

**Transmission System** shall mean those facilities owned by the Distribution Provider that have been placed under the ISO's operational control and are part of the ISO Grid.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation. Also known as Permission to Parallel for Test Purposes.

**Uncontrollable Force** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Distribution Provider or Interconnection Customer which could not be avoided through the exercise of Good Utility Practice. An Uncontrollable Force event does not include acts of negligence or intentional wrongdoing by the Party claiming Uncontrollable Force.

**Upgrades** shall mean the required additions and modifications to the Distribution Provider's Transmission System and Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Wholesale Distribution Tariff Generator Interconnection Procedures (WDT GIP)** shall mean the procedures included in the Distribution Provider's Wholesale Distribution Tariff (WDT) to interconnect a Generating Facility directly to the Distribution Provider's Distribution System, as such procedures may be modified from time to time, and accepted by the Commission.

## Attachment 2

### GENERATOR INTERCONNECTION REQUEST (Online Application)

The following information will be submitted via an online application process at PG&E's Website:

*(Note: due to the nature of the online submission, certain information on the online application form may be required.)*

1. The undersigned Interconnection Customer submits this request to interconnect its Generating Facility with the Distribution Provider's Distribution System (choose one):
  - Fast Track Process.
  - Independent Study Process
  - Distribution Group Study Process.
  - Cluster Study Process.
  - Annual Deliverability Assessment pursuant to GIP Section 4.22.2.
  
2. This Interconnection Request is for (choose one):
  - A proposed new Generating Facility.
  - An increase in the generating capacity or a Material Modification to an existing Generating Facility.
  
3. Requested Deliverability Status is for (choose one):
  - Full Capacity (For Independent Study Process and Cluster Study Process only)  
  

(Note – Deliverability analysis for Independent Study Process is conducted with the next annual Cluster Study – See GIP Section 3.4)
  - Energy Only

4. The Interconnection Customer provides the following information:

- a. Address or location, including the county, of the proposed new Generating Facility site or, in the case of an existing Generating Facility, the name and specific location, including the county, of the existing Generating Facility;

Project Name: \_\_\_\_\_

NOTE: The Distribution Provider reserves the right to request the Interconnection Customer change the name of an Interconnection Request to meet the operational needs of the Distribution System.

Project Location:

Street Address: \_\_\_\_\_

City, State: \_\_\_\_\_

County: \_\_\_\_\_

Zip Code: \_\_\_\_\_

GPS Coordinates (Lat/Long): \_\_\_\_\_

- b. Maximum net megawatt electrical output (as defined by section 2.c of Attachment A to this appendix) of the proposed new Generating Facility or the amount of net megawatt increase in the generating capacity of an existing Generating Facility;

Maximum net megawatt electrical output (MW): \_\_\_\_\_ **OR**

Net Megawatt increase (MW): \_\_\_\_\_

- c. Type of project (i.e., gas turbine, hydro, wind, etc.) and general description of the equipment configuration (if more than one type is chosen include net MW for each);

( ) Cogeneration \_\_\_\_\_ (MW)

( ) Reciprocating Engine \_\_\_\_\_ (MW)

( ) Biomass \_\_\_\_\_ (MW)

( ) Steam Turbine \_\_\_\_\_ (MW)

- ( ) Gas Turbine \_\_\_\_\_ (MW)
- ( ) Wind \_\_\_\_\_ (MW)
- ( ) Hydro \_\_\_\_\_ (MW)
- ( ) Photovoltaic \_\_\_\_\_ (MW)
- ( ) Combined Cycle \_\_\_\_\_ (MW)
- ( ) Energy Storage \_\_\_\_\_ (MW)
- ( ) Other (please describe): \_\_\_\_\_ (MW)

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General description of the equipment configuration (e.g. number, size, type, etc):

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- d. Proposed In-Service Date (first date distribution is needed to the facility), Trial Operation date and Commercial Operation Date by day, month, and year and term of service (dates must be sequential):

Proposed In-Service Date: \_\_\_\_\_

Proposed Trial Operation Date: \_\_\_\_\_

Proposed Commercial Operation Date: \_\_\_\_\_

Proposed Term of Service (years): \_\_\_\_\_

- e. Name, address, telephone number, and e-mail address of the Interconnection Customer's contact person (primary person who will be contacted);

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Street Address: \_\_\_\_\_



City, State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

DUNS Number: \_\_\_\_\_

- f. Approximate location of the proposed Point of Interconnection (i.e., specify distribution facility interconnection point name, voltage level, and the location of interconnection):

\_\_\_\_\_

\_\_\_\_\_

5. Representative of the Interconnection Customer to contact:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City, State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

6. The preparer's electronic certification that all information submitted is true and correct.

7. Pursuant to the online instructions, the Interconnection Customer shall provide:

- a. Interconnection Request fee and applicable deposit amount as specified in the GIP,
- b. The information requested in Appendix A to this GIP Attachment 2 (Interconnection Request Generating Facility Data),
- c. Evidence of Site Exclusivity as specified in the GIP and name(s), address(es) and contact information of site owner(s),

## Appendix A To GIP Attachment 2 Interconnection Request

### GENERATING FACILITY DATA

Provide this completed form pursuant to the online instructions:

1. **Provide two original prints and one reproducible copy (no larger than 36" x 24") of, or submit electronically, the following:**

- A. Site drawing to scale, showing generator location and Point of Interconnection with the Distribution Provider's Distribution System.
- B. Single-line diagram showing applicable equipment such as generating units, step-up transformers, auxiliary transformers, switches/disconnects of the proposed interconnection, including the required protection devices and circuit breakers. For wind and photovoltaic generator plants, the one line diagram should include the distribution lines connecting the various groups of generating units, the generator capacitor banks, the step up transformers, the distribution lines, and the substation transformers and capacitor banks at the Point of Interconnection with the Distribution Provider's Distribution System.

2. **Generating Facility Information**

- A. Total Generating Facility rated output (MW): \_\_\_\_\_
- B. Generating Facility auxiliary Load (MW): \_\_\_\_\_
- C. Project net capacity (A-B)(MW): \_\_\_\_\_
- D. Standby Load when Generating Facility is off-line (MW): \_\_\_\_\_
- E. Number of Generating Units: \_\_\_\_\_

(Please repeat the following items for each generator)

- F. Individual generator rated output (MW for each unit): \_\_\_\_\_

G. Manufacturer and Model Number (of generator or inverter):

\_\_\_\_\_

NOTE: In accordance with UL 1741 Supplement A, all new interconnection requests submitted on or after September 9, 2017 for inverter-based generating facilities must be designed with and install UL-1741 SA certified Smart Inverters.

Is the inverter identified above a certified smart inverter per UL-1741 SA?

\_\_\_\_\_ Yes                  \_\_\_\_\_ No

H. Year Manufactured: \_\_\_\_\_

I. Nominal Terminal Voltage (kV): \_\_\_\_\_

J. Rated Power Factor (%): \_\_\_\_\_

K. Type (Induction, Synchronous, D.C. with Inverter): \_\_\_\_\_

L. Phase (three phase or single phase): \_\_\_\_\_

M. Connection (Delta, Grounded WYE, Ungrounded WYE, impedance grounded):

\_\_\_\_\_

N. Generator Voltage Regulation Range (+/- %): \_\_\_\_\_

O. Generator Power Factor Regulation Range: \_\_\_\_\_

P. For combined cycle plants, specify the plant net output capacity (MW) for an outage of the steam turbine or an outage of a single combustion turbine \_\_\_\_\_

**3. Synchronous Generator – General Information:**

(Please repeat the following for each generator model)

A. Rated Generator speed (rpm): \_\_\_\_\_

- B. Rated MVA: \_\_\_\_\_
- C. Rated Generator Power Factor: \_\_\_\_\_
- D. Generator Efficiency at Rated Load (%): \_\_\_\_\_
- E. Moment of Inertia (including prime mover): \_\_\_\_\_
- F. Inertia Time Constant (on machine base) H: \_\_\_\_\_ sec or MJ/MVA
- G. SCR (Short-Circuit Ratio - the ratio of the field current required for rated open-circuit voltage to the field current required for rated short-circuit current): \_\_\_\_\_
- H. Please attach generator reactive capability curves.
- I. Rated Hydrogen Cooling Pressure in psig (Steam Units only): \_\_\_\_\_
- J. Please attach a plot of generator terminal voltage versus field current that shows the air gap line, the open-circuit saturation curve, and the saturation curve at full load and rated power factor.

