

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



February 27, 2018

Advice Letter 5133-E

Erik Jacobson
Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, CA 94177

**SUBJECT: Special Agreement for Unmetered Electric Service: Limited Exception
Between PG&E and Trans Bay Cable, LLC**

Dear Mr. Jacobson:

Advice Letter 5133-E is effective as of February 8, 2018, per Resolution E-4915
Ordering Paragraphs.

Sincerely,

A handwritten signature in cursive script that reads "Edward Randolph".

Edward Randolph
Director, Energy Division



Erik Jacobson
Director
Regulatory Relations

Pacific Gas and Electric Company
77 Beale St., Mail Code B13U
P.O. Box 770000
San Francisco, CA 94177

Fax: 415-973-3582

August 25, 2017

Advice 5133-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Special Agreement for Unmetered Electric Service: Limited Exception Between PG&E and Tans Bay Cable, LLC

Pacific Gas and Electric Company (PG&E) hereby submits for approval, in accordance with General Rule 8.5.6 and Industry Rule 7.1 of General Order 96-B, a Special Agreement for Unmetered Electrical Service – Limited Exception (Agreement) between PG&E and Trans Bay Cable, LLC, (Trans Bay Cable).

Purpose

PG&E respectfully submits this advice letter seeking approval for the Agreement between PG&E and Trans Bay Cable, LLC, to provide for estimated bills for unmetered retail electric charges for the Trans Bay Cable transmission line under PG&E Electric Rule 17, Paragraph B.5. This is a deviation from PG&E's current tariffs and provides a limited exception specifically for the situation with the Trans Bay Cable.

Background

Trans Bay Cable owns and operates a high voltage direct-current transmission line (DC Line) between PG&E's Pittsburg and Potrero substations intended to enhance electric reliability services to the City and County of San Francisco. The Trans Bay Cable facilities include two converter stations connected to the two PG&E substations. When the DC Line is operating, each converter station may draw retail power under PG&E's E-19-P rate schedule via electric services from PG&E's local distribution system or from Trans Bay Cable's on-site diesel generators. When the DC Line is operating, power to support the converter equipment ("non-retail power") and power to support Trans Bay Cable's operations buildings and related power needs ("retail power") at each converter station is taken directly from the DC Line.

The existing E-19P accounts at the converter stations do not fully and accurately capture all of the retail loads under all operating conditions since there are no meters to separately measure the retail energy used at either converter station when the DC Line

is operating. Specifically, when the DC line is operating, there is a transformer at each station energized to serve the loads at the converter stations. Under this operating condition, Trans Bay Cable's control logic automatically switches the load from the E19P account sources to the DC Line to avoid simultaneously connecting loads to PG&E's distribution system and the DC Line. PG&E had not known of this operating protocol when Trans Bay Cable first connected the DC Line, and Trans Bay Cable had not considered the unmetered usage during this operating condition to constitute retail service. Retrofitting the Trans Bay switchgear to install the necessary metering to capture retail usage while the DC Line is operating would require rewiring the unmetered loads from the transmission line to the E-19-P services. This would be unduly expensive, especially in consideration of the amount of unmetered usage.

After conferring for years on how to resolve this issue, Trans Bay Cable and PG&E have agreed on a methodology to estimate the appropriate energy charges to Trans Bay Cable for unmetered retail power at both converter stations. The method as described in the Agreement applies PG&E's effective retail rate Schedule E-19T, which is subject to change by the CPUC, to the estimated power usage at each converter station. The power usage estimates were a result of extensive work with Trans Bay Cable and their vendor, Siemens Electric, to derive electric loads at each office building (and other similar loads such as security lighting, gate openers, etc.), and using historical load factors and usage patterns reflective of actual operation. PG&E and Trans Bay Cable agreed to apply the E-19T rate because the energy is taken directly from the transmission line and Trans Bay Cable owns and operates the equipment to transform the energy to utilization voltages at the office buildings and other loads. The Agreement includes an appendix with spreadsheets detailing these retail load calculations. The Agreement covers prospective unmetered usage, and PG&E and Trans Bay Cable have entered into a separate agreement for past unmetered usage that applies the same methodology.

This agreement is a deviation from Electric Rule 9 – Rendering and Payment of Bills under Electric Rule 17, Paragraph B.5., so PG&E seeks approval of the Agreement in accordance with Industry Rule 7.1 of General Order 96-B.

The filing does not increase any current rate or charge, cause the withdrawal of service, or conflict with any rate schedule or rule.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than September 14, 2017, which is 20 days after the date of this filing. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit

505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-3582
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

PG&E requests that this tier 3 advice filing become effective upon commission approval.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at

Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs/>.

_____/S/
Erik Jacobson
Director, Regulatory Relations

Attachment:

Attachment 1 – Tariffs Update (List of Contracts and Deviations)

Attachment 2 – Confidentiality Declaration

Attachment 3 - Special Agreement for Unmetered Electrical Service – Limited Exception Between Trans Bay Cable LLC and Pacific Gas and Electric Company For the Trans Bay Cable Transmission Line (Public Version)

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 E)**

Utility type:

ELC

GAS

PLC

HEAT

WATER

Contact Person: Yvonne Yang

Phone #: (415) 973-2094

E-mail: Qxy1@pge.com and PGETariffs@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric

GAS = Gas

PLC = Pipeline

HEAT = Heat

WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **5133-E**

Tier: 3

Subject of AL: **Special Agreement for Unmetered Electric Service: Limited Exception Between PG&E and Tans Bay Cable, LLC**

Keywords (choose from CPUC listing): Agreements

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: _____

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL: _____

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: Yes. See the attached Declaration that identified all of the confidential information

Confidential information will be made available to those who have executed a nondisclosure agreement: Yes

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: Aaron August, (415) 270-2780, A3A0@pge.com

Resolution Required? Yes No

Requested effective date: **Upon Commission Approval**

No. of tariff sheets: **3**

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: **Electric - List of Contracts and Deviations**

Service affected and changes proposed: N/A

Pending advice letters that revise the same tariff sheets: N/A

Protests, dispositions, and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

California Public Utilities Commission

Energy Division

EDTariffUnit

505 Van Ness Ave., 4th Flr.

San Francisco, CA 94102

E-mail: EDTariffUnit@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Erik Jacobson

Director, Regulatory Relations

c/o Megan Lawson

77 Beale Street, Mail Code B13U

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

Cal P.U.C. Sheet No.	Title of Sheet	Cancelling Cal P.U.C. Sheet No.
40996-E	LIST OF CONTRACTS AND DEVIATIONS (Continued) Sheet 13	29590-E
40997-E	ELECTRIC TABLE OF CONTENTS Sheet 1	40928-E
40998-E	ELECTRIC TABLE OF CONTENTS Sheet 21	37960-E



LIST OF CONTRACTS AND DEVIATIONS
(Continued)

