

R.09-11-014

# ENERGY EFFICIENCY POLICY MANUAL

Version 5

July 2013

Applicable to post-2012 Energy Efficiency Programs

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**ENERGY EFFICIENCY POLICY MANUAL Version 5.0  
FOR POST-2012 PROGRAMS**

***i.* Introduction**

This document presents the California Public Utilities Commission's (Commission) policy rules and related reference documents for the administration, oversight, and evaluation of energy efficiency programs funded by ratepayers in California. The purpose of the Energy Efficiency Policy Manual is to provide the most up to date list of the rules established by Commission Decisions and Resolutions that govern the administration of energy efficiency programs. This manual enumerates standing Commission directives that continue to apply to the current portfolio even as subsequent decisions supersede past directives. Version 5.0 shall apply to all energy efficiency activities commencing in program year (PY) 2013 and beyond. The policy rules, terms and definitions contained herein pertain to efficiency activities funded through the following mechanisms:

- The gas public purpose program (PPP) surcharges, as authorized by §890-900.
- Electric procurement rates, as authorized by the Commission.

The rules in this policy manual, unless specifically indicated, apply to all the following entities: the investor-owned utilities (IOUs), Community Choice Aggregators (CCA), and Regional Energy Networks (RENS) that are funded through the mechanisms above. This manual applies to the four IOUs:

- Pacific Gas and Electric Company (PG&E),
- Southern California Edison Company (SCE),
- San Diego Gas & Electric Company (SDG&E) and
- Southern California Gas Company (SoCalGas).

Chapter III applies to the following CCA and RENs:

- Marin Energy Authority (MEA),
- San Francisco Bay Area Regional Energy Network (BayREN), and
- Southern California Regional Energy Network (SoCalREN)

The rules in this manual do **not** currently apply to:

- Energy Savings Assistance Programs for low income customers
- California Alternative Rates for Energy (CARE) for low-income customers
- Interruptible rate or load management programs
- Self-generation and demand-response programs developed in response to AB970 (§ 399.15(b)).

This document supersedes all previous versions of the Energy Efficiency Policy Manual. The Commission's policy rules ("Rules") enumerate Commission directives that apply on an ongoing basis to the current and future energy efficiency portfolios, commencing in 2013. While this manual does not include all Commission directives that are specific to the current portfolio cycle. Commission directives that are not included in this manual still apply.

#### ***ii. Common Terms and Definitions***

Common terms and definitions will facilitate the administration and evaluation of energy efficiency activities. In particular, program definitions should be designed to facilitate to the extent possible: (1) the identification of energy efficiency activities by end-use savings potential, (2) the evaluation, measurement and verification (EM&V) of those activities based on Commission-adopted EM&V protocols, and (3) the coordination of program administration and evaluation with resource planning and procurement needs. To this end, all entities subject to these rules and all program implementers should use the definitions included in Appendix B when characterizing any proposed program activity. The burden is on them to justify any departure from those definitions.

**iii. Reference Documents and E-Links**

[See APPENDIX A](#)

1. Energy Action Plan
2. Energy Action Plan Update
3. California Energy Efficiency Strategic Plan
4. Standard Practice Manual
5. Database for Energy Efficient Resources (DEER)
6. LT Avoided Cost Methodology and E3 Calculators
7. EE Program Reporting Requirements Manual
8. EM&V Protocols
9. D.04-09-060, Energy Savings Goals
10. D.05-01-055, EE Administrative Structure
11. D.05-04-051, Update to Policy Rules
12. D.05-09-043, 2006-2008 Funding Levels
13. D.06-06-063, Cost-Effectiveness Update
14. D.07-09-043, Risk/Reward Incentive Mechanism
15. D.07-10-032, Issues Related to Goals and Strategic Plan
16. D.08-01-006, Cost-Effectiveness Update
17. D.08-07-047, Total Market Gross Goals
18. D.08-09-040, Adopting the Long-Term Energy Efficiency Strategic Plan
19. D.09-05-037, Counting Issues
20. D.09-09-047, Adoption of 2010-12 Portfolio
21. D.10-04-029, EM&V Processes
22. D.10-12-054, PFM on 10-12 Portfolio
23. D.11-07-030, 2010-12 Ex-Ante Value Update
24. D.12-05-015, 2013-14 Portfolio Guidance Decision
25. D.12-11-015, Adoption of 2013-14 Portfolio

**XII. Energy Efficiency Policy Objectives**

1. **Energy Efficiency as a Procurement Resource.** Commission and state energy policy, as expressed in the Energy Action Plan (EAP) and reaffirmed in Decision (D.) 04-12-048, is to make energy efficiency and demand response the IOUs' highest priority procurement resource. The 2005 EAP II continues strong support for the loading order and identifies energy efficiency and demand response as the State's preferred means of meeting growing energy needs. After cost-effective efficiency and demand response, we rely on renewable sources of power and distributed generation, such as combined heat and power applications.<sup>1</sup> This is also consistent with § 454.5(b)(9)(C) <sup>2</sup> which requires IOUs to first meet their "unmet resource needs through all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible." In order to promote the resource procurement policies articulated in the Energy Action Plan and by this Commission, energy efficiency activities funded by ratepayers should offer programs that serve as alternatives to more costly supply-side resource options (resource programs). Focusing energy efficiency efforts in this way is the most equitable way to distribute program benefits. By keeping energy resource procurement costs as low as possible through the deployment of a cost-effective portfolio of resource programs, over time all customers will share in the resource savings from energy efficiency.
  
2. **Energy Savings Goals.** The Commission's is to pursue all cost-effective energy efficiency opportunities over both the short and long term. The Commission established electricity and natural gas savings goals, pursuant to Pub. Util. Code § 454.55 and 454.56. In D.04-09-060, the Commission first provided numerical goals for electricity and natural gas savings by utility service territory. The Commission-adopted energy savings goals are expressed in terms of Gigawatt hours, million-therms, and peak Megawatt load reductions. These goals were

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<sup>1</sup> [http://docs.cpuc.ca.gov/word\\_pdf/REPORT/51604.pdf](http://docs.cpuc.ca.gov/word_pdf/REPORT/51604.pdf)

<sup>2</sup> Hereafter all references to code sections are to the Public Utilities Code unless otherwise noted.



informed by the Energy Efficiency Potential and Goals Study, and were later updated in D.08-07-047, D.09-05-037, D.09-09-047, D.12-05-015, and D. 12-11-015, and shall continue to be updated periodically by the Commission. IOUs should develop their energy efficiency program portfolios so that they will meet or exceed these savings goals. The Commission's intent is for goals to: (1) be appropriately aggressive;<sup>3</sup> (2) support long-term procurement planning;<sup>4</sup>(3) encourage a focus on long-term savings;<sup>5</sup> and (4) be based on the best available information.<sup>6</sup> Goals for the 2013-2014 portfolio cycle will be applied on the following basis:

- a. Energy savings goals are based on achieving 100% of incremental market potential identified in the most recent Potential Study for both gas and electric savings.<sup>7</sup>
- b. Separate energy savings goals were adopted for IOU Codes and Standards (C&S) advocacy. The C&S advocacy category represents the estimated energy savings forecasted for the Title 20 and 24 updates and federal appliance standards that can be attributed to the IOUs' C&S advocacy program.<sup>8</sup>
- c. Energy savings goals, excluding Codes and Standards, are set on a "gross basis," meaning that the savings counted includes free-ridership. D.08-07-047 adjusted the IOU-specific goals to a gross basis citing an increased opportunity to support more strategic, long-term energy efficiency programs. Defining goals as gross "may open up the

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<sup>3</sup> D.04-09-060 at 3

<sup>4</sup> D.04-09-060 at 35

<sup>5</sup> D.07-10-032 at 5

<sup>6</sup> D.08-07-047 at 18-19

<sup>7</sup> The Potential Study can be viewed at

<http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/Energy+Efficiency+Goals+and+Potential+Studies.htm>

<sup>8</sup> D.12-11-015 at 56-58

opportunity for more program options which support the long-term goals for energy efficiency than the use of net goals.”<sup>9</sup>

- d. For the 2013-2014 portfolio, the Commission adopted annual goals. The Commission intends to develop a better understanding of the sustained impact of the utility programs (including decay and market transformative effects) to encourage programs that will have lasting impacts and to hold IOUs accountable for long-term savings in future portfolios.<sup>10</sup>

**3. Implementation of the California Long-Term Energy Efficiency Strategic Plan.**

D.07-10-032 established a broader framework for statewide coordination on energy efficiency program design, in order to overcome market barriers to more widespread adoption of energy efficiency and to capture longer-term savings. The decision directed the IOUs to work with Commission staff and market participants to prepare the California Long-Term Energy Efficiency Strategic Plan (Strategic Plan). Adopted in D.08-09-040, the Strategic Plan set forth a roadmap for energy efficiency in California through 2020 and beyond, by articulating a long-term vision and goals for each economic sector and identifying specific near-term, mid-term and long-term strategies to achieve the goals.<sup>11</sup> D.08-09-040 and the subsequent October 30, 2008 Ruling in A.08-07-021 directed the IOUs to align their programs with Strategic Plan goals by clearly identifying utility actions for all Strategic Plan near-term strategies and action steps, where a utility role is important, and to provide programs that reflect the Strategic Plan short-term steps and milestones.<sup>12</sup>

- a. Among the market strategies identified as necessary to achieve market transformation, the Strategic Plan established three long-term goals for

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<sup>9</sup> D.08-07-047 at 30

<sup>10</sup> D.12-05-15 at 95

<sup>11</sup> The Strategic Plan can be viewed at <http://www.cpuc.ca.gov/NR/rdonlyres/D4321448-208C-48F9-9F62-1BBB14A8D717/0/EEStrategicPlan.pdf>

<sup>12</sup> D.08-09-040 OP 2

energy efficiency:

- All new residential construction in California will be zero net energy by 2020;
- All new commercial construction in California will be zero net energy by 2030; and
- Heating, Ventilation, and Air Conditioning (HVAC) industry will be reshaped to ensure optimal equipment performance

b. The Strategic Plan expanded the Commission’s objectives for the energy efficiency portfolios to also pursue market transformation, which was defined as “long-lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where continuation of the same publicly-funded intervention is no longer appropriate in that specific market. Market transformation includes promoting one set of efficient technologies until they are adopted into codes and standards (or otherwise adopted by the market), while also moving forward to bring the next generation of even more efficient technologies to the market.”<sup>13</sup>

4. **Energy Efficiency Program Design.** IOUs, RENs and CCAs are expected to design their portfolios of energy efficiency programs to comply with program design guidance for the current portfolio cycle.<sup>14</sup> The proposed portfolio shall be submitted as an application for Commission review and approval. The IOUs should implement statewide programs in order to achieve economies of scale and employ industry best practices.<sup>15</sup>

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<sup>13</sup> D. 09-09-047 at 354

<sup>14</sup> 2013-14 Portfolio cycle program guidance provided in D.12-05-15 and D.12-11-015

<sup>15</sup> In D.07-10-032 at 31, the Commission stated that “We expect the utilities to explain strategies to engage the full range of stakeholders, even those who may not currently be integrated, in delivering energy efficiency savings. Many strategies likely will lend themselves to statewide implementation approaches and program delivery, including

*Footnote continued on next page*

5. **Program Portfolio Development, Balance and Management.** The most appropriate program designs and balance of program funding across market sectors (e.g., residential, industrial, commercial) should be based on maximizing cost-effective long-term savings. D.07-10-032 directed the IOUs to work with stakeholders, including the Commission and the California Energy Commission (CEC) staff as well as market participants, to encourage the application of best practices, portfolio diversity and innovation.<sup>16</sup> IOUs are expected to coordinate to develop and manage statewide programs, in order to avoid duplications of efforts and promote innovation and good program management. IOUs should also include a selection of non-resource programs such as statewide marketing and outreach programs, information and education programs, workforce education and training, emerging technologies programs and other activities in their proposed portfolios that support the Commission's short-term and long-term energy savings goals. Non-resource programs also help in achieving Strategic Plan objectives.
6. **Integrated Demand Side Management.** In order to achieve maximum savings while avoiding duplication of efforts, reducing transaction costs, and diminishing customer confusion, the IOUs are required to integrate customer demand side programs, such as energy efficiency, self-generation, advanced metering, and demand response in a coherent and efficient manner.<sup>17</sup> Integrated demand side management (IDSMS) is identified in the Strategic Plan as an overarching strategy to promote customer-side energy management and achievement of zero net energy goals.
7. **Emerging Technologies.** In order to provide higher levels of bridging between available upstream innovations and the marketplace, the deployment of new and improved energy efficiency products and applications is needed. The main purpose of emerging technologies programs should be to increase the probability

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collaboration with Publicly Owned Utilities (POUs) and market stakeholders.”

<sup>16</sup> Ibid. at 85

<sup>17</sup> D.07-10-032 at 5

that new energy efficiency technologies, systems or practices that have significant energy savings potential but have not yet achieved sufficient market share to become self-sustaining or commercially viable. Emerging technologies include early prototypes of hardware, software, design tools or energy services. Program strategies should focus on reducing both the performance uncertainties associated with new products and applications and the institutional barriers to introducing them into the market. IOUs should ensure appropriate levels of funding to test, demonstrate, and increase the commercialization of emerging technologies. IOUs should also work with the CEC through its research and development program and with other stakeholders to ensure alignment of the research agenda that supports the Big Bold Energy Efficiency Strategies identified in the Strategic Plan, as well as the Commission energy goals.

8. **Codes and Standards (C&S).** In order to ensure that energy efficiency programs support the adoption of higher efficiency standards rather than compete with them, the IOUs shall implement programs to advocate for the adoption of higher codes and standards. D.12-05-015 established separate goals for codes and standards and affirmed that 100% of verified net savings shall count toward meeting these goals. The baseline for gross savings should be the previous standard or the prevailing market practice.
9. **Marketing Outreach and Education (ME&O).** At the time of issuance of this Policy Manual, the statewide Market Outreach and Education program applicable to post-2012 programs is under consideration in A.12-08-007 et. al.
10. **Competitive Bidding for Third Party Programs.** Competitive solicitations can help to identify innovative approaches or technologies for meeting savings goals with improved performance that might not otherwise be identified during the program planning process, and can take advantage of the unique strengths that third parties bring to the table. For each program planning cycle, the IOUs shall propose a portfolio of programs that reflects the continuation of successful IOU and non-IOU implemented programs. As part of that process, the IOUs will identify a minimum of 20% of funding for the entire portfolio of programs that will be put out to competitive bid to third parties for the purpose of soliciting innovative ideas and proposals for improved portfolio performance.

- a. IOUs will develop and issue RFPs using criteria approved by the Commission and select a set of bids. The Peer Review Groups (including Commission staff and their independent consultant(s)) will observe the IOUs' bid selection process to ensure that the criteria are applied properly. Before finalizing their selections, the IOUs will discuss the proposed results of their bid review process with the Peer Review Groups (PRGs, including Energy Division's independent consultants).
- b. While some program partners may be best suited to functioning as a subcontractor to the Program Administrator and performing a supporting role for the program, this should not be the only option available for partnership programs. Other partnership arrangements, e.g., where the local government partner is fully involved in program planning and implementation, may take better advantage of the relative strengths of each partner. These arrangements must, in any event, be considered in light of other applicable Commission decisions, including the implementation of community choice aggregation, and should in no way diminish or dilute the responsibility and accountability of IOUs to meet the Commission-adopted savings goals.

**11. Local Government and Institutional Partnerships.** Local Government Partnerships are agreements between an IOU and a city or county for the purpose of engaging local governments in leadership in demand side management (DSM). Specifically, LGPs are designed to generate energy and demand savings within their own facilities and in their communities through a joint utility-local government program design incorporating utility offerings and local government leadership, take actions which support the California Energy Efficiency Strategic Plan which leverages their local government role/authority, and provide DSM outreach in the community. Cities or counties are eligible to propose LGPs at the beginning of a program cycle or mid-cycle. The Peer Review Group will also oversee the development of criteria and selection of government partnership programs. Pursuant to D.12-05-015, beginning in the 2013-2014 cycle, new candidate partners must also adhere to deep retrofit criteria, as defined in the IOUs' program implementation plans.

**12. Pilot Programs.** Pilot programs should be designed to create the measures and program delivery mechanisms of the future, enabling IOUs to achieve deeper savings and market transformation. The pilots should be limited in scope and duration so that results are available in a specified time frame and limited in budget so that unsuccessful programs have a limited impact on the overall portfolio. All results of pilot programs must be shared widely with the other IOUs and with the stakeholders in the sector impacted by the pilot. There should be a specific plan and timeframe to move successful pilot programs into statewide use (if applicable)

Each proposed pilot should contain the following elements:<sup>18</sup>

- a. A specific statement of the concern, gap, or problem that the pilot seeks to address and the likelihood that the issue can be addressed cost-effectively through utility programs;
- b. Whether and how the pilot will address a Strategic Plan goal or strategy and market transformation;
- c. Specific goals, objectives and end points for the project;
- d. New and innovative design, partnerships, concepts or measure mixes that have not yet been tested or employed;
- e. A clear budget and timeframe to complete the project and obtain results within a portfolio cycle - pilot projects should not be continuations of programs from previous portfolios;
- f. Information on relevant baselines metrics or a plan to develop baseline information against which the project outcomes can be measured;
- g. Program performance metrics (see Section 4.6.3);
- h. Methodologies to test the cost-effectiveness of the project;
- i. A proposed EM&V plan; and

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<sup>18</sup> D.09-09-047 at 48-49

- j. A concrete strategy to identify and disseminate best practices and lessons learned from the pilot to all California IOUs and to transfer those practices to resource programs, as well as a schedule and plan to expand the pilot to utility and hopefully statewide usage.

### **XIII. Funding Guidelines for IOUs**

1. **Energy Efficiency Funds from Electric Procurement Rates and Gas PPP Surcharges.** Pursuant to § 381, 381.1, 399 and 890-900, gas PPP surcharge and/or electric procurement funds must be spent to deliver energy efficiency benefits to ratepayers in the service territory from which the funds were collected. Gas PPP surcharge and/or electric procurement collections must fund energy efficiency programs that benefit gas and/or electric customers within an IOU's service territory, as adopted by the Commission. However, nothing in these Rules is intended to prohibit or limit the ability of the Commission to direct the IOUs to jointly fund selected measurement studies, statewide marketing and outreach programs, or other energy-efficiency programs and activities that reach across service territory boundaries that serve statewide energy efficiency efforts.
2. **Cost Caps and Targets.** All IOUs shall reflect all costs associated with the delivery of their energy efficiency programs in their filings in the energy efficiency portfolio applications and shall note, where applicable, when the costs are recovered in other proceedings.<sup>19</sup> Costs shall reflect the caps and targets defined in D.09-09-047 and clarified in D.12-11-015.<sup>20</sup> Administrative cost definitions are further delineated in Appendix F.
  - a. Administrative costs for utility energy efficiency programs (excluding non-IOU third party and/or government partnership budgets) are limited to 10% of total energy efficiency budgets. These costs shall be inclusive of any energy efficiency-related costs authorized and

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<sup>19</sup> D.12-11-015 at 94

<sup>20</sup> Administrative costs defined in D.09-09-047 at 49 and OP 13.



collected in other proceedings, reflecting the fully-loaded utility personnel costs of delivering energy efficiency programs in their energy efficiency applications, but shall also note where the costs have been or will be recovered elsewhere, so funds are not approved and collected for the same purposes twice in two different proceedings. Administrative costs shall be consistent across IOUs. Administrative costs shall only be shifted into any other cost categories subject to the fund shifting rules in Rule II.3 and Appendix C of this manual. IOUs shall not reduce the non-utility portions of government partnership and third party implementer administrative costs, as compared to levels contained in the most recent budget authorizing decision without following authorized fund shifting guidelines subject to the fund shifting guidelines in Appendix C.

- b. ME&O cost targets for energy efficiency are set at 6% of total adopted energy efficiency budgets, subject to the fund-shifting rules in Rule II.3 and Appendix C.
- c. Direct Implementation Non-Incentive costs (DINI, further defined in Appendix F), which is defined as resource program delivery support costs, shall have a target value set at 20% of the total adopted energy efficiency budgets.<sup>21</sup> The IOUs are required to minimize their non-incentive budgets as much as possible to achieve the target.<sup>22</sup>

- 3. **Fund Shifting Rules.** Appendix C contains fund-shifting rules established in D.12-11-015, the December 22, 2011 ACR in R.09-11-014, D.09-09-047, D.09-05-037, D.07-10-032, D.06-12-013, and D.05-09-043 to apply to the current funding

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<sup>21</sup> This target was adopted for 2010-12 cycle in D.09-09-047 at 6, at 74 and OP 13c and reiterated for the 2013-14 cycle. D.12-11-015 at 98 states “This provision of D.09-09-047 is still in effect and has not been superseded, though the target is also not met by the proposed portfolios. We find that such a target is still reasonable for 2013-2014.”