**4. Excitation System Information**

(Please repeat the following for each generator model)

- A. Indicate the Manufacturer \_\_\_\_\_ and Type \_\_\_\_\_ of excitation system used for the generator. For exciter type, please choose from 1 to 9 below or describe the specific excitation system.

( ) (1) Rotating DC commutator exciter with continuously acting regulator. The regulator power source is independent of the generator terminal voltage and current.

( ) (2) Rotating DC commutator exciter with continuously acting regulator. The regulator power source is bus fed from the generator terminal voltage.

- ( ) (3) Rotating DC commutator exciter with non-continuously acting regulator (i.e., regulator adjustments are made in discrete increments).
- ( ) (4) Rotating AC Alternator Exciter with non-controlled (diode) rectifiers. The regulator power source is independent of the generator terminal voltage and current (not bus-fed).
- ( ) (5) Rotating AC Alternator Exciter with controlled (thyristor) rectifiers. The regulator power source is fed from the exciter output voltage.
- ( ) (6) Rotating AC Alternator Exciter with controlled (thyristor) rectifiers.
- ( ) (7) Static Exciter with controlled (thyristor) rectifiers. The regulator power source is bus-fed from the generator terminal voltage.
- ( ) (8) Static Exciter with controlled (thyristor) rectifiers. The regulator power source is bus-fed from a combination of generator terminal voltage and current (compound-source controlled rectifiers system).
- ( ) (9) Other (specify): \_\_\_\_\_

B. Attach a copy of the block diagram of the excitation system from its instruction manual. The diagram should show the input, output, and all feedback loops of the excitation system.

C. Excitation system response ratio (ASA): \_\_\_\_\_

D. Full load rated exciter output voltage: \_\_\_\_\_

E. Maximum exciter output voltage (ceiling voltage): \_\_\_\_\_

F. Other comments regarding the excitation system? \_\_\_\_\_

\_\_\_\_\_

**5. Power System Stabilizer Information**

(Please repeat the following for each generator model. All new generators are required to install PSS unless an exemption has been obtained from WECC. Such an exemption can be obtained for units that do not have suitable excitation systems.)

A. Manufacturer: \_\_\_\_\_

B. Is the PSS digital or analog: \_\_\_\_\_

C. Note the input signal source for the PSS:

( ) Bus frequency\_\_\_\_( ) Shaft speed\_\_\_\_( ) Bus Voltage

( ) Other (specify source): \_\_\_\_\_

D. Please attach a copy of a block diagram of the PSS from the PSS Instruction Manual and the correspondence between dial settings and the time constants or PSS gain.

E: Other comments regarding the PSS:

\_\_\_\_\_

**6. Turbine-Governor Information**

(Please repeat the following for each generator model)

Please complete Part A for steam, gas or combined-cycle turbines, Part B for hydro turbines, and Part C for both.

A. Steam, gas or combined-cycle turbines:

(1) List type of unit (Steam, Gas, or Combined-cycle): \_\_\_\_\_

(2) If steam or combined-cycle, does the turbine system have a reheat process (i.e., both high and low pressure turbines)? \_\_\_\_\_

- (3) If steam with reheat process, or if combined-cycle, indicate in the space provided, the percent of full load power produced by each turbine:

Low pressure turbine or gas turbine: \_\_\_\_\_%

High pressure turbine or steam turbine: \_\_\_\_\_%

B. Hydro turbines:

(1) Turbine efficiency at rated load: \_\_\_\_\_%

(2) Length of penstock: \_\_\_\_\_ft

(3) Average cross-sectional area of the penstock: \_\_\_\_\_ft<sup>2</sup>

(4) Typical maximum head (vertical distance from the bottom of the penstock, at the gate, to the water level): \_\_\_\_\_ft

(5) Is the water supply run-of-the-river or reservoir: \_\_\_\_\_

(6) Water flow rate at the typical maximum head: \_\_\_\_\_ft<sup>3</sup>/sec

(7) Average energy rate: \_\_\_\_\_kW-hrs/acre-ft

(8) Estimated yearly energy production: \_\_\_\_\_kW-hrs

C. Complete this section for each machine, independent of the turbine type.

(1) Turbine manufacturer: \_\_\_\_\_

(2) Maximum turbine power output: \_\_\_\_\_MW

(3) Minimum turbine power output (while on line): \_\_\_\_\_MW

(4) Governor information:

(a) Droop setting (speed regulation): \_\_\_\_\_



(b) Is the governor mechanical-hydraulic or electro-hydraulic (Electro-hydraulic governors have an electronic speed sensor and transducer.)? \_\_\_\_\_

(c) Other comments regarding the turbine governor system?  
\_\_\_\_\_

**7. Induction Generator Data:**

A. Rated Generator Power Factor at rated load: \_\_\_\_\_

B. Moment of Inertia (including prime mover): \_\_\_\_\_

C. Do you wish reclose blocking? \_\_\_\_\_ ( ) Yes \_\_\_\_\_ ( ) No

Note: Sufficient capacitance may be on the line now, or in the future, and the generator may self-excite unexpectedly.

**7a. Wind Generators:**

Number of generators to be interconnected pursuant to this Interconnection Request:

\_\_\_\_\_

Average Site Elevation: \_\_\_\_\_ ( ) Single Phase \_\_\_\_\_ ( ) Three Phase

Inverter manufacturer, model name, number, and version:

\_\_\_\_\_

NOTE: In accordance with UL 1741 Supplement A, all new interconnection requests submitted on or after September 9, 2017 for inverter-based generating facilities must be designed with and install UL-1741 SA certified Smart Inverters.

Is the inverter identified above a certified smart inverter per UL-1741 SA?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

List of adjustable set points for the protective equipment or software:

\_\_\_\_\_

Field Volts: \_\_\_\_\_

Field Amperes: \_\_\_\_\_

Motoring Power (MW): \_\_\_\_\_

Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

I<sup>2</sup>t or K (Heating Time Constant): \_\_\_\_\_

Rotor Resistance: \_\_\_\_\_

Stator Resistance: \_\_\_\_\_

Stator Reactance: \_\_\_\_\_

Rotor Reactance: \_\_\_\_\_

Magnetizing Reactance: \_\_\_\_\_

Short Circuit Reactance: \_\_\_\_\_

Exciting Current: \_\_\_\_\_

Temperature Rise: \_\_\_\_\_

Frame Size: \_\_\_\_\_

Design Letter: \_\_\_\_\_

Reactive Power Required In Vars (No Load): \_\_\_\_\_

Reactive Power Required In Vars (Full Load): \_\_\_\_\_

Total Rotating Inertia, H: \_\_\_\_\_ Per Unit on 100 MVA Base

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device then they shall be provided and discussed at Scoping Meeting.

**8. Generator Short Circuit Data**

For each generator model, provide the following reactances expressed in p.u. on the generator base:

- ( )  $X''1$  – positive sequence subtransient reactance: \_\_\_\_\_ p.u.\*\*
- ( )  $X2$  – negative sequence reactance: \_\_\_\_\_ p.u.\*\*
- ( )  $X0$  – zero sequence reactance: \_\_\_\_\_

Generator Grounding (select 1 for each model):

- A. ( ) Solidly grounded
- B. ( ) Grounded through an impedance

(Impedance value in p.u. on generator base R: \_\_\_\_\_ p.u. X: \_\_\_\_\_ p.u.)

- C. ( ) Ungrounded

**9. Step-Up Transformer Data**

For each step-up transformer, fill out the data form provided in Table 1.

**10. Interconnection Facilities Line Data**

There is no need to provide data for new lines that are to be planned by the Distribution

Provider. However, for distribution lines that are to be planned by the generation developer, please provide the following information:

Nominal Voltage: \_\_\_\_\_ kV

Line Length: \_\_\_\_\_ miles

Line termination Points: \_\_\_\_\_

Conductor Type: \_\_\_\_\_ Size: \_\_\_\_\_

If bundled. Number per phase: \_\_\_\_\_, Bundle spacing: \_\_\_\_\_ in.

Phase Configuration. Vertical: \_\_\_\_\_, Horizontal: \_\_\_\_\_

Phase Spacing: A-B: \_\_\_\_\_ ft., B-C: \_\_\_\_\_ ft., C-A: \_\_\_\_\_ ft.