Sheet 13

Name and Location of Customer		Most Comparable Regular Tariff			
PG&E Installation Reference No.	Type or Class of Service	Execution and Expiration Dates	Commission Authorization Number and Date	Schedule or Rule No.	Contract Difference
GOLDEN GATE REGION (Cont'd.)					
<u>Other Customers</u>					
Sutro Tower, Inc. TV Antenna and Operations Building, San Francisco	Power Service	7-13-73	G.O.96-A,X.A. Res. E-1453 2-4-75	Rule 15	Monthly Charge for Excess Facilities
Esprit de Corps 900 Minnesota Street San Francisco	Coml/Ind	7-6-76	Res. E-1737 1-10-78	Rule 16	Monthly Cost of Ownership Charge
Kaiser Hospital San Francisco	Coml	12-16-77 ---	Res. E-1810 12-19-78	Rule 2	Revised Monthly Cost of Ownership Supplemental Agreement to Advice 635-E, 663-E, 633-E, 684-E
Two Polk Corp. Managing Partner for Fox Plaza, Tenants - In Common	Domestic	11-16-78 5 Years*1	Res. E-1819 2-2-79	Rule 2	Monthly Cost of Ownership Charge
Fine Arts Museum of San Francisco	Coml	3-30-79 ---	---	Rule 2	Monthly Cost of Ownership Charge
L.H. Hopkins San Francisco	Heating	---	File 1314	H-1	Two-Phase Service
Sadik, Inc. San Francisco	Domestic	---	File 1314	DM	Three-Phase Service
Genentech, Inc. South San Francisco	Industrial	9-23-96 4-20-00	D.94-09-071 9-15-94 Res. E-3653 3-16-00	E-20	Special Negotiated Rate
TCI Cablevision of California, Inc. San Francisco and San Mateo Counties	New Business	11-27-02 3 Years	---	Rule 15 and Rule 16	Designated Workgroup Agreement
Clear Channel Outdoor, Inc.	Street Lights	5-3-10 None	Resolution E-4323 Advice 3591-E-A 5-26-10	Rule 9	Service Agreement
Trans Bay Cable, LLC San Francisco	Coml	8-7-17	Ref. Advice Letter 5133-E	Rule 9	Service Agreement (N) (N)

*1 to *4 See last page of Electric Contracts and Deviations Section for explanation of footnotes.

(Continued)

Advice 5133-E
Decision

Issued by
Robert S. Kenney
Vice President, Regulatory Affairs

Date Filed
Effective
Resolution

August 25, 2017



ELECTRIC TABLE OF CONTENTS

Sheet 1

TABLE OF CONTENTS

SCHEDULE	TITLE OF SHEET	CAL P.U.C. SHEET NO.	
Title Page.....		40997-E	(T)
Rate Schedules.....	40657,40658,40929,40660,40661,40708,37981,40236,40663-E		
Preliminary Statements.....	40664,35423,40152,37737,34373,37727,40153-E		
Rules.....	37165,36649,40819-E		
Maps, Contracts and Deviations.....		40998-E	(T)
Sample Forms.....	37166,37631,40820,36604,37632,40821,35796,37769,37703,36059,37169-E		

(Continued)

Advice 5133-E
Decision

Issued by
Robert S. Kenney
Vice President, Regulatory Affairs

Date Filed
Effective
Resolution

August 25, 2017



ELECTRIC TABLE OF CONTENTS

Sheet 21

TITLE OF SHEET

CAL P.U.C. SHEET NO.

Maps, Contracts and Deviations

SERVICE AREA MAPS

Electric Service Area Map..... 34575-E

LIST OF CONTRACTS AND DEVIATIONS

..... 13819,13794,37604,37465,12000,12001,13672,12003,19350,11435,
..... 36755,20977,**40996**,12006,21635,21636,29591,34524,11191,12010,
..... 11193,11194,11195,12969,31155,12012,29592,33251,29670,31469,
..... 12955,19353,12018,12019,12020,12021,12022,12023,30666,17259,
..... 12026,13092,11211,12027,12028,16703,12030,12031,14035,29593,
..... 12032,23621,11219,12034,20831,12036,11223,11986,11987,37958,
..... 16898,11227-E

(T)

(Continued)

Advice 5133-E
Decision

Issued by
Robert S. Kenney
Vice President, Regulatory Affairs

Date Filed August 25, 2017
Effective _____
Resolution _____

Attachment 2

Confidentiality Declaration

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

**DECLARATION SUPPORTING
CONFIDENTIAL DESIGNATION
ON BEHALF OF
PACIFIC GAS AND ELECTRIC COMPANY**

1. I, Aaron August, am the Director, Business Energy Solutions of Pacific Gas and Electric Company (“PG&E”), a California corporation. Deborah Affonsa, the Vice President, Customer Service of PG&E, delegated authority to me to sign this declaration. My business office is located at:

Pacific Gas and Electric Company
1850 Gateway Blvd, Room 6048
Concord, CA 94520

2. PG&E will produce the information identified in paragraph 3 of this Declaration to the California Public Utilities Commission (“CPUC”) or departments within or contractors retained by the CPUC in response to a CPUC audit, data request, proceeding, or other CPUC request.

Name or Docket No. of CPUC Proceeding (if applicable): N/A

3. Title and description of document(s): Special Agreement for Unmetered Electric Service: Limited Exception Between Tans Bay Cable, LLC and Pacific Gas and Electric Company

4. These documents contain confidential information that, based on my information and belief, has not been publicly disclosed. These documents have been marked as confidential, and the

basis for confidential treatment and where the confidential information is located on the documents are identified on the following chart:

Check	Basis for Confidential Treatment	Where Confidential Information is located on the documents
<input checked="" type="checkbox"/>	<p>Customer-specific data, which may include demand, loads, names, addresses, and billing data</p> <p>(Protected under PUC § 8380; Civ. Code §§ 1798 <i>et seq.</i>; Govt. Code § 6254; Public Util. Code § 8380; Decisions (D.) 14-05-016, 04-08-055, 06-12-029; and General Order (G.O.) 77-M)</p>	<p>Agreement – Pages 1,3, & 4 Attachment A – Pages 1 through 11</p>
<input type="checkbox"/>	<p>Personal information that identifies or describes an individual (including employees), which may include home address or phone number; SSN, driver’s license, or passport numbers; education; financial matters; medical or employment history (not including PG&E job titles); and statements attributed to the individual</p> <p>(Protected under Civ. Code §§ 1798 <i>et seq.</i> and G.O. 66-C)</p>	
<input type="checkbox"/>	<p>Physical facility, cyber-security sensitive, or critical energy infrastructure data, including without limitation critical energy infrastructure information (CEII) as defined by the regulations of the Federal Energy Regulatory Commission at 18 C.F.R. § 388.113</p> <p>(Protected under Govt Code § 6254(k), (ab); 6 U.S.C. § 131; 6 CFR §29.2)</p>	
<input type="checkbox"/>	<p>Accident reports</p> <p>(Protected under PUC § 315 and G.O. 66-C, 2.1)</p>	
<input checked="" type="checkbox"/>	<p>Commercial records that, if revealed, would place PG&E at an unfair business disadvantage, including market-sensitive data; business plans and strategies; long-term fuel buying and hedging plans; price, load, or demand forecasts; power purchase agreements within three years of execution; and internal financial information</p> <p>(Protected under Govt Code §§ 6254, 6276.44; Evid Code § 1060; Civ. Code § 3426 <i>et seq.</i>; and G.O. 66-C, 2.2 (b))</p>	Page 4

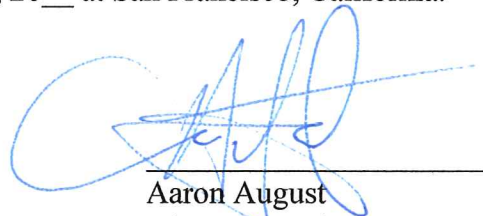
Proprietary and trade secret information or other intellectual property
(Protected under Civ. Code § 3426 *et seq.*; Govt Code § 6254.15)

Corporate financial records
(Protected under Govt Code § 6254.15)

Third-Party information subject to non-disclosure or confidentiality agreements
(*See, eg.*, D.11-01-036)

Other basis: _____

5. The importance of maintaining the confidentiality of this information outweighs any public interest in disclosure of this information. This information should be exempt from the public disclosure requirements under the Public Records Act and should be withheld from disclosure.
6. I declare under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.
7. Executed on this 22 day of August, 2017 at San Francisco, California.