<sup>22</sup> D.12-11-015 at 101

cycle.<sup>23</sup> IOUs shall file an Advice Letter for any shift of funds greater than 15% of the authorized budget, per annum among the following fund-shifting categories, except C&S, ET and ME&O, as detailed in Appendix C.

- 1) Statewide residential
- 2) Statewide commercial
- 3) Statewide agricultural
- 4) Statewide industrial
- 5) Statewide lighting
- 6) Statewide codes and standards
- 7) Statewide emerging technologies
- 8) Statewide workforce, education, and training
- 9) Statewide marketing, education, and outreach
- 10) Statewide integrated demand-side management
- 11) Statewide financing
- 12) Third party programs (competitively bid)
- 13) Local government and institutional partnerships
- 14) Other programs

**4. Funding of Program Cycle Extensions.** IOUs may spend up to 15% of next-cycle funds within the final year of the program cycle after the next-cycle portfolio is approved to avoid interruptions of those programs continuing into the next cycle, per D.07-10-032. The IOUs may continue the average monthly level of expenditures for the final year of a budget cycle to continue on a month-to month basis until the next portfolio budget is approved (or as specified in the

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<sup>23</sup> Fund shifting rules were most recently modified by D.12-11-015, COL 50 which defined the program categories.

Commission decision for the next portfolio budget cycle).<sup>24</sup> IOUs should tap into the next-cycle funds only when no other energy efficiency funds (i.e. unspent uncommitted funds from previous programs years) are available to devote to this purpose.

5. **Treatment of Unspent Funds from Prior Portfolio Cycles.** At the beginning of each portfolio cycle, IOUs should apply prior cycle(s) unspent funds to the new portfolio, including any associated interest collected, to offset revenue requirements in the new portfolio cycle as approved by the Commission through the IOUs' EE applications.<sup>25</sup> Committed funds are defined as those associated with individual customer projects and/or are contained within contracts signed during a previous program cycle and associated with specific activities under the contract. Committed funds are not considered "unspent funds," and need not be spent during that particular program cycle so long as there is an expectation that the activities will be completed and that the committed funds are spent to complete the activities for which they were committed. Savings will be counted in the cycle in which the project is completed.<sup>26</sup>
6. **Funds for Projects with Long Lead Times.** Funds may be committed for projects with lead times beyond three years under the following conditions:<sup>27</sup>
  - a. Long-term projects that require funding beyond the program cycle shall be specifically identified in the utility portfolio plans and shall include an estimate of the total costs broken down by year and associated energy savings;
  - b. Funds for long-term projects must be actually encumbered in the current program cycle;
  - c. Contracts with all types of implementing agencies and businesses must

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<sup>24</sup>D.09-09-047 at 307

<sup>25</sup> D.12-11-015 at 93

<sup>26</sup> D.12-11-015 at 92

<sup>27</sup> D.07-10-032 at 97

explicitly allow completion of work beyond the end of a program cycle;

- d. Encumbered funds may not exceed 20% of the value of the current program cycle budget to come from the subsequent program cycle, except by approval in the energy efficiency portfolio application or an advice letter process;
- e. Long-term obligations must be reported and tracked separately and include information regarding funds encumbered and estimated date of project completion; and
- f. Energy savings for projects with long lead times will be calculated by defining the baseline as the applicable codes and standards, or regulations for industrial projects, at the time of the issuance of the building or regulatory permit for the project.<sup>28</sup>

- 7. **Program Cancellation.** IOUs shall not eliminate any energy efficiency program or sub-program except through the energy efficiency portfolio application or an Advice Letter seeking such a change.

#### **XIV. Regional Energy Networks & Community Choice Aggregators**

- 1. **Definition of Regional Energy Networks.** In D.12-11-015, the Commission authorized the formation of Regional Energy Networks (RENs), to enable local government entities to plan and administer energy efficiency programs independent from the IOUs. RENs are distinguishable from other LGPs in that they are regional, representing several local government entities, and by the fact that they are selected by the Commission instead of the IOUs. RENs are intended to be additional to and not instead of LGPs, and should not take away from LGPs in design or budget. REN territories should not overlap. The RENs will have the independent ability, within the confines of the approvals of their proposals granted by the Commission, to manage, deliver, and oversee their own programs

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<sup>28</sup> D.07-10-032 at 95

independently, without utility interference or direction as it relates to the design and delivery of their programs. The IOUs will serve as fiscal managers responsible for all usual fiscal and management functions including fiscal oversight and monitoring,<sup>29</sup> such as providing the day-to-day contract management functions and disbursement of ratepayer funds. The Commission retains the authority to direct changes to the REN energy efficiency programs. RENs and the IOUs should coordinate and cooperate for seamless program offerings and to avoid customer confusion.

2. **Applications by Community Choice Aggregators (CCAs).** CCAs are subject to particular treatment in statute under § 381.1 related to their desire to administer energy efficiency funds. Senate Bill (SB) 790 (Stats. 2011, Ch.599, Leno) modified Section 381.1 in various ways to allow CCAs to access energy efficiency funds. At the time of issuance of this Policy Manual, the implementation of SB 790 is under consideration in R.09-11-014. A decision will be rendered in that proceeding on the overall permanent procedures for handling CCA activities and reporting with respect to energy efficiency programs and funds. In the meantime, the administrative structure for CCA programs shall be treated exactly the same as for the RENs when the CCA applies for energy efficiency funding under § 381.1(a)-(e).
3. **Implementation Oversight and Reporting Requirements.** The RENs are subject to the same periodic reporting requirements as the IOUs to the Commission, listed in Rule V of this Policy Manual. The RENs will also be independently accountable for delivering results outlined in their respective program implementation plans (PIPs). IOUs will receive attribution toward their portfolio goals for REN energy savings.<sup>30</sup> Additionally, RENs and CCAs will submit monthly narrative reports, which enable Commission staff to track and perform a variety of specialized activities. Detailed specifications for these reports are

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<sup>29</sup> D.12-11-015 at 10

<sup>30</sup> D.12-11-015 at 11

found on the Energy Efficiency Groupware Application (EEGA.)

4. **Threshold of Review.** To qualify for consideration, a REN program activity must meet one or more of the following criteria to be considered for approval:<sup>31</sup>
  - a. Activities that IOUs cannot or do not intend to undertake. The rationale for this should be obvious – if a REN can deliver a service to the market that the IOUs cannot, it should be considered.
  - b. Pilot activities where there is no current utility program offering, and where there is potential for scalability to a broader geographic reach, if successful. In this case, the concept would be to test program delivery that is different or unique, for potential to be scaled up to a statewide approach delivered either by RENs and/or by IOUs in the future.
  - c. Pilot activities in hard-to-reach markets, whether or not there is a current utility program that may overlap. These activities may or may not be intended to be scalable to a larger area. The rationale is that hard-to-reach markets (including multi-family and low to moderate income residential, as well as small commercial)<sup>32</sup> need all the help they can get to achieve successful energy efficiency savings. A piloted approach may work well in a particular geographic region because of its specific characteristics, or it may be appropriate for a wider delivery by RENs and/or IOUs elsewhere.
5. **Program Cost-Effectiveness Threshold.** For the 2013-2014 program cycle, the Commission did not set a threshold cost-effectiveness level, either TRC or PAC,

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<sup>31</sup> Ibid. at 17

<sup>32</sup> Hard to reach residential customers are defined as “those customers who do not have easy access to program information or generally do not participate in energy efficiency programs due to a language, income, housing type, geographic, or home ownership (split incentives) barrier.” Hard to reach business customers also include factors such as business size and lease (split incentive) barriers.

for the approval of REN programs. RENs will, however be expected to report the cost effectiveness of their programs through the submission of their E3 calculators.

6. **Fund-Shifting.** The fund-shifting limits established for RENs will apply to the categories of programs similar to the IOUs' statewide categories. For example, all REN residential programs will be treated as one "bucket," with financing programs in another "bucket," and so on, such that the limits apply on shifting between those program types, as they do for IOUs. Should a REN wish to exceed the fund-shifting limits in 2013 or 2014, it should file an advice letter justifying the proposed shifts of funds that exceed the 15% limit, just as a utility would. If a REN desires to modify its PIP, they should notify the appropriate utility and Commission staff, use the PIP addendum process in Rule V.2, and document the changes in the Energy Efficiency Groupware Application website,<sup>33</sup> utilizing the same process by which the IOUs make changes to their PIPs.
7. **Evaluation, Measurement and Verification Requirements for RENs.** Commission staff should manage all REN evaluations, including impact and process evaluations. This is consistent with the direction on the evaluation of utility pilot programs. Commission staff will include evaluation of any funded REN programs in their evaluation, measurement, and verification (EM&V) plans and budgets for 2013-2014. It will be especially important, with the REN activities, to emphasize more evaluation to determine if certain piloted activities were successful and should be scaled up in 2015 and beyond, or discontinued altogether. To the extent possible, Commission staff and RENs themselves should consider early evaluation activities prior to the end of 2014, in order to have more information going into the 2015 portfolio design process.<sup>34</sup>

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<sup>33</sup> <http://eega.cpuc.ca.gov/>

<sup>34</sup> D.12-11-015 at 17

**XV. Cost-Effectiveness**

1. **Standard Practice Manual (SPM).** The cost-effectiveness indicators referred to in these rules are described in the *California Standard Practices Manual: Economic Analysis of Demand-Side Management (SPM)*.<sup>35</sup> Cost-effectiveness analyses must be performed in a manner consistent with the indicators and methodologies included in the SPM, with clarifications indicated in Commission decisions relating to this subject.
  
2. **Total Resource Cost Test (TRC).** This Commission relies on the Total Resource Cost Test (TRC) as the primary indicator of energy efficiency program cost effectiveness, consistent with our view that ratepayer-funded energy efficiency should focus on programs that serve as resource alternatives to supply-side options. The TRC measures net costs as a resource option based upon the total costs for the participants and the utility. The benefits are the net present value of avoided costs of the supply-side resources avoided or deferred. The TRC costs encompass the net present value of the net costs to participants for installed measures over the measure life plus all the costs incurred by the program administrator. The net benefits and net participant costs exclude the benefits derived from and costs paid by free-rider participants.<sup>36</sup> The net cost to participants is the actual costs minus any rebates<sup>37</sup> from the program administrator. The net present values are calculated using a discount rate that reflects each utility's after-tax weighted average cost of capital (WACC), based

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<sup>35</sup>D.12-05-015 at 28

<sup>36</sup>D.07-09-043 at 157

<sup>37</sup>Per SPM and Decisions including D.08-01-006, rebate amounts used to reduce participant costs are defined to include only dollar benefits such as rebates or rate incentives (monthly bill credits) paid by the program administrator to a participating customer (ratepayer). These costs are included in the program administrator total cost so must not be counted twice. Rebates paid to free-rider participants are included as TRC costs in the program administrators cost.



on the most recent cost of capital decision.<sup>38</sup>

3. **Program Administrator Cost Test (PAC).** The Program Administrator Cost (PAC) test of cost-effectiveness should also be considered in evaluating program and portfolio cost-effectiveness. Under the PAC test the program benefits are the same as used in the TRC test. The costs however, are defined to include only the net present value of all costs incurred by the program administrator while excluding the costs incurred by the participating customers. As in the TRC test, the net present values for the PAC are calculated using a discount rate that reflects each utility's after-tax weighted cost of capital, based on the most recent cost of capital decision.
  
4. **Application of the TRC and the PAC: the Dual-Test.** Applying both the TRC and PAC cost-effectiveness tests is called the "Dual-Test." The portfolio of energy efficiency programs are required to show a positive net benefit, based on the TRC and PAC tests, on a prospective basis during the program planning stage.<sup>39</sup> Test results are usually shown as benefit cost ratio, and a portfolio is said to have "passed" a test if the benefit cost ratio is greater than 1. Both the TRC and PAC tests of cost-effectiveness need to be considered when evaluating program proposals, in order to ensure that program administrators and implementers do not spend more on rebates/cash incentives than absolutely necessary to achieve TRC net benefits.<sup>40</sup> The energy efficiency portfolio as a whole must pass both the TRC and PAC tests to be eligible for funding.<sup>41</sup> It is expected that incentives offered for the installation of a measure will not exceed the incremental cost of the measure, and thus, activities that pass the TRC test normally will also pass

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<sup>38</sup> D.12-05-015 at 38 contains a table of the current IOU WACC values and OP 2 directs the use of the after-tax Weighted Average Cost of Capital as the discount rate.

<sup>39</sup>D.05-04-051 at 43

<sup>40</sup>D.06-06-063 at 72

<sup>41</sup> D.05-04-051, Attachment 3, Rule IV and D.08-01-006 at 21

the PAC test.<sup>42</sup> However, if deployment of the program requires rebates or financial incentives to participants that exceed the measure cost, then the program may pass the TRC test, but fail the PAC test. Incentives or rebates that exceed the TRC cost for a measure must be justified in workpaper submissions that are approved by Commission Staff.<sup>43</sup>

5. **Overall Cost-Effectiveness of IOU and REN Portfolios.** It is the responsibility of the Commission to approve a portfolio, including both utility and REN proposals that is cost-effective overall, because the IOUs are not in control of the REN proposals and therefore cannot make the cost-effectiveness tradeoffs within their portfolio. The Commission will therefore apply the dual test for overall portfolio cost effectiveness, taking into consideration passing both the TRC and PAC tests for each utility service territory portfolio without the RENS, as well as entire approved portfolio that includes the RENS.<sup>44</sup>
6. **Avoided Costs and Other Inputs.** TRC and PAC benefits should be computed using the avoided cost methods and input assumptions, including avoided greenhouse gas emissions related cost that have been developed for the evaluation of energy efficiency programs in the Standard Practice Manual and most recently updated in D.12-05-015.<sup>45</sup>
7. **Cost Effectiveness Adjustments for Free-Ridership and Market Effects.** Net to Gross (NTG) ratios are used to estimate and describe the “free ridership” that may be occurring within energy efficiency programs, that is, the degree to which customers would have installed the program measure or equipment even without the financial incentive (e.g., rebate) provided by the program.<sup>46</sup> Cost-

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<sup>42</sup>D.06-06-063 at 72 recognizes only “limited instances for program design purposes where the cash rebate to the customer exceeds the measure installation cost”

<sup>43</sup> Originally defined in D.92-09-080, the dual test was last modified in D.05-04-051

<sup>44</sup> D.12-11-015 at 18

<sup>45</sup> Also see D.05-04-024 and D.06-06-063

<sup>46</sup> Definition and calculation of Net-to-Gross adjustments to TRC test were described in Attachment 9 of D.07-09-043

effectiveness of the portfolio shall be calculated as net of free riders, or on a “net savings basis” for the purpose of establishing budget levels that meets the legislative requirement in § 454.5.

- a. Commission Staff has the responsibility to perform research on free ridership and market effects and to use the results of that research to develop updated NTG values for use in portfolio planning and utility reporting. This research often involves interviews with customers and others who participate in the utility programs. The IOUs are required to cooperate and facilitate this research. Utility customers are required to cooperate with Commission staff in this research as a condition of receipt of energy efficiency funds. The IOUs must respond to Commission Staff’s request for evaluation data in a timely manner to facilitate this research so as to improve the reliability of NTG results.<sup>47</sup> Our adopted DEER is the repository of the NTG values to be used for planning and reporting. Commission Staff shall strive to update DEER with uniform statewide NTG values that represent typical expected results.<sup>48</sup>
- b. The “default” NTG values shall be used when there is a lack of research on the NTG value for the program or delivery mechanism. This may apply to new or existing measures (or if a proposed delivery mechanism has deviated substantially from past related program activities).<sup>49</sup> When new measures or programs are proposed, Commission staff may utilize the results of previously completed research produced during similar program or measure piloting activity to set an appropriate NTG value.<sup>50</sup> Alternatively staff may determine that no piloting research is required and accept proposed use of

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<sup>47</sup> D.12-05-015 at 51

<sup>48</sup> Ibid at 54 and OP 6

<sup>49</sup> D.12-05-015 adopted DEER NTG table.

<sup>50</sup> D.12-05-015 at 339

default or other appropriate NTG values.

- c. For measures added to the portfolio as a direct result of Emerging Technology Program activities (Emerging Technology measures) the IOUs may request in their non-DEER work paper submissions that a measure be assigned a NTG value at or above 0.85. Commission Staff shall have the authority to accept or reject a utility Emerging Technology measure classification and to set any Emerging Technology measure NTG value at or above 0.85 as it deems appropriate.<sup>51</sup> Similarly, Energy Upgrade California shall be treated as a custom project activity with a default NTG value of 0.85.
- d. For custom projects the adopted ex ante review process provides Commission Staff with the ability to review and update ex ante values including NTG for those projects.<sup>52</sup> The IOUs are expected to respond to Commission staff reviews by taking steps to improve NTG results.<sup>53</sup> Utility programs should strive to push customers to augment projects to include action that would not occur without incentive support or redesign the incentive structure to encourage deeper and more comprehensive activities as well as aligning the incentive amounts to be commensurate with the level of savings that can be attributed to the program.<sup>54</sup>
- e. Market effects are defined as additional energy savings that occur as a result of the energy efficiency programs, but that are not included in the utility savings claims. The Commission acknowledges that market effects occur. However, in D.12-11-015 the Commission determined that there were not sufficiently current or technically rigorous market

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<sup>51</sup> Ibid at 62 and OP 14 and OP 15

<sup>52</sup> Ibid OP 149 "Commission Staff shall assign, at its discretion, Net-to-Gross (net of free ridership) values as part of its ex ante project reviews process."

<sup>53</sup> Ibid at 61 and OP12

<sup>54</sup> Ibid.

effects studies to base market effect estimates on, and instead determined to apply a portfolio-level “market effects adjustment” of 5% across all resource programs for the entire 2013-14 cost effectiveness calculation.<sup>55</sup> This 5% market effect adjustment shall be applied to increase TRC and PAC benefits as well as to increase TRC participant costs (excluding the deduction of program rebates or incentives paid to participants).

8. **Portfolio Filing of Prospective Cost Effectiveness.** A prospective showing of cost-effectiveness using the Dual-Test for the entire portfolio of ratepayer-funded energy efficiency activities and programs (i.e., individual programs, plus all costs not assignable to individual programs, such as overhead, planning, evaluation, measurement verification and administrator compensation and performance, if applicable) is a threshold condition for eligibility for ratepayer funds. This prospective showing of cost-effectiveness shall include the costs for shareholder incentives that are projected to be paid under the energy efficiency shareholder incentive mechanism in effect at that time.<sup>56</sup>

This threshold requirement applies to each of the following: (1) the service-territory wide program portfolios offered by each IOU Program Administrator, excluding emerging technologies programs, and (2) excluding On-Bill Financing loans<sup>57</sup>, and (3) the entire program portfolio collected from an IOU’s ratepayers, including RENs and CCA programs. IOU program administrators must demonstrate that the first threshold requirement is met on a prospective basis in their program funding applications to the Commission. IOUs must also demonstrate that the proposed level of electric and natural gas energy efficiency program activities are expected to meet or exceed the Commission-adopted

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<sup>55</sup> D-12-11-015 at 49

<sup>56</sup> D.07-09-043 at 220

<sup>57</sup> D.09-09-047 at 288

electric and natural gas savings goals, by service territory.<sup>58</sup>

a. To support comparisons of all resources in the IOUs' procurement portfolio, the program administrators are required to also provide levelized unit cost estimates at the portfolio, end-use and measure level consistent with the methods described in the SPM. This information should be submitted with the program administrators' compliance filings.

9. **Program Performance Metrics.** The usefulness of the TRC test as a primary indicator of cost-effectiveness is limited for certain programs which do not necessarily focus on the timing or type of resource needs of the utility, such as programs designed to demonstrate or commercialize promising emerging energy efficiency technologies or structurally change the marketplace. For statewide marketing and outreach programs and information-only programs, the link between programs and savings is also difficult to discern. Therefore, the Commission and program administrators will need to consider factors and performance metrics other than the TRC and PAC Tests of cost-effectiveness when evaluating such program proposals for funding and when evaluating their results. Program performance metrics are objective, quantitative indicators of the progress of a program toward the short and long-term market transformation goals and objectives in the Strategic Plan. Beyond this program cycle, the IOUs shall submit one joint advice letter to request approval for their proposed logic models and metrics for each statewide program and associate sub-programs, and pilot programs for each program cycle as part of their energy efficiency portfolio application process.<sup>59</sup>The process for developing PPMs is described in Appendix 2 of D.09-09-047. The proposed performance metrics shall comply with the following principles:

a. The metrics shall be designed for simplicity and cost effectiveness when

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<sup>58</sup> Per D.04-09-060, savings from LIEE programs will also count towards these goals.

<sup>59</sup> D.09-09-047 at 92

considering data collection and reporting requirements.

- b. Integrated metrics shall be developed for programs that employ more than one technology or approach, such as whole building programs.
- c. Program models and logic should be dynamic and change in response to external, e.g., market conditions, and internal conditions.
- d. The metrics shall link short-term and long-term strategic planning goals and objectives to identified program logic models.
- e. Performance metrics shall be maintained and tracked in the EEGA database (or a similar database to be determined under the guidance of Commission staff).

**10. Cost Effectiveness Requirements for Fuel Substitution Programs/ Measures/ Projects.** Fuel substitution programs/projects may offer resource value and environmental benefits. Fuel-substitution programs should reduce the need for supply without degrading environmental quality. For purposes of applying these tests, fuel substitution proponents must compare the technologies offered by their program/measure/project with the industry standard practice same-fuel substitute technologies available to prospective participants that would have TRC and PAC benefit-cost ratio of 1.0 or greater. The burden of proof falls on the party sponsoring the analysis to show that the baseline comparison adheres to this requirement. Fuel substitution program/measures/projects with a predominantly load building or load retention character are not eligible for funding, and the proponent of a fuel-substitution program carries the burden of proof to demonstrate that the program/measure/project focuses on energy efficiency and creates net resource value. Fuel-substitution programs/projects, whether applied to retrofit or new construction applications, must pass the following three-prong test to be considered further for funding:<sup>60</sup>

- a. The program/measure/project must not increase source-BTU consumption. Proponents of fuel substitution programs should

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<sup>60</sup> Rules for fuel substitution programs were most recently modified by D.09-12-022.

calculate the source-BTU impacts using the current CEC-established heat rate.

- b. The program/measure/project must have TRC and PAC benefit-cost ratio of 1.0 or greater. The TRC and PAC tests used for this purpose should be developed in a manner consistent with Rule IV.4.
- c. The program/measure/project must not adversely impact the environment. To quantify this impact, respondents should compare the environmental costs with and without the program using the most recently adopted values for avoided costs of emissions.<sup>61</sup> The burden of proof lies with the sponsoring party to show that the material environmental impacts have been adequately considered in the analysis.

11. **Mid-Cycle Funding Augmentations.** Costs and energy savings from mid-budget cycle funding additions for programs other than Energy Savings Assistance Programs (ESAP) shall be counted when calculating portfolio cost-effectiveness and shall count towards the IOUs' energy efficiency goals for resource planning purposes.

## **XVI. Implementation Oversight and Reporting Requirements**

1. **Reporting Requirements.** Commission staff is directed to develop and update reporting requirements to ensure that the types of data and the format of the information presented in the IOUs, RENs or CCAs' filings and reports are as consistent as possible.<sup>62</sup> The IOUs, RENs and CCAs (except as modified for RENs

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<sup>61</sup> Most recently updated by D.12-05-015 at 31

<sup>62</sup> Initial directives on application tables and reporting requirements were established in D.04-12-048 OP 13, which authorized Energy Division to update. Reaffirmed in D.05-09-043 at 155, D.09-09-047 at 64. Current Reporting Requirements are included in Policy Manual V.5, Appendix D.



and CCAs in Rule III.3) are required to follow the Commission's Energy Efficiency Reporting Requirements Manual for the current program cycle. Please see Appendix D for Reporting Requirements, and refer to <http://eega.cpuc.ca.gov> for the most current reporting templates and Energy Division guidelines. The following regularly occurring reports are required:

- a. Monthly Reports on expenditures and savings
- b. Quarterly Reports on budgets and expenditure caps
- c. Fund Shift Report on program funding modifications
- d. Utility Tracking data to report program accomplishments, evaluation sampling and cost effectiveness calculations
- e. Program Performance Metric Annual Reporting
- f. Energy Efficiency Program Annual Reports <sup>63</sup>
- g. Other reports as required by the Commission

2. **Program Implementation Plans (PIP).** IOUs and RENs shall submit PIPs in their original application filings using the template provided by the Commission staff,<sup>64</sup> and shall update the PIPs to comply with any decision directives in their compliance filings. Programs administrators shall also update their PIPs to reflect any mid-cycle program changes. PIPs shall include program logic models that diagram the program objectives, outputs and outcomes in a specified PIP format with their portfolio applications. The following program changes require the affected portions of the PIP to be resubmitted to EEGA as a PIP addendum:<sup>65</sup>

- a. Changes to eligibility rules

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<sup>63</sup> Pursuant to Attachment C of ALJ Ruling Adopting Annual Reporting Requirements for Energy Efficiency and Addressing Related Reporting Issues, dated August 8, 2007

<sup>64</sup> In D.12-05-015 at 358, the Commission Staff was directed to provide a revised PIP template to the service list.

<sup>65</sup>The PIP addendum process has been defined by the Energy Division, per D.04-12-048 OP 13 directive to update the program reporting requirements as needed.

- b. Changes affecting incentive levels
  - c. Fund shifts
  - d. Portfolio Budget and Other Commission–Directed Changes
  - e. Changes to Program Theory/Logic Models
  - f. Addition or elimination of programs and/or sub-programs
  - g. Changes in program targets
  - h. Change in sub-program approach - unless the IOUs submit logic models for the sub-programs
  - i. Changes in incented measures
  - j. Changes in adopted PPMs/MTIs
- 3. Counting of Savings.** The reporting of ex ante savings estimates in the compliance filings is subject to Rule VI on ex ante review. When estimating ex ante savings values for either portfolio planning or accomplishment reporting the IOUs, RENS and CCAs shall use values and methods from the most recent version of Database for Energy Efficient Resources (DEER) if the measure values are available. If DEER values and methods are not available, the IOUs, RENS and CCAs may propose new values for staff review and approval, subject to Rules VI 4-6. The protocols for developing ex post savings estimates are provided in the California Energy Efficiency Evaluation Protocols,<sup>66</sup> updated in D.09-05-037, and through DEER updates.
- a. The definition of peak megawatt load reduction contained in the most recently adopted DEER shall be used to estimate and verify peak demand savings values. The DEER method utilizes an estimated average grid level impact for a measure between 2 p.m. and 5 p.m. during a “heat wave” defined by three consecutive weekdays for

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<sup>66</sup> April 16, 2006 ALJ Ruling in R.01-08-028

weather conditions that are expected to produce a regional grid peak event.<sup>67</sup>

b. Incentives and savings in communities with “reach” building codes or similar efficiency requirements shall be no different from those in other communities, and shall not be treated as free riders.<sup>68</sup>

4. **Program Modifications for RENs.** If a REN desires to modify its PIP, it should notify the appropriate utility and Commission staff, use the PIP addendum process in Rule V.2, and document the changes in the Energy Efficiency Groupware Application website<sup>69</sup>, utilizing the same process by which the IOUs make changes to their PIPs. Should a REN wish to exceed the fund-shifting limits in a portfolio cycle, it should file an advice letter justifying the proposed shifts of funds that exceed the 15% limit, just as a utility would.

## **XVII. Ex-Ante Savings and Review**

1. **Commission Oversight of Ex Ante Values.** The estimated energy savings values for energy efficiency measures used for planning and reporting accomplishments for energy efficiency programs, referred to as the *ex ante* values, are subject to the review and approval of Commission staff. The ex ante review process must be managed by Commission staff because it involves judgments that can influence both the development of performance targets and the measurement of program

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<sup>67</sup> D.06-06-063 OP 1. The DEER version adopted in D.12-05-015 utilizes a 3-day “heat wave” that occurs on consecutive days in June through September such that the three consecutive days do not include weekends or holidays, and where the heat wave is ranked by giving equal weight to the peak temperature during the 72-hour period, the average temperature during the 72-hour period and the average temperature from noon – 6pm over the three days.

<sup>68</sup> D.09-05-037 OP 4

<sup>69</sup> <http://eega.cpuc.ca.gov/>

achievements.<sup>70</sup> Due to the conflict-of-interest concerns the IOU Portfolio Managers would not be the appropriate entities to manage or directly contract for the ex ante review process.<sup>71</sup>

2. **Freezing of Ex Ante Values.** Upon approval by Commission staff, the ex ante values shall be frozen for remainder of the current cycle. This freeze of *ex ante* energy savings values shall apply both to energy efficiency measures contained in the DEER and non-DEER measures covered by workpapers which are developed by IOUs and other program implementers. Unreviewed non-DEER workpapers that were submitted as part of the applications for the 2013-1014 cycle shall be granted interim approval<sup>72</sup>. Interim approval indicates that all values and approaches have been approved for the duration of the program cycle or until a formal review occurs. If a formal review of an interim approved work paper requires significant changes to be made, then those significant changes should be applied prospectively from the time of the completed review and the new values will then be frozen for the duration of the program cycle. The frozen version of DEER and frozen non-DEER work papers are posted at the DEER website (<http://www.deeresources.com>) maintained by Energy Division.
3. **Mid-cycle updates of Ex Ante Values.** Ex ante values should be adopted and held constant throughout the portfolio cycle. However, mid-cycle updates of ex ante values are warranted if newly adopted codes or standards take effect during the cycle.<sup>73</sup> The IOUs shall make appropriate adjustments to their participation and incentive calculation rules as well as update their ex ante value calculations in response to codes and standards changes.<sup>74</sup> IOUs, RENs and CCAs are expected to update non-DEER workpapers with the latest Codes and Standards updates. A mid-cycle update is required to incorporate changes due to newly

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<sup>70</sup> D.05-01-055 at 120

<sup>71</sup> D.05-01-055 at 121

<sup>72</sup> D.12-05-015 at 334

<sup>73</sup> These changes are known at least one year ahead of their effective date.

<sup>74</sup> D.12-05-015 at 324

adopted codes or standards. Commission staff may perform mid-cycle review of any non-DEER workpapers with interim approval and require revisions to those workpapers. These mid-cycle revisions shall be frozen prospectively for the 2013-14 portfolio.<sup>75</sup> Mid-cycle workpaper review shall follow the Phase 2 review process included as Appendix G.

4. **Ex-Ante Review of Non-DEER Measures.** For non-DEER measures, the IOUs are instructed to use DEER values as starting points and/or apply the DEER methodologies for estimating the non-DEER parameter value for cases in which any of the specific parameters of an IOU installation differ from the assumptions that form the basis of a DEER measure. The IOUs and other entities submitting workpapers do not have the option to replace DEER assumptions and values with their preferred values unless the Commission Staff agrees with their proposal for such replacements.<sup>76</sup> Additionally, IOUs and other entities submitting workpapers shall utilize the latest information available, including the Commission's most recently available evaluation results, when updating or developing new workpapers<sup>77</sup>. All ex ante values shall be updated or developed in consideration of the latest information available, including Unit Energy Savings (UES), Effective Useful Life (EUL), Installation Rate (IR), NTG and Cost. Commission staff shall review all utility proposed non-DEER assumptions and values. The IOUs must work with Commission Staff, following the workpaper and non-DEER workpaper submittal, review and approval process that was originally issued in the November 18, 2009 ruling and updated in D.10-12-054, D.11-07-030 and D.12-05-015.<sup>78</sup> Commission Staff's review of "interim approval" workpapers or new workpapers submitted mid-cycle shall adhere to the Phase 2

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<sup>75</sup> D.12-05-015 at 336

<sup>76</sup> D.12-05-015 at 326

<sup>77</sup> D.12-05-015 at 332

<sup>78</sup> November 18, 2009 ALJ Ruling in A.08-07-021. D.09-09-047 OP 4 states that, "Review of completed IOU work papers regarding ex-ante savings estimates are subject to Commission Staff review and approval, as set forth in an ALJ Ruling of November 18, 2009 in Application 08-07-021, et al. Each IOU shall cooperate with Commission Staff to allow upfront consultation regarding such work papers."

workpaper review process, including the dispute resolution process described in Appendix G.

5. **Installation Rate for DEER and non-DEER Measures.** All deemed measures have an installation rate, which is the ratio of the number of verified installations of that measure to the number of claimed installations rebated by the utility during a claim period.<sup>79</sup> The installation rate is reported separately in claims and not included in the reported savings for the measure. Staff shall maintain a table of installation rates for DEER and non-DEER measures. For any measures not listed in this table, the installation rate shall be assumed to be 1.0. IOUs and other entities shall include in their workpapers the proposed installation rates for the measure covered by a workpaper.
  
6. **Establishment of Baseline for use in Establishing TRC Savings and Costs.** The approach to establish a baseline for ex ante gross savings values requires the review of the evidence related to one of the three baseline choices: (1) new equipment that is replaced on burnout (ROB), turnover or replacement due to normal retrofit and remodeling activities (NR), and new construction (NC); or (2) the pre-existing equipment used in the program induced early retirement (ER) case. For new equipment choices that are selected under the ROB, NR and NC cases and are subject to existing regulations, codes or standards, the baseline equipment should be determined by the regulation, code, or industry standard. The customer's reason for equipment replacement could alter the baseline choice, depending on whether compelling evidence demonstrates that the replacement was a program induced early retirement.<sup>80</sup>
  - a. In the cases when there is no regulation, code, or standard that applies, which would normally set the baseline equipment requirements, the baseline must be established using a "standard practice" choice. For purposes of establishing a baseline for energy savings, we interpret the standard practice

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<sup>79</sup> D.11-07-030 at 22

<sup>80</sup> D.11-07-030 at 40, Appendix I to Attachment B

case as a choice that represents the typical equipment or commonly-used practice, not necessarily predominantly used practice.

- b. For the case of program-induced early retirement, the remaining useful life of the existing equipment should be used as the starting assumption for the period of accelerated retirement. To establish the period of accelerated retirement, we recommend using one-third of the effective useful life in DEER as the remaining useful life until further study results are available to establish more accurate values.<sup>81</sup> Commission staff has been given flexibility to utilize alternative remaining useful life values, based upon compelling project or technology specific evidence.<sup>82</sup>
- c. The measure or project cost utilized in an early-retirement case is the full cost incurred to install the new high-efficiency measure or project, reduced by the net present value of the full cost that would have been incurred to install the standard efficiency second baseline equipment at the end of the remaining-useful-life period. Thus, the early-retirement cost in the cost effectiveness calculation is higher than the incremental cost used in a replace-on-burnout or normal-replacement case, only by the time value of the dollar amount of the standard equipment full installed cost, using the adopted cost-effectiveness discount rate to calculate that time valuation.
- d. A “dual baseline” must be utilized for program-induced early retirement measures. The dual baseline reflects the difference between the savings that should be credited for the initial years of installation based upon the pre-existing or replaced equipment versus the savings credit in later years that should be based upon an eventual pre-existing equipment replacement assumed to occur if the measure had not been installed as part of the program. At the later date, when the pre-existing equipment would have been replaced due to normal turnover for reasons such as imminent failure or

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<sup>81</sup> Summary of EUL-RUL Analysis for the April 2008 Update to DEER at 2

<sup>82</sup> D.12-05-015 at 348

remodeling, an alternate equipment efficiency baseline should be utilized. This “dual baseline” requires two savings calculation periods:

- The remaining useful life (RUL) which DEER establishes as one-third of the expected useful life (EUL) for the equipment type (which may reflect the EUL of the new equipment rather than the replaced equipment). During the RUL period (“first baseline”), savings is calculated using the full reduced energy use between the measure and the pre-existing condition. The measure cost for this period is the full cost of equipment, including installation, for the measure.
- The period between the RUL and EUL defines the second baseline calculation period. For this period, the savings are calculated based on the difference between the measure and code/regulations or industry standard practice baseline technologies. The measure cost for this period is the full cost of equipment, including installation, for the second baseline equipment measure. As discussed above, the TRC cost for an ER measure is calculated by subtracting this value discounted by the RUL number of years at the adopted discount rate from the measure cost utilized for the measure equipment in the initial baseline period.

7. **Custom Projects.** The adopted process for Energy Division’s review of custom projects is provided in Attachment B of D.11-07-030.<sup>83</sup>The IOUs shall follow the custom project ex ante value review process set forth in Attachment B.<sup>84</sup> The IOUs shall provide a summary list of all custom projects, in pre-application stage and application stage, in their Custom Measure and Project Archive (CMPA). Each utility shall keep a complete up-to-date electronic archive of all custom measures and projects. Each project should be added to the archive immediately after either being identified in the pre-application stage, or after the date of the

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<sup>83</sup> D.11-07-030 at 40

<sup>84</sup> D.11-07-030 OP 7



customer's application to the utility, whichever is sooner. Project specific tools and processes will be stored in the CMPA. Projects Energy Division selects for review will have their complete documentation from the IOU CMPA placed into an Energy Division Review CMPA which, with the Utility Custom Project Summary List, will be housed on an internet-accessible website that meets reasonable security and legal requirements. The Energy Division will be responsible for establishing and maintaining that website. Energy Division shall maintain a public archive database with a summary of issues identified in its custom applications and projects reviews, and the Energy Division dispositions of those issues. Customer-specific data and information should be removed from the Energy Division summary of issues and dispositions.

8. **HVAC Interactive Effects.** Measures, such as lighting and refrigeration, have a secondary impact on heating and cooling loads and thus heating and cooling energy consumption. These "interactive effects" are appropriate for incorporation into DEER.<sup>85</sup> The gas and electric IOUs shall include those effects in non-DEER workpapers and custom measures and projects calculations. In its review of IOUs' workpapers and custom measures and projects, Commission Staff shall ensure the IOUs include these effects when Staff deems that inclusion has a significant impact on the savings estimate.
9. **Persistence of Savings.** Until EM&V results inform better metrics, the IOUs may apply a conservative deemed assumption that 50% of savings persist following the expiration of a given measure's life.<sup>86</sup>
10. **Gross Realization Rate.** The gross realization rate (GRR) is a multiplier that attempts to take into account the likelihood that not all Commission-approved projects undertaken by IOUs will come to fruition. Based on studies from past years' outcomes, a GRR value of 0.90 shall be applied as a conservative value to account for the difference between projected and actual energy savings for un-

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<sup>85</sup> D.09-05-037, OP 3 denied the IOUs' proposal to eliminate HVAC interactive effects from DEER.

<sup>86</sup>D.09-090-47 OP 49

reviewed custom projects.<sup>87</sup>

### **XVIII. Evaluation, Measurement and Verification (EM&V)**

1. **Purpose of EM&V.** The development of energy efficiency programs that deliver reliable energy savings for California's ratepayers depends on well-designed policies and methods of portfolio performance evaluation, measurement and verification (EM&V). Rigorous and strategically focused EM&V practices are required to gauge the performance of IOUs, RENs, CCAs, and Implementers, verify energy savings, improve the design and success of future energy efficiency programs and enhance the reliability of forecasted savings for resource planning purposes. In D.05-04-051 the Commission ordered portfolio evaluation efforts to be structured such that they can: 1) inform the program selection process, 2) provide early feedback to program implementers, 3) produce impact evaluations at the end of the funding period, and 4) feedback into the planning process for future program cycles. D.07-10-032 and D.10-04-029 further updated the EM&V process.
  
2. **IOU and ED Collaboration on EM&V Plan.** Per D.09-09-047, D.10-04-029, and D.12-11-015, the IOUs and Commission staff are expected to jointly prepare an EM&V Plan in order enhance timeliness, transparency and consistency across EM&V work products and to streamline EM&V processes.<sup>88</sup> The IOUs and Commission staff are expected to adhere to the plan. D.10-04-029 set out the roles and relationships among the Commission staff, IOUs, and stakeholders regarding Evaluation, Measurement and Verification (EM&V) of energy efficiency programs for 2010 through 2012. In D. 12-05-015, the Commission indicated that guidelines for collaboration, cooperation, and dispute resolution adopted by D.10-04-029 will continue to apply to the 2013-2014 EM&V activities.
  