Distance of lowest conductor to Ground at full load and 40 C: \_\_\_\_\_ ft

Ground Wire Type: \_\_\_\_\_ Size: \_\_\_\_\_ Distance to Ground: \_\_\_\_\_ ft

Attach Tower Configuration Diagram

Summer line ratings in amperes (normal and emergency) \_\_\_\_\_

Positive Sequence Resistance ( R ): \_\_\_\_\_ p.u.\*\* (for entire line length)

Positive Sequence Reactance: ( X ): \_\_\_\_\_ p.u.\*\* (for entire line length)

Zero Sequence Resistance ( R0 ): \_\_\_\_\_ p.u.\*\* (for entire line length)

Zero Sequence Reactance: ( X0 ): \_\_\_\_\_ p.u.\*\* (for entire line length)

Line Charging (B/2): \_\_\_\_\_ p.u.\*\*

\*\* On 100-MVA and nominal line voltage (kV) Base

**10a. For generators with a collector system, provide collector System Equivalence Impedance Data**

**Provide values for each equivalence collector circuit at all voltage levels.**

Nominal Voltage: \_\_\_\_\_

Summer line ratings in amperes (normal and emergency) \_\_\_\_\_

Positive Sequence Resistance (R1): \_\_\_\_\_ p.u. \*\* (for entire line length of each collector circuit)

Positive Sequence Reactance: (X1): \_\_\_\_\_ p.u.\*\* (for entire line length of each collector circuit)

Zero Sequence Resistance (R0): \_\_\_\_\_ p.u. \*\* (for entire line length of each collector circuit)

Zero Sequence Reactance: (X0): \_\_\_\_\_ p.u.\*\* (for entire line length of each collector circuit)

Line Charging (B/2): \_\_\_\_\_ p.u.\*\* (for entire line length of each collector circuit)

\*\* On 100-MVA and nominal line voltage (kV) Base

**11. Inverter-Based Machines**

Number of generators to be interconnected pursuant to this Interconnection Request:

\_\_\_\_\_ Cumulative short circuit current from all inverters: \_\_\_\_\_

\_\_\_\_\_

**Please repeat the following for each inverter model**

Inverter manufacturer, model name, number, and version:

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NOTE: In accordance with UL 1741 Supplement A, all new interconnection requests submitted on or after September 9, 2017 for inverter-based generating facilities must be designed with and install UL-1741 SA certified Smart Inverters.

Is the inverter identified above a certified smart inverter per UL-1741 SA?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

Nominal Inverter AC output voltage \_\_\_\_\_

List of adjustable set points for the protective equipment or software

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Harmonics Characteristics

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Start-up requirements

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Maximum design fault contribution current (with LVRT enabled):

Isc max current during fault detection \_\_\_\_\_

Duration of Isc max \_\_\_\_\_

Isc max after fault detection \_\_\_\_\_

llv max current for low voltage ride through (LVRT) \_\_\_\_\_

Duration of llv max \_\_\_\_\_

Attach Manufacturer Technical Data Specification Sheet

Is the inverter capable of providing reactive only current during a system fault that occurs beyond the Point of Interconnection?

If yes, provide the minimum time required before the inverter can return to normal operating mode following the fault clearance.

Will the inverter go into a blocking mode (i.e. connected to the grid but not injecting any current into the grid) during system fault conditions?

Describe the operating conditions wherein the inverter will enter into a blocking mode.

Provide the time duration the inverter remains in the blocking mode before returning to the normal current injecting.

Is the return time programmable? If yes, provide the range for the return time.

Is the inverter capable of being programmed to lock itself out for certain operating conditions? If yes, can the feature be enable or disabled in the field?

Note: A completed General Electric Company Power Systems Load Flow (PSLF) data sheet must be supplied with the Interconnection Request. If other data sheets are more appropriate to the proposed device then they shall be provided and discussed at Scoping Meeting.

**11a. Energy Storage**

Description of the intended use of the storage system (e.g., export to the grid, peak shaving, load shifting, etc.): \_\_\_\_\_

Provide the following information for each type of storage device:

Manufacturer and model: \_\_\_\_\_

Electrical Source Function

Maximum storage MWh capability: \_\_\_\_\_ MWh

Rated constant MW discharge: \_\_\_\_\_ MW

Maximum operating constant MW discharge: \_\_\_\_\_ MW

Specify the devices which will be used to limit the discharge (e.g., inverters, storage control, etc.): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_



Electrical Load Function

Rated charging demand (load): \_\_\_\_\_ MW

Will the Distribution System be used to charge the storage device (Yes/No):

\_\_\_\_\_

NOTE: In accordance with UL 1741 Supplement A, all new interconnection requests submitted on or after September 9, 2017 for inverter-based generating facilities must be designed with and install UL-1741 SA certified Smart Inverters.

Is the inverter identified above a certified smart inverter per UL-1741 SA?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

Primary frequency response operating range for electric storage resources:

Minimum State of Charge: \_\_\_\_\_

Maximum State of Charge: \_\_\_\_\_

**11b. Voltage/Power Factor Control**

Provide a general description of the voltage/power factor control mechanism that will be installed to meet the requirement below. Include a) a list of all devices that will be providing voltage/reactive support, and b) information regarding their operation and control. These devices should be modeled accordingly in the load flow/dynamic models described in section 12.

**Reactive Capability Requirements**

**Synchronous Generators** – The Generating Unit will maintain a composite power delivery at continuous rated power output at the terminals of the Electric Generating Unit at a power factor within the range of 0.95 leading to 0.90 lagging.

**Asynchronous Generators** – The Generating Unit will maintain a composite power delivery at continuous rated power output at the high-side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging. This power factor range

standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors or reactors, or a combination of the two. Refer to FERC Order No. 827 for more detail.

## **12. Load Flow and Dynamic Models:**

Provide load flow model for the generating plant and its interconnection facilities in GE PSLF \*.epc format, including new buses, generators, transformers, interconnection facilities. An equivalent model is required for the plant with generation collector systems. This data should reflect the technical data provided in this Attachment A.

For each generator, governor, exciter and power system stabilizer, select the appropriate dynamic model from the General Electric PSLF Program Manual and provide the required input data. The manual is available on the GE website at [www.gepower.com](http://www.gepower.com). Select the following links within the website: 1) Our Businesses, 2) GE Power Systems, 3) Energy Consulting, 4) GE PSLF Software, 5) GE PSLF User's Manual. Include any user written \*.p EPCL files to simulate inverter based plants' dynamic responses (typically needed for inverter based PV/wind plants). Provide a completed \*.dyd file that contains the information specified in this section.

There are links within the GE PSLF User's Manual to detailed descriptions of specific models, a definition of each parameter, a list of the output channels, explanatory notes, and a control system block diagram. The block diagrams are also available on the CAISO Website.

If you require assistance in developing the models, we suggest you contact General Electric. Accurate models are important to obtain accurate study results. Costs associated with any changes in facility requirements that are due to differences between model data provided by the generation developer and the actual generator test data, may be the responsibility of the generation developer.

TABLE 1

TRANSFORMER DATA

(Provide for each level of transformation)

UNIT \_\_\_\_\_

NUMBER OF TRANSFORMERS \_\_\_\_\_

PHASE \_\_\_\_\_

RATING	H Winding	X Winding	Y Winding
Rated MVA	_____	_____	_____
Connection (Delta, Wye, Gnd.)	_____	_____	_____
Cooling Type (OA,OA/FA, etc) :	_____	_____	_____
Temperature Rise Rating	_____	_____	_____
Rated Voltage	_____	_____	_____
BIL	_____	_____	_____
Available Taps (% of rating)	_____	_____	_____
Load Tap Changer? (Y or N)	_____	_____	_____
Tap Settings		_____	_____
IMPEDANCE	H-X	H-Y	X-Y
Percent	_____	_____	_____
MVA Base	_____	_____	_____
Tested Taps	_____	_____	_____
WIND RESISTANCE	H	X	Y
Ohms	_____	_____	_____

CURRENT TRANSFORMER RATIOS

H\_\_\_\_\_ X\_\_\_\_\_ Y\_\_\_\_\_ N\_\_\_\_\_

Percent exciting current at 100% Voltage \_\_\_\_\_ 110% Voltage \_\_\_\_\_

Supply copy of nameplate and manufacture's test report when available

### **Attachment 3**

#### **Certification Codes and Standards**

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems  
(including use of IEEE 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

UL 1741 Supplement A (with California Requirements) standard for Smart Inverters – applicable to Interconnection Requests received and deemed valid on and after September 9, 2017.

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems NFPA 70 (2002), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

## **Attachment 4**

### **Certification of Generator Equipment Packages**

- 1.0 Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in GIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.

- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of common coupling shall be required to meet the requirements of this interconnection procedure.
- 6.0 An equipment package does not include equipment provided by the utility.
- 7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these generator interconnection procedures shall be considered certified under these procedures for use in that state.



## **Attachment 5**

### **Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Generating Facility No Larger than 10 kW ("10 kW Inverter Process")**

- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Distribution Provider ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three (3) Business Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten (10) Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The Company verifies that the Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Generator Interconnection Procedures (GIP). The Company has fifteen (15) Business Days to complete this process. Unless the Company determines and demonstrates that the Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten (10) Business Days of the

receipt of the Certificate of Completion. If the Company does not inspect within ten (10) Business Days or by mutual agreement of the Parties, the witness test is deemed waived.

- 7.0 Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information – Enter the legal names of the owner(s) of the Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed – This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation. The certification requirements of UL 1741 Supplement A (with California Requirements) for Smart Inverters shall apply to Applications received and deemed valid on and after September 9, 2017.

**Application for Interconnecting a Certified Inverter-Based Generating Facility  
No Larger than 10kW**

This Application is considered complete when it provides all applicable and correct information required below and the documentation of site control pursuant to Section 1.5 of the GIP. Additional information to evaluate the Application may be required.

Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Contact (if different from Interconnection Customer)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Owner of the facility (include % ownership by any electric utility): \_\_\_\_\_

Generating Facility Information

Location (if different from above): \_\_\_\_\_

Electric Service Company: \_\_\_\_\_

Account Number: \_\_\_\_\_

Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_

NOTE: In accordance with UL 1741 Supplement A, all new interconnection requests submitted on or after September 9, 2017 for inverter-based generating facilities must be designed with and install UL-1741 SA certified Smart Inverters.

Is the inverter identified above a certified smart inverter per UL-1741 SA?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Nameplate Rating: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA) \_\_\_\_\_ (AC Volts)

Single Phase \_\_\_\_\_ Three Phase \_\_\_\_\_

System Design Capacity: \_\_\_\_\_ (kW) \_\_\_\_\_ (kVA)

Prime Mover: Photovoltaic  Reciprocating Engine  Fuel Cell

Turbine  Other \_\_\_\_\_

Energy Source: Solar  Wind  Hydro  Diesel  Natural Gas

Fuel Oil  Other (describe) \_\_\_\_\_

Estimated Installation Date: \_\_\_\_\_ Estimated In-Service Date: \_\_\_\_\_

The 10 kW Inverter Process is available only for inverter-based Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Generator Interconnection Procedures (GIP), or the Distribution Provider has reviewed the design or tested the proposed Generating Facility and is satisfied that it is safe to operate.

List components of the Generating Facility equipment package that are currently certified:

	Equipment Type	Certifying Entity
1.	_____	_____
2.	_____	_____
3.	_____	_____

4. \_\_\_\_\_

5. \_\_\_\_\_

Interconnection Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Generating Facility No Larger than 10kW and return the Certificate of Completion when the Generating Facility has been installed.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Contingent Approval to Interconnect the Generating Facility

(For Company use only)

Interconnection of the Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Company Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Company waives inspection/witness test? Yes \_\_\_\_\_ No \_\_\_\_\_

**Generating Facility Certificate of Completion**

Is the Generating Facility owner-installed? Yes \_\_\_\_\_ No \_\_\_\_\_

Interconnection Customer: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Location of the Generating Facility (if different from above):

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Electrician:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

Fax: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

License number: \_\_\_\_\_

Date Approval to Install Facility granted by the Company: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Inspection:

The Generating Facility has been installed and inspected in compliance with the local building/electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

\_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City, State ZIP: \_\_\_\_\_

Fax: \_\_\_\_\_

Approval to Energize the Generating Facility (For Company use only)

Energizing the Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Generating Facility No Larger than 10kW

Company Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Terms and Conditions for Interconnecting an Inverter-Based Generating Facility  
No Larger than 10kW**

**1.0 Construction of the Facility**

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Generating Facility when the Distribution Provider (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

**2.0 Interconnection and Operation**

The Customer may operate Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

- 2..1 Upon completing construction, the Customer will cause the Generating Facility to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and
- 2.2 The Customer returns the Certificate of Completion to the Company, and
- 2.3 The Company has either:
  - 2.3.1 Completed its inspection of the Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten (10) Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or



2.3.2 If the Company does not schedule an inspection of the Generating Facility within ten (10) Business Days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Generating Facility.

2.4 The Company has the right to disconnect the Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

### **3.0 Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

### **4.0 Access**

The Company shall have access to the disconnect switch (if the disconnect switch is required) and metering equipment of the Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

### **5.0 Disconnection**

The Company may temporarily disconnect the Generating Facility upon the following conditions:

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

5.3 If the Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.4 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

## 6.0 **Indemnification**

The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

## 7.0 **Insurance**

The Parties each agree to maintain commercially reasonable amounts of insurance.

## 8.0 **Limitation of Liability**

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

## 9.0 **Termination**

The agreement to operate in parallel may be terminated under the following conditions:

**9.1 By the Customer**

By providing written notice to the Company.

**9.2 By the Company**

If the Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions

**9.3 Permanent Disconnection**

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Generating Facility.

**9.4 Survival Rights**

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

**10.0 Assignment/Transfer of Ownership of the Facility**

This Agreement shall survive the transfer of ownership of the Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

## Attachment 6

### ATTACHMENT 6 to GIP GENERATOR INTERCONNECTION STUDY PROCESS AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_ day of \_\_\_\_\_, 20\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_ a existing under the laws of the State of \_\_\_\_\_, ("Distribution Provider "). Interconnection Customer and Distribution Provider each may be referred to as a "Party," or collectively as the "Parties."

#### RECITALS

**WHEREAS**, Interconnection Customer is requesting a Deliverability Assessment under the Annual Deliverability Assessment pursuant to GIP Section 5.22.2 or Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an existing Generating Facility under the Cluster Study Process consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Generating Facility with the Distribution System;

**WHEREAS**, the Interconnection Customer has requested Distribution Provider to perform Interconnection Studies to assess the system impact of interconnecting the Generating Facility to the Distribution System, and any Affected Systems and to specify and estimate the cost of the equipment, engineering, procurement and construction work needed on the Distribution Provider's electric system to physically and electrically connect the Generating Facility to the Distribution Provider's Distribution System in accordance with Good Utility Practice;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Distribution Provider's FERC approved GIP.

- 2.0 Interconnection Customer elects and Distribution Provider shall cause to be performed Interconnection Studies, including any accelerated Interconnection Study, consistent with the GIP.
- 3.0 The scope of the Interconnection Studies shall be subject to the assumptions set forth in Appendices A and B to this Agreement.
- 4.0 The Interconnection Studies will be based upon the technical information provided by Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting, subject to any modifications in accordance with Section 5.11.2 of the GIP and modifications to the proposed Commercial Operation Date of the Generating Facility permitted by the GIP. Distribution Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Studies. If Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the Interconnection Studies may be modified as specified in the GIP.
- 5.0 The Interconnection Study report for each Interconnection Study shall provide the information specified in the GIP.
- 6.0 Interconnection Customer shall provide Interconnection Financial Security in accordance with GIP Section 5.23.2 on or before ninety (90) Calendar Days after publication of the final Phase I Interconnection Study report.

Upon completion of the Interconnection Studies, Distribution Provider shall charge and Interconnection Customer shall pay its pro rata share of the actual costs of the Interconnection Study pursuant to section 9.7 of the GIP.

- 7.0 The Distribution Provider may provide copies of the Interconnection Studies results to the ISO, an Affected System Operator and the Western Electricity Coordinating Council. Requests for review and input from any Affected System Operators or the Western Electricity Coordinating Council may arrive at any time prior to interconnection.
- 8.0 Substantial portions of technical data and assumptions used to perform the Interconnection Studies, such as system conditions, existing and planned generation, and

unit modeling, may change after the Distribution Provider provides the Interconnection Studies results to the Interconnection Customer. Interconnection Studies results will reflect available data at the time the Distribution Provider provides the Interconnection Study reports to the Interconnection Customer. The Distribution Provider shall not be responsible for any additional costs for Distribution Provider's Interconnection Facilities and Distribution Upgrades that may be incurred by the Interconnection Customer as a result of changes in such data and assumptions.