Aaron August
Director, Business Energy Solutions
Pacific Gas and Electric Company

Attachment 3

Special Agreement for Unmetered Electrical Service – Limited Exception
Between Trans Bay Cable LLC and Pacific Gas and Electric Company
For the Trans Bay Cable Transmission Line
(Public Version)

SPECIAL AGREEMENT
FOR
UNMETERED ELECTRICAL SERVICE – LIMITED EXCEPTION
BETWEEN
TRANS BAY CABLE LLC
AND
PACIFIC GAS AND ELECTRIC COMPANY
FOR THE TRANS BAY CABLE TRANSMISSION LINE

PACIFIC GAS AND ELECTRIC COMPANY, a California corporation (“PG&E”), and TRANS BAY CABLE LLC, a Delaware limited liability company (“TBC”) (either entity a “Party” or collectively the “Parties”) hereby enter into this agreement (“Agreement”) regarding the determination of retail electric charges for TBC’s Transmission Line (defined below).

RECITALS

Whereas, TBC constructed, owns, and operates a High Voltage Direct Current (“DC”) transmission line (the “DC Transmission Line”) between the PG&E Pittsburg Power Plant Substation and the PG&E Potrero Power Plant Substation.

Whereas, TBC has two converter stations, one which is located at 570 W 10th St., Pittsburg, CA in Contra Costa County and is connected to the PG&E electric system at 230kV (the “Pittsburg Converter Station”) and the other which is located 601 23rd St., San Francisco, CA in San Francisco County and is connected to the PG&E electric system at 115 kV (the “Potrero Converter Station”).

Whereas, TBC requires electric energy to support the converter equipment (“non-retail power”) and to provide the power needs of the supporting buildings and other non-transmission equipment (“retail power”), which is taken from the Transmission Line when it is energized.

Whereas, TBC has no generating facilities that interconnect directly to PG&E’s electrical system, therefore PG&E’s standby tariff is not applicable for service to TBC. Accordingly, the current rate schedule, Schedule E-19 (see http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_E-19.pdf), is applicable to the TBC Facilities (defined below).

Whereas, TBC has two retail Schedule E-19-P accounts with PG&E, one for the Pittsburg Converter Station, serviced under PG&E account number [REDACTED], and the other for the Potrero Converter Station, serviced under PG&E account number [REDACTED], where service under each account commenced on November 23, 2010.

Whereas, TBC may draw retail power either from PG&E's distribution system under TBC's two retail Schedule E-19-P accounts or from TBC's on-site diesel generators when the Transmission Line is not energized.

Whereas, there is no metering to separately measure the retail energy used at either Converter Station when the Transmission Line is energized, so the existing retail meters at either converter station do not fully and accurately capture the retail portion of the load under all operating conditions. Particularly, when the third winding of the transformer (tertiary line) is energized, usage that should be served by retail power is not separately metered.

Whereas, TBC and PG&E have reached an agreement regarding an appropriate methodology to determine energy costs owed to PG&E from TBC for any un-metered retail energy that is consumed by the Pittsburg Converter Station, Potrero Converter Station, and other buildings and related equipment that support the Transmission Line (collectively the "Facilities").

Whereas, as accurate usage data is not available, TBC and PG&E agree that PG&E would include an adder to TBC's Schedule E-19-P account bills for estimated consumption of retail power under PG&E's California Public Utilities Commission ("CPUC") Electric Rule No. 9, Section C.

NOW, THEREFORE, in consideration of the foregoing facts and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree to the covenants below:

TERMS AND CONDITIONS

1. TBC will continue to receive a separate electric bill from PG&E for each Converter Station on a monthly basis under schedule E-19-P Electrical Service.
2. Each monthly E-19-P electric bill will include an additional amount for the estimated unmetered usage as calculated in Paragraph 4 below ("Monthly Retail Adder"). This amount will be included in the monthly billing statement by adding charges for the estimated monthly unmetered usage (kWh) at each Converter Station, as described in Paragraph 4 below, to the charges for the measured monthly usage (kWh) of each E-19-P account. The E-19 rates are subject to change from time to time as a result of rate proceedings at the CPUC and FERC.
3. TBC and PG&E have agreed on the methodology and calculations used to determine the estimated retail load ("Estimated Retail Demand") for each converter station, as of the date of the agreement. These calculations are

shown on Attachment A to this Agreement. The retail load estimates were derived from analysis of all connected electrical equipment and their associated load factors at each converter station, exclusive of electrical equipment specifically designated for operation of the transmission line. As of the date of the agreement, the Estimated Retail Demand numbers are [REDACTED] kW for the Pittsburg Converter Station and [REDACTED] kW for the Potrero Converter Station. The Estimated Retail Demand numbers may change from time to time if there are changes to the unmetered retail loads at either converter station. TBC shall notify PG&E in writing within thirty (30) days of becoming aware of any material modification to the retail loads at either converter station. Within sixty (60) days of (a) TBC's notice to PG&E or (b) a written request by PG&E if PG&E has a reasonable basis to believe that either retail load has increased, the Parties shall review and agree in writing to updates to the calculation of the Estimated Retail Demand for each or either converter station. This review may require TBC and PG&E to perform a physical review of either converter station, a review of past TBC retail bills, and other appropriate inspections.

4. As of the Effective Date of this Agreement, the monthly energy charge that PG&E will bill TBC as an adder to its E-19-P energy bills, per Paragraph 2 above, shall be calculated as follows, as illustrated on the workpapers attached to this Agreement:
 - a. First, PG&E will calculate the total estimated unmetered monthly energy usage at each converted station ("Monthly Energy Usage"), which shall consist of 1/12th of the Estimated Retail Demand for each Converter Station.
 - b. Second, PG&E will calculate a "Modified Monthly Energy Usage" by subtracting a "Monthly Outage Allowance" from the "Monthly Energy Usage." The Monthly Outage Allowance shall consist of 1/12th of the total kwh for 11 days to allow for an estimated period of time when either the Transmission Line would not be energized, so retail power usage would be fully metered at the existing PG&E distribution meters, or TBC backup generators would operate to serve the estimated unmetered load.
 - c. Third, PG&E will allocate the Modified Monthly Energy Usage to the time-of-use periods defined in the appropriate PG&E retail rate Schedule (Schedule E-19 as of the Execution Date), based upon TBC's historical usage patterns, and then multiply that usage by the appropriate current PG&E retail rate (the E-19-Transmission rate as of the Execution Date) as published in PG&E's tariffed rate schedule, to arrive at the "Monthly Retail Adder" for each Converter Station.
 - d. As of the execution date of this Agreement, the Modified Monthly Energy Usage is [REDACTED] kWhs for the Pittsburg Converter Facility, initially amounting to a Monthly Retail Adder of approximately

\$██████; and ██████ kWhs for the Potrero Converter Facility, initially amounting to a Monthly Retail Adder of approximately \$██████. These amounts are subject to change pursuant to Paragraphs 2 and 3, above.