3. **Energy Division Role in EM&V Administration.** D.05-01-055 adopts an

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<sup>87</sup> D.11-07-030 at 38, OP 6

<sup>88</sup> D.09-09-047 at 301

approach to EM&V administration whereby Energy Division has management and contracting responsibilities for all EM&V impact-related studies that will be used to 1) measure and verify energy and peak load savings; 2) generate data for savings estimates, cost-effectiveness inputs, and the Commission's adopted performance basis; and 3) evaluate whether portfolio goals are met. Additionally, in D.10-04-029 the Commission determined that the ED is permitted to manage evaluations that may be considered process or formative evaluations.<sup>89</sup> ED may, on a case by case basis, use program implementers as a vehicle for collecting EM&V data when this would clearly be more efficient.<sup>90</sup>

4. **IOU Role in EM&V Administration.** D.05-01-055 adopts an approach to EM&V administration whereby IOUs may directly contract for (and serve as technical lead in managing) early EM&V, process and program design evaluations as well as market assessment studies. Managing these studies assists IOUs in selecting and managing a portfolio of programs to meet the Commission's objectives as well as provide them with access to information on a real-time basis to improve program delivery. While soliciting input from Commission staff, the IOUs should also take the lead in allocating Commission-authorized funding for this category of EM&V across individual studies, develop the scope of work for each study and prepare the RFPs when needed. In their program plan applications, the IOU should also describe each type of study (including general scope of work) that they plan to manage and/or directly contract for in this category. All interested parties should have an opportunity to consider whether any of those proposed studies would create a conflict of interest if the IOU or program implementers managed and directly contracted for them.
5. **ED Role in IOU EM&V Studies.** Commission staff's role for approval and involvement in IOU EM&V projects shall be as set forth in Attachment 2 of D.10-04-029.

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<sup>89</sup> D.10-04-029 at 19

<sup>90</sup> D.10-04-029 at 42

- a. An IOU shall seek approval from Commission staff before initiating EM&V ex-ante studies, or EM&V process and formative evaluations. The EM&V ex ante studies referred to here are studies conducted by an IOU to develop energy savings estimates in specific cases where there is no existing ex-ante estimate or an existing estimate is out of date<sup>91</sup> and needs testing, and for which Commission staff is not already conducting or planning to conduct a project to develop estimates for the same measure (regardless of the funding dollars).<sup>92</sup> The IOU management role for developing ex-ante savings estimates or EM&V process or formative evaluations shall be under the oversight of Commission staff, who shall have the authority to deny approval of IOU proposed projects. This authority is limited to situations where there is a conflict of interest with a contractor the IOU wishes to hire, where there is duplication or significant overlap with studies already planned or carried out by Energy Division, or where Commission staff can specify why a study is unnecessary or inappropriate.

Energy Division's approval process for IOU's ex-ante studies, or EM&V process or formative evaluations, is limited to no more than two weeks. Any Commission staff denial of approval shall be in writing to the IOU requesting approval. If the proposed IOUs study is not approved within the two week timeframe, then it will be approved by default.

- b. If Commission staff expects to take three months or more to complete an ex ante study, an IOU may request to develop the ex-ante study in order to ensure more timely information. The Commission staff may approve, or reject the request by providing the IOU, within two weeks

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<sup>91</sup> D.11-07-030 Attachment B states that it depends on the pace that the industry is moving, indicating that industry standard practice is five years.

<sup>92</sup> D.10-04-029 at 16

of the IOU's request, with a written statement indicating that such rejection is due to duplication of a study that will also be completed within 3 months, conflict of interest or other specific rationale.

- c. Commission staff may make case-by-case exceptions to the Commission-adopted firewall policy regarding program implementers in order to collect data needed for EM&V.

6. **IOU Role in Energy Division managed EM&V Studies.** All EM&V related projects undertaken by the IOUs and Energy Division, regardless of funding source, shall adhere to the same policies and procedures adopted in D.10-04-029 as EM&V-funded projects, except that such EM&V policies and procedures do not apply to projects not previously considered to be in the EM&V category. The process for the IOUs involvement in ED's EM&V studies shall supersede the process adopted in Decision 05-01-055, and shall be as follows:<sup>93</sup>

- a. Commission staff and the IOUs will convene publicly-noticed meetings among their staff, EM&V contractors, and stakeholders to share key results and EM&V findings that might lead to improvements in the portfolio and identify best practices and possible improvements to evaluation methods. Such meetings will take place sometime around the middle of the program cycle or at such time when significant results from various EM&V projects are available. If so requested by parties or stakeholders, ED or IOUs, or both, should hold short informal meetings with groups or individual organizations, to discuss EM&V work progress and results.
- b. Commission staff and IOUs will convene ad hoc meetings (approximately quarterly) among Commission staff, EM&V contractors, IOU EM&V staff and IOU program managers to discuss work progress and results. These meetings are to provide for timely feedback to program design and implementation. The IOUs can

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<sup>93</sup> D.10-04-029 OP 10, 12

request meetings with ED to discuss work progress and results at any time.

- c. When significant results are produced by the EM&V work, and a technical report is not immediately pending, the Commission staff and/or the IOUs will provide informal written summaries of the results to the IOUs and other stakeholders. These written summaries will be posted on the same website used for posting EM&V work plans and comments.

7. **Dispute Resolutions.** A party may file a “Motion for Evaluation, Measurement and Verification Dispute Resolution” (EM&V Motion) with the assigned Administrative Law Judge for resolution of an EM&V matter. The EM&V Motion must include a statement from Commission staff giving its side of the dispute and documentation of an attempt at informal dispute resolution. The Administrative Law Judge may issue a Ruling to resolve the dispute. The filing party or the Commission staff may ask that the matter be resolved by the assigned Commission or the full Commission. In that case, the Administrative Law Judge (ALJ) will consult with the assigned Commissioner to determine the appropriate course of action. In this situation, the assigned Commissioner or ALJ may issue a Ruling to resolve the dispute. If the assigned Commissioner determines the matter should be brought before the full Commission, the ALJ or assigned Commissioner shall issue a Proposed Decision and allow for comment under Rule 14 of the Commission’s Rules of Practice and Procedure. An EM&V motion filed pursuant to D.10-04-029 may be used for the following purposes only:<sup>94</sup>

- Dispute over selection of an EM&V contractor;
- Disputes about project-specific final EM&V work plans;
- Disputes over results of EM&V studies or reports (except for Energy Division Verification Reports, which are issued via draft resolutions per D.08-12-059);

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<sup>94</sup> D.10-04-029 OP 7-9

- Disputes regarding final EM&V technical reports; and
- Disputes concerning public vetting of EM&V projects.

8. **Public Vetting Process.** ED shall determine which EM&V projects should be publicly vetted, and shall follow the process laid out in the Energy Division Straw Proposal, pages 8-11, issued by Ruling in A.08-07-021 on July 7, 2009.<sup>95</sup> Commission staff should coordinate with other pertinent state agencies wherever such coordination enhances the state's overall energy policy goals.<sup>96</sup> ED should weigh the value of public input on EM&V studies versus the extra time such input would entail.<sup>97</sup>

#### **XIX. Shareholder Incentive Mechanism**

At the time of issuance of this Policy Manual, the Shareholder Incentive Mechanism applicable to post-2012 programs is under consideration in R.12-01-005.

#### **XX. Advisory Groups**

1. **Purpose of Peer Review Groups (PRG).** Each IOU is advised by a Peer Review Group for the energy efficiency program evaluation and selection process. Each PRG shall include Energy Division and DRA staff, as well as an IOU-selected group of non-financially interested members with extensive energy efficiency expertise that are willing to serve as peer reviewers for the energy efficiency program evaluation and selection process.
2. **Role of PRGs.** As described in D.05-01-055 and D.07-10-032, members of each PRG will be expected to: (1) oversee the development of criteria and selection of government partnership programs, (2) review the IOUs' submittals to the Commission and assess the IOUs' overall portfolio plans, their plans for bidding

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<sup>95</sup> D.10-04-029 OP 11

<sup>96</sup> D.10-04-029 at 13-14

<sup>97</sup> Ibid. at 28

out pieces of the portfolio per the minimum bidding requirement and (3) review the bid evaluation utilized by the IOUs and their application of that criteria in selecting third-party programs. In addition, the four PRGs are expected to meet and assess the statewide portfolio in terms of its ability to meet or exceed short and long-term savings goals in compliance with these Rules. The PRG will not be responsible for the review of fund shifting.<sup>98</sup>

3. **Programs Advisory Groups.** The IOUs are encouraged to use Program Advisory Groups as a consultative resource for mid-cycle program changes or additions or for post-2014 portfolio planning. The IOUs should include discussion of a possible Programs Advisory Group role in their proposals to improve the competitive solicitation for third-party programs.<sup>99</sup>

## **XXI. Affiliate and Disclosure Rules**

1. **Transactions with IOU Affiliates.** To avoid anti-competitive behavior and cross-subsidies between IOUs and their affiliates, all transactions between the IOU administrator and any implementer that is an affiliate of PG&E, SCE, SDG&E or SoCalGas are banned, per D.05-01-055.
2. **Treatment of Energy Efficiency Service Providers.** The IOUs, RENs and CCAs will not provide preferential treatment to any provider of an energy efficiency service that uses energy efficiency program funds.
3. **Conflict of Interest.** Bidders for EM&V contracts, including program design evaluation and market assessment studies, shall provide full disclosure of any potential conflicts of interest, including all current non-energy efficiency related contracts with IOUs, RENs, CCAs and program implementers.

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<sup>98</sup> D.09-09-047 at 311

<sup>99</sup> D.12-05-015 at 371



**XXII. Process and Procedural Issues**

1. **Energy Efficiency Policy Manual Disclaimer.** This Policy Manual is a summary of Commission directives for energy efficiency. It does not supersede any Commission Decision. IOUs, RENS and CCAs are required to meet the orders of previous Commission decisions regardless of whether or not they are included in this policy manual. If there is any conflict between this Policy Manual and a Commission decision, the Commission's decision controls.
2. **Modifications to Policy Manual and Related Rules.** The assigned ALJ or Commissioner may issue a ruling directing Commission staff revisions to the Policy Manual when necessary.
3. **Complaints and Dispute Resolution.** Any program proposal for energy efficiency funding must describe a dispute resolution process to be used in dealing with complaints from end-use gas or electric consumers participating or attempting to participate in the program. In programs where the IOUs, RENS, and CCAs hold contracts with third parties, those contracts will also be required to include dispute resolution provisions.

## APPENDIX A: Reference Documents

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**1. Energy Action Plan**

<http://www.cpuc.ca.gov/PUBLISHED/REPORT/51604.htm>

**2. Energy Action Plan Update, February 2008**

[http://www.cpuc.ca.gov/NR/rdonlyres/58ADCD6A-7FE6-4B32-8C70-7C85CB31EBE7/0/2008\\_EAP\\_UPDATE.PDF](http://www.cpuc.ca.gov/NR/rdonlyres/58ADCD6A-7FE6-4B32-8C70-7C85CB31EBE7/0/2008_EAP_UPDATE.PDF)

**3. California Energy Efficiency Strategic Plan**

September 2008 Plan

<http://www.cpuc.ca.gov/NR/rdonlyres/D4321448-208C-48F9-9F62-1BBB14A8D717/0/EEStrategicPlan.pdf>

Action Plans can be found at:

<http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/eesp/index.htm>

**4. Standard Practice Manual.** Economic Analysis of Demand-Side Management Programs. October 2001.

<ftp://ftp.cpuc.ca.gov/puc/energy/electric/energy+efficiency/em+and+v/std+practice+manual.doc>

SPM 2001 Correction Memo. From D.07-09-043, Attachment 9, page 7 of 7 linked below for the "SPM Correction Memo of October 7, 1988"

<http://www.cpuc.ca.gov/NR/rdonlyres/3D41FF54-9809-4651-8898-78F93F84999B/0/CorrectionMemoSPM1071988.pdf>

SPM 2007 Clarification Memo From D.07-09-043, attached to this reference list.

<http://www.cpuc.ca.gov/NR/rdonlyres/A7C97EB0-48FA-4F05-9F3D-4934512FEDEA/0/2007SPMClarificationMemo.doc>

NTG Numerical Examples from D.07-09-043

<http://www.cpuc.ca.gov/NR/rdonlyres/101F0713-7277-43A8-883D-8EF2712EFA8A/0/NumericalExamplesNTGAdjtoTRCD0709043.pdf>

**5. Database for Energy Efficient Resources (DEER)**

<http://www.deeresources.com>

**6. Methodology and Forecast of Long Term Avoided Costs for the Evaluation of California Energy Efficiency Programs**

[http://www.ethree.com/CPUC/E3\\_Avoided\\_Costs\\_Final.pdf](http://www.ethree.com/CPUC/E3_Avoided_Costs_Final.pdf)

7. **CPUC Energy Efficiency Program Reporting Requirements Manual**

<http://eega.cpuc.ca.gov/StandardTables/GuidanceDocument.aspx>

8. **CPUC Energy Efficiency Program EM&V Protocols**

[ftp://ftp.cpuc.ca.gov/PUC/energy/electric/energy+efficiency/em+and+v/evaluator\\_sprotocols\\_final\\_adopetdviaruling\\_06-19-2006.doc](ftp://ftp.cpuc.ca.gov/PUC/energy/electric/energy+efficiency/em+and+v/evaluator_sprotocols_final_adopetdviaruling_06-19-2006.doc)

9. **D.04-09-060** Interim Opinion: Energy Savings Goals for Program Year 2006 and Beyond. See attached tables for the savings goals adopted in that decision, by IOU service territory.

[http://www.cpuc.ca.gov/PUBLISHED/FINAL\\_DECISION/40212.htm](http://www.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/40212.htm)

Subsequent decisions and that affected the goals are summarized in:

<http://www.cpuc.ca.gov/NR/rdonlyres/1B6275F6-DFE2-44EE-A273-6CC7E8D54CAA/0/AppendixP.pdf>

10. **D.05-01-055** Interim Opinion on the Administrative Structure for Energy Efficiency: Threshold Issues

[http://www.cpuc.ca.gov/PUBLISHED/FINAL\\_DECISION/43628.htm](http://www.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/43628.htm)

11. **D.05-04-051** Update Policy Rules For Post-2005 Energy Efficiency and Threshold Issues Related to Evaluation, Measurement and Verification of Energy Efficiency Programs

[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/45783.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/45783.PDF)

12. **D.05-09-043** Interim Opinion: Energy Efficiency Portfolio Plans and Program Funding Levels for 2006-2008 – Phase 1 Issues

[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/49859.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/49859.PDF)

13. **D.06-06-063** Interim Opinion: 2006 Update of Avoided Costs and Related Issues Pertaining To Energy Efficiency Resources

[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/57756.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/57756.PDF)

14. **D.07-09-043** Interim Opinion on Phase 1 Issues: Shareholder Risk/Reward Incentive Mechanism for Energy Efficiency Programs

[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/73172.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/73172.PDF)

15. **D.07-10-032** Interim Opinion on Issues Relating to Future Savings Goals and Program Planning for 2009-2011 Energy Efficiency and Beyond  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/74107.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/74107.PDF)
16. **D.08-01-006** Interim Opinion Denying Joint Petition for Modification of Decision 06-06-063  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/77638.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/77638.PDF)
17. **D.08-07-047** Decision Adopting Interim Energy Efficiency Savings Goals for 2012 Through 2020, and Defining Energy Efficiency Savings Goals for 2009 Through 2011  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/85995.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/85995.PDF)
18. **D.08-09-040** Decision Adopting the California Energy Efficiency Strategic Plan  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/91068.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/91068.PDF)
19. **D.09-05-037** Interim Decision Determining Policy and Counting Issues for 2009 to 2011 Energy Efficiency Programs  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/101543.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/101543.PDF)
20. **D.09-09-047** Decision Approving 2010 to 2012 Energy Efficiency Portfolios and Budgets  
<http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/GRAPHICS/107829.PDF>
21. **D.10-04-029** Decision Determining Evaluation, Measurement and Verification Processes for 2010 Through 2012 Energy Efficiency Portfolios  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/116710.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/116710.PDF)
22. **D.10-12-054** Decision Addressing Petition For Modification Of Decision 09-09-047  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/128605.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/128605.PDF)
23. **D.11-07-030** Third Decision Addressing Petition for Modification of Decision 09-09-047, 2010-12 Ex-Ante Value Update  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/139858.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/139858.PDF)
24. **D.12-05-015** Decision Providing Guidance on 2013-2014 Energy Efficiency Portfolios and 2012 Marketing, Education, and Outreach  
[http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/166830.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/166830.PDF)

R.09-11-014

25. **D.12-11-015** Decision Approving 2013-2014 Energy Efficiency Programs and Budgets

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M034/K299/34299795.PDF>

**APPENDIX B: GLOSSARY**  
**COMMON ENERGY EFFICIENCY**  
**TERMS AND DEFINITIONS**

**Adopted Program Budget**

The program budget as it is adopted by the Commission. Inclusive of costs (+/-) recovered from other sources.

**Advanced Technologies**

Measures or processes which exceed the efficiency or thermodynamic performance of standard energy using equipment or processes.

**Affiliate**

Any person, corporation, utility, partnership, or other entity 5% or more of whose outstanding securities are owned, controlled, or held with power to vote, directly or indirectly either by an administrator or any of its subsidiaries, or by that administrator's controlling corporation and/or any of its subsidiaries as well as any company in which the administrator, its controlling corporation, or any of the administrator's affiliates exert substantial control over the operation of the company and/or indirectly have substantial financial interests in the company exercised through means other than ownership. For purposes of these Rules, "substantial control" includes, but is not limited to, the possession, directly and indirectly and whether acting alone or in conjunction with others, of the authority to direct or cause the direction of the management of policies of a company. A direct or indirect voting interest of five percent (5%) or more by the administrator, its subsidiaries, or its affiliates in an entity's company creates a presumption of control.

**Avoided Costs**

Avoided costs refers to the incremental costs avoided by the investor-owned utility when it purchases power from qualifying facilities, implements demand-side management, such as energy efficiency or demand-response programs, or other wise defers or avoids generation from existing/new utility supply-side investments or energy purchases in the market. Avoided costs also encompass the deferral or avoidance of transmission and distribution-related costs. (D.08-01-006, Footnote 2)

**Baseline Data**

The state of performance and/or equipment that what would have happened in the

absence of the program induced energy efficiency.

**Coincident Peak Demand**

The metered or estimated demand of a device, circuit, or building that occurs at exactly the same time as the system peak for a given year and weather condition.

**Community Choice Aggregators**

Organizations created by local governments pursuant to Assembly Bill 117 for the purpose of procuring power and administering energy efficiency programs on behalf of local citizens.

**Competitive Solicitation**

The process whereby parties are requested to submit bids offering innovative approaches to energy savings or improved program performance.

**Conservation**

Reduction of a customer's energy use achieved by relying on changes to the customer's behavior which may result in a lower level of end use service.

**Conservation Measures**

Activities and/or behaviors aimed at reducing energy consumption.

**Conservation Programs**

Programs which are intended to influence customer behavior as a means to reduce energy use.

**Cost Effectiveness**

An indicator of the relative performance or economic attractiveness of any energy efficiency investment or practice when compared to the costs of energy produced and delivered in the absence of such an investment.

**Cream Skimming**

Cream skimming results in the pursuit of a limited set of the most cost-effective measures, leaving behind other cost-effective opportunities. Cream skimming becomes a problem when lost opportunities are created in the process.

**Cross Subsidization**

Benefits enjoyed by one group, such as a customer class, which are funded by another group.

**Custom Measures/projects**

Energy efficiency efforts where the customer financial incentive and the ex ante energy savings are determined using a site-specific analysis of the customer's facility (D.11-07-030 page 31).

**Customer**

Any person or entity that pays an electric and/or gas bill to an IOU or CCA and that is the ultimate consumer of goods and services including energy efficiency products, services, or practices.

**Cumulative Savings**

As clarified in D.07-10-032, cumulative savings represent the savings in that year from all previous measure installations (and reflecting any persistence decay that has occurred since the measures were installed) plus the first-year savings of the measures installed in that program year.

**Deemed Measure**

A prescriptive energy efficiency measure.

**Delayed Installation**

Products which are claimed as installed in a specific quarter but are likely to be installed at a later date (D.11-07-030, page 21).

**Dual Test**

The requirement that an energy efficiency activity pass both the TRC and the PAC cost-effectiveness test.

**E3 Calculator**

The E3 calculator is a model developed by Energy Environmental Economics (or "E3" for use by the IOUs to map Commission-adopted avoided costs to energy efficiency programs for cost-effectiveness calculations.

**Effective Useful Life (EUL)**

An estimate of the median number of years that the measures installed under the program are still in place and operable.

**Electricity Savings**

Reduced electricity use (or savings) produced by either energy efficiency investments which maintain the same level of end use service or conservation actions which usually reduce energy use by reducing the quantity or quality of the baseline energy services



demanded.

### Emerging Technologies

New energy efficiency technologies, systems, or practices that have significant energy savings potential but have not yet achieved sufficient market share (for a variety of reasons) to be considered self sustaining or commercially viable. Emerging technologies include late stage prototypes or under-utilized but commercially available hardware, software, design tools or energy services that if implemented appropriately should result in energy savings.

### Emissions Reductions

The Commission requires annual reporting of reduced emissions of carbon dioxide (CO<sub>2</sub>), sulfur oxides (SO<sub>x</sub>), nitrous oxides (NO<sub>x</sub>), and particulate matter (PM<sub>10</sub>) as a result of energy efficiency savings. The IOUs use the E3 calculator to compute the annual electric and natural gas emissions reductions, which are the units implemented in the year times the annual emission reduction for a particular measure. The E3 calculator calculates values of CO<sub>2</sub> in tons per kWh or therms; NO<sub>x</sub> and PM<sub>10</sub> are in pounds per kWh or therms.

The following equations are from the “E3 Calculator Tech Memo” found at the following web link:

<http://ethree.com/documents/E3%20EE%20calcs/E3%20Calculator%20TechMemo%205d.doc>

### Electric Reductions: CO<sub>2</sub> tons per year (*Emission[E][CO<sub>2</sub>]*)

$$Emission[E][CO_2]_y = \sum_{Q=1+(y-1)*4}^{y*4} (IN_{M,Q} * kWh_{A_M} * NTG_M * ER[CO_2]_M)$$

Where

- y = year of consideration. 2006 = 1. “Total Annual” used for years 2008 through the end of the implementation period.
- Q = Quarter of the year. Jan-Mar 2006 = 1.
- IN<sub>M,Q</sub> = # of incremental of measures implemented in quarter Q.
- NTG<sub>M</sub> = Net-to-Gross ratio for measure M.
- ER[CO<sub>2</sub>]<sub>M</sub> = Emission rate of CO<sub>2</sub> in tons per kWh of measure M. (The emissions rate for each measure is calculated using the product of the hourly measure savings load shape and the hourly heat

rate for the IOU.).

$kWh_{AM}$  = Annual kWh reduction for measure  $M$ .

NOX and PM-10 equations are the same. Just replace [CO2] with the appropriate indicator. Note that CO2 emission rate is in tons per kWh. NOX and PM-10 are in pounds per kWh.

### Gas Reductions: CO2 tons per year (*Emission[G][CO2]*)

$$Emission[G][CO2]_y = \sum_{Q=1+(y-1)*4}^{y*4} (IN_{M,Q} * Th_{AM} * NTG_M * ER[CO2]_{GCT})$$

$$Emission[G][CO2]_y = \sum_{Q=1+(y-1)*4}^{y*4} (IN_{M,Q} * Th_{AM} * NTG_M * ER[CO2]_{GCT})$$

Where

$y$  = year of consideration. 2006 = 1. "Total Annual" used for years 2008 through the end of the implementation period.

$Q$  = Quarter of the year. Jan-Mar 2006 = 1.

$IN_{M,Q}$  = # of incremental of measures implemented in quarter  $Q$ .

$NTG_M$  = Net-to-Gross ratio for measure  $M$ .

$ER[CO2]_{GCT}$  = Emission rate of CO2 in tons per therm, based on the gas combustion type (GCT) specified on the input sheet for the measure.

$Th_{AM}$  = Annual gas reduction (in therms) for measure  $M$ .

NOX and PM-10 equations are the same. Just replace [CO2] with the appropriate indicator. Note that CO2 emission rate is in tons per Therm. NOX and PM-10 are in pounds per Therm.

### Energy Efficiency Groupware Application (EEGA)

The IOUs post reports to the EEGA webpage, which is accessible to the public:

<http://eega.cpuc.ca.gov>.

### End Use

- 1) The purpose for which energy is used (e.g. heating, cooling, lighting).
- 2) A class of energy use that an energy efficiency program is concentrating efforts upon. Typically categorized by equipment purpose, equipment energy use intensity, and/or building type.

### **Energy Efficiency**

Activities or programs that stimulate customers to reduce customer energy use by making investments in more efficient equipment or controls that reduce energy use while maintaining a comparable level of service as perceived by the customer.

### **Energy Efficiency Measure**

An energy using appliance, equipment, control system, or practice whose installation or implementation results in reduced energy use (purchased from the distribution utility) while maintaining a comparable or higher level of energy service as perceived by the customer. In all cases energy efficiency measures decrease the amount of energy used to provide a specific service or to accomplish a specific amount of work (e.g., kWh per cubic foot of a refrigerator held at a specific temperature, therms per gallon of hot water at a specific temperature, etc). For the purpose of these Rules, solar-powered, non-generating technologies are eligible energy efficiency measures (D.09-12-022, OP 1).

### **Energy Efficiency Programs**

Programs that reduce customer energy use by promoting energy efficiency investments or the adoption of conservation practices or changes in operation which maintain or increase the level of energy services provided to the customer.

### **Energy Efficiency Savings**

The level of reduced energy use (or savings) resulting from the installation of an energy efficiency measure or the adoption of an energy efficiency practice, subject to the condition that the level of service after the investment is made is comparable to the baseline level of service. The level of service may be expressed in such ways as the volume of a refrigerator, temperature levels, production output of a manufacturing facility, or lighting level per square foot.

### **Evaluation, Measurement and Verification (EM&V)**

Activities that evaluate, monitor, measure and verify performance or other aspects of energy efficiency programs or their market environment.

### **Evaluation Project Budget**

The project level evaluation budget as it is defined by the program administrators or Energy Division for internal program budgeting and management purposes. Inclusive of direct and allocated overhead and costs (+/-) recovered from other sources.

### **Ex Ante Values**

Estimated savings values calculated based on assumptions prior to the evaluation of the portfolio cycle. These savings reflect the IOU reported savings, which are trued up with final evaluation.

### **Ex Ante Review**

The review process that occurs before savings for a measure or project savings claim is “frozen” to verify that the ex ante values used to calculate the reported savings are reasonable and based on best available information.

### **Financial Incentive**

Financial support (e.g., rebates, low interest loans, free technical advice) provided to customers as an attempt to motivate the customers to install energy efficient measures or undertake energy efficiency projects. (See Rebate)

### **Free Drivers**

A free driver is a non-participant who adopted a particular efficiency measure or practice as a result of a utility program. (From April 2006 EM&V Protocols)

### **Free riders (Free Ridership)**

Program participants who would have installed the program measure or equipment in the absence of the program.

### **Fuel Substitution**

Programs which are intended to substitute energy using equipment of one energy source with a competing energy source (e.g. switch from electric resistance heating to gas furnaces).

### **Funding Cycle**

Period of time for which funding of energy efficiency programs have been approved by the Commission.

### **Gas Savings**

Reduced natural gas usage (or savings) produced by either energy efficiency investments which maintain the same level of end use service or conservation actions which can reduce energy use by reducing the quantity or quality of the baseline services provided.

### **Gross Savings**

Gross savings count the energy savings from installed energy efficiency measures

irrespective of whether or not those savings are from free riders, i.e., those customers who would have installed the measure(s) even without the financial incentives offered under the program. Gross savings are adjusted by a net-to-gross ratio to produce net savings, that is, to remove the savings associated with free riders.

### **Gross Realization Rate**

Gross Realization Rate (GRR) is the ratio of achieved energy savings to predicted energy savings; as a multiplier on Unit Energy Savings, the GRR takes into account the likelihood that not all Commission-approved projects undertaken by IOUs will come to fruition.

### **Hard to Reach, Residential**

Those customers who do not have easy access to program information or generally do not participate in energy efficiency programs due to a language, income, housing type, geographic, or home ownership (split incentives) barrier. These barriers are defined as:

Language – Primary language spoken is other than English, and/or

Income – Those customers who fall into the moderate income level (income levels less than 400% of the federal poverty guidelines and/or

Housing Type – Multi-family and Mobile Home Tenants, and/or

Geographic – Businesses in areas other than the San Francisco Bay Area, San Diego area, Greater Los Angeles Area (Los Angeles, Orange, San Bernardino, Riverside and Ventura counties) or Sacramento, and/or

Home Ownership – Renters

### **Incremental Measure Cost**

The additional cost of installing a more efficient measure calculated from the price differential between energy-efficient equipment and services and standard or baseline state. These costs include any direct or indirect incremental cost that is attributable to the energy efficiency activity. This may include design assistance, surveys, materials and labor, commissioning costs, etc.

### **Information & Education**

Information and education programs can provide a wide range of activities designed to inform or educate a customer or customer group. Generally these range from in-depth, one-on-one, on-site or centrally located classroom style instruction in topics related to energy efficiency, to programs that target information to specific types of customers, to general information provided to a wide range of customers, to short inexpensive public service announcements on FCC approved communication frequencies. Programs intended to provide customers with information regarding generic (not customer-specific) conservation and energy efficiency opportunities. For these programs, the

information may be unsolicited by the customer.

### **Innovation Incubator**

A low-cost, stand-alone program designed to grow innovative energy saving programs and processes for the larger portfolio over the long term. The incubator funds new program ideas that meet reasonable scientific scrutiny for potentially cost-effective energy savings and peak reduction.

### **Installation Rate**

Installation Rate is the ratio of the number of verified installations of a measure divided by the number of claimed installations rebated by the utility during a claim period. Typically Installation Rates used on an ex ante basis will be based upon previous ex post evaluations.

### **Institutional Barriers**

A type of market barrier: In this case, the internal organizational hurdles that inhibit the evaluation and or choice to take energy efficiency actions.

### **Least Cost/Best Fit**

The procurement of cost-effective supply and demand-side resources that, regardless of ownership, meet capacity and energy deliverability requirements. Energy efficiency resources are constructed from the bottoms up approach that aggregates the demand and energy savings from various energy-saving measures and activities into applicable end-use categories such as space cooling, space heating, lighting, and refrigeration, in order to provide near- and long-term peaking, intermediate, and baseload requirements.

### **Levelized Cost**

An estimate of the annualized cost of installing an energy efficiency measures divided by the annual energy savings. Typically calculated by multiplying the incremental cost of the measure by capital recovery factor (function of discount rate and expected useful life of the measure) and then dividing by annual energy savings.

### **Load Management**

Programs which reduce or shift electric peak demand away from periods of high cost electricity to non-peak or lower cost time periods, with a neutral effect on or negligible increase in electric use.

### **Lost Opportunities**

Energy efficiency measures that offer long-lived, cost-effective savings that are fleeting

in nature. A lost opportunity occurs when a customer does not install an energy efficiency measure that is cost-effective at the time, but whose installation is unlikely to be cost-effective if the customer attempts to install the same measure later.

### **Market Effect**

A market effect is a change in the structure or functioning of a market or the behavior of participants in a market that result from one or more program efforts. Typically these efforts are designed to increase in the adoption of energy-efficient products, services or practices and are causally related to market interventions. Market effects include reductions in energy consumption and/or demand in a utility's service area caused by the presence of the DSM program, beyond program related gross or net savings of participants. These effects could result from: (a) additional energy efficiency actions that program participants take outside the program as a result of having participated; (b) changes in the array of energy-using equipment that manufacturers, dealers and contractors offer all customers as a result of program availability; and (c) changes in the energy use of non-participants as a result of utility programs, whether direct (e.g., utility program advertising) or indirect (e.g., stocking practices such as (b) above or changes in consumer buying habits)." Participant spillover is described by (a), and non-participant spillover, by (b) and (c). Some parties refer to non-participant spillover as "free-drivers." (From EM&V Protocols, April 2006)

### **Market Transformation**

Decision (D.)09-09-047, defines market transformation as "long-lasting, sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where continuation of the same publicly-funded intervention is no longer appropriate in that specific market. Market transformation includes promoting one set of efficient technologies until they are adopted into codes and standards (or otherwise adopted by the market), while also moving forward to bring the next generation of even more efficient technologies to the market."<sup>100</sup>

### **Marketing, Education and Outreach (ME&O)**

Communications activities designed to identify, reach and motivate potential customers

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<sup>100</sup>D.09-09-047 at p.354, OP 10.

to take actions to either learn more about or invest in energy efficiency opportunities.

### **Measures**

- 1) Specific customer actions which reduce or otherwise modify energy end use patterns.
- 2) A product whose installation and operation at a customer's premises results in a reduction in the customer's on-site energy use, compared to what would have happened otherwise.

### **Net savings**

The savings realized when free ridership is accounted for. The savings is calculated by multiplying the gross savings by the net to gross ratio.

### **Net to Gross Ratio**

A ratio or percentage of net program savings divided by gross or total impacts. Net to gross ratios are used to estimate and describe the free-ridership that may be occurring within energy efficiency programs.

### **Non-price Factors**

Those factors included in cost effectiveness tests, other than commodity prices and transportation and distribution costs, e.g., environmental factors.

### **Non-Resource Program**

Energy efficiency programs that do not directly procure energy resources that can be counted, such as marketing, outreach and education, workforce education and training, and emerging technologies.

### **Participant Test**

The Participant Test is the measure of the quantifiable benefits and costs to the customer due to participation in a program. Since many customers do not base their decision to participate in a program entirely on quantifiable variables, this test cannot be a complete measure of the benefits and costs of a program to a customer. (See SPM link under Attachment A.)

### **Partnership**

Coordinated efforts of a utility and a local government or other entity to use the strengths of both parties to achieve energy savings goals.

### **Peak Demand, Reported (per OP 1 of D.06-06-063 as modified by D.12-05-015)**

The peak megawatt load reduction contained in the most recently adopted DEER used



to estimate and verify peak demand savings values. The DEER method utilizes an estimated average grid level impact for a measure between 2 PM and 5 PM during a “heat wave” defined by a three consecutive weekdays for weather conditions that are expected to produce a regional grid peak event. DEER utilizes a 3-day “heat wave” that occurs on consecutive days in June through September such that the three consecutive days do not include weekends or holidays, and where the heat wave is ranked by giving equal weight to the peak temperature during the 72-hour period, the average temperature during the 72-hour period and the average temperature from noon – 6 PM over the three days.

**Peak Demand-General (kW)**

- 1) The maximum level of metered demand during a specified period, such as a billing month, or during a specified peak demand period.
- 2) Extremely high energy use, usually with reference to a particular time period.

**Peak Savings- Coincident (kW)**

The estimated peak (e.g. highest) demand savings (MW or kW) from a program for a specific time, date, and location coincident with the forecasted system peak for a given area and a given set of weather conditions. This estimate must also include consideration of the likelihood that the equipment is actually on at the time of coincident peak. Usage of this definition: Resource planning- for making adjustments to forecasts of peak usage for understanding reserve margins and reliability purposes.

**Peak Savings- Daily Average (kW)**

The average peak demand savings (kWh impacts/ # of hours in the peak rate period) for a given utility during their peak season. Example for SCE-Peak period is for summer weekdays from 12-6 PM. So - daily average savings would be the number of kWh saved/ # of kWhs saved for all weekday peak periods (= kWh/5 days/week \* 12 weeks/ summer\* 6 hours/day = kW average. Usage: Cost effectiveness analysis, primarily for valuing energy savings that occur during the peak period using “peak” average avoided costs.

**Peak Savings –Non coincident (kW)**

Estimated highest level of peak savings( kW or MW) for a given program during the peak time period for a given utility on the hottest day of a “normal” weather year. Thus if a group of measures saved 1MW at 2PM, 1.7 MW at 3PM, 1.6 MW at 4PM, 1.0 MW at 5 PM and 1.2 MW at 6 PM, the peak non coincident savings would be 1.7 MW. This savings estimate does not take into account how many of the affected devices or equipment will be operating during the peak time period. Usage: Cost effectiveness analysis and procurement.

**Peer Review Group (PRG)**

A subset of the Program Advisory Group consisting of non-financially interested members who will review utility submittals to the Commission, assess overall portfolio plans, plans for bidding out pieces of the portfolio, and the bid evaluation criteria for selecting third-party programs.

**Performance Uncertainties**

A market barrier: refers to new technologies or systems whose efficiency or system performance levels are uncertain due to lack of experience.

**Portfolio**

All IOU and non-IOU energy efficiency programs funded by ratepayers that are implemented during a program year or cycle. May also refer to a group of programs sponsored, managed, and contracted for by a particular IOU.

**Portfolio Reporting**

Regularly scheduled reporting by the portfolio administrators directly to the Commission. Metrics reported are: portfolio budgets and expenditures, measures installed, services rendered, and other program activity deemed relevant to Energy Division's responsibility to support the Commission's responsibilities of quality assurance, policy oversight, and EM&V.

**Pre-commercialization**

A phase in the life of a product before it is readily available on the market.

**Program**

A collection of defined activities and measures that

- are carried out by the administrator and/or their subcontractors and implementers,
- target a specific market segment, customer class, a defined end use, or a defined set of market actors (e.g. designers, architects, homeowners),
- are designed to achieve specific efficiency related changes in behavior, investment practices or maintenance practice in the energy market,
- and are guided by a specific budget and implementation plan.

**Program Activities**

Any action taken by the program administrator or program implementer in the course of implementing the program.

**Program Administrator**

An entity tasked with the functions of portfolio management of energy efficiency programs and program choice.

**Program Administrator Cost (PAC) Test**

Under portfolio evaluation of cost effectiveness, the PAC test contains the program benefits of the TRC test, but costs are defined differently to include the costs incurred by the program administrator but not the costs incurred by the participating customer. (See the SPM link under Attachment A.)

**Program Advisory Group (PAG)**

Advisory groups for each utility service area composed of energy efficiency experts representing customer groups, academic organizations, environmental organizations, agency staff and trade allies in the energy market.

**Program Cycle**

The period of time over which a program is funded and implemented.

**Program Implementation Plan**

A detailed description of a program that includes program theory, planned program processes, expected program activities, program budget, projected energy savings and demand reduction and other program plan details as required by the Commission, assigned ALJ, or Energy Division.

**Program Implementers**

An entity or person that puts a program or part of a program into practice based on contacts or agreements with the portfolio manager.

**Program Strategy**

The set of activities deployed by the program in order to achieve the program's objectives.

**Program Year(s)**

The calendar year(s) during which the program operates.

**Ratepayer**

Those customers who pay for gas or electric service under regulated rates and conditions of service.

**Rebate**

R.09-11-014

A financial incentive paid to the customer in order to obtain a specific act, typically the installation of energy efficiency equipment.

**Remaining Useful Life (RUL)**

An estimate of the median number of years that an measure being replaced under the program would remain in place and operable had the program intervention not caused the replacement.

**Report Month**

The month for which a particular monthly report is providing data and information. For example, the report month for a report covering the month of July 2006, but prepared and delivered later than July 2006, would be July 2006.

**Resource Programs**

Energy Efficiency programs that generate energy savings that are quantified and tracked by program administrators.

**Resource Value**

An estimate of the net value of reliable energy (e.g., kWh, therms) and capacity (e.g., kW, Mcfd) reductions resulting from an energy efficiency program. This includes the net present value of all of the costs associated with a program and all of the estimated benefits (both energy and capacity). The calculation of resource value and associated benefits should be consistent with the avoided costs adopted in the most recent Commission proceeding or otherwise provided for by the Commission.

**Savings Decay**

The reduction of cumulative savings due to previous measure installations passing their Remaining Useful Life or Effective Useful Life. Per D.09-09-047 and until EM&V results inform better metrics, IOUs may apply a conservative deemed assumption that 50% of savings persist following the expiration of a given measure's life.<sup>101</sup>

**Service Area**

The geographical area served by a utility.

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<sup>101</sup>D.09-09-047 at p.334

**Short Term/Long Term**

Planning terms referring to the timing or expected timing of program activities, program impacts, or program funding. Short term indicates program activities, program impacts, or program funding that occurs during the current program cycle. Long term indicates program activities, program impacts, or program funding that occurs beyond the current program cycle.

**Source-BTU Consumption**

Conversion of retail energy forms (kWh, therms) into the BTU required to generate and deliver the energy to the site. This conversion is used to compare the relative impacts of switching between fuel sources at the source or BTU level for the three-prong test required for fuel-substitution programs.

**Standard Practice Manual (SPM)**

The California Standard Practice Manual: Economic Analysis of Demand-side Programs and Projects is jointly issued by the California Public Utilities Commission and the California Energy Commission. The SPM provides the definitions for the standard cost effectiveness tests and their components used for energy efficiency programs. SPM tests are further clarified in Commission Decisions as cited in the Cost-Effectiveness Rules in this Policy Manual.

**Statewide**

Energy efficiency programs or activities that are essentially similar in design and available in all Commission regulated utility service areas in California.

**Third Party/Non-IOU**

Non-regulated implementers of ratepayer funded energy efficiency activities.

**Total Resource Cost Test (TRC)**

The TRC test measures the net resource benefits from the perspective of all ratepayers by combining the net benefits of the program to participants and non-participants. The benefits are the avoided costs of the supply-side resources avoided or deferred. The TRC costs encompass the cost of the measures/equipment installed and the costs incurred by the program administrator. (See SPM link under Attachment A.)

**Unit Energy Consumption**

Unit Energy Consumption (UEC) is the expected annual energy consumption of a technology, group of technologies, or process.

**Unit Energy Savings**

R.09-11-014

Unit Energy Savings (UES) is the estimated difference in annual energy consumption between a measure, group of technologies or processes and baseline, expressed as kWh for electric technologies and therms for gas technologies

### **Upstream Incentives**

Incentives provided to manufacturers or retailers of high efficiency products in order to encourage their production and sales, in contrast to the more common downstream incentives, which are provided directly to customers as rebates.

### **Workpapers**

Documentation prepared by the program administrators or program implementers that documents the data, methodologies, and rationale used to develop ex-ante estimates that are not in already fully contained in the Database for Energy Efficiency Resources (DEER) (D.10-04-029, footnote page 20).

### **Zero Net Energy**

Zero Net Energy is defined as the implementation of a combination of building energy efficiency design features and on-site clean distributed generation such that the amount of energy provided by on-site renewable energy sources is equal to the energy consumed by the building annually, at the level of a single “project” seeking development entitlements and building code permits. Definition of zero net energy at this scale enables a wider range of technologies to be considered and deployed, including district heating and cooling systems and/or small-scale renewable energy projects that serve more than one home or business. (D.07-10-032, Footnote 42.)

**(END OF APPENDIX B)**

**APPENDIX C: ADOPTED FUND SHIFTING RULES**

As modified by D.12-11-015, 12/22/2011 ACR (R.09-11-014), D.09-09-047, D.09-05-037, D.07-10-032, D.06-12-013, and D.05-09-043

<b>Fund Shifting Category</b>	<b>Shifts Among Budget Categories, Within Program</b>	<b>Shifts Among Programs, Within Category</b>	<b>Shifts Among Categories</b>
<b>Statewide Program (except ET, ME&amp;O, and C&amp;S)</b>	No formal Commission review/approval required	No formal Commission review/approval required	Advice letter required for shifts >15% between statewide program categories in either direction (based on each category funding level) per annum. See rules below for shifting away from ET, ME&O, and C&S.
<b>Third Party Programs (competitively bid)</b>  (See Notes Below)	No formal Commission review/approval required	No formal Commission review/approval required	Advice Letter required for shifts >15% between statewide and Third Party (competitively bid) program categories in either direction (based on total category funding level) per annum. Advice Letter is required if allocation to competitively bid programs falls below 20% of total portfolio funding.
<b>Local Government and Institutional Partnerships</b>  (See Notes Below)	No formal Commission review/approval required	No formal Commission review/approval required	Advice Letter required for shifts >15% between statewide and Local Government and Institutional Partnership program categories in either direction (based on category funding level) per annum.
<b>Other Programs</b>  (See Notes Below)	No formal Commission review/approval required	No formal Commission review/approval required	Advice Letter required for shifts >15% between program categories in either direction (based on category funding level) per annum.

<p><b>Statewide C&amp;S / ET / Marketing Education &amp; Outreach</b></p> <p>(See Notes Below)</p>	<p>No formal Commission review/approval required</p>	<p>Advice Letter required for shifts that would reduce any of these programs by more than 1% of budgeted levels</p>	<p>Advice letter required for shifts that would reduce any of these programs by more than 1% of budgeted levels.</p>
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**Notes**

1. Any fund shifting will be shown on the quarterly fund shifting report which will be provided to the Energy Division beginning 7/1/13 (and every 90 days thereafter).
2. No program or sub-program shall be eliminated except through the Advice Letter process.
3. For adding new programs, except those chosen during a competitive process, an Advice Letter must be filed.
4. "Third Party Programs" include any third-party programs that are competitively bid and count towards the 20% competitive bidding requirement. In aggregate, these programs constitute a twelfth category (in addition to the 11 statewide program categories), subject to the 15% fund-shifting rule requiring an Advice Letter if the amount transferred from this category is greater than 15% in either direction. Fund-shifting of any amount within this twelfth program category is allowed without an Advice Letter.
5. "Local Government and Institutional Partnerships." In aggregate, these programs constitute a thirteenth category (in addition to the 11 statewide program categories, and third-party programs), subject to the 15% fund-shifting rule requiring an Advice Letter if the amount transferred from this category is greater than 15% in either direction. Fund-shifting of any amount within this thirteenth program category is allowed without an Advice Letter.
6. "Other Programs" include local programs and any other programs not capture in the aforementioned categories. In aggregate, these programs constitute a fourteenth category (in addition to the 11 statewide program categories, third-party programs, and local government and institutional partnerships), subject to the 15% fund-shifting rule requiring an Advice Letter if the amount transferred from this category is greater than 15% in either direction. Fund-shifting of any amount within this fourteenth program category is allowed without an Advice Letter.



7. The 15% fund-shifting rule, requiring an Advice Letter if the amount transferred from this category is greater than 15% in either direction, is applied to the category funding level in the authorized budget adopted in the compliance filing pursuant to the most recent authorizing decision (or the decision itself, if there is no compliance filing).
8. Utility program administrator may carryover/carryback funding during the current program cycle without triggering a review/approval process.
9. Changes to incentive levels or modifications to program design (such as changes to customer eligibility requirements) will not trigger Energy Division or formal Commission review. Program administrators will notify the Commission of all incentive level changes that take place through the Program Implementation Plan Addendum process.
10. Advice letters are subject to GO 96B.
11. Marketing Education & Outreach and EM&V programs are subject to overall caps adopted in D.09-09-047 OP 13. Program administrators may request fund shifting augmentations if they wish to increase budget caps. In addition, the fund shifting changes adopted in D.09-09-047 are not intended to change Rule II.2 of the Energy Efficiency Policy Manual V.5 as applied to EM&V and ME&O spending below the adopted caps, nor to change the fund shifting rules for C&S or Emerging Technologies programs.

## APPENDIX D: Reporting Requirements for Energy Efficiency

### Introduction

The following section summarizes reporting requirements<sup>102</sup> for IOUs, and a new class of non-IOU program implementers, the Regional Energy Efficiency Networks (RENs) and Community Choice Aggregators (CCAs.) This includes monthly, quarterly, and annual reporting requirements, as well as ad-hoc and tracking data reporting requirements.

To maintain consistency in program reporting, RENs and CCAs will adhere to the same reporting specifications used by the IOUs for monthly and quarterly program tracking and the annual report. Additionally, Energy Division may require RENs and CCAs to submit monthly narrative reports, which enable staff to track and perform a variety of specialized activities. Detailed specifications for these reports are found on the Energy Efficiency Groupware Application (EEGA.) [[www.eega.cpuc.ca.gov](http://www.eega.cpuc.ca.gov)]

### 1) Monthly Reports

IOUs, RENs and CCAs are required to submit monthly status reports in accordance with current Energy Division guidance<sup>103</sup>. The reporting period for each monthly report will be *through the month prior to the submittal date*.

#### a) Program Definitions

The values below are to be assigned for each program in the utility or program implementer's portfolio. The values below should be updated with each portfolio cycle to reflect the current makeup of the energy efficiency portfolio. This table would allow Commission staff to quickly group the monthly expenditure and energy savings data.

For each program the following information should be provided and if it is a pilot program it should be flagged.

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<sup>102</sup> All templates referenced in this document can be accessed under the "Resources" tab under "Guidance Documents" tab of <http://eega.cpuc.ca.gov>

<sup>103</sup> Energy Efficiency Program Reporting Timeline can be accessed on The "Documents" tab under Report Categories "Adhoc Documents"

<b>Program Type</b>	<b>Target Sector</b>	<b>Program Status</b>	<b>Utility Grouping</b>	
Core-SW	Agricultural	New	Agricultural 3P Programs	Industrial 3P Programs
Core-SW/3P	Commercial	Existing	Calculated Incentives	Integrated Demand-Side Management
Government Partnerships	Cross-Cutting	Revised	Codes and Standards	Market Transformation
3P	Industrial		Commercial 3P Programs	Marketing Education and Outreach
	Residential		Continuous Energy Improvement	MFEER
			Deemed Incentives	New Construction
			Emerging Technologies	Plug Load Appliance
			Energy Advisor	Residential 3P Programs
			Financing Programs	Whole House
			Government Partnerships	Workforce Education and Training
			HVAC	

**b) Frequency**

The due date for monthly reports is the first day of the month 30 days following the month of the report.

**2) Quarterly Reports**

**a) Cap and Target Report**

The Cap and Target Report is required by Energy Division in order to identify if a particular program budget category is exceeding the percentage caps and target set by OP 13 of D.09-09-047 (i.e. 10% administrative cap). The report shows program implementer expenditures, third party expenditures and total portfolio expenditures, to-date, broken up by the following budget categories and sub-categories:

- i) Administrative Costs
  - (1) IOU/Program Implementer (REN, CCA)
  - (2) Third Party and Partnership
- ii) Marketing and Outreach Costs
  - (1) Marketing and Outreach
  - (2) Statewide Marketing and Outreach
- iii) Direct Implementation Costs
  - (1) Incentives and Rebates
  - (2) Non-incentives and Rebates
  - (3) Target Exempt Programs
- iv) EMV Costs

**b) Fund Shift Report**

The intent of this report is to track any significant shifts in funding across the portfolio and ensure that Commission procedures were followed in getting approval for such shifts. This report lists every program in a program implementer portfolio and provides the following fields:

- i) Full Portfolio Cycle Authorized Budget
- ii) Individual Year Authorized Budget
- iii) Roll Over from/Carry Forward to Previous Year
- iv) Individual Year Operating Budget
- v) Funds Transferred In (Cumulative for Year)
- vi) Funds Transferred Out (Cumulative for Year)
- vii) Revised Individual Year Operating Budget
- viii) Annual Fund Shift Threshold
- ix) Advice Letter Submitted & Approved

**c) Frequency of Cap and Target and Fund Shifting Reports:**

The due date for monthly reports is the first day of the month 30 days following the month of the report.

**3) Utility, REN and CCA Program Tracking Data**

The quarterly program tracking data will be the primary source that is used for reporting utility, REN and CCA accomplishments, evaluation sampling, and cost effectiveness calculations.

**a) Tracking Data Specifications**

The data specification will be posted under the “Guidance” tab of <http://eega.cpuc.ca.gov>.

**b) Frequency of Submittal of Tracking Data**

Quarterly reports of are due the first of the third month following the end of the quarter.

**4) Program Implementation Plans (PIP)**

**a) Compliance Filing PIP**

PIPs should be filed as part of the utilities compliance advice letter filings. The “current PIP” is the version of the implementation plan currently in effect. The approved PIP should be posted to EEGA.

**b) PIP Addendum Process**

Starting in 2011, the PIPs will be updated using the PIP addendum process. All continued programs are updated using the PIP addendum process, unless the program is new.

- i) Template and Trigger Definition – There are 11 situations that trigger a PIP addendum be posted. These 11 “triggers” are defined in a document titled: “PIP Addendum Trigger Definitions\_DISTRIBUTE\_V01.doc” that can be found at under the “Guidance” tab on EEGA:

<http://eega.cpuc.ca.gov/StandardTables/GuidanceDocument.aspx>

- (1) Reporting Instructions
- (2) PIP Addendum – Definitions

## **5) Program Performance Metrics Annual Reporting**

### **a) Excel Template**

A standardized template for reporting Program Performance Metrics is available under the “Guidance” tab on EEGA:

[<http://eega.cpuc.ca.gov/StandardTables/GuidanceDocument.aspx>]

- i) Reporting Templates [drop down]
- ii) PPM spreadsheet and narrative template

### **b) Narrative Template**

Each annual PPM report must include a narrative a template for which is included in the in the PPM Spreadsheet and narrative spreadsheet file cited above.

**APPENDIX E: Custom Project Review Process**

**Energy Division Process for Review of  
Investor Owned Utility Custom Measure *Ex Ante* Values**

**Introduction:**

This document details how the California Public Utilities Commission (Commission) will review the *ex ante* energy savings claims of Investor-Owned Utilities (IOUs) implementing custom measures or projects in the 2010-2012 Energy Efficiency program cycle.

Custom measures and projects are energy efficiency efforts where the customer financial incentive and the *ex ante* energy savings are determined using a site-specific analysis of the customer's existing and proposed equipment, and an agreement is made with the customer to pay the financial incentive upon the completion and verification of the installation. The efforts are by definition unique, each with their own characteristics. Parameters that determine estimated energy savings from a custom measure or project are more variable and less predictable without a site-specific analysis than the more common deemed measures for which savings parameters can be predetermined. As such, it is necessary to establish a clear process by which *ex ante* energy savings estimates from custom measures and projects can be reviewed in real-time as such measures and projects are identified and implemented.

An effective custom measure and project review process balances the needs of program participants who are investors and beneficiaries, the IOUs who administer the programs, and ratepayers who provide incentive funding contingent on adequate oversight of their investment. The process identified here aims to strike that balance. This review process is intended to be applied consistently throughout the program cycle; however, clarification may be made at the discretion of the Assigned Commissioner or Administrative Law Judge.

Chart A of this Attachment includes a graphical schematic depicting the process outlined in this document. In addition, the principles guiding this process and supporting resources are defined herein.

Guiding Principles:

1. Energy savings are the paramount priority of custom measures and projects.
2. The Customer Measure and Project Review Process is intended to allow Energy Division (ED) to review customer projects in parallel with the IOUs, thereby allowing for maximum customer convenience and program oversight.
3. When possible and practical custom measure and project calculation methodologies shall be based upon Database Energy Efficiency Resources (DEER) methodologies as frozen for 2008 DEER version 2008.2.05 or upon methodologies documented within the most current Energy Division reviewed and approved IOU non-DEER deemed workpapers.
4. IOUs are responsible for effective record keeping such that calculation tools, documentation of how those tools were applied to custom measures and projects, and documentation of custom project *ex ante* savings calculations are submitted electronically to the Energy Division.

Supporting Resources:

IOUs are directed to maintain the following supporting resources to enable timely, effective review of custom measures and projects by the Energy Division and their consultants.

**Calculation Tool<sup>104</sup> Archive (CTA):**

Each IOU shall maintain an archive of all generic tools used in calculating *ex ante* values such that they remain accessible to the Energy Division throughout the program cycle.<sup>105</sup> The archive shall contain all versions of all tools used in the development of *ex*

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<sup>104</sup> Tools, in the context of this document, means software, spreadsheets, “hand” calculation methods with procedure manuals, or any automated methods used for estimating *ex ante* values for custom measures or projects.

<sup>105</sup> The IOUs must arrange access to any proprietary tools and software used in the development of *ex ante* values so that Energy Division can perform the review described

*Footnote continued on next page*



*ante* values for custom measures or projects claimed during the current program cycle. Project specific tools and processes will be stored in the Custom Measure and Project Archive described below.

The tool archive shall include:

- a. All manuals and user instructions, where applicable. If the calculation tool is simply a generic spreadsheet, then all cell formulas and documentation shall be readily accessible from the tool.
- b. A list of technologies, measures or projects for which custom calculations are performed using the tool.

The Calculation Tool Archive shall be updated by the IOUs on an ongoing basis during the 2010-2012 program cycle as tools are revised.

**Custom Measure and Project Archive (CMPA):**

Each IOU shall keep a complete up-to-date electronic archive of all custom measures and projects. Each project should be added to the Archive as soon as possible after either identified in the pre-application stage or the date of the customer's application to the IOU, whichever is earlier. Each project should be assigned a unique identifier that shall not be re-used or re-assigned to other projects.

The IOUs shall provide a summary list of all projects, in pre-application stage and application stage, in their CMPA. Energy Division will provide the IOUs with the format of the summary list. The summary list shall identify each project using its unique identifier and provide a link to the detailed files of each project. The summary list shall also reflect the date of the most recent entry into each project. The summary list shall include for each project the following (Energy Division and the IOUs will work out details of the meaning and specifics of each item below):

- The customer type
- The project type
- Industry Type

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in this document.

- Status (pre-application, application received, application in review, agreement signed, completed, paid, claimed, etc.)
- For pre-application stage projects, a best guess at probability the project will become an application (unknown, very low, low, medium, high, very high; or a percentage probability 0-100% for none to definite) with this status updated as new information becomes available)
- Project location (address)
- Utility contact person (Primary IOU review contact and, if appropriate, primary IOU customer interface contact such as marketing representative)
- Customer segment
- Equipment or process involved
- General description of the proposed project and its energy saving premise
- Estimated *ex ante* energy savings
- the target date when a customer agreement is expected to be issued for customer signature (Agreement Target Date)

The summary list shall be updated at least on the first and third Monday of every month for the duration of the 2010-2012 program cycle, however, the IOU shall provide the updated list more often as necessary to provide Energy Division with information on high priority or fast-tracked applications so as to allow Energy Division to perform reviews of such projects at its sole discretion. The IOUs may provide the summary list by program instead of a consolidated list, should they so desire.

For projects that, within a regular bi-monthly CMPA summary list submission, are projects for which applications have been newly received or projects that have moved from the pre-application state into the application state Energy Division will inform the IOUs of projects which have been selected for review. Such notification shall be before or by the next regularly scheduled CMPA summary list submission. Thus Energy Division will have a minimum of approximately two weeks to decide if a new application measure or project, either in pre-application or application stage will be subject to review and included into its review "sample." An IOU may request that a project review decision be expedited for high priority or fast tracked projects and Energy Division will make its best effort to accommodate such requests. If Energy Division chooses not to review a project an IOU may request such a project be included in the Energy Division review sample. Energy Division shall consider such decision change requests but will limit such changes based upon available resources to ensure adequate coverage of the full cycle portfolio of measures and projects in its review

sample. An IOU request for Energy Division project review may be accepted, denied or deferred into the Early Opinion process at Energy Division's discretion, however, Energy Division shall inform the IOU of its decision as quickly as possible.

For each project sampled for a review, the specific types of documents to be maintained in the CMPA and parameters required to be in the supporting documentation may vary based on the type of project. *Examples* of the expected data elements are listed below.

- Documentation to support Baseline assignment (Code or Standard requirement, Early Retirement, Retrofit, Replace On Burnout, industry standard practice, CPUC policy, etc)<sup>106</sup>
- Existing system controls and operating status description
- Existing system output capacities – current output and maximum/design capacity
- Pre-installation inspection report
- Post-installation inspection report
- Proposed modifications with schematic as applicable
- Preliminary savings calculations and supporting data with documentation to ensure replicability
- Manufacturer's cut sheets when used to estimate *ex ante* savings or when needed to ensure replicability
- Fuel switching considerations and any required analysis per CPUC policy regarding fuel switching projects (see Energy Efficiency Policy Manual)
- Other fuel savings and/or load increases resulting from the project
- Heating, Ventilation, and Air Conditioning (HVAC) interactive effects values and methods used to develop those values, when measures cause a change in HVAC system loads
- Interactions between multiple measures that act to increase or decrease savings relative to a measure stand-alone savings estimate

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<sup>106</sup> The baseline parameters used are of primary importance in estimating project savings. Appendix I of this document provides the guidelines by which Energy Division will review baseline parameter selection.

- Pre/post production output data when used in savings calculations and the source of such records
- Billing history - one-year pre installation, with interval data required when available; when *ex ante* estimated values rely upon a per-unit-production changes based on multi-year production data, corresponding billing histories are required
- IOU or implementer program manual (a single archive of these documents should be referenced rather than including the documents in each project archive)
- M&V plans, reports and raw data archives, where applicable
- EUL/RUL value, analysis or source

Projects Energy Division selects for review will have their complete documentation from the IOU CMPA placed into an Energy Division Review CMPA which, with the Utility Custom Project Summary List, will be housed on an internet-accessible website that meets reasonable security and legal requirements. The Energy Division will be responsible to establishing and maintaining that website.

**Custom Measure and Project Review Process:**

There are two categories of Energy Division’s Custom Measure and Project Review Process: general and claims. All reviews are at the Energy Division’s discretion; however, if an IOUs *ex ante* values are not reviewed by the Energy Division, the IOU shall rely on those values in making energy savings claims before the Commission after adjusting those values using the gross realization rates as shown in Table 1 below.

IOU	kWh	kW	Therm
PG&E	0.9	0.9	0.9
SCE	0.9	0.9	
SDG&E	0.9	0.9	0.9
SCG			0.9

The **General Review** will include Energy Division’s oversight of the CTA and CMPA. Energy Division, at its discretion, will review tools, measures, and projects, as well as

inputs to the tools for selected projects. Energy Division may choose to provide the IOUs with input on one or more of the tools, measures, or projects. The tools reviews will be done on a prospective basis. IOUs shall adjust their subsequent use of the tools to conform to Energy Division input.

The more specific **general project reviews** include a close examination of a selected subset of custom projects.

For all custom applications with *ex ante* values that are not reviewed by the Energy Division, the IOU shall apply an adjustment to the gross savings estimate values using the Default Custom Measure Gross Realization Rates (Table 1) above when making energy savings claims before the Commission.

Energy Division will conduct general project reviews at three stages of the IOU custom project process: concurrent and collaborative pre-installation review, post-installation review, and claim review.

### **Pre-Installation Review**

The objective of the Pre-Installation Review is for Energy Division to perform a parallel review, with the IOUs, and then for Energy Division to provide to the IOUs input on the estimated custom measure or project *ex ante* savings. The Pre-Installation Review allows Energy Division to supplement the resources and information available through the CTA and CMPA in making its recommendations.

The IOUs shall provide the Energy Division the opportunity to participate in any site visits, pre-installation inspections, customer interviews, pre-installation M&V, or spot measurements that may occur during this and subsequent phases. If such events are scheduled by IOUs more than five days in advance, the IOU shall provide notification to the Energy Division within one business day of scheduling the event; the Energy Division should be immediately notified for events scheduled less than five days away. The Energy Division will notify the IOUs prior to the event if they plan to send a representative.

During the Pre-Installation Review, the Energy Division will coordinate any Measurement & Verification (M&V) activities on these custom projects with the IOU. The Energy Division may choose to use the IOUs' or its own contractors, at Energy Division expense, to perform site inspections or pre-installation M&V.

The Energy Division will provide the IOUs with the results of its Pre-Installation Review, including recommended *ex ante* values and documentation to support its recommendation, at least ten days before the Agreement Target Date identified by the IOU in the CMPA summary list. However, the IOU shall provide Energy Division with all CMPA documents in a timely manner such that Energy Division has a reasonable ability to meet this timeline. Energy Division and the IOUs agree to work together to allow timely review of expedited and high priority project. If the Energy Division affirms the IOU's estimated *ex ante* values or suggests values which would result in greater or lower savings than the IOU's estimated *ex ante* values, then the IOU shall rely on those values when entering into estimated incentive agreements for the project and shall also rely on those values for subsequent energy savings claims before the Commission if no further post-installation adjustments are identified by either the IOUs or Energy Division, as described below.

### **Post-Installation Review**

The objective of the Post-Installation Review is to provide the Energy Division with continued opportunity to review and provide input on the accuracy of *ex ante* values assumed by the IOU prior to the utility making its final incentive payment to its customer. The IOU shall allow the Energy Division access to site visits, post-installation inspections, customer interviews, post-installation M&V, or spot measurements. IOU and Energy Division notifications for these events should follow the guidelines described above for Pre-Installation Review. The IOUs shall continue maintenance of the CTA and CMPA in accordance with the direction provided above. If the post-installation M&V inspection results in an IOU adjustment of savings for projects that were reviewed by Energy Division during the pre-installation stage, Energy Division shall have the option to review and approve such adjustments. If, as a result of the post-installation inspection, the Energy Division affirms the IOU's estimated *ex ante* values or suggests values which would result in greater or lower savings than the IOU's estimated *ex ante* values, then the IOU shall rely on those values for making energy savings claims before the Commission. Otherwise, no deliverables are due to either IOU or Energy Division.

### **IOU Claim Review**

The IOU Claim Review allows the Energy Division to conduct a review of energy savings for custom projects included into the IOU Quarterly Claim<sup>107</sup> to ensure that:

1. appropriate default realization rates were applied to *ex ante* gross savings estimates for projects that were not reviewed by the Energy Division;
2. recommendations made by Energy Division for reviewed projects were accurately reflected in the claim.

The IOU Claim Review shall commence upon the IOU submittal of a quarterly reporting period claim containing those projects, and end at the later of ninety-days after that submission or the subsequent IOU quarterly submission. Energy Division shall notify the IOU of any errors found in their claim review and the IOU shall comply and revise the claims.

Custom projects that were not reviewed by the Energy Division prior to appearing in a Quarterly claim may be further reviewed for the purpose of gaining new information and prospective improvements to *ex ante* estimates and planning, but IOU's **will not** be held accountable for energy savings adjustments for such reviews for any projects covered by then existing customer agreements or already approved customer applications.

#### Resolution of Disagreements:

1. Should Energy Division and a Utility have a technical disagreement on a project's *ex ante* values, Energy Division and the Utility shall meet to discuss and resolve the differences. If the Energy Division recommended *ex ante* value is less than a plus/minus 20 percent of the utility estimated *ex ante* value, Energy Division and the utility shall split the difference of the two values. However, this does not apply if the disagreement is where Energy Division determines that savings will not accrue at all or when a Commission policy has not been

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<sup>107</sup> As a component their energy efficiency portfolio reporting requirements each IOU will submit a quarterly filing on EEGA which includes details of all measure *ex ante* savings values for all individual projects and measures which have been installed prior to that claim.

followed. However, in cases where the difference is greater than a plus or minus 20 percent, then Energy Division's value will be the frozen *ex ante* value.

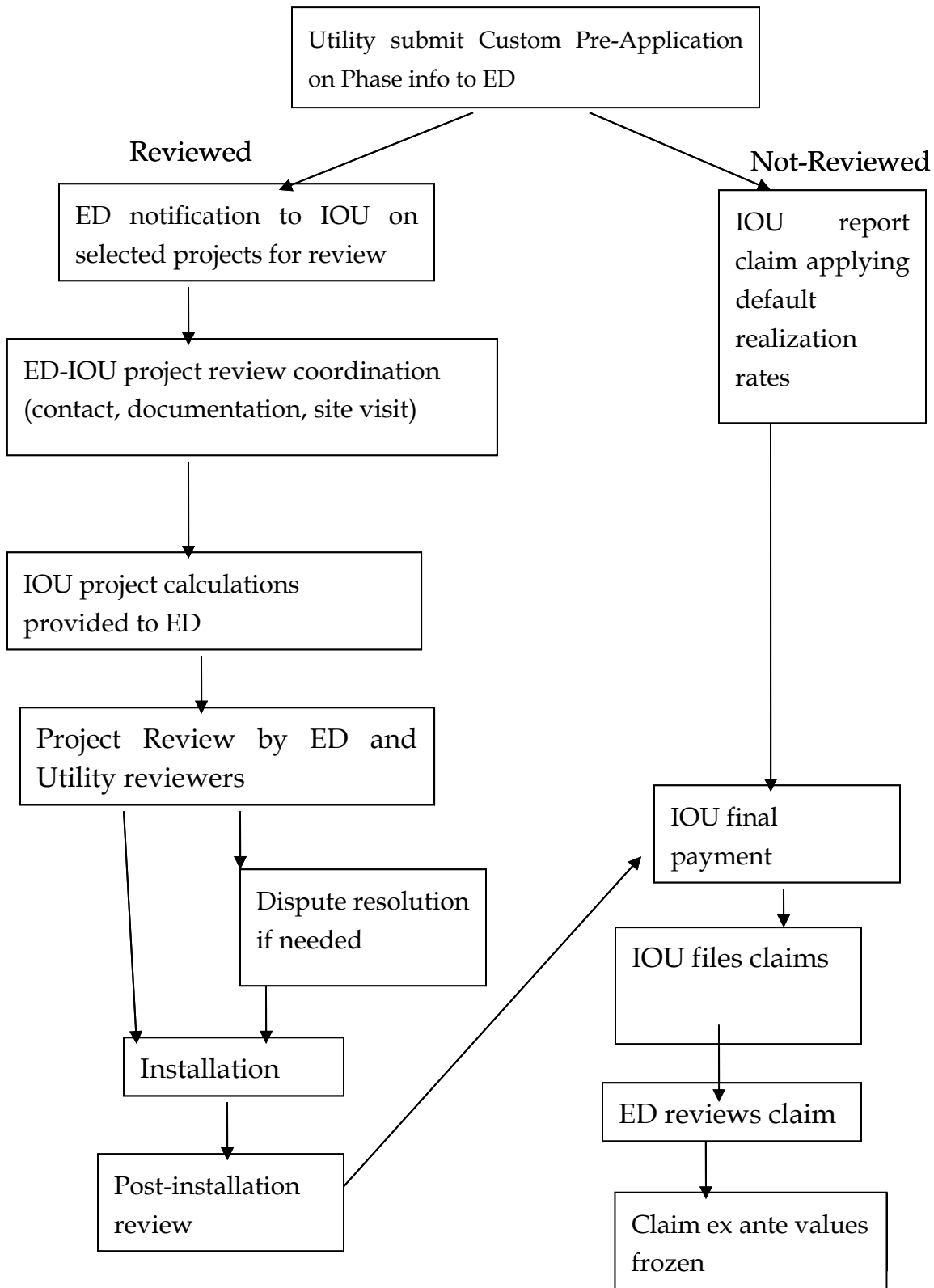
**To facilitate future communication:**

Energy Division and the IOUs shall establish a working group to allow an ongoing dialog on the custom measure and project review process. This working group will provide a forum for all parties to exchange information on their current activities and future plan and to discuss and resolve problems and issues with the process outlined in this document. The working group will also provide a forum for Energy Division to inform the IOUs on issues arising in its custom measure *ex ante* estimation review process. These issues may include items such as baseline definitions, net versus gross savings definitions and other items as any party deems necessary. Energy Division will maintain a public archive database of summary of issues identified in its custom applications and projects reviews, and the Energy Division dispositions of those issues. Customer specific data and information will be removed from the Energy Division summary of issues and dispositions.

At any time during their development of *ex ante* estimates for a specific custom measure or project the IOUs may submit to Energy Division a request for an early Energy Division review or opinion on a specific issue. This process has been established by Energy Division issuance of the "Custom Measure Early Opinion Process" document posted as "Custom Measure Early Energy Division Opinion Process v2.docx" on basecamp 9/30/2010 in the "Early Opinion Shared" project area. Energy Division shall respond to that request in as expeditious a manner as possible to provide the IOUs with guidance and to allow the IOUs to complete their *ex ante* estimates in a timely manner. However, this type of early guidance shall not limit or constrain any later Energy Division review of *ex ante* claims submitted by the IOUs.

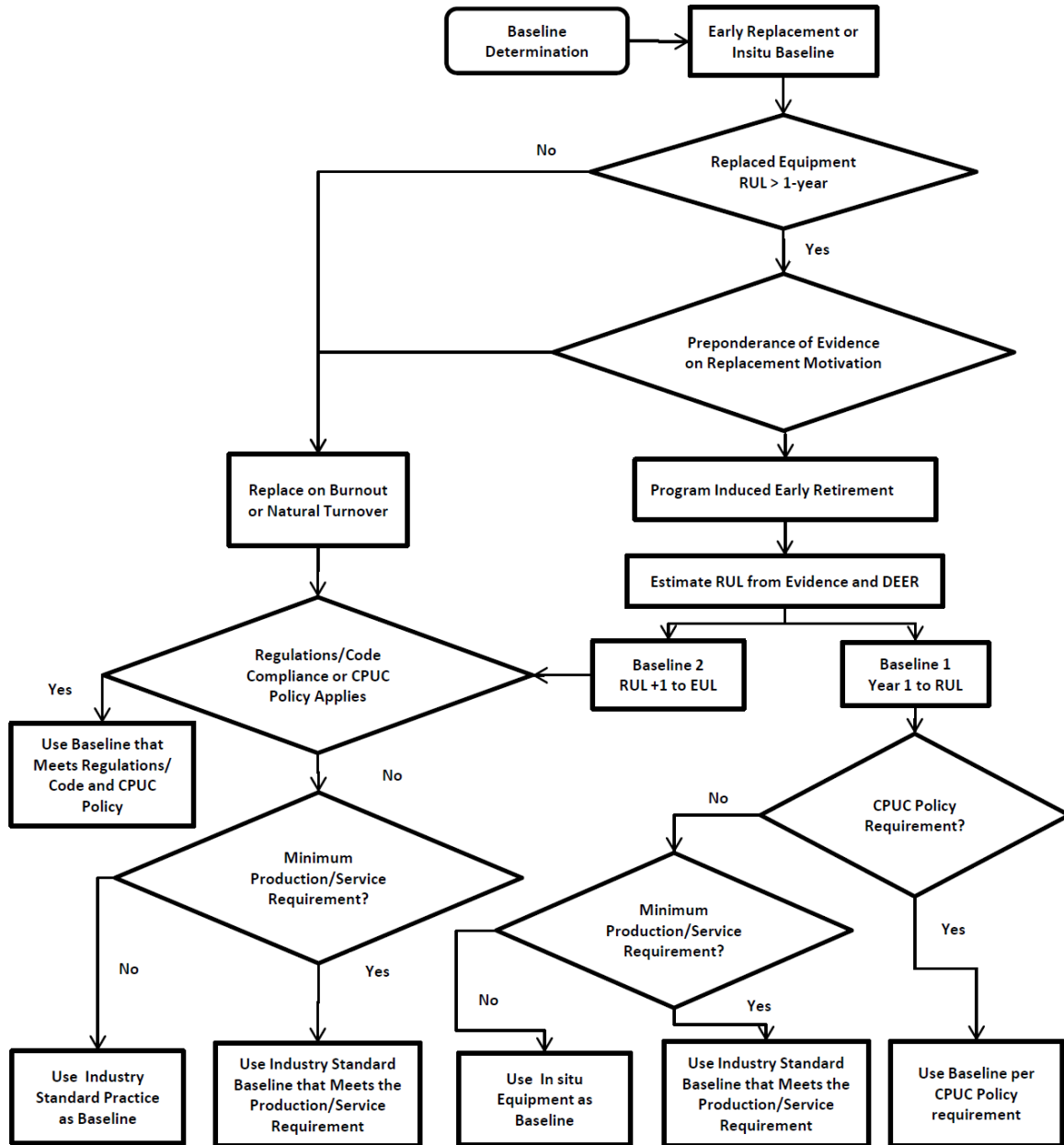


### Custom Review Flow Chart



Appendix 1

Energy Division Methodology for Determination of Baseline for Gross Savings Estimate



**Review of Baseline for Gross Savings Estimates**

The estimation of *ex ante* saving values requires the selection of a baseline performance for every project. The baseline selection and specific baseline parameters are of primary importance to establishing the *ex ante* savings estimates. The baseline parameters are

selected by establishing the project category from the possible alternatives including New Construction or Major Renovations, program induced Early Retirement, Standard Retrofit or Normal/Natural Replacement/Turnover, and Replace On Burnout. These alternative categories result in the utilization of alternative baseline parameters set by Code or Standard requirements, industry standard practice, CPUC policy, or other considerations. In the review of IOU projects Energy Division will follow the guidelines as presented here in establishing the baseline for all gross savings estimates.

Notes to above flowchart

**Pre-existing equipment<sup>108</sup> baselines are only used in cases where the preponderance of evidence the program has induced the replacement rather than merely caused an increase in efficiency in a replacement that would have occurred in the absence of the program.**

Pre-existing equipment baselines are only used for the portion of the remaining useful life (RUL) of the pre-existing equipment that was eliminated due to the program. These early or accelerated retirement cases may require the use of a “dual baseline” analysis that utilizes the pre-existing equipment baseline during an initial RUL period and a code requirement/industry standard practice baseline for the balance of the EUL of the new equipment.

- A pre-existing equipment baseline is used as the gross baseline only when there is a preponderance of evidence that the pre-existing equipment has a remaining useful life and that the program activity induced or accelerated the equipment replacement. This baseline can only apply for the RUL of the pre-existing equipment.
- A code requirements or industry standard practice baseline is used for replace-on-burnout, natural turnover and new construction (including major rehabilitation projects) situations. This baseline applies for the entire EUL as well as the RUL+1 through EUL period of program induced early retirement of pre-existing equipment cases (the second period of the dual baseline case.)

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<sup>108</sup> Here the term equipment is intended to cover all technology cases including envelope components, HVAC components and process equipment and may also include configuration and controls options.

### **Commission policy rules and IOU program eligibility rules govern the baseline**

A careful review of utility and third-party program and Commission policy rules must be undertaken and adjustments applied to gross savings in some cases. Adjustments are indicated for gross when there was clear evidence from program or policy rules that savings claims could not be made nor rebates paid for the baseline in question. Program rules come into play with respect to gross baseline requirements, for example, when those rules specify:

- a minimum required efficiency level;
- a minimum percentage improvement above applicable minimum code requirement;
- a minimum RUL of the existing equipment;
- the type or range of retrofits that are allowed be included in a program.

Commission policy may apply to establishing gross baseline when Policy Manual Rules, a Commission Decision or a decision maker Ruling includes special requirements or consideration for the situation or technologies of a measure. For example, projects or sites that involve fuel switching, co-generation or renewable technologies are usually subject to special baseline considerations (or other considerations) that must be considered in the savings estimates.

### **Minimum production level or service requirements govern the baseline**

In some situations, a measure for which savings might be claimed could be determined to be the only acceptable equipment for an application. In such cases, the baseline must be set at the minimum needed to meet the requirements, which may be the same as the equipment planned for installation. An example would be an industrial process where only a variable-speed drive pumping system could meet the production requirements. For situations where the baseline conditions or requirements were changed (such as production level changes), the baseline equipment is defined as the minimum equipment needed to meet the revised conditions. If the pre-existing equipment is not capable of reliably meeting the new requirement (such as production change) for its remaining life, then a new equipment baseline must be established utilizing either minimum code requirement or industry standard practice equipment, whichever is applicable.

**Industry standard practice baselines are established to reflect typical actions absent the program**

Industry standard practice baselines establish typically adopted industry-specific efficiency levels that would be expected to be utilized absent the program. Standard practice determination must be supported by recent studies or market research that reflects current market activity. Typically market studies should be less than five years old; however this guideline is dependent on the rate of change in the market of interest relative to the equipment in question. For example, the lighting markets may change significantly in the next two years while larger process equipment markets might change more slowly. Regulatory changes might cause very rapid market practice shifts and must also be considered. For example, forthcoming changes in Federal Standards relating to linear fluorescent ballasts will result in rapid market shifts of equipment use.

**(END OF APPENDIX E)**

**APPENDIX F: Cost Categories and Related Cap and Targets**

IOU shall reflect all costs associated with the delivery of their energy-efficiency programs in their filings in the energy-efficiency portfolio applications and shall note, where applicable, when the costs are recovered in other proceedings.

The Commission has established various (hard) caps and (soft) targets as summarized in the table below:

<b>Budget Category</b>	<b>Cap</b>	<b>Target</b>
Utility program administrative costs <sup>109</sup>	10%	
Third-party / Gov't partnership administrative costs <sup>110</sup>		10%
Marketing & outreach costs <sup>111</sup>		6%
Direct implementation non-incentive (DINI) costs <sup>112</sup>		20%
Evaluation, measurement & verification (EM&V) costs <sup>113</sup>	4%	

The IOUs will forecast and report total Administrative, Marketing, Direct Implementation costs by program and subprogram in the cost categories and sub-categories. A detailed characterization of the specific types of costs that are allocated to each of these categories is provided below.

**Utility Administrative Costs**

Administrative costs for utility energy efficiency programs (excluding third party and/or local government partnership budgets) are limited to 10% of total energy efficiency budgets. Administrative costs shall not be shifted into any other costs category.

Administrative costs are necessary to support energy efficiency programs but costs must be reasonable and limited to overhead, labor and other costs discussed below needed to implement quality programs with ratepayer funds.

All IOUs shall reflect all labor-related costs associated with the delivery of energy-efficiency programs, as defined at page 49 of D.09-09-047, in their energy-efficiency portfolio filings, and shall clearly delineate where any expenses or costs have been or will be recovered in proceedings

<sup>109</sup> D.09-09-047, OP 13a and p. 62

<sup>110</sup> D.09-09-047 at p. 63

<sup>111</sup> D.09-09-047, OP 13b and at p. 73

<sup>112</sup> D.09-09-047 OP 13c and at p. 74; D.12-11-015 at p. 101

<sup>113</sup> D.12-11-015 at p. 59; D.09-09-047, COL 6

other than energy efficiency applications.<sup>114</sup>

Administrative costs include the following:<sup>115</sup><sup>116</sup>

1. **Overhead** (G&A Labor/Materials): administrative labor, accounting support, IT services and support, reporting databases, data request responses, Commission financial audits, regulatory filings support and other ad-hoc support required across all programs.
2. **Labor** (Managerial & Clerical): This category includes utility labor costs related to either management or clerical positions directly related to program administration. SDG&E and SoCalGas also add payroll taxes.
3. **Human Resource Support and Development:** This includes payroll taxes, payroll support, as well as pensions.<sup>117</sup>
4. **Travel and Conference fees:** This includes labor, travel and fees for conferences.<sup>118</sup> This category includes utility sponsorships for energy efficiency program-specific events or activities such as including membership-based, issue-specific trade organizations that include as a component of membership benefits entry into conferences. However, utility sponsorship fees for major national energy efficiency conferences that provide company recognition or status are prohibited as energy efficiency allowable costs. Such costs shall not be funded with energy efficiency program funding.<sup>119</sup>

CPUC Division of Water and Audits allows travel costs, such as meeting with customers, can to be charged to the applicable program area (i.e., to DINI or to Marketing and Outreach). Travel costs by IOU staff should be limited, but this will be achieved via the cost targets for marketing. Travel costs to EE conferences and other activities shall be charged to administrative costs with the following exceptions:

Travel costs for DINI activities and marketing can be charged to those respective cost categories

IOU sponsorships of EE conferences (i.e. “platinum” “gold” level donations) be explicitly

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<sup>114</sup>D.12-11-015 OP 39

<sup>115</sup> D.09-09-047, OP 13a and at p. 50; with additional detail from Attachment A to PG&E AL. 3065-G/3562-E

<sup>116</sup> D.09-09-047 at 50 states that these Administrative Cost categories do not include EM&V or Marketing Outreach

<sup>117</sup> D.09-09-047 at p. 56 says “Attachment 5-A of the December 2008 ruling [the Allowable Costs Attachment] lists payroll tax and pensions as included in the Human resources Support Category.”

<sup>118</sup> D.09-09-047 at 50

<sup>119</sup>D.11-04-005 at 20, OP 2

prohibited from inclusion in energy efficient budgets as administrative costs. IOUs may join membership-benefit issue specific (i.e. HVAC) trade organizations that include as a component of membership benefits entry into conferences. Other staff travel costs to participate in energy efficiency conferences are also allowable administrative costs.

Additional activities charged to the utility administrative cost category include:<sup>120</sup>

- Membership dues (i.e., trade organizations)
- Reporting database (e.g., CRM, Track It Fast, Program Builder, SMART, etc.)
- Facility-related costs
- Supply management function activities to ensure oversight of contractors
- Administering contractor payments for services which are non-incentive related
- Utility administrative cost associated with Local Government Partnerships & Third Party Programs
- Administrative and logistical costs related to workshops on Strategic Planning issues<sup>121</sup>

Utility administrative costs do not include the following:<sup>122</sup>

- Direct implementation (incentive costs and DINI)
- Marketing and outreach
- Evaluation, measurement and verification
- Administrative costs for third party programs / government partnerships<sup>123</sup>
- Program-specific IT costs charged to the DINI and M&O cost categories (e.g., on-line audit tools).<sup>124</sup>

### **Direct Implementation Non-Incentive (DINI) Costs**

Direct implementation non-incentive (DINI) costs (excluding non-resource and other exempt programs and subprograms) are targeted at 20% of the total adopted energy efficiency

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<sup>120</sup> Unless otherwise noted, these details were provided in Attachment A to PG&E AL 3065-G/3562-E (2010-12 EE portfolio compliance filing).

<sup>121</sup>D.09-09-047, OP 14

<sup>122</sup>D.09-09-047 at 50, unless otherwise noted

<sup>123</sup> D.09-09-047 at 63

<sup>124</sup>Attachment A to PG&E AL 3065-G/3562-E

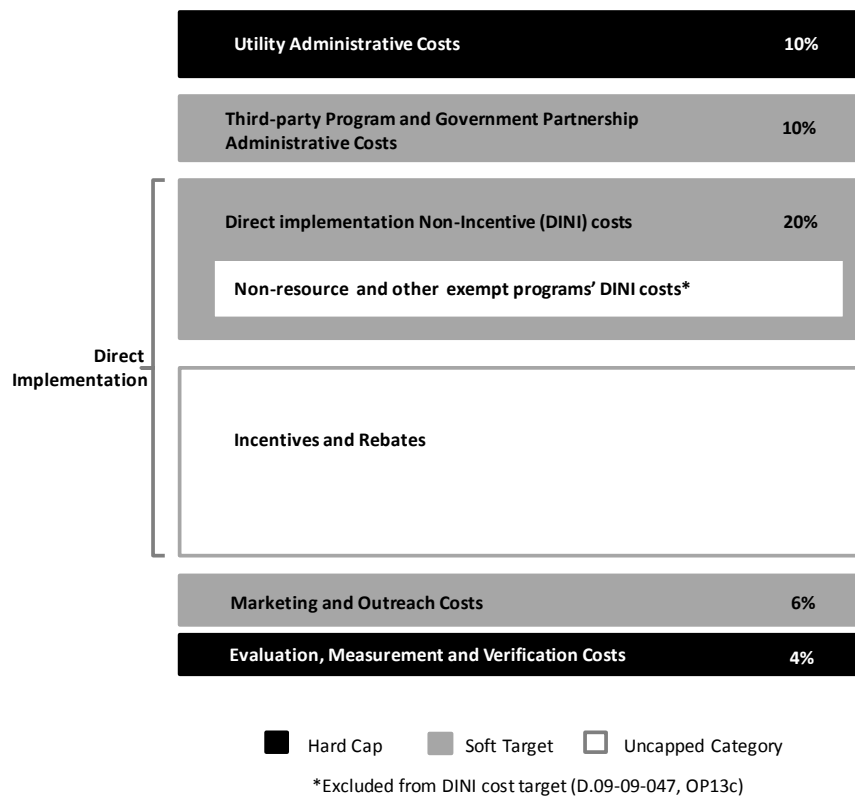


budgets.<sup>125</sup>

As depicted in the figure below, direct implementation non-incentive (DINI) costs are a subset of direct implementation costs. Direct implementation costs are defined as “costs associated with activities that are a direct interface with the customer or program participant or recipient (e.g., contractor receiving training).”<sup>126</sup> Direct implementation includes two subcategories: (a) rebate and incentive costs and (b) DINI.<sup>127</sup>

**Note:** DINI costs have been referred to by the IOUs and the Commission with various terms such as “non-resource costs,”<sup>128</sup> “direct implementation (non-incentives and rebates),”<sup>129</sup> “program delivery (non-rebates and incentives),”<sup>130</sup> and “implementation – customer services costs.”<sup>131</sup>

EE Portfolio Cost Categories and Administrative Caps / Targets



<sup>125</sup>D.09-09-047 OP 13c and at p. 74; D.12-11-015 at p. 101

<sup>126</sup> D.09-09-047 at p. 50

<sup>127</sup> D.09-09-047, Table 3, at p. 54, see notes regarding lines C1 and C2.

<sup>128</sup> D.09-09-047 OP13

<sup>129</sup> D.09-09-047, Table 3 at p. 54

<sup>130</sup> D.09-09-047 Tables 5, 6 and 7 at pages 75, 77, 80, respectively.

<sup>131</sup> D.12-11-015 at p. 101

Activities charged to cost category subject to the DINI target include:<sup>132</sup>

- Employees who have a direct interface with the customer (i.e. Account Executives, Auditors, Engineers, Processors, Inspectors, call center representatives)
- Processing rebate applications
- Inspecting rebated/incentive measures
- Engineering related activities
- Measurement development
- Education and training of contractors/partners/customers
- Project management activities (i.e. Planning Scope of Work, working with contractors and customers, setting goals, reviewing goals, reacting to market conditions, and responding to customer inquiries (i.e. calls, emails, letters).
- Program planning, development and design
- Customer support
- Energy audits and Continuous Energy Improvement
- Market transformation and long-term strategic plan support
- Compiling and maintaining information (i.e, data, customer records) for projects
- Licensing fees or IT development cost for program specific applications for implementation (e.g., benchmarking tool or project management tool);
- Vacation and sick leave-related to direct implementation labor
- Direct-implementation specific IT costs (e.g., licensing fees or IT development cost for program-specific applications)
- Staff travel to undertake direct implementation-specific work activities (excluding conference participation)
- Program planning/design/project management and information gathering costs related to specific Strategic Plan related non-resource and resource programs<sup>133</sup>

Programs or subprograms that are exempt from the DINI target include:<sup>134</sup>

- Non-resource programs or subprograms (e.g., Emerging Technologies, Workforce Education and Training, Lighting Market Transformation, Zero Net Energy pilots,

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<sup>132</sup> Unless otherwise noted these details were provided in Attachment A to PG&E AL 3065-G/3562-E

<sup>133</sup>D.09-09-047, OP 14

<sup>134</sup> See exclusion of these costs in D.09-09-47 OP 13c

Integrated Demand Side Management).<sup>135</sup>

- Codes and Standards Program<sup>136</sup>
- Financing programs, including On-Bill Financing Program<sup>137</sup> (excluding revolving loan amounts)

The formula for calculating the DINI cost percentage subject to the target is as follows:

$$\frac{[\text{Total DINI cost, excluding REN and CCA programs}] - [\text{Exempt DINI program costs}]}{[\text{Total IOU budget, excluding REN and CCA programs}]}$$

Notes:

- REN and CCA programs are excluded because the IOUs do not manage and/or administer them.
- For exempt programs and subprograms, see examples above.
- Government partnership and third-party programs budgets are included in both the numerator and denominator.
- Statewide ME&O (a non-resource DINI target exempt program) budgets are included in the denominator, whether approved by separate application or not.

### **Marketing and Outreach Costs**

Marketing and outreach costs are targeted at 6% of total adopted energy efficiency budgets, subject to the fund-shifting rules specified in this manual.<sup>138</sup> This is not a hard cap, as with administrative costs, but a budget target.<sup>139</sup>

Activities charged to this category include:<sup>140</sup>

- Preparing collateral
- Distributing collateral
- Support related to outreach events
- Participating in outreach events

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<sup>135</sup> D.09-09-047 at p. 50

<sup>136</sup> D.09-09-047 Table 3, at p. 54, see notes regarding C2

<sup>137</sup> Ibid.

<sup>138</sup> D.09-09-047, OP 13c

<sup>139</sup> D.09-09-047 at p. 73

<sup>140</sup> Attachment A to PG&E AL 3065-G/3562-E

- Advertising, media, newspaper, website, and magazine related marketing activities
- Local government partnership marketing and outreach related to long-term Strategic planning support
- Vacation and sick leave related to marketing labor
- Marketing-specific IT costs
- Staff travel to undertake marketing-specific work activities (excluding conference participation.)

**Third Party Program and Government Partnership Administrative Costs:<sup>141</sup>**

The IOUs shall seek to achieve a 10% administrative cost target for third party and local government partnership direct costs (i.e., separate from utility costs to administer these programs).<sup>142</sup> The cost target is 10% of third party and government partnership budget, rather than 10% of the total energy efficiency portfolio (as with the utility administrative cost cap). The IOUs should not be permitted to unduly shift administrative cost cuts onto local government partnerships and third party implementers. Local government partnership and third party program M&O and DINI costs are subject to the 6% and 20% portfolio cost targets.<sup>143</sup>

**Evaluation Measurement and Verification**

The adopted EM&V budget is 4% of the total portfolio budget, consistent with budgets from prior portfolios.<sup>144</sup>

Activities charged to the EM&V budget category include:

- Staff travel to participate in Strategic Plan workshops<sup>145</sup>
- Market, cost assessment and other studies as called for or suggested by the Strategic Plan<sup>146</sup>
- Benefits, payroll tax, and pensions for EM&V labor.<sup>147</sup>

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<sup>141</sup> Attachment A to PG&E AL 3065-G/3562-E

<sup>142</sup> D.09-09-047 at p. 63.

<sup>143</sup> Attachment A to PG&E AL 3065-G/3562-E

<sup>144</sup> D.12-11-015 at p. 59; D.09-09-047, COL 6.

<sup>145</sup> Attachment A to PG&E AL 3065-G/3562-E

<sup>146</sup> D.09-09-047, OP 14

<sup>147</sup> Allowable Costs Attachment, Attachment 5-A to December 2008 ACR in A.08-07-021 et al.. Also referenced in Attachment A to PG&E AL 3065-G/3562-E

**APPENDIX G: Phase 2 Workpaper Review**

Development, review and approval of Non-DEER workpapers has evolved through several decisions:

1. D.09-09-047 gave Energy Division authority to review and approve Non-DEER workpapers and required ED to develop a process for submittal, review and freezing of non-DEER measures.
2. A.08-07-021 provided a standardized review and approval process for Phase 2 Non-DEER workpapers including
  - a. Requirements for utilizing DEER values and methods in the development of Non-DEER measures
  - b. A timeline for detailed review that required Commission staff to perform a preliminary review for additional information within 15 days and the final review within 25 days of receiving the additional review.
  - c. A requirement for consideration of the latest evaluation, measurement and verification published studies in the development of ex ante values including energy impacts, cost data, EUL/RUL and NTGR.
  - d. Established the following possible review recommendations (or “dispositions”):
    - Approved – No changes to submission are required.
    - Conditional Approval – ED makes specific revisions to submission, which, if agreed to by ED and utility, the measure is approved.
    - Resubmission Required – The measure submission requires additional information or specific revisions or additions for ED to make an approval recommendation.
    - Rejection – The measure does not fall within the definition of an energy efficiency measure or does not meet Commission requirements for inclusion into a utility portfolio.
  - e. Allowed for retrospective staff review of frozen and un-reviewed workpapers if the measures if a workpaper eventually rose to HIM status.
3. D.10-04-029 affirmed A.08-07-021 and required IOUs to cooperate with ED to allow upfront consultation regarding workpapers<sup>148</sup>.

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<sup>148</sup> D.10-04-029, OP4, bullet 3 at 55

4. D.11-07-030 affirmed all of A.08-07-021 regarding Phase 2 review, except the provision for retrospective staff review, which was struck from the Phase 2 review process<sup>149</sup>.
5. D.1205015 is the guidance decision covering 2013-2014 applications and also includes a process for Phase 2 workpaper review that builds upon the process established in the previous decisions. The remainder of this attachment describes requirements for both IOUs and Energy Division for the review and approval of Phase 2 Non-DEER workpapers

The following paragraphs, covering Phase 2 workpaper review are from D.12-05-015<sup>150</sup>:

- a. If Commission Staff agrees with the parameters included in a non-DEER workpaper for a new measure provided by an IOU, Commission Staff will communicate this to the IOU via email and upload it to the Workpaper*

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<sup>149</sup> D.11-07-030 at 26: “We will freeze identification of energy efficiency HIMs by limiting them to the current set of 70 for this portfolio cycle. All other existing measures will thus be considered non-HIMs. This freeze will provide finality on this issue and prevent on-going controversy over future determination of HIM ex ante values in this portfolio cycle. In practical terms, it is likely that IOUs and Energy Division have already identified most, although not all, HIMs. To the extent that existing measures turn out unexpectedly to be high impact measures, using the utility-proposed ex ante values—even if inaccurate—should have a small impact on overall portfolio evaluations.”

OP 1: “The frozen non-DEER ex ante values shall be based upon the values adopted in Attachment A to this decision. All non-DEER energy efficiency measures not referenced in Attachment A to this decision (except for custom measures) shall have ex ante energy savings values frozen based on workpapers submitted to Energy Division by March 31, 2010 ...”

OP4: “The only high impact energy efficiency measures used for determination of ex ante energy savings values for the 2010 2012 energy efficiency portfolios of [the IOUs] are those identified in Appendix A of this decision, except for any new measures (i.e., measures not identified as of March 31, 2010) which are identified as high impact energy efficiency measures through the Phase 2 process ...”

<sup>150</sup> D.12-05-015 at 335

- Project Area on the <http://www.deeresources.info> website, and the workpaper will become effective on that date.*
- b. If Commission Staff disagrees with or needs more information regarding parameters included in a non-DEER workpaper, Commission Staff will recommend revised parameter values (or request additional information) within 25 days of receipt of a work paper with all necessary information provided by the utility.*

In order to fully implement and provide certainty to the workpaper review process, for both workpaper submitters and Commission staff, the workpaper review process shall use the following procedure.

1. On-line Submission: Workpapers shall be submitted to <http://www.deeresources.info> at in the Workpaper Project Archive under the 2013-2014 Cycle project tree. Within that tree, there are folders for each of the entities responsible for developing workpapers. These entities are:
  - a. Southern California Edison (project folder "SCE Workpaper Submissions")
  - b. Southern California Gas (project folder "SCG Workpaper Submissions")
  - c. San Diego Gas and Electric (project folder "SDGE Workpaper Submissions")
  - d. BayREN (project folder "BayREN Workpaper Submissions")
  - e. MEA (project folder "MEA Workpaper Submissions")
  - f. SoCalREN (project folder "SoCalREN Workpaper Submissions")

A single file shall be submitted for each workpaper submission. If the workpaper includes additional supporting files, all files shall be archived into a single .zip or .7z file so that they can be submitted as a single file. The file name shall include the entity's unique ID and title of the workpaper.

When a workpaper is properly submitted by an entity to its respective workpaper submission folder, the timeline for Commission staff review, described below, will begin.

2. Preliminary Review: Consistent with paragraph b, above, staff will provide a preliminary review of the workpaper within 25 days of it being submitted to its proper workpaper submission folder. Within that 25 days, staff may:
  - a. Request additional information needed in order for staff to complete a review of the workpaper; or
  - b. Require revisions to the workpaper; or
  - c. Approve the workpaper; or
  - d. Reject the workpaper
  
3. Final Review: In the cases where staff request additional information or requires revisions to the workpaper, staff will review and either approve or reject the workpaper within 25 days of receiving the additional information or revised workpaper. Entities shall submit additional information and revised workpapers to their respective workpaper submission folders at <http://www.deeresources.info>
  
4. Posting of Approved Workpapers: Staff shall post approved workpapers to the submitting entity's workpaper project folder in the Workpaper Project Archive at <http://www.deeresources.info>. Workpapers that are intended to have uniform statewide ex ante values shall be posted to the "Multi-Entity/Statewide Project Files" folder in the Workpaper Project Archive at <http://www.deeresources.info>.
  
5. Disputes over Staff Recommendations: Submitting entities may not agree with the final staff requirement for workpaper revisions. D.12-05-015 includes a dispute resolution process to address cases where a submitting entity finds staff requirement unacceptable. These paragraphs are included below<sup>151</sup>:
  - c. *If the utility finds the revised parameter values unacceptable (and/or any subsequent information exchange does not resolve the disagreements in parameter values), Commission Staff and the IOU will hold one or more meetings to come to*

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<sup>151</sup> D.12-05-015 at 335



*an agreement. If agreement on workpaper parameters is reached through this process, Commission Staff will upload the workpaper to the Workpaper Project Area on the <http://www.deeresources.info> website, and the workpaper will become effective on that date.*

- d. Every six months, and for each applicable IOU, Commission Staff will develop a draft resolution that identifies the disputed ex ante values proposed by the IOU for each non-DEER workpaper submitted during the previous six months that remains in dispute, along with Commission Staff's recommended adjustments and its rationale for those adjustments. The IOUs may articulate their disagreements with Commission Staff's proposed adjustments in their comments on the draft resolution, and the resolution will be subject to a Commission vote.*
6. Mid-Cycle Review: Un-reviewed workpapers that were submitted with the 2013-2014 portfolio applications shall receive a status of "interim approval<sup>152</sup>." Commission staff may review any workpapers that have previously received a status of "interim approval" and apply any adjustments on a prospective basis<sup>153</sup>. Review of these workpapers shall adhere to the Phase 2 workpaper review process<sup>154</sup>.
7. Notification of Mid-Cycle Review Interim-Approved Workpapers: Staff notify the IOU or workpaper submitting entity with its mid-cycle review. This notification may consist of a request for additional information or it may include required revisions to the workpaper.
8. Final Mid-Cycle Review of Interim-Approved Workpapers: In the cases where staff request additional information or requires revisions to the workpaper, staff will review and either approve or reject the workpaper within 25 days of receiving the additional information or revised workpaper. Entities shall submit additional information and revised workpapers to their respective workpaper

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<sup>152</sup> D.12-05-015 at 336

<sup>153</sup> D.12.05-015 at 337

<sup>154</sup> *ibid*

submission folders at <http://www.deeresources.info>.

9. Posting of Approved Workpapers Originally Receiving Interim-Approval: Staff shall post approved workpapers at <http://www.deeresources.info> as described in item 4, above.
  
10. Dispute over Staff Recommendations for Interim-Approved Workpapers: Disputes or disagreements shall be resolved according to the dispute resolution process described in item 5, above.