- 9.0 The Distribution Provider shall maintain records and accounts of all costs incurred in performing the Interconnection Study in sufficient detail to allow verification of all costs incurred, including associated overheads. The Interconnection Customer shall have the right, upon reasonable notice, within a reasonable time at the Distribution Provider's offices and at its own expense, to audit the Distribution Provider's records as necessary and as appropriate in order to verify costs incurred by the Distribution Provider. Any audit requested by the Interconnection Customer shall be completed, and written notice of any audit dispute provided to the Distribution Provider, within one hundred eighty (180) Calendar Days following receipt by the Interconnection Customer of the Distribution Provider's notification of the final costs of the Interconnection Studies.
- 10.0 In accordance with Section 8 of the GIP, the Interconnection Customer may withdraw its Interconnection Request at any time by written notice to the Distribution Provider. Upon receipt of such notice, this Agreement shall terminate, subject to the requirements of Section 9.3 and 6.5 of the GIP.
- 11.0 This Agreement shall become effective upon the date the fully executed Agreement is received by the Distribution Provider. If the Distribution Provider does not receive the fully executed Agreement pursuant to Section 5.7 of the GIP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the Distribution Provider pursuant to Section 9.1 of the GIP.

## 12.0 Miscellaneous.

### 12.1 Dispute Resolution.

12.1.1 Submission. In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance, such Party (the “disputing Party”) shall provide the other Party with written notice of the dispute or claim (“Notice of Dispute”). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Party’s receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of the GIP.

12.1.2 External Arbitration Procedures. Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard

and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (“Arbitration Rules”) and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Section 12.1.2, the terms of this Section 12.1.2 shall prevail.

12.1.3 Arbitration Decisions. Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

12.1.4 Costs. Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

12.2 Confidentiality. Confidential Information shall be treated in accordance with Section 6.5 of the GIP.



- 12.3 Binding Effect. This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 12.4 Conflicts. In the event of a conflict between the body of this Agreement and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed the final intent of the Parties.
- 12.5 Rules of Interpretation. This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any applicable laws and regulations means such applicable laws and regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article or Section of this Agreement or such Appendix to this Agreement, or such Section of the GIP or such Appendix to the GIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article, Section, or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

- 12.6 Entire Agreement. This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this Agreement.
- 12.7 No Third Party Beneficiaries. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.
- 12.8 Waiver. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Distribution Provider. Any waiver of this Agreement shall, if requested, be provided in writing.
- 12.9 Headings. The descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.
- 12.10 Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

- 12.11 Amendment. The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by both of the Parties.
- 12.12 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this Agreement by a written instrument duly executed by both of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all applicable laws and regulations.
- 12.13 Reservation of Rights. The Distribution Provider shall each have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.
- 12.14 No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.
- 12.15 Assignment. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with

an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security purposes to aid in providing financing for the Large Generating Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**For:** **Pacific Gas and Electric**

Signed by: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Position / Title: \_\_\_\_\_

Date: \_\_\_\_\_

**For:**                    **[Insert full company name]**

Signed by: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Position / Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix A To Attachment 6  
Generator Interconnection  
Study Process Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE  
PHASE I INTERCONNECTION STUDY**

The Phase I Interconnection Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on \_\_\_\_\_, subject to any modifications in accordance with Section 5.11.2 of the GIP, and the following assumptions:

**1. Designated Point of Interconnection and configuration to be studied.**

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**2. Deliverability status requested:**

Full capacity; or

Energy only

**Project Name:** \_\_\_\_\_

**Project Queue #:** \_\_\_\_\_

**Appendix B to Attachment 6  
Generator Interconnection  
Study Process Agreement**

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER PRIOR TO  
COMMENCEMENT OF THE PHASE II  
INTERCONNECTION STUDY**

**Project Name:** \_\_\_\_\_

**Queue #s:** \_\_\_\_\_

1. Generating Facility size (MW): \_\_\_\_\_
2. Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, distribution circuits, etc.
3. One set of metering is required for each generation connection to the new ring bus or existing Distribution Provider station. Number of generation connections: \_\_\_\_\_
4. On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)
5. On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT)
6. Will an alternate source of auxiliary power be available during CT/PT maintenance?  
  
\_\_\_\_ Yes \_\_\_\_ No
7. Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? \_\_\_\_ Yes \_\_\_\_ No (Please indicate on one line diagram).
8. What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

\_\_\_\_\_  
9. What protocol does the control system or PLC use?

\_\_\_\_\_  
10. Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, distribution line, and property line.

11. Physical dimensions of the proposed interconnection station:  
  
\_\_\_\_\_

12. Bus length from generation to interconnection station:

---

13. Line length from interconnection station to Distribution Provider's distribution line.

---

14. Tower number observed in the field. (Painted on tower leg)\* \_\_\_\_\_

15. Number of third party easements required for distribution lines\*:

---

\* To be completed in coordination with Distribution Provider.

16. Is the Generating Facility in the Distribution Provider's service area?

\_\_\_\_ Yes \_\_\_\_ No If no, what is the Local provider:

\_\_\_\_\_

17. Please provide the following proposed schedule dates (as known):

a. Environmental survey start: \_\_\_\_\_

b. Environmental impact report submittal: \_\_\_\_\_

c. Procurement of project equipment: \_\_\_\_\_

d. Begin Construction: \_\_\_\_\_

e. Generator step-up transformer: \_\_\_\_\_

f. Receive back feed power: \_\_\_\_\_

g. Generation Testing: \_\_\_\_\_

h. Commercial Operation Date: \_\_\_\_\_

18. Level of ISO Grid Deliverability Desired -- Choose one of the following:

\_\_\_\_\_ Energy Only

\_\_\_\_\_ Full Capacity



19. TP Deliverability -- Choose one of the following:

\_\_\_\_\_ **Option (A)**, which means that the Generating Facility requires TP Deliverability to be able to continue to commercial operation.

\_\_\_\_\_ **Option (B)**, which means the Interconnection Customer will continue to commercial operation without an allocation of TP Deliverability.

**Attachment 7 to the Generator Interconnection Procedures**

**Interconnection System Impact Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Distribution Provider"). Interconnection Customer and Distribution Provider each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Generating Facility with the Distribution Provider's Distribution System;

**WHEREAS**, the Interconnection Customer has requested the Distribution Provider to perform an Interconnection System Impact Study(ies) to assess the impact of interconnecting the Generating Facility with the Distribution Provider's Distribution System, and of any Affected Systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the Distribution Provider shall cause to be performed an Interconnection System Impact Study(ies) consistent with the standard

Generator Interconnection Procedures in accordance with the Wholesale Distribution Tariff.

- 3.0 The scope of an Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 An Interconnection System Impact Study will be based upon the technical information provided by Interconnection Customer in the Interconnection Request. The Distribution Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
- 5.0 An Interconnection System Impact Study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary. An Interconnection System Impact Study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. An Interconnection System Impact Study shall provide a list of facilities that are required as a result of the Interconnection Request and non-binding good faith estimates of cost responsibility and time to construct.
- 6.0 An Interconnection System Impact Study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 7.0 Affected Systems may participate in the preparation of an Interconnection System Impact Study, with a division of costs among such entities as they may agree. All Affected

Systems shall be afforded an opportunity to review and comment upon an Interconnection System Impact Study that covers potential Adverse System Impacts on their electric systems, and the Distribution Provider has twenty (20) additional Business Days to complete an Interconnection System Impact Study requiring review by Affected Systems.

- 8.0 If the Distribution Provider uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Distribution Upgrades and Network Upgrades, the Interconnection System Impact Study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Study is commenced:
- 8.1 Are directly interconnected with the Distribution Provider's electric system; or
  - 8.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
  - 8.3 Have a pending higher queued Interconnection Request to interconnect with the Distribution Provider's electric system.
- 9.0 An Interconnection System Impact Study, if required, shall be completed and the results transmitted to the Interconnection Customer within sixty (60) Business Days after this Agreement is signed by the Parties, or in accordance with the Distribution Provider's queuing procedures.
- 10.0 A deposit of the equivalent of the good faith estimated cost of an Interconnection System Impact Study may be required from the Interconnection Customer.
- 11.0 Any study fees shall be based on the Distribution Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.

12.0 The Interconnection Customer must pay any study costs that exceed the deposit with interest within thirty (30) Calendar Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Distribution Provider shall refund such excess within thirty (30) Calendar Days of the invoice with interest.