5. On each anniversary of the Effective Date of this Agreement, TBC may request an adjustment to the prior 12 months' Monthly Retail Adders. TBC must notify PG&E within 30 days of the anniversary or forfeit such adjustment. Such a request shall include documentation showing the hours that the Transmission Line was not energized and/or the hours that the backup generators operated in a manner to serve the unmetered retail load (collectively "Adjustment Hours"). PG&E shall make an adjustment when the cumulative annual total of Adjustment Hours for either Converter Station exceeds ██████ hours (█████ days x 24 hours). TBC will keep operating logs to validate the two operating scenarios that produce "Adjustment Hours" that qualify for the adjustment. TBC will make these logs available to PG&E before any such adjustment is calculated. To perform the adjustment calculation, PG&E will multiply the "Adjustment Hours" in excess of ██████ for each Converter Station by the agreed-upon estimated demand at each respective Converter Station by the effective average E-19P rate at the time of adjustment.
6. This Agreement shall become effective upon the later of 1) final approval by the Federal Energy Regulatory Commission ("FERC") of the Offer of Settlement or Settlement in FERC Docket No. ER16-2332-000; or 2) final approval by the California Public Utilities Commission of this Agreement ("Effective Date").
7. Termination of this Agreement shall occur upon the earliest of 1) the billing cycle after the installation of adequate metering to accurately capture all retail loads; or 2) termination of the Schedule E-19-P accounts for the Pittsburg and Potrero Converter Stations without equivalent replacement or successor accounts.
8. Nothing in this Agreement shall be construed to create any duty to, any standard of care with reference to, or any liability to, any third party.
9. This Agreement may be amended or modified only by a written instrument signed by the authorized representatives of both Parties.
10. Any undertaking by either Party under any provision of this Agreement is rendered strictly as an accommodation and shall not constitute the dedication by either Party of any or all of its facilities to the other, the public, or any third party.

11. By entering into this Agreement with TBC, PG&E does not commit itself to furnish any like or similar undertaking to any other person.
12. This Agreement establishes no precedent with regard to any other entity or agreement. Nothing contained in this Agreement shall establish any rights to or precedent for other agreements as may exist, now or in the future, between PG&E and TBC for the provision of any form of electric service. Additionally nothing contained in this Agreement shall create any relationship of partnership or agency between PG&E and TBC.
13. Under this Agreement, neither Party undertakes to provide or make available any transmission service, distribution service, ancillary services, control area services, or any other services not explicitly set forth herein using any part of either Party's electric facilities or any other facility, whether owned by a Party or a third party.
14. All notices or communications herein provided to be given by either Party to the other shall be deemed to have been duly give if delivered by electronic facsimile transmission with confirmed receipt, or when made in writing and delivered in person or deposited in the United States mail, postage prepaid, certified mail, return receipt requested, and addressed as follows:

To PG&E:

Mail Code B8Q; P.O. Box 770,000 San Francisco CA 94177
Attn: Tariff Interpretation

To TBC:

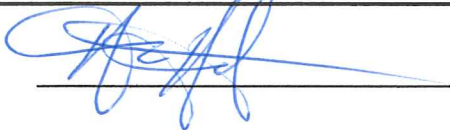
Trans Bay Cable LLC; One Letterman Dr., Bldg. C, 5th Fl.,
San Francisco, CA 94129
Attn: Legal Department

15. Neither Party shall assign this Agreement or its rights hereunder without the prior written consent of the other Party, which consent shall not be unreasonably withheld; provided, however, either Party may, without the consent of the other Party (and without relieving itself from liability hereunder), transfer, sell, pledge, encumber or assign this Agreement or the accounts, revenues or proceeds hereof to its financing providers and the financing provider(s) shall assume the payment and performance obligations provided under this Agreement with respect to the transferring Party provided, however, that in each such case, any such assignee shall agree in writing to be bound by the terms and conditions hereof and so long as the transferring Party delivers such tax and enforceability assurance as the non-transferring Party may reasonably request.

16. This Agreement and the rights and duties of the Parties hereunder shall be governed by and construed, enforced and performed in accordance with the laws of the state of California, without regard to principles of conflict of law. To the extent enforceable at such time, each Party waives its respective rights to any jury trial with respect to any litigation.
17. Unless otherwise expressly ordered by the California Public Utilities Commission, this Agreement at all times shall be subject to such modifications as the California Public Utilities Commission may direct from time to time in the exercise of its jurisdiction.
18. If any provision in this Agreement is determined to be invalid, void, or unenforceable by the California Public Utilities Commission or any court having proper jurisdiction, such determination shall not invalidate, void, or make unenforceable any other provision, agreement or covenant of this Agreement and the Parties shall use their best efforts to modify this Agreement to give effect to the original intention of the Parties.
19. This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall be deemed one and the same Agreement. Delivery of an executed counterpart of this Agreement by facsimile or electronic mail ("email") transmission of a PDF file will be deemed as effective as delivery of an originally executed counterpart. Each Party delivering an executed counterpart of this Agreement by facsimile or email transmission will also deliver an original executed counterpart, but the failure of any Party to deliver an original executed counterpart of this Agreement will not affect the validity or effectiveness of this Agreement.
20. This Agreement shall be considered for all purposes as prepared through the joint efforts of the Parties and shall not be construed against one Party or the other as a result of the preparation, substitution, submission or other event of negotiation, drafting or execution hereof. Except to the extent provided for, no amendment to or modification of this Agreement shall be enforceable unless reduced to writing and executed by both Parties. This Agreement shall not impart any rights enforceable by any third party (other than a permitted successor or assignee bound to this Agreement). Waiver by a Party of any default by the other Party shall not be construed as a waiver of any other default. The term "including" when used in this Agreement shall be by way of example only and shall not be considered in any way to be in limitation. The headings used herein are for convenience and reference purposes only.

IN WITNESS WHEREOF, each Party has caused this Agreement to be duly executed by its authorized representative as of the date of last signature provided below ("Execution Date")

PACIFIC GAS AND ELECTRIC COMPANY

By: 

Name: Aaron August

Title: Director, Business Energy Solutions

Date: 8/7/17

TRANS BAY CABLE LLC

By: _____

Name: Sean O'Reilly

Title: Chief Operating Officer

Date: _____

3. ATTACHMENTS

Worksheet showing determination of unmetered load.

IN WITNESS WHEREOF, each Party has caused this Agreement to be duly executed by its authorized representative as of the date of last signature provided below ("Execution Date")

PACIFIC GAS AND ELECTRIC COMPANY

By: _____

Name: Aaron August

Title: Director, Business Energy Solutions

Date: _____

TRANS BAY CABLE LLC

By:  _____

Name: Sean O'Reilly

Title: Chief Operating Officer

Date: 8/7/17

3. ATTACHMENTS

Worksheet showing determination of unmetered load.

AMENDMENT TO SPECIAL AGREEMENT
FOR
UNMETERED ELECTRICAL SERVICE – LIMITED EXCEPTION
BETWEEN
TRANS BAY CABLE LLC
AND
PACIFIC GAS AND ELECTRIC COMPANY
FOR THE TRANS BAY CABLE TRANSMISSION LINE

This Amendment (“Amendment”), dated as of the Effective Date, is entered into PACIFIC GAS AND ELECTRIC COMPANY, a California corporation (“PG&E”), and TRANS BAY CABLE LLC, a Delaware limited liability company (“TBC”) (either entity a “Party” or collectively the “Parties”).

RECITALS

Whereas, the Parties entered into a Special Agreement for Unmetered Electrical Service – Limited Exception Between Trans Bay Cable LLC and Pacific Gas and Electric Company for the Trans Bay Cable Transmission Line (“Agreement”), dated as of August 7, 2017; and

Whereas, the Parties desire to enter into this Amendment to correct the Agreement as set forth below;

NOW, THEREFORE, it is agreed:

1. Amendment to Agreement: Paragraph 5 of the Agreement is hereby amended to replace “average E-19P rate” with “average E-19T rate.”
2. No waiver: Except as specifically provided above, this Amendment shall in no way operate as a consent, waiver, forbearance under any provision of the Agreement, and all of the terms of the Agreement shall remain in full force and effect.
3. Effective Date: This Amendment shall become effective as of the later of the Execution Date of this Amendment or the effective date of the Agreement.
4. This Agreement and the rights and duties of the Parties hereunder shall be governed by and construed, enforced and performed in accordance with the laws of the state of California, without regard to principles of

conflict of law. To the extent enforceable at such time, each Party waives its respective rights to any jury trial with respect to any litigation.

5. Unless otherwise expressly ordered by the California Public Utilities Commission, this Agreement at all times shall be subject to such modifications as the California Public Utilities Commission may direct from time to time in the exercise of its jurisdiction.
6. If any provision in this Agreement is determined to be invalid, void, or unenforceable by the California Public Utilities Commission or any court having proper jurisdiction, such determination shall not invalidate, void, or make unenforceable any other provision, agreement or covenant of this Agreement and the Parties shall use their best efforts to modify this Agreement to give effect to the original intention of the Parties.
7. This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall be deemed one and the same Agreement. Delivery of an executed counterpart of this Agreement by facsimile or electronic mail ("email") transmission of a PDF file will be deemed as effective as delivery of an originally executed counterpart. Each Party delivering an executed counterpart of this Agreement by facsimile or email transmission will also deliver an original executed counterpart, but the failure of any Party to deliver an original executed counterpart of this Agreement will not affect the validity or effectiveness of this Agreement.
8. This Agreement shall be considered for all purposes as prepared through the joint efforts of the Parties and shall not be construed against one Party or the other as a result of the preparation, substitution, submission or other event of negotiation, drafting or execution hereof. Except to the extent provided for, no amendment to or modification of this Agreement shall be enforceable unless reduced to writing and executed by both Parties. This Agreement shall not impart any rights enforceable by any third party (other than a permitted successor or assignee bound to this Agreement). Waiver by a Party of any default by the other Party shall not be construed as a waiver of any other default. The term "including" when used in this Agreement shall be by way of example only and shall not be considered in any way to be in limitation. The headings used herein are for convenience and reference purposes only.

IN WITNESS WHEREOF, each Party has caused this Agreement to be duly executed by its authorized representative as of the date of last signature provided below ("Execution Date")

PACIFIC GAS AND ELECTRIC COMPANY

By:  _____

Name: Aaron August

Title: Director, Business Energy Solutions

Date: 8/21/17

TRANS BAY CABLE LLC

By:  _____

Name: Sean O'Reilly

Title: Chief Operating Officer

Date: 8/18/17

TRAN BAY CABLE LLC - ANALYSIS OF RETAIL ELECTRIC CHARGES

Potrero Trans Bay Cable LLC		Pittsburg Trans Bay Cable LLC	
Name LLC	TRANS BAY CABLE	Name LLC	TRANS BAY CABLE
Address	525 23RD ST	Address ST	PITTSBURG
City	SAN FRANCISCO	City	PITTSBURG
Business Desc		Business Desc	
Service ID	7526104528	Service ID	3972549834
Old Account	0	Old Account	0
Account ID		Account ID	
Meter No.		Meter No.	
Rate Schedule**	E-19T = \$0.1242/kWh	Rate Schedule**	E-19T = \$0.1242/kWh
Voltage	Transmission	Voltage	Transmission

System	TBC Designation	Annual Calculated Unmetered Retail Power Usage				Annual Cost
		Rated Power (kW)	Fixed Load Factor	Power Demand (KW/h)	Annual Operational ***	
HVA/C Spare Part Room, Indoor Unit	=11U71 -FCU19					
HVA/C Spare Part Room, Outdoor Unit	=11U71 -PAC19					
Building Services in Conv. Building	=10ND01 +ND01					
Building Services in Operations Build.	=10ND02 + ND01					
Pittsburg Monthly Totals (ADDER)						
Pittsburg Annual Totals						
HVA/C Spare Part Room, Indoor Unit	=21U71 -FCU19					
HVA/C Spare Part Room, Outdoor Unit	=21U71 -PAC19					
Building Services in Conv. Building	=20ND01 +ND01					
Building Services in Operations Build.	=20ND02 + ND01					
Potrero Monthly Totals (ADDER)						
Potrero Annual Totals						
Total Monthly Retail Power Usage Pittsburg+Potrero						
Total Annual Retail Power Usage Pittsburg+Potrero						

* See Individual Load Factors broken down on station sheets.
 ** Fixed rate = E-19T Transmission rate (\$0.11448/kWh X 1.085 (8.5% taxes) = \$0.1242108/kWh
 *** 8760 hrs - DAYS FOR MAINTENANCE X 24 H/DAY) = hours/year
 Cell H29 = HOURS is the monthly operating hours

PITTSBURG DESIGN LOADS PER SIEMENS SPECIFICATIONS

Auxiliary Power Loads				
System	TBC Designation	Rated Power	Load Factor	Power Demand
Converter Cooling System	=11U61 +UT1			
Converter Hall Chiller System 1	=11U71 -CHIL1			
Converter Hall Chiller System 2	=11U71 -CHIL2			
Converter Hall Ventilation System	=11U71 +UX1			
Converter Transf. Phase L1, Cooling	=11T01.L1 +GH009			
Converter Transf. Phase L2, Cooling	=11T01.L1 +GH009			
Converter Transf. Phase L3, Cooling	=11T01.L1 +GH009			
Spare Converter Transf.	=11T01.SP +GH009			
HVA/C Aux. Pwr. Room 1, Indoor Unit	=11U71 -FCU11			
HVA/C Aux. Pwr. Room 1, Outdoor Unit	=11U71 -PAC11			
HVA/C Aux. Pwr. Room 1, Indoor Unit	=11U71 -FCU12			
HVA/C Aux. Pwr. Room 1, Outdoor Unit	=11U71 -PAC12			
HVA/C Aux. Pwr. Room 2, Indoor Unit	=11U71 -FCU13			
HVA/C Aux. Pwr. Room 2, Outdoor Unit	=11U71 -PAC13			
HVA/C Aux. Pwr. Room 2, Indoor Unit	=11U71 -FCU14			
HVA/C Aux. Pwr. Room 2, Outdoor Unit	=11U71 -PAC14			
HVA/C C&P Room, Indoor Unit	=11U71 -FCU15			
HVA/C C&P Room, Outdoor Unit	=11U71 -PAC15			
HVA/C C&P Room, Indoor Unit	=11U71 -FCU16			
HVA/C C&P Room, Outdoor Unit	=11U71 -PAC16			
HVA/C Cooling Room, Indoor Unit	=11U71 -FCU17			
HVA/C Cooling Room, Outdoor Unit	=11U71 -PAC17			
HVA/C Cooling Room, Indoor Unit	=11U71 -FCU18			
HVA/C Cooling Room, Outdoor Unit	=11U71 -PAC18			
HVA/C Spare Part Room, Indoor Unit	=11U71 -FCU19			
HVA/C Spare Part Room, Outdoor Unit	=11U71 -PAC19			
Battery Charger	=10NK11 +G11			
Battery Charger	=10NK21 +G11			
Transformer 480 / 208 V (75 KVA)	=10NB01 -T01			
Building Services in Conv. Building	=10ND01 +ND01			
Building Services in Operations Build.	=10ND02 + ND01			
UPS for Control System **	=10NG01+NG01			
UPS for Control System **	=10NG02+NG01			

4				
Operations Building Services Panel LA Circuit 1				
System	TBC Designation	Rated Power	Load Factor	Power Demand
TEL Board	1			
FATC-1**	3			
LCC2	5			
Server	7			
Server	9			
Receptacle	11			
Receptacle	13			
Receptacle	15			
Fax/Copy	17			
Fax/Copy	19			
Fax/Copy	21			
Receptacle	23			
Receptacle	25			
Receptacle	27			
Refrigerator	29			
Kitchen Receptacles	31			
Kitchen Receptacles	33			
Duct Smoke Detector	35			
Spare	37			
Spare	39			
Spare	41			
Lights	2			
Lights	4			
Lights	6			
	8			
Wall Lights	10			
	12			
	14			
	16			
PAC 40	18			
	20			
PAC 41	22			
	24			
FCU 40	26			
Attic Lights	28			
	30			
FCU 41	32			
Attic Lights/Receptacle	34			
	36			
FCU 42	38			
Attic Lights/Receptacle	40			
Receptacles	42			
Total				

4				
Operations Building Services Panel LA Circuit 2				
System	TBC Designation	Rated Power	Load Factor	Power Demand
Outside Receptacle	43			
Kitchen Receptacle	45			
Disposal	47			
Ceiling Receptacle	49			
Spare	51			
Quad	53			
	55			
FCU 48	57			
	59			
G-50A	61			
Spare	63			
Spare	65			
Spare	67			
Spare	69			
Spare	71			
Spare	73			
Spare	75			
Spare	77			
Spare	79			
Spare	81			
Spare	83			
	44			
EW/1	46			
Spare	48			
Spare	50			
Siemens CUB	52			
	54			
FCU 43	56			
	58			
FCU 44	60			
	62			
FCU 45	64			
	66			
FCU 46	68			
	70			
FCU 47	72			
	74			
BCC 1	76			
	78			
BCC 2	80			
Spare	82			
Spare	84			
Total				

3				
Converter Building Services Panel H				
System	Designation	Rated Power	Load Factor	Power Demand
Site Pole Light	1	3	0.42	1.26
Site Pole Light	3	3	0.42	1.26
Site Pole Light	5	3	0.42	1.26
Site Pole Light	7	3	0.42	1.26
Site Pole Light	9	3	0.42	1.26
Site Pole Light	11	3	0.42	1.26
Site Pole Light	13	3	0.42	1.26
Site Pole Light	15	3	0.42	1.26
Site Pole Light	17	3	0.42	1.26
Wall Lights	19	3	0.42	1.26
Wall Lights	21	3	1.00	3
Wall Lights	23	3	1.00	3
Converter Hall Lights	25	0		0
Spare	27	0		0
Spare	29	0		0
Spare	31	0		0
Spare	33	0		0
Spare	35	0		0
Panel 'L1' (See Panel L1 Details)	37	0		0
Panel 'L1' (See Panel L1 Details)	39	0		0
Panel 'L1' (See Panel L1 Details)	41	0		0
Spare	2	0		0
Spare	4	0		0
Spare	6	0		0
Spare	8	0		0
Spare	10	0		0
Spare	12	0		0
Spare	14	0		0
Spare	16	0		0
Spare	18	0		0
Spare	20	0		0
Spare	22	0		0
Spare	24	0		0
Maintenance Socket	26	3	0.01	0.03
Maintenance Socket	28	3	0.01	0.03
Maintenance Socket	30	3	0.01	0.03
Maintenance Socket	32	3	0.01	0.03
Maintenance Socket	34	3	0.01	0.03
Maintenance Socket	36	3	0.01	0.03
Maintenance Socket	38	3	0.01	0.03
Maintenance Socket	40	3	0.01	0.03
Maintenance Socket	42	3	0.01	0.03
Total		63	0.30	18.87

3				
Converter Building Services Panel L1 Circuit 1				
System	Designation	Rated Power	Load Factor	Power Demand
Irrigation Control	1			
Gate A Panel	3			
Spare	5			
Spare	7			
Spare	9			
Gate C Panel	11			
Gate C Panel	13			
Gate B Panel	15			
Gate B Panel	17			
Valve Heater	19			
Valve Heater	21			
WP REC	23			
WP REC	25			
WP REC	27			
WP REC	29			
WP REC	31			
WP REC	33			
WP REC	35			
WP REC	37			
WP REC	39			
Spare	41			
C&P RM Lights	2			
C&P RM Lights	4			
AUX PWR RM Lights	6			
PUMP RM Lights	8			
Exit Lights	10			
Receptacles	12			
Receptacles	14			
Receptacles	16			
Receptacles	18			
Receptacles	20			
BEF 1	22			
BEF 2	24			
Help Call Box	26			
LCC1	28			
WP REC	30			
WP REC	32			
WP REC	34			
Spare	36			
Spare	38			
Panel L2 (SEE Panel L2 breakdown)	40			
Panel L2 (SEE Panel L2 breakdown)	42			
Total				

3				
Converter Building Services Panel L1 Circuit 2				
System	Designation	Rated Power	Load Factor	Power Demand
Spare	43			
Power Gate D	45			
Power Gate D	47			
Power Gate A	49			
Power Gate A	51			
Receptacles	53			
Receptacles	55			
Thermostats	57			
Spare	59			
Thermostats	61			
Spare	63			
Spare	65			
Spare	67			
Spare	69			
Spare	71			
Spare	73			
Spare	75			
Spare	77			
Spare	79			
Spare	81			
Spare	83			
Spare	44			
DUCT Smoke DET	46			
Spare	48			
Spare	50			
Spare	52			
Spare	54			
Vesda Panel	56			
Spare	58			
Spare	60			
Spare	62			
Spare	64			
Spare	66			
Spare	68			
Spare	70			
Spare	72			
Spare	74			
Spare	76			
Spare	78			
Spare	80			
Spare	82			
Spare	84			
Total				

3				
Converter Building Services Panel L2				
System	Designation	Rated Power	Load Factor	Power Demand
Lights	1			
Receptacles	3			
FATC 2	5			
Spare	7			
Spare	9			
Spare	11			
Spare	13			
Spare	15			
Spare	17			
Spare	19			
Spare	21			
Spare	23			
Spare	25			
Spare	27			
Spare	29			
Spare	31			
Spare	33			
Spare	35			
Spare	37			
Spare	39			
Spare	41			
FCU 30	2			
	4			
	6			
	8			
	10			
	12			
	14			
	16			
	18			
	20			
	22			
	24			
	26			
	28			
	30			
	32			
	34			
	36			
	38			
	40			
	42			
Total				

Pittsburg Retail Power Leads Summary (mostly Un-Metered due to electrical configuration)			
System	TBC Designation	Rated Power	Load Factor
1	HVA/C Spare Part Room, Indoor Unit #1LUT1 -#FCU19		
2	HVA/C Spare Part Room, Outdoor Unit #1LUT1 -#ACU19 #10ND01 +ND01 (sum of converter BLDG panels)		
3	Building Services in Conv. Building (rated power not used but actuals)		
4	Building Services in Operations Build (rated power not used but actuals)		
	Total		
PG&E Retail Power Billing (Pittsburg)			
Power Demand			
Operational Hours in Year			
PGE Fixed rate Billing			
Estimated Annual Unmetered Retail Electric Charges			

Assumptions
Exterior Lights are utilized for approximately 10h per day and have a 42% Load Factor
Exterior Receptacles including Maintenance Sockets, Wall Plug Receptacles, and receptacles/lighting in the attic have been estimated to have a Load Factor of 1% due to the lack of use. HVAC Load factors have been assumed to be at 70%.
Indoor Receptacle Load Factor is assumed to be 80% on average. (General estimation - obtained from TBC Operations manager - Curt Wiebelhaus)
Gates are operated on average of 20 times per day and operate on average of 1 minute per cycle so an assumed 1% Load Factor is substantial. (General estimation - obtained from TBC Operations manager - Curt Wiebelhaus)
Fax and copy machines are used during normal business hours and on occasion after hours. These machines have a power save function and so a Load Factor of 20% is assumed.
Electric Water heater (EWH1) is assumed to have a Load Factor of 40% due to minimal usage
Cells highlighted in GREEN are considered to be Operational Loads and therefore not retail Load Factor is based on each individual component.
Operational Hours= 8365 724

Fixed rate = E-19T Transmission rate (\$0.11448/kWh X 1.085 (8.5% taxes) = \$0.1242108/kWh

POTRERO DESIGN LOADS PER SIEMENS SPECIFICATIONS			
Auxiliary Power Loads			
System	TBC Designation	Rated Power	Power Demand
Converter Cooling System	=21U61 +UT1		
Converter Hall Chiller System 1	=21U71 -CHIL1		
Converter Hall Chiller System 2	=21U71 -CHIL2		
Converter Hall Ventilation System	=21U71 +UX1		
Converter Transf. Phase L1, Cooling	=21T01.L1 +GH009		
Converter Transf. Phase L2, Cooling	=21T01.L1 +GH009		
Converter Transf. Phase L3, Cooling	=21T01.L1 +GH009		
Spare Converter Transf.	=21T01.SP +GH009		
HVA/C Aux. Pwr. Room 1, Indoor Unit	=21U71 -FCU11		
HVA/C Aux. Pwr. Room 1, Outdoor Unit	=21U71 -PAC11		
HVA/C Aux. Pwr. Room 1, Indoor Unit	=21U71 -FCU12		
HVA/C Aux. Pwr. Room 1, Outdoor Unit	=21U71 -PAC12		
HVA/C Aux. Pwr. Room 2, Indoor Unit	=21U71 -FCU13		
HVA/C Aux. Pwr. Room 2, Outdoor Unit	=21U71 -PAC13		
HVA/C Aux. Pwr. Room 2, Indoor Unit	=21U71 -FCU14		
HVA/C Aux. Pwr. Room 2, Outdoor Unit	=21U71 -PAC14		
HVA/C C&P Room, Indoor Unit	=21U71 -FCU15		
HVA/C C&P Room, Outdoor Unit	=21U71 -PAC15		
HVA/C C&P Room, Indoor Unit	=21U71 -FCU16		
HVA/C C&P Room, Outdoor Unit	=21U71 -PAC16		
HVA/C Cooling Room, Indoor Unit	=21U71 -FCU17		
HVA/C Cooling Room, Outdoor Unit	=21U71 -PAC17		
HVA/C Cooling Room, Indoor Unit	=21U71 -FCU18		
HVA/C Cooling Room, Outdoor Unit	=21U71 -PAC18		
HVA/C Spare Part Room, Indoor Unit	=21U71 -FCU19		
HVA/C Spare Part Room, Outdoor Unit	=21U71 -PAC19		
Battery Charger	=20NK11 +G11		
Battery Charger	=20NK21 +G11		
Transformer 480 / 208 V (75 kVA)	=20NB01 -T01		
Building Services in Conv. Building	=20ND01 +ND01		
Building Services in Admin. Building	=20ND02 + ND01		
UPS for Control System **	=20NG01+NG01		
UPS for Control System **	=20NG02+NG01		
Total			

4				
Operations Building Services Panel IA Circuit 1				
System	TBC Designat	Rated Power	Load Factor	Power Demand
TEL Board		1		
FATC-1**	3			
LCC2	5			
Server	7			
Server	9			
Receptacle	11			
Receptacle	13			
Receptacle	15			
Fax/Copy	17			
Fax/Copy	19			
Fax/Copy	21			
Receptacle	23			
Receptacle	25			
Receptacle	27			
Refrigerator	29			
Kitchen Receptacles	31			
Kitchen Receptacles	33			
Duct Smoke Detector	35			
Spare	37			
Spare	39			
Spare	41			
Lights	2			
Lights	4			
Lights	6			
Lights	8			
Wall Lights	10			
	12			
	14			
PAC 40	16			
	18			
PAC 41	20			
	22			
FCU 40	24			
SPARE	26			
	28			
FCU 41	30			
	32			
Attic Lights/Receptacle	34			
	36			
FCU 42	38			
Attic Lights/Receptacle	40			
Receptacles	42			
Total				

4				
Operations Building Services Panel IA Circuit 2				
System	TBC Designat	Rated Power	Load Factor	Power Demand
Outside Receptacle	43			
Kitchen Receptacle	45			
Disposal	47			
Ceiling Receptacle	49			
Spare	51			
Quad	53			
	55			
SPARE	57			
	59			
G-50A	61			
Spare	63			
Spare	65			
Spare	67			
Spare	69			
Spare	71			
Spare	73			
Spare	75			
Spare	77			
Spare	79			
Spare	81			
Spare	83			
	44			
EW-1	46			
Spare	48			
Spare	50			
Siemens CUB	52			
	54			
FCU 43	56			
	58			
FCU 44	60			
	62			
FCU 45	64			
	66			
FCU 46	68			
	70			
FCU 47	72			
	74			
BCC 1	76			
	78			
BCC 2	80			
Spare	82			
Spare	84			
Total				

3				
Converter Building Services Panel H				
System	Designation	Rated Power	Load Factor	Power Demand
Site Pole Light	1			
	3			
Site Pole Light	5			
	7			
Site Pole Light	9			
	11			
Site Pole Light	13			
	15			
Wall Lights	17			
	19			
Converter Hall Lights	21			
	23			
Spare	25			
	27			
Spare	29			
	31			
Spare	33			
	35			
Panel 'L1' (See Panel L1 Details)	37			
	39			
	41			
POLE LTS	2			
	4			
	6			
Spare	8			
	10			
	12			
Spare	14			
	16			
Spare	18			
	20			
Spare	22			
	24			
Maintenance Socket	26			
	28			
	30			
Maintenance Socket	32			
	34			
Maintenance Socket	36			
	38			
	40			
Total	42			

3				
Converter Building Services Panel L1 Circuit 1				
System	Designation	Rated Power	Load Factor	Power Demand
Irrigation Control	1			
Gate A Panel	3			
CAMERA LTS	5			
CAMERA LTS	7			
SPARE	9			
	11			
SPARE	13			
	15			
Valve Heater	17			
Valve Heater	19			
Valve Heater	21			
WP REC	23			
	25			
WP REC	27			
	29			
WP REC	31			
	33			
WP REC	35			
	37			
WP REC	39			
	41			
C&P RM Lights	2			
C&P RM Lights	4			
AUX PWR RM Lights	6			
PUMP RM Lights	8			
WALL LIGHTS	10			
Recepticles	12			
Recepticles	14			
Recepticles	16			
Recepticles	18			
SPARE	20			
BEF 1	22			
BEF 2	24			
CONV EXIT LTS	26			
LCC1	28			
	30			
WP REC	32			
	34			
Spare	36			
Panel 'L2' (See Panel L2 Details)	38			
	40			
Total	42			

3				
Converter Building Services Panel L1 Circuit 2				
System	Designation	Rated Power	Load Factor	Power Demand
CCTV CAMERAS S		43		
DELUGE PANEL ***		45		
CCTV CAMERAS N		47		
Power Gate A		49		
Power Gate A		51		
Receptacles		53		
Receptacles		55		
Thermostats		57		
Spare		59		
Thermostats		61		
Spare		63		
Spare		65		
Spare		67		
Spare		69		
Spare		71		
Spare		73		
Spare		75		
Spare		77		
Spare		81		
Spare		83		
DATA GATHER BOX		44		
DUCT Smoke DET***		46		
BURGLAR ALARM		48		
Spare		50		
Spare		52		
Spare		54		
Spare		56		
OUTSIDE REC		58		
Spare		60		
Spare		62		
Spare		64		
Spare		66		
Spare		68		
Spare		70		
Spare		72		
Spare		74		
Spare		76		
Spare		78		
Spare		80		
Spare		82		
Spare		84		
Total				

3				
Converter Building Services Panel L2				
System	Designation	Rated Power	Load Factor	Power Demand
Lights		1		
Receptacles		3		
FATC-2***		5		
Spare		7		
Spare		9		
Spare		11		
Spare		13		
Spare		15		
Spare		17		
Spare		19		
Spare		21		
Spare		23		
Spare		25		
Spare		27		
Spare		29		
Spare		31		
Spare		33		
Spare		35		
Spare		37		
Spare		39		
Spare		41		
FCU-30		2		
		4		
		6		
		8		
PAC-30		10		
		12		
Spare		14		
Spare		16		
Spare		18		
Spare		20		
Spare		22		
Spare		24		
Spare		26		
Spare		28		
Spare		30		
Spare		32		
Spare		34		
Spare		36		
Spare		38		
Spare		40		
Spare		42		
Total				

Potrero Retail Power Loads Summary (mostly Un-Metered due to electrical configuration)			
System	Description	Rated Power	Load Factor
1	HVAC Spare Part Room, Indoor Unit	=11U71-FCLU9	
2	HVAC Spare Part Room, Outdoor Unit	=11U71-PAU19	
3	Building Services in Conv. Building (rated power not used but actuals)	=10ND01 +ND01 (sum of converter BUDG panels)	
4	Building Services in Operations Bldg (rated power not used but actuals)	=10ND02 +ND01 (operating BUDG panels 1 and 2)	
Total			
PGE Retail Power Billing (Potrero)			
Power Demand			
Operational Hours in Year			
PGE Fixed rate Billing			
Estimated Annual unmetered Retail Electric Charges			

Assumptions	
Exterior Lights are utilized for approximately 10h per day and have a 42% Load Factor.	
Exterior Receptacles including Maintenance Sockets, WP Receptacles, and receptacles/lighting in the attic have been estimated to have a Load Factor of 1% due to the lack of use. HVAC Load factors have been assumed to be at 65%.	
Indoor Receptacle Load Factor is assumed to be 75% on average. (General estimation)	
Gates are operated on average of 20 times per day and operate on average of 1 minute per cycle so an assumed 1% Load Factor is substantial.	
Fax and copy machines are used during normal business hours and on occasion after hours. These machines have a power save function and so a Load Factor of 20% is assumed.	
Electric Water heater (EWH1) is assumed to have a Load Factor of 40% due to minimal usage.	
Cells highlighted in GREEN are considered to be Operational Loads and therefore not retail.	
A 5% Load Factor has been deducted comparatively to Pittsburg in regards to receptacles, HVAC, and other general energy usage due to Potrero being an unmanned station and due to the climatology difference.	
Load Factor is based on each individual component.	
Operational Hours= 365 * 24	

* Fixed rate = E-19T Transmission rate (\$0.11448/kWh X 1.085 (8.5% taxes) = \$0.1242108/kWh

3 x [redacted] w. Generac generators [redacted] (MW) - backup for load at each station.

**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

AT&T	Don Pickett & Associates, Inc.	OnGrid Solar
Albion Power Company	Douglass & Liddell	Pacific Gas and Electric Company
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Clean Power Research	Manatt Phelps Phillips	TransCanada
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Commercial Energy	McKenna Long & Aldridge LLP	Utility Cost Management
Cool Earth Solar, Inc.	McKenzie & Associates	Utility Power Solutions
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Day Carter Murphy	Nexant, Inc.	Western Manufactured Housing Communities Association (WMA)
Defense Energy Support Center	ORA	YEP Energy
Dept of General Services	Office of Ratepayer Advocates	Yelp Energy
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