

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
I.D. # 9921**

ENERGY DIVISION

**RESOLUTION E-4385
December 2, 2010**

R E S O L U T I O N

Resolution E-4385. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company and San Diego Gas and Electric Company request approval of Program Performance Metrics for 2010-2012 statewide energy efficiency programs and subprograms

PROPOSED OUTCOME: Approves Program Performance Metrics for Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company and San Diego Gas and Electric Company for 2010-2012 statewide energy efficiency programs and subprograms.

ESTIMATED ANNUAL COSTS: There is no cost or rate impact of this resolution. Costs of tracking and reporting Program Performance Metrics are included in approved budgets for 2010-2012 energy efficiency portfolios and evaluation, monitoring and verification (EM&V) activities as provided for in Decision (D.) 09-09-047 and D. 10-04-029.

By Advice Letter 2476-E (Southern California Edison Company); Advice Letter 3120-G/3675-E (Pacific Gas & Electric Company); Advice Letter 4114 (Southern California Gas Company); and Advice Letter 2172-E/1951-G (San Diego Gas & Electric Company) filed on May 28, 2010.

SUMMARY

This Resolution approves Program Performance Metrics (PPMs) for Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company and San Diego Gas and Electric Company for 2010-2012 statewide energy efficiency programs and subprograms. It also identifies associated program objectives and market transformation indicators, and directs further efforts to integrate these into evaluation, monitoring and verification (EM&V) activities.

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By Advice Letter (AL) 2476-E, AL 3120-G/3675-E, AL 4114, and AL 2172-E/1951-G filed on May 28, 2010, Southern California Edison Company (SCE), Pacific Gas & Electric Company (PG&E), Southern California Gas Company (SCG) and San Diego Gas & Electric Company (SDG&E) (subsequently referred to as the "Joint Utilities"), sought to comply with Ordering Paragraph (OP) 11 in Decision (D.) 09-09-047 requiring Joint Utility submission, via a single Advice Letter, of PPMs for 2010-2012 statewide energy efficiency programs and subprograms.

This resolution (1) approves modified PPMs for the Joint Utilities 2010-2012 statewide energy efficiency programs and subprograms, (2) identifies associated objectives and long term market transformation indicators and (3) directs the Joint Utilities to work collaboratively with Energy Division staff to select a subset of these market transformation indicators for data collection, tracking and reporting as part of 2010-2012 energy efficiency evaluation, monitoring and verification (EM&V) activities.

There is no cost or rate impact of this resolution. Costs of data collection, tracking and reporting for the PPMs that are not already covered by program budgets may be included in 2010-2012 energy efficiency portfolio and Evaluation, Measurement and Verification (EM&V) budgets as approved in D. 09-09-047 and D. 10-04-029. Any additional costs of data collection, tracking and reporting for long-term market transformation indicators will be reviewed and agreed as part of Energy Division and the Joint Utilities 2010-2012 EM&V priority setting and included in EM&V budgets, also as approved in D. 10-04-029.

BACKGROUND

D. 09-09-047 approves programs and budgets for the 2010-2012 energy efficiency portfolios of the Joint Utilities. D. 09-09-047 approves twelve statewide energy efficiency programs and 44 associated subprograms, as well as additional "local" utility programs (operated by just one utility), third party programs and pilot programs for the Joint Utilities.

D. 08-09-040 approved the California Long Term Energy Efficiency Strategic Plan (CEESP) and directed Energy Division to develop a "process to track progress towards end points for program efforts and progress metrics." D. 09-09-047 noted that "defined end points" in this context refers to the "time-bound and quantitative milestones and targets included in the Strategic Plan, specifically the Big Bold Programmatic Initiatives on zero net energy buildings, as well as the other quantitative targets contained in the Strategic Plan" (D. 09-09-047 at 89).

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D. 09-09-047 defines PPMs as “objective, quantitative indicators of the progress of a program toward the short and long-term market transformation goals and objectives in the Strategic Plan” (D. 09-09-047 at 91). It identified PPMs as essential to track the progress of each program towards the Commission’s market transformation goals (D. 09-09-047 at 98).