13.0 Reservation of Rights

The Distribution Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms, and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC’s rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC’s rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC’s rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**Pacific Gas & Electric Company**

**[Insert Name of Interconnection Customer]**

Signed \_\_\_\_\_

Signed \_\_\_\_\_

Name \_\_\_\_\_  
*(Please Print)*

Name \_\_\_\_\_  
*(Please Print)*

Title \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

Project Name \_\_\_\_\_

Project Queue \_\_\_\_\_

**Attachment A**  
**to Interconnection System Impact Study Agreement**

**Assumptions Used in Conducting the Interconnection System Impact Study**

The Interconnection System Impact Study shall be based upon the technical information provided by Interconnection Customer in the Interconnection Request, subject to any modifications in accordance with the standard Generator Interconnection Procedures, and the following assumptions:

- 1) Designate Point of Interconnection and configuration to be studied.

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- 2) Designate possible alternative Point of Interconnection and configuration.

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- 3) Other assumptions (provided by the Distribution Provider).

(a) **General Project Information:** The Interconnection Customer has requested that Pacific Gas and Electric Company (PG&E) perform a System Impact Study (SIS) for its project, (project name), located at (project address) in (county name) County. This project is a proposed (total # MW) MW (per the submitted application) (Select from list) generator to be interconnected with PG&E's distribution system. Under the terms of a Small Generator Interconnection Agreement, all output power will be exported to PG&E's distribution grid.

- (b) **Deadline for Returning the Signed Agreement to PG&E:** Per Section 3.5.3 of the Generator Interconnection Procedures (GIP), the Interconnection Customer must execute and return the attached agreement within thirty (30) Business Days from the tendering of this agreement – i.e., by (enter date due).
- (c) **Failure to Meet Signature Deadline:** Per Section 3.5.3 of the GIP, if the Interconnection Customer fails to return an executed agreement within those thirty (30) Business Days, the project will be withdrawn from the interconnection queue.
- (d) **System Impact Study Schedule:** The general schedule is shown in the table below: The actual milestone dates will be determined based on the date PG&E receives this executed agreement.

Task	Description	Target Date
1	Establish study commencement date based on receipt of signed Study Agreement or receipt of the customer’s payment on the SIS invoice, whichever is later.	Within 2 BD of receipt of executed SIS Agreement or the SIS invoice payment from the customer, whichever is later.
2	PG&E Issues Final SIS report.	Within 60 BD of start of SIS process
3	Hold SIS Results Meeting between PG&E and Interconnection Customer	Within 20 BD of sending Final SIS report to Interconnection Customer

- (e) **Refunds of Interconnection Study Deposits:** Please refer to Section 9.4 of the GIP for detailed information about the timing and availability of refunds of System Impact Study deposits.
- (f) **Responsibility for Actual Costs in Excess of Deposit:** Per Sections 9.5 and 9.6 of the GIP, the Interconnection Customer is responsible for the actual costs of preparing the Interconnection Study(-ies).



**Attachment 8**

**Interconnection Facilities Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Distribution Provider"). Interconnection Customer and Distribution Provider each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_ ; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Generating Facility with the Distribution Provider's Distribution System;

**WHEREAS**, the Distribution Provider has completed an Interconnection System Impact Study and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, the Interconnection Customer has requested the Distribution Provider to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Generating Facility with the Distribution Provider's Distribution System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the Distribution Provider shall cause an Interconnection Facilities Study consistent with the standard Generator Interconnection Procedures to be performed in accordance with the Wholesale Distribution Tariff.
- 3.0 The scope of the Interconnection Facilities Study shall be subject to data provided in Attachment A to this Agreement.
- 4.0 The Interconnection Facilities Study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the Interconnection System Impact Study(s). The Interconnection Facilities Study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Distribution Provider's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities.
- 5.0 The Distribution Provider may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit of the good faith estimated Interconnection Facilities Study costs may be required from the Interconnection Customer. In cases where Upgrades are required, the Interconnection Facilities Study draft report must be completed within sixty (60) Business Days of the receipt of this Agreement. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the Interconnection Facilities Study draft report must be completed within forty-five (45) Business Days.

- 7.0 Once the Interconnection Facilities Study is completed, an Interconnection Facilities Study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the Interconnection Facilities Study draft report must be completed and the Interconnection Facilities Study draft report transmitted within sixty (60) Business Days of the Interconnection Customer's agreement to conduct an Interconnection Facilities Study.
- 8.0 Interconnection Customer may, within thirty (30) Calendar Days after receipt of the draft report, provide written comments to Distribution Provider, which Distribution Provider shall include in the final report. Distribution Provider shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. Distribution Provider may reasonably extend such fifteen (15) day period upon notice to Interconnection Customer if Interconnection Customer's comments required Distribution Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Study report. Upon request, Distribution Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 5.5 of the standard Generator Interconnection Procedures.
- 9.0 Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Distribution Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.
- 10.0 Any study fees shall be based on the Distribution Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 11.0 The Interconnection Customer must pay any study costs that exceed the deposit with interest within thirty (30) Calendar Days on receipt of the invoice or resolution of any

dispute. If the deposit exceeds the invoiced fees, the Distribution Provider shall refund such excess within thirty (30) Calendar Days of the invoice with interest.

12.0 Reservation of Rights

The Distribution Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms, and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**For the Distribution Provider**

**For the Interconnection Customer**

**Pacific Gas and Electric**

**[Insert Interconnection Customer Name]\_\_\_\_\_**

Signed \_\_\_\_\_

Signed \_\_\_\_\_

\_\_\_\_\_  
*(Printed Name)*

\_\_\_\_\_  
*(Printed Name)*

Title \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

**Project Name:** \_\_\_\_\_

**Project Queue Number:** \_\_\_\_\_

**Attachment A**  
**to Interconnection Facilities Study Agreement**

**Data to Be Provided by the Interconnection Customer**  
**with the Interconnection Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, distribution circuits, etc.

On the one-line diagram, indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT) Amps

One set of metering is required for each generation connection to the new ring bus or existing Distribution Provider station. Number of generation connections:

Will an alternate source of auxiliary power be available during CT/PT maintenance?  
 Yes       No

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?       Yes       No

(Please indicate on the one-line diagram).

What type of control system or PLC will be located at the Generating Facility?

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What protocol does the control system or PLC use?

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Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, distribution line, and property lines.

Physical dimensions of the proposed interconnection station:

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(d) **Facilities Study Schedule:** The general schedule is shown in the table below: The actual milestone dates will be determined based on the date PG&E receives this executed agreement.

Task	Description	Target Date
1	Establish study commencement date based on receipt of signed Study Agreement or receipt of the customer's payment on the FAS invoice, whichever is later.	Within 2 BD of receipt of executed FAS Agreement or the FAS invoice payment from the customer, whichever is later.
2	PG&E Issues Final FAS report.	Within 60 BD of start of FAS process
3	Hold FAS Results Meeting between PG&E and Interconnection Customer	Within 20 BD of sending Final FAS report to Interconnection Customer

(e) **Refunds of Interconnection Study Deposits:** Please refer to Section 9.4 of the GIP for detailed information about the timing and availability of refunds of Facilities Study deposits.

(f) **Responsibility for Actual Costs in Excess of Deposit:** Per Sections 9.5 and 9.6 of the GIP, the Interconnection Customer is responsible for the actual costs of preparing the Interconnection Study(-ies).



**ATTACHMENT J**  
**LETTER AGREEMENT**

**[Date]**

**[Authorized Representative Name]**

**[Title]**

**[Company]**

**[Address]**

Re: Letter Agreement for the **[Project Name]** Project **[Project ID: ]** located at **[lat/long or street, city, zip and county]**

Dear **[Authorized Representative Name]**:

Pacific Gas and Electric Company ("PG&E") hereby enters into this Letter Agreement ("Agreement") with **[Interconnection Customer Name]** for certain work prior to the execution of the applicable Generator Interconnection Agreement ("IA") under the terms of PG&E's Wholesale Distribution Tariff ("WDT"). The Interconnection Customer is an Eligible Customer as that term is defined in the WDT.

All capitalized terms used herein, and not otherwise defined, shall have the meaning ascribed to that term in the WDT, Section 2: Definitions and/or in the WDT, Attachment I: Generator Interconnection Procedures ("GIP"). The Interconnection Customer and PG&E are sometimes referred to herein individually as "Party" and collectively as "Parties."

The Interconnection Customer desires for PG&E to commence certain work prior to executing the IA. Accordingly, the purpose of this Agreement is to agree upon an interim arrangement pursuant to which PG&E will commence, and the Interconnection Customer will pay for, the Work described herein, according to the following terms and conditions:

**1. Work.**

PG&E will perform the Work, as described in Exhibit A, upon payment of amounts described in Section 2 and according to the terms provided herein. PG&E shall perform the Work only after receipt of the payments and financial security set forth in Exhibit C, as may be modified by Section 2.2 and any applicable milestones set forth in Exhibit D.

**2. Payments and Financial Security.**

- 2.1. **Payments/Security.** For PG&E to perform its obligations under the terms and conditions of this Agreement, the Interconnection Customer shall provide to PG&E the payments and financial security, in such estimated amounts as set forth in Exhibits B and C (as may be modified as described in Section 2.2) and in

such form and on such dates as set forth in Exhibit C. PG&E will provide the Interconnection Customer an invoice of such payment obligations, which must be paid by the payment dates in Exhibit C.

- 2.2. **Additional Amounts.** PG&E shall notify Interconnection Customer in writing within a reasonable time if PG&E learns that charges and expenses are likely to exceed the estimated amounts specified in Exhibit B, warranting adjustments to amounts in Exhibit C. The Parties will agree to amend this Agreement in order to reflect and collect the additional amounts required, subject to Federal Energy Regulatory (“FERC”) approval, as applicable, before an invoice for the additional amounts or a request to increase the financial security is issued to the Interconnection Customer.

In the event of such notification, PG&E shall specify the additional payment and/or the corresponding financial security increase(s) and Interconnection Customer shall:

- 2.2.1 Pay such additional invoiced amounts within thirty (30) Calendar Days from the date of the invoice.
- 2.2.2 Post an increase to the financial security amount within thirty (30) Calendar Days of such request.

- 2.3. **Failure to Pay; Insolvency.** Subject to Section 3.2, in the event that the Interconnection Customer fails to provide payment for amounts incurred or irrevocably committed to be incurred, or fails to provide financial security, pursuant to this Agreement, PG&E may (a) immediately stop Work; (b) draw on the interconnection financial security for any amounts due to PG&E during the term of this Agreement, and/or (c) terminate this Agreement by written notice of cancellation effective upon FERC approval. In the event that Interconnection Customer (i) is dissolved; (ii) becomes insolvent; (iii) becomes the subject of a petition in bankruptcy, either voluntary or involuntary, or in any other proceeding under federal bankruptcy laws; (iv) makes an assignment for the benefit of creditors, excluding any assignment for financing purposes; (v) is named in a suit for the appointment of a receiver, PG&E may, in addition to (a) through (c) above, draw on the tax security for any tax liability imposed on PG&E during the term of this Agreement.

### 3. **Dispute.**

Disputes arising out of or in connection with this Agreement shall be resolved as follows:

- 3.1. **Submission.** In the event either Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance, such Party (the “disputing Party”) shall provide the other Party with written notice of the dispute or claim (“Notice of Dispute”). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Party. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar

Days of the other Party's receipt of the Notice of Dispute, such claim or dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Agreement.

- 3.2. **Payment Dispute.** In the event of a billing dispute between PG&E and the Interconnection Customer, PG&E shall continue to perform the Work under this Agreement as long as the Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to PG&E or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If the Interconnection Customer fails to meet these two requirements for continuation of service, then PG&E may invoke remedies in Section 2.3. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accordance with the methodology set forth in FERC's Regulations at 18 C.F.R. § 35.19a(a)(2)(iii).
- 3.3. **External Arbitration Procedures.** Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) Calendar Days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations; provided, however, in the event of a conflict between the Arbitration Rules and the terms of Section 3, the terms of this Section 3 shall prevail.
- 3.4. **Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Interconnection Facilities, Distribution Upgrades, or Network Upgrades.

- 3.5. **Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three-member arbitration panel and one half of the cost of the third arbitrator chosen; or (2) one half the cost of the single arbitrator jointly chosen by the Parties.

#### 4. **Milestone Schedule.**

If applicable, the milestone schedule is attached as Exhibit D. PG&E shall use commercially reasonable efforts to complete the Work in accordance with this schedule. However, PG&E does not warrant the Work will be completed in time to meet such deadlines, and the Interconnection Customer understands and acknowledges that such deadlines are only estimates. PG&E shall not be liable for any cost or damage incurred by the Interconnection Customer as a result of or due to any delay in the completion of the Work pursuant to the milestone schedule.

#### 5. **Termination.**

- 5.1. Except for terms that survive termination, this Agreement shall terminate upon the earliest of the following to occur: (i) notice that this Agreement is not accepted for filing by FERC, if applicable; (ii) the effective date of the IA, which the Parties intend to supersede this Agreement; (iii) the Interconnection Customer's receipt of PG&E's notice of cancellation pursuant to Section 2.3, which is subject to acceptance by FERC; (iv) two (2) Business Days after receipt by PG&E of a termination notice from Interconnection Customer to PG&E at any time and for any reason; or (v) withdrawal of the Interconnection Customer's Interconnection Request for the Project.
- 5.2. In the event that either Party terminates this Agreement for reasons other than the execution of the IA, PG&E shall use commercially reasonable efforts to mitigate the costs, damages, and charges arising as a consequence of such termination. To that end, PG&E shall cancel, to the extent possible, or return any pending orders of any materials or equipment procured pursuant to this Agreement. To the extent that the Interconnection Customer already has paid PG&E for any or all costs of such materials, equipment or contracts cancelled or returned, PG&E shall refund such amounts to Interconnection Customer, less any costs or penalties incurred by PG&E to cancel pending orders for or return of such materials and equipment.
- 5.3. In the event that this Agreement is terminated or if the Work is completed before the effective date of the IA and a payment shortfall exists pursuant to Section 5.3.2 of this Agreement, PG&E shall make reasonable efforts to submit a final invoice to Interconnection Customer of all charges and expenses within twelve (12) months from the date of termination of or completion of the Work performed under this Agreement. In such event, the following true-up process will be used:
- 5.3.1. **Payment Excess.** In the event that the Interconnection Customer's payment(s) paid in accordance with this Agreement exceeds the amount of PG&E's charges and expenses incurred or irrevocably committed to be incurred pursuant to this Agreement, PG&E shall return the excess

amount without interest to Interconnection Customer within thirty (30) Calendar Days after the date of a final invoice without offset for any amount that may be in dispute.

5.3.2. **Payment Shortfall.** In the event that Interconnection Customer's payment(s) paid in accordance with this Agreement is less than the amount of PG&E's charges and expenses incurred or irrevocably committed to be incurred pursuant to this Agreement, then the Interconnection Customer shall pay the difference, without interest, within thirty (30) Calendar Days of the date of the final invoice, without offset for any amount which may be in dispute. If Interconnection Customer fails to pay the final invoice, PG&E also shall have the right to draw on the Interconnection Financial Security for any payment shortfall.

5.4. In the event that the Interconnection Customer elects to terminate this Agreement but still take delivery of materials or equipment procured pursuant to this Agreement, the Interconnection Customer shall assume all payment obligations with respect to delivery of such materials, equipment, and contracts, and PG&E shall transfer such materials and equipment, and, if necessary, assign such contracts, to the Interconnection Customer as soon as reasonably practicable, at the Interconnection Customer's expense.

5.5. In the event that the Interconnection Customer and PG&E enter into an IA concurrently with the termination of this Agreement, then any applicable work product generated by PG&E and any associated payments made by Interconnection Customer pursuant to this Agreement not already credited shall be reflected in the scope of, and the amount due under, such IA.

## 6. Taxes.

6.1. The Parties intend that all payment(s) made by the Interconnection Customer to PG&E pursuant to this Agreement shall be treated as non-taxable if the payment(s) satisfies the non-taxability requirements of the Internal Revenue Code, state income tax laws or other applicable tax authorities. Payment(s) that satisfy the non-taxability requirements shall not be taxable as contributions in aid of construction upon contribution. However, to the extent the payment(s) fail the non-taxability requirements, then the Interconnection Customer shall protect, indemnify and hold harmless PG&E from the cost consequences of any income tax liability imposed against PG&E as the result of the taxable payment(s) made by the Interconnection Customer to PG&E under this Agreement, as well as any interest and penalties. PG&E reserves its right to request financial security from the Interconnection Customer for potential estimated tax liability held on behalf of the Project to pay the tax liability imposed on PG&E if determined appropriate.

6.2. If PG&E or the IRS makes a determination that the payment(s) made pursuant to this Agreement are taxable as contributions in aid of construction, PG&E shall require that the Interconnection Customer make a nonrefundable cash payment to PG&E within thirty (30) Calendar Days of receipt of the invoice in the actual amount of the resultant tax liability. The tax liability will be calculated using the

methodology described in the Article 5.17.4 (Tax Gross-Up Amount) of the WDT Attachment H.

**7. Force Majeure.**

No Party shall be considered to be in default with respect to any obligation hereunder, other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure, which may also be referred to as Uncontrollable Force and for purposes of clarity shall include pandemic. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Party in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Section 7 shall be confirmed in writing as soon as reasonably possible and shall specifically state the full particulars of the Force Majeure, the time and date when the Force Majeure occurred, and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

**8. Indemnity.**

Each Party shall at all times indemnify, defend, and hold the other Party harmless from, any and all Losses arising out of or resulting from the other Party's action or inactions with respect to its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

**9. Consequential Damages.**

In no event shall any Party be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, or cost of temporary equipment or services, whether based in whole or in part in contract or in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

**10. Entire Agreement.**

This Agreement, including all Exhibits attached hereto, constitutes the complete and final expression of the agreement between the Parties and is intended as a complete and exclusive statement of the terms of their agreement. This Agreement supersedes all prior and contemporaneous offers, promises, representations, negotiations, discussions, communications, and other agreements, which may have been made in connection with the subject matter of this Agreement. Nothing in this Agreement is intended or shall be deemed to require PG&E or Interconnection Customer to enter into any other agreement, including without limitation any agreement to interconnect the Project. Should the Parties enter into an IA, such IA will supersede this Agreement.

**11. Insurance.**

Each Party shall maintain insurance coverage consistent with the requirements as set forth in the *pro forma* IA.

**12. Access Rights.**

Each Party shall provide access rights consistent with the requirements as set forth in the *pro forma* IA.

**13. Waiver.**

Any waiver at any time by either Party of its rights with respect to this Agreement, shall not be deemed a waiver with respect to any other failure to comply with any obligation, right or duty of this Agreement. Any delay, with the exception of the statutory period of limitation in assessing or enforcing any right, shall not be deemed a waiver of such right.

**14. No Joint Liability.**

The covenants, obligations, and liabilities of the Parties are intended to be several and not joint or collective, and nothing contained in this Agreement shall ever be construed to create an association, joint venture, trust, or partnership, or to impose a trust or partnership covenant, obligation, or liability on or with regard to either Party. Each Party shall be individually responsible for its own covenants, obligations, and liabilities as provided in this Agreement. Neither Party shall be under the control of the other Party. Neither Party shall be the agent of or have a right or power to bind the other Party without such other Party's express written consent.

**15. No Third Party Beneficiaries.**

The Parties do not intend to create rights in, or to grant remedies to, any third party as a beneficiary either of this Agreement or of any duty, covenant, obligation, or undertaking established herein.

**16. Governing Law.**

This Agreement shall be interpreted by and in accordance with the laws of the State of California, without regard to the principles of conflict of laws therefor, or the laws of the United States, as applicable, as if executed and to be performed wholly within the United States.

**17. Successors and Assigns.**

This Agreement shall be binding upon the Parties and their successors and assigns. This Agreement may be assigned by a Party only with the written consent of the other Party; provided that a Party may assign this Agreement without the consent of the other Party to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; and provided further that the Interconnection Customer shall have the right to assign this Agreement, without the consent of the other Party, for collateral security

purposes to aid in providing financing for the Interconnection Customer's Facility, provided that the Interconnection Customer will require any secured party, trustee or mortgagee to notify the other Party of any such assignment. Any financing arrangement entered into by the Interconnection Customer pursuant to this Section will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the other Party of the date and particulars of any such exercise of assignment right(s). Any attempted assignment that violates this Section is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned, or delayed.

**18. Survival.**

Indemnity obligations and obligations to pay charges and expenses incurred or irrevocably committed to be incurred pursuant to this Agreement will survive termination of this Agreement.

**19. FERC Filing.**

PG&E will report this Agreement and amendments thereto in its Electric Quarterly Report ("EQR") in lieu of filing it at FERC, pursuant to Applicable Laws and Regulations.

**20. Reservation of Rights.**

PG&E shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**21. Construction.**

Ambiguities or uncertainties in the wording of this Agreement shall not be construed for or against any Party but shall be construed in the manner that most accurately reflects the Parties' intent as of the date they executed this Agreement.

**22. Amendment.**

The Parties may by mutual agreement amend this Agreement by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this Agreement upon satisfaction of all Applicable Laws and Regulations.



23. **Confidentiality.**

The provisions governing confidentiality in the *pro forma* IA are hereby incorporated herein, in their entirety.

24. **Authority.**

Each Party hereby represents that it and its signatory below have the right, power, and authority to enter into this Agreement, to become a Party hereto and to perform its obligations hereunder. This Agreement is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

25. **Warranties.**

The Interconnection Customer warrants that it is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; and that it is qualified to do business in the state or states in which the Facility is located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this Agreement and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement.

26. **Headings.**

The descriptive headings of the various Sections of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.

27. **Execution.**

This Agreement may be executed in two or more counterparts, each of which is deemed an original, but all constitute one and the same instrument.

28. **Effective Date.**

This Agreement shall become effective on upon execution by all Parties subject to acceptance by FERC.

**PACIFIC GAS AND ELECTRIC COMPANY**

By \_\_\_\_\_/s/ [Signature]  
Name: **[Name]**  
Title: **[Title]**

ACCEPTED AND AGREED to this \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

**[IC COMPANY NAME]**

By \_\_\_\_/s/ [Signature] \_\_\_\_\_

Name: **[Name]**

Title: **[Title]**

ACCEPTED AND AGREED to this \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

**EXHIBIT A**  
**SCOPE OF WORK**

[Insert a description of the Work to be performed by PG&E, including that related to Interconnection Facilities, Transmission Upgrades, and Network Upgrades, as applicable. A one-line diagram of the interconnection may be included, if applicable.]

**EXHIBIT B**

**ESTIMATED COST OF THE WORK AND FINANCIAL SECURITY**

[PG&E will provide an estimated cost of the Work identified in Exhibit A and any associated financial security, including Interconnection Financial Security and tax security\*.]

\*The rate(s) applicable to any tax security is in accordance with PG&E’s Wholesale Distribution Tariff designated as FERC Electric Tariff, Volume No. 4 as such tariff may be amended or superseded.

**Additional Definitions:**

***Distribution Upgrades Cost:*** The Interconnection Customer’s allocated share of all costs determined by PG&E to be associated with the design, engineering, procurement, construction, and installation of the Distribution Upgrades.

***Interconnection Facilities Cost:*** All costs determined by PG&E to be associated with the design, engineering, procurement, construction, and installation of Participating TO’s Interconnection Facilities.

***Local Delivery Network Upgrades Cost:*** The Interconnection Customer’s allocated share of all costs determined by PG&E to be associated with the design, engineering, procurement, construction, and installation of the Local Delivery Network Upgrades constructed and owned by PG&E.

***Local Off-Peak Network Upgrades Cost:*** The Interconnection Customer’s allocated share of all costs determined by PG&E to be associated with the design, engineering, procurement, construction, and installation of the Local Off-Peak Network Upgrades constructed and owned by PG&E.

***Reliability Network Upgrades Cost:*** The Interconnection Customer’s allocated share of all costs determined by PG&E to be associated with the design, engineering, procurement, construction, and installation of Reliability Network Upgrades.

**a. Estimated Cost**

<b>Element</b>	<b>Interconnection Facilities Cost (\$)</b>	<b>Distribution Upgrades Cost (\$)</b>	<b>Reliability Network Upgrades Cost (\$)</b>	<b>Local Delivery Network Upgrades Cost (\$)</b>	<b>Local Off-Peak Network Upgrades Cost (\$)</b>	<b>Total (\$)</b>
[Rows to include description of the elements of the scope of work and estimated						

<b>costs]</b>						
<b>Total</b>	<b>\$ xxxxxx</b>	<b>\$ xxxxxx</b>	<b>\$ xxxxxx</b>	<b>\$ xxxxxx</b>	<b>\$ xxxxxx</b>	<b>\$ xxxxxx</b>

**b. Financial Security**

[PG&E to insert information about required financial security(-ies) needed to support this agreement]

## EXHIBIT C

### PAYMENT AND FINANCIAL SECURITY SCHEDULE

[PG&E will include a schedule(s) of the amount, and due date, for the payments and financial security, as applicable, reflected in Exhibit B.]

**EXHIBIT D**  
**MILESTONES**

[As needed, PG&E will include a list of relevant milestones applicable only to the Work to be completed under this Letter Agreement.]