D. 09-09-047 required the Joint Utilities to jointly file, within 120 days of the decision, a PPM Advice Letter (AL) requesting approval of proposed logic models and program performance metrics for each statewide program and associated subprograms (D. 09-09-047, OP 11). D. 09-09-047 further directed the Joint Utilities to submit completed Program Performance Indicator worksheets and tables (D. 09-09-047, Appendix 2.2 and Appendix 2.3 of the decision) for each of the above programs. D. 09-09-047 at 368 states that the Joint Utilities shall report performance metrics “on an annual basis via [EEGA] or a similar database.” In addition, D. 09-09-047 at 97 requires the Joint Utilities include in their joint AL, “key data sources and indicators for which to begin collecting market transformation baseline data.”

Program Performance Metrics (PPMs):

D. 09-09-047 identifies several purposes for PPMs. These are:

1. To track California’s progress towards achievement of Strategic Plan objectives, specifically the Big Bold Programmatic Initiatives and other key Plan goals and objectives (D. 09-09-047 at 98);
2. To inform portfolio development and necessary modifications in future portfolio decisions, including improving program design or eliminating non-performing programs (D. 09-09-047 at 98);
3. To target the next generation of improvements, and thus, continue the cycle of market transformation (D. 09-09-047 at 98); and
4. To evaluate program-specific quantitative and qualitative measures through EM&V activities (D. 09-09-047 at 300).

D. 09-09-047 states that Program Performance Metrics shall comply with the following principles:

1. The metrics shall be designed for simplicity and cost effectiveness when considering data collection and reporting requirements (D. 09-09-047 at 92);

2. Integrated metrics shall be developed for programs that employ more than one technology or approach, such as whole building programs (D. 09-09-047 at 92);
3. The metrics shall link short-term and long-term strategic planning goals and objectives to identified program logic models (D. 09-09-047 at 92);
4. The metrics shall track progress towards Commission-adopted market transformation goals (D. 09-09-047 at 91);
5. The metrics shall allow the Commission to evaluate progress toward market transformation as a factor in determining whether the programs should be continued, modified or eliminated in future portfolios (D. 09-09-047 at 98); and
6. Performance metrics shall be maintained and tracked in the Energy Efficiency Groupware Application (EEGA) database (or a similar database to be determined under the guidance of Energy Division) (D. 09-09-047 at 92).

Market Transformation Indicators:

D. 09-09-047 requires the Joint Utilities to include key data sources and indicators for which to begin collecting market transformation baseline data in their PPM Advice Letter, as noted above. D. 09-09-047 also requires Energy Division to develop recommendations for market transformation indicators and related data collection and tracking processes, and to present these recommendations in a workshop followed by a public comment period. D. 09-09-047 requires Energy Division to focus its efforts in this area on a “subset of portfolio programs or measures that have the most impact in terms of their importance, such as the Big Bold Programmatic Initiatives, their savings potential or dollars spent” (D. 09-09-047 at 96).

Chronology:

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D. 09-09-047 required the utilities to file the PPM Advice Letter 120 days from the effective date of the decision, originally falling on January 22, 2010. On January 19, 2010, the IOUs jointly requested and were granted by the Commission's Executive Director, a 120 day extension, thereby establishing a new due date of May 21, 2010. The Joint Utilities subsequently requested an additional extension of one week to allow additional time for internal review of the PPMs, establishing a final due date of May 28, 2010. In their filing the Joint Utilities utilized updated Program Performance Indicator Worksheets as provided by Energy Division on March 15, 2010.

Beginning in January, 2010, Energy Division staff worked with the Joint Utilities to clarify expectations for the contents of the Joint Utility AL. Between January and May of 2010, Energy Division staff held numerous meetings with the Joint Utilities, addressed many concerns, and provided clear, detailed guidance through a series of communications. These communications culminated in a May 11, 2010 guidance communication from Energy Division that confirmed the revised May 28, 2010 filing date and recognized that in view of unresolved interpretations of the Commission's direction, further conversations would be needed to identify the appropriate PPMs even after the Joint Utility AL was filed.

On May 28, 2010, the Joint Utilities filed Advice Letter 2476-E (SCE), Advice Letter 3120-G/3675-E (PG&E), Advice Letter 4114 (SCG), and Advice Letter 2172-E/1951-G (SDG&E) (hereafter the "Joint Utility AL").

The Joint Utility AL, filed on May 28, 2010, included the following:

- Completed Program Performance Indicator Worksheets (Attachment A);
- Updated program logic models as indicated in the Program Performance Indicator Worksheets (also part of Attachment A);
- A discussion to address the extent to which each program and sub-program plan included an end game for each technology or practice that transforms building, purchasing, and use decisions to become either standard practice, or incorporated into minimum codes and standards (Attachment B);

- Program targets for the Sustainable Communities pilot programs for Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company (Attachment C);
- Quantitative targets for the Sustainable Portfolios pilot program for Southern California Edison Company (Attachment D);
- A draft template that outlines how the Joint IOUs will develop, organize and transfer information on best practices to the statewide local government program coordinator (Attachment E);
- A description of the integrated program evaluation and management structures put in place to ensure linkages between subprograms to minimize lost opportunities for the Direct Install Commercial subprogram (Attachment F);
- A description of an integrated internal management and evaluation structure that will ensure increased coordination and information sharing between the local and the statewide commercial programs, both within utility and between utilities for Southern California Gas Company and San Diego Gas & Electric Company (Attachment G); and
- The IOUs' Program Performance Metric Selection Process Flow and Narrative (Attachment H).

NOTICE

Notice of AL 2476-E, AL 3120-G/3675-E, AL 4114 and AL 2172-E/1951-G was made by publication in the Commission's Daily Calendar. The Joint Utilities state that a copy of the Advice Letter was mailed and distributed in accordance with Section 3.14 of General Order 96-B.

PROTESTS

Advice Letter 2476-E, AL 3120-G/3675-E, AL 4114 and AL 2172-E/1951-G was timely protested by the Division of Ratepayer Advocates (DRA) on June 17, 2010.

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Pacific Gas and Electric Company, on behalf of the Joint Utilities, timely responded to the protests of the Division of Ratepayer Advocates on June 24, 2010.

DISCUSSION

Energy Division reviewed the Joint Utility AL and found it to be deficient on several points:

- **PPMs were not submitted for all 12 statewide (SW) programs and associated subprograms per D. 09-09-047.** For example, PPM worksheets for one SW program (i.e., Lighting Market Transformation) and one subprogram (i.e., Home Energy Efficiency Survey) were missing from the filing; and no PPMs were included for most SW subprograms (e.g., no metrics were filed for subprograms in the Commercial, Industrial and Agricultural sectors).
- **The scope of PPMs filed was insufficient to meet D.09-09-047 directives.** Overall, the filing does not meet the purposes for which D.09-09-047 intended PPMs to be developed.¹
- **Program objectives were unspecified and/or did not meet “SMART”² criteria.** Appendix 2 (p. 5) of D. 09-09-047 indicates that program objectives should be specified as and conform to the “SMART” convention. Rather than specify “SMART” program and subprogram objectives, the IOUs’ filing indicated “see [Program Implementation Plans] (PIPs)” in the required field of the PPM worksheet.” Staff’s review of the PIPs rarely turned up program objectives that meet “SMART” criteria.
- **Program logic models associated with the PPMs did not clearly link to Strategic Plan objectives.** OP 11 b of D. 09-09-047 required the Joint Utilities to file updated program and subprogram logic models alongside the completed Program Performance Indicator worksheets. While Strategic Plan objectives were often included in the filed PPM worksheets, the logic flow within the associated program/subprogram logic models from program activities, program outputs and program short term outcomes to market transformation long-term outcomes³ and Strategic Plan objectives was faulty.

¹ See Background section above for the list of purposes for PPMs contained in D. 09-09-047.

² Appendix 2 (p. 5) of D. 09-09-047 indicates that program objectives associated with Program Performance Metrics should be specified as and conform to the “SMART” convention as being: **Specific, Measureable, Ambitious, Realistic, and Time-Bound**

³ The updated Program Performance Indicator Worksheets provided by Energy Division to the
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- **The filing did not contain key data sources and market transformation indicators as required in D. 09-09-047.** The IOUs limited their proposed metrics to outcomes within utility control and did not propose PPMs for intermediate or long-term outcomes described in program and subprogram logic models.⁴ The IOUs did not propose long term market transformation objectives for their programs in the Joint Utility AL filing, and suggested that appropriate long term market transformation indicators be determined during 2010-2012 EM&V planning process between ED and the IOUs.⁵

Energy Division undertook steps to collaborate with utility personnel to organize a compliant document.

On June 25, 2010, Energy Division staff issued a data request to gather information on intermediate work products that Joint Utility statewide program teams had developed in

Joint Utilities on March 15, 2010 defined these terms as follows: 1) **“Program activities”** refers to performance metrics associated with the critical work activities in the current program cycle that will result in specific program outputs and outcomes.... Activities performance metrics should line up with the "activities" box in the logic model; b) **“Program outputs”** represent what a program actually does; output metrics should be high-quality and efficient, and critical for achieving intended outcomes... [Program] output performance metrics should line up with the "output" box in the logic model; c) **“Program short-term outcomes”** represent the results a program produces; outcomes should measure the effectiveness and success of a program during the current program cycle... Short-term outcomes performance metrics should line up with the "short-term outcome" box in the logic model; d) **“Market Transformation long-term outcomes”** represent the results a program(s) produce(s); [market transformation] long-term outcomes should measure the effectiveness and success of a program inclusive of the current program cycle and spanning forthcoming cycles.... Market transformation long-term outcome metrics are understood to indicate changes in the California market caused in part by other IOU programs or influences beyond IOU programs. Market transformation long-term outcome metrics should line up with the "intermediate outcomes" (the period spanning 2013-15) as well as "Long-term outcomes" (the period spanning 2016-2020) in the [IOUs] program logic model.

⁴ The IOUs program logic models included “intermediate outcomes” as well as the “short term” and “long term” outcomes described above. Both intermediate and long term outcomes described in the IOU logic models generally corresponded to outcomes that resulted from changes in the California market caused in part by other IOU programs or influences beyond IOU programs. See Joint Utility AL for examples.

⁵ The IOUs are referring here to the Energy Division and IOU joint EM&V prioritization process described in D. 10-04-029. See June 24, 2010, Joint Utility response to protest of DRA to the Joint Utility AL filing.

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the period leading up to the May 28th Joint Utility AL filing. The Joint Utility response was received on July 14, 2010.

Between July 14, 2010 and September 15, 2010, Energy Division staff used information contained in the July 14, 2010 data request response, the May 28, 2010 Joint Advice Letter filing, and Program Implementation Plans and other guidance as approved in D. 09-09-047 to review and modify the May 28, 2010 Joint Utility AL contents. As part of this process, Energy Division staff sought input from its program performance and market transformation expert consultants contracted with Energy Division to advise on 2010-2012 energy efficiency program evaluations.

Based on this review, Energy Division transmitted its suggested modifications to the Joint Utilities on September 15, 2010 in an Energy Division “counter-proposal.” In determining necessary modifications, Energy Division staff accepted, rejected or modified the information in the PPM worksheets submitted in the Joint Utility AL or generated new content as necessary to attempt to bring the filing into compliance with D.09-09-047. Energy Division:

1. Identified Strategic Plan goals and strategies addressed by the statewide programs and subprograms;
2. Specified “SMART” short-term program and subprogram objectives;
3. Proposed short-term (2010-2012) program and subprogram Program Performance Metrics;
4. Specified SMART long-term market transformation objectives (primarily linked to the Strategic Plan); and
5. Identified long-term (2013-2030) market transformation indicators.

Table 1 below presents a typology of metrics that staff used to categorize and screen candidate Program Performance Metrics as contained in Energy Division’s counter-proposal. Energy Division developed this typology with the aim of ensuring PPMs would be simple and cost-effective with regard to data collection and reporting requirements as required by D. 09-09-047 at p. 92.

Table 1. Categorization and Screening Typology of PPMs and Market Transformation Indicators

Note: Metric types “2A” and “2B” are what Energy Division suggested the Joint Utilities should report to fulfill the requirements of D. 09-09-047.

Metric Name	Metric Type	Description	IOU Reporting	Adopted by Resolution ?	Notes / Purpose
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PPMs	1	Short term (2010-2012) <i>program</i> activity or output	N/A (IOUs track, but do <i>not</i> report)	N	Data that could be gathered via data request anyways, since the IOUs should already have.
	2A	Short term (2010-2012) <i>program</i> activity, output or outcome	IOUs report <i>annually</i>	Y	Fulfills D.09-09-047 requirements related to PPM filing, <i>excluding consideration of market transformation indicators</i> .
	2B	Short term (2010-2012) <i>program</i> output or outcome	IOUs report <i>at the end of the program cycle</i>	Y	These are key metrics that the Commission, staff and parties need to monitor the performance of programs and subprograms.
MTIs	3	Long term (2013-2030) <i>market</i> outcome	To be determined*	Y	Fulfills D.09-09-047 requirements to identify "market transformation indicators and key data sources" (p. 97).
* The final number, and determination of who is responsible for reporting, is subject to the 2010-2012 EM&V work plan process (pursuant to D.10-04-029) and the prioritization and negotiations between Energy Division and the IOUs. Market transformation indicator results shall be reported, as available, by Energy Division or the IOUs, depending on who conducts the necessary market studies.					

Energy Division and Joint Utility staff met on September 20-21, 2010 to review, discuss and collaboratively modify Energy Division’s suggested improvements to the Joint Utility AL filing. On September 30, 2010, the Joint Utilities transmitted additional suggested modifications to Energy Division. The Joint Utilities and Energy Division subsequently met and came to agreement on a final set of PPMs that fulfill the principles identified for PPMs in D. 09-09-047 (as summarized in the background section above).

Final Program Performance Metrics for the Joint Utilities 2010-2012 statewide energy efficiency programs and subprograms are presented in Appendix A. Initial market transformation indicators are presented in Appendix B. For each 2010-2012 statewide energy efficiency program and subprogram there is a complete PPM worksheet that reports a summary of identified Strategic Plan goals, short and long term objectives, program performance metrics and market transformation indicators. Appendix C gives an example of the information that can be found on-line at the Commission’s Energy Data Website at: www.energydataweb.com/cpuc/default.aspx.⁶

D. 09-09-047 required Energy Division to develop detailed recommendations for market transformation indicators and present their recommendations in a workshop followed by a public comment period. **We believe that the process undertaken by Energy Division working with the Joint Utilities to develop the initial set of market transformation indicators included in Appendix B is the equivalent to what we expected to be developed in a workshop. We therefore request that Parties**

⁶ See document in topic area “Complete Program Performance Metrics (PPM) Worksheets for 2010-2012 Energy Efficiency Programs.”

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provide detailed comments on the initial market transformation indicators shown in Appendix B as part of this resolution comment period.

Further, the Joint Utilities should work collaboratively with Energy Division staff to consider the resolution comments and select a subset of these initial market transformation indicators (“final market transformation indicators”) for data collection, tracking and reporting through 2010-2012 energy efficiency evaluation, monitoring and verification (EM&V) activities. The Joint Utilities and Energy Division together shall post final market transformation indicators, and any available associated baseline data for these indicators, to the Energy Efficiency Groupware Application (EEGA) site together with the EEGA PPM reporting database no later than September 2011. Subsequent data reporting on progress against these market transformation indicators also shall be posted to the EEGA site starting in January 2012.

Commission adoption of these PPMs in this resolution does not prejudice the outcome of the Risk Reward Incentive Mechanism (RRIM) proceeding, Rulemaking (R.) 09-01-019. R. 09-01-019 is considering changes to the RRIM structure. If the Commission, in that proceeding, contemplates a RRIM structure tied to PPMs, the Commission would consider at that time which specific metrics, if any, may be appropriate for this purpose.

Protests:

DRA raised the following issues in its protest letter:

- 1) **The Adequacy of Joint Utility-Proposed Program Performance Metrics**
- 2) **The Ability of the Joint Utilities to Implement Market Transformation Strategies**
- 3) **Omission of Critical Information Describing End Games for Technologies and Practices**
- 4) **The Adequacy of the 2010-2012 Utility Energy Efficiency Portfolio to support Strategic Plan objectives and market transformation goals**

- 1) **The Adequacy of Joint Utility-Proposed Program Performance Metrics.**

DRA stated that the Joint Utility AL does not contain meaningful performance metrics, that those provided are incomplete, vague and unresponsive to the intent of the Commission’s directives, that the Joint Utility AL demonstrates that the IOUs do not have the ability to devise effective PPMs (p. 3), and the Commission should therefore transfer responsibility of developing PPMs to Energy Division.⁷

⁷ DRA Protest to Joint Utility AL, June 17, 2000, pgs. 1-3.

The Joint Utilities responded by stating that they designed the PPMs in the Joint Utility AL to meet guidance provided by Energy Division and to link directly to program activities and the Strategic Plan goals and objectives. They stated that the PPMs were meaningful and provided an example from the statewide Codes and Standards program to support this statement. They said that the PPMs provided were designed to track the health of the programs and their alignment with the Strategic Plan.

As is discussed in detail above, Energy Division's review of the Joint Utility AL found that the proposed PPMs did not meet the intent or specific requirements of D. 09-09-047. Upon receipt and review of the Joint Utility AL, Energy Division staff subsequently used the logic models and PPMs provided in the May 28, 2010 AL filing, Program Implementation Plans and other guidance approved in D. 09-09-047, and advice from evaluation consultants to review and modify what the Joint Utilities submitted. Energy Division transmitted modified PPMs to the Joint Utilities for their consideration in September, 2010. The Joint Utilities subsequently worked constructively with Energy Division staff to agree upon the final set of PPMs being approved in this resolution.

Determining effective Program Performance Metrics is an art more than a science. A process of refinement of Energy Division guidance and effective, iterative communication between Energy Division and the Joint Utilities was necessary to produce PPMs that meet the intent and specific requirements of D. 09-09-047. Therefore, the Commission does not agree that the Joint Utilities *do not have the ability* to devise effective PPMs, despite the significant omissions of their Joint Utility AL, since the process of collaboration outlined above demonstrates to the contrary. DRA's recommendation that "the Commission should... transfer responsibility of developing PPMs to Energy Division," was at least partly implemented in the course of Energy Division's extensive involvement in development of PPMs for the 2010-2012 period as contained in this resolution.

2) The Ability of the Joint Utilities to Implement Market Transformation Strategies and (3) The Omission of Critical Information Describing End Games for Technologies and Practices.

On these points DRA in its protest letter states that the omissions in the Joint Utility AL illustrate that the IOUs are not the appropriate organizations to implement market transformation strategies—"it is not their core expertise and the Utilities apparently view it as too risky". DRA states that the Joint Utilities failed to provide required information in the filing and ignored the models provided for market transformation data collection such as the Northwest Energy Efficiency Alliance (NEEA).⁸

⁸ DRA Protest to Joint Utility AL, June 17, 2010, p. 4.

DRA asserts that the Joint Utilities failed to include “a discussion to specifically address the extent to which each program and sub-program plan included an end-game for each technology or practice that transforms building, purchasing, and use decisions to become either standard practice, or incorporated into minimum codes and standards” as required by D. 09-09-047 at 367.

The Joint Utilities responded by reiterating that their Advice Letter had stated that utility programs are not the sole influencing factor in the market transformation process and that California generally lacks the type of data needed to understand and analyze market transformation. They stated that it was for these reasons that the Joint Utility AL did not provide information on each program or subprogram’s “end game.” The Joint Utilities explained that energy efficiency programs generally follow traditional market adoption curves and that technologies typically exit programs “... when they are no longer cost-effective from a program implementation perspective, when they are integrated into codes and standards or become industry standard.”⁹ They offered to “continue to work with the EM&V process to plan, perform, and analyze further studies to identify end games for specific technologies or practices of specific interest or concern.”¹⁰ The Joint Utilities noted that their ability to collect the data needed for end-game analysis will depend on Energy Division and utility collaborative decisions about EM&V, that investor owned utilities (IOUs) have thirty years experience implementing successful energy efficiency programs and are therefore integral to the market transformation process, and that the IOUs will continue to work with Energy Division and other stakeholders to understand and effect market transformation.¹¹

It is premature and outside of the scope of this resolution to determine herein the IOUs long-term roles in energy efficiency market transformation efforts. This AL was filed with regards to the 2010-2012 energy efficiency portfolios and their specific programs. Both utility programs and market activities are sure to evolve in later years. Data to analyze market transformation within specific markets or technologies is indeed often lacking in both California and other states. Through the efforts of Energy Division subsequent to the Joint Utility AL filing, and with input from the Joint Utilities, this resolution now identifies potential market transformation indicators for each of the statewide energy efficiency 2010-2012 programs and subprograms. We request Party comments on these market transformation indicators as part of this resolution comment period. Once a final set of market transformation indicators exists, the EM&V planning

⁹ Joint Utility reply to DRA protest, p. 4.

¹⁰ Joint Utility reply to DRA protest, p. 4.

¹¹ Joint Utility reply to DRA protest, p. 4.

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process can help inform the means for obtaining data and tracking progress towards desired end games.

Further, D. 09-09-047 directs that:

“in future applications, the utilities shall provide rationale for continuing the measure and supporting material for each significant portfolio-level efficiency measure that they believe has not yet achieved market transformation... For any program that the utilities propose to continue but which has failed to achieve established benchmarks for market transformation in previous cycles, the utilities must provide additional rationale for continuing these programs despite non-performance. The utilities shall work with the Energy Division to agree on the format by which such information shall be provided” (D. 09-09-047 at 99).¹²

We reiterate here our expectation that the above directive will indeed be implemented by the Joint Utilities and will be based on program experience and market data collected during the 2010-2012 period.

4) The Adequacy of the 2010-2012 Utility Energy Efficiency Portfolio to support Strategic Plan objectives and market transformation goals

DRA states that there is little difference between 2010-2012 and 2006-2008 portfolios and that this indicates a lack of utility capacity or intent to support Strategic Plan objectives and/or market transformation goals.

The Joint Utilities respond that many features distinguish the two portfolios and that they do have the capacity and intent to support Strategic Plan objectives and market transformation goals. The Joint Utilities note that twelve aligned statewide programs now exist that did not before. The portfolios are aligned with the Strategic Plan and advance integrated demand side management to create offerings of greatest benefit to customers. They state that the portfolios focus on educating customers about the benefits of holistic, rather than piecemeal, energy renovations.¹³

We do not agree that little distinguishes the IOUs 2010-2012 and 2006-2008 energy efficiency portfolios which would indicate that the Joint Utilities have no capacity or intent to support Strategic Plan objectives or market transformation goals. In

¹² See also D. 09-09-047 OP 9.

¹³ Joint Utility reply to DRA protest, p. 5.

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addition to the points mentioned by the IOUs in their response to DRA's protest on this point, for example, we note the following significant changes to the 2010-2012 IOU energy efficiency portfolios:

- The creation of a new statewide marketing, education and outreach brand and web portal;
- Strict budget caps placed on IOU incentives for medium-screw base CFLs;
- Significant increase in funding for Advanced Lighting Programs;
- The creation of a statewide Lighting Market Transformation program;
- The approval of \$100 million in funding for a new comprehensive whole house energy improvement program for single and multi-family dwellings;
- Inclusion of numerous pilot projects, including:
 - Continuous Energy Improvement Pilots;
 - Zero Net Energy and Sustainable Communities Pilots;
 - Several local government partnership pilots, including that of Green Communities, Middle Income Direct Install programs, and program support for local governments implementing Strategic Plan or other innovative programs; and,
- Required benchmarking of commercial and institutional buildings "touched" by IOU programs.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived or reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

Comments are due by November 22, 2010. Reply comments are due by November 26, 2010.

FINDINGS AND CONCLUSIONS

1. Commission Decision (D.) 09-09-047 OP 11 directs Southern California Edison Company (SCE), Pacific Gas & Electric Company (PG&E), Southern California Gas

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Company (SCG) and San Diego Gas & Electric Company (SDG&E) (the “Joint Utilities”) to jointly file a “Program Performance Metrics” Advice Letter within 120 days of the effective date of the decision.

2. The Joint Utilities formally petitioned and were granted permission to extend the filing date to May 21, 2010 and subsequently to May 28, 2010. Advice Letter (AL) 2476-E (SCE), AL 3120-G/3675-E (PG&E), AL 4114 (SCG), and AL 2172-E/1951-G (SDG&E) (the “Joint Utility AL”) was filed on May 28, 2010.
3. The Joint Utility AL was deficient on several counts: (a) Program Performance Metrics (PPMs) were not submitted for all 12 statewide (SW) programs and associated subprograms; (b) the scope of PPMs filed was insufficient to meet D.09-09-047 directives; (c) program objectives were unspecified and/or did not meet “SMART”¹⁴ criteria; (d) program logic models associated with the PPMs did not clearly link to Strategic Plan objectives; and (e), the filing did not contain key data sources and market transformation indicators as required in D. 09-09-047.
4. Energy Division and the Joint Utilities collaborated to develop the final set of Program Performance Metrics presented in Appendix A and the initial market transformation indicators presented in Appendix B.
5. In accordance with D. 09-09-047, we find that:
 - a. The final set of PPMs have been designed for simplicity and cost effectiveness when considering data collection and reporting requirements;
 - b. Integrated PPMs for subprograms that employ more than one technology or approach and integrated PPMs that span associated subprograms were developed to the extent possible;
 - c. The final set of PPMs and initial market transformation indicators link short-term and long-term strategic planning goals and objectives to identified program logic models;
 - d. The final set of PPMs and initial market transformation indicators track progress towards Commission-adopted market transformation goals; and,

¹⁴ Appendix 2 (p. 5) of D. 09-09-047 indicates that program objectives associated with Program Performance Metrics should be specified as and conform to the “SMART” convention as being: Specific, Measurable, Ambitious, Realistic, and Time-Bound

- e. The PPMs appear to allow the Commission to evaluate progress toward market transformation as a factor in determining whether the programs should be continued, modified or eliminated in future portfolios.
6. The Commission finds the Program Performance Metrics contained in Appendix A to be reasonable and in compliance with D. 09-09-047.
7. The initial market transformation indicators identified in Appendix B satisfy D. 09-09-047 OP 10 requirements that the Joint Utilities include key data sources and indicators for which to begin collecting baseline data in their Program Performance Advice Letter.
8. Strategic Plan goals and strategies, and short and long term objectives associated with the PPMs adopted in this resolution are specified in the completed PPM worksheets located at the Commission's Energy Data Website at: www.energydataweb.com/cpuc/default.aspx and illustrated by the example in Appendix C.
9. Commission adoption of these PPMs in this resolution does not prejudice the outcome of the Risk Reward Incentive Mechanism (RRIM) proceeding, Rulemaking (R.) 09-01-019. If R. 09-01-019 adopts a RRIM structure tied to PPMs, the Commission would consider at that time which specific metrics, if any, may be appropriate for this purpose.

THEREFORE IT IS ORDERED THAT:

1. Advice Letters 2476-E (Southern California Edison Company); Advice Letter 3120-G/3675-E (Pacific Gas & Electric Company), Advice Letter 4114 (Southern California Gas Company), and Advice Letter 2172-E/1951-G (San Diego Gas & Electric Company) are approved as modified in this order.
2. Program Performance Metrics for the Joint Utilities 2010-2012 statewide energy efficiency programs and subprograms are approved as specified in Appendix A.
3. An initial set of long-term market transformation indicators associated with the Joint Utility 2010-2012 statewide energy efficiency programs and subprograms are identified in Appendix B.

4. The Joint Utilities are directed to work collaboratively with Energy Division staff to finalize a subset of these market transformation indicators for subsequent data collection, tracking and reporting as part of 2010-2012 energy efficiency evaluation, monitoring and verification (EM&V) activities. The Joint Utilities and Energy Division together shall post final market transformation indicators, and any available associated baseline data for these indicators, to the Energy Efficiency Groupware Application (EEGA) site together with the EEGA PPM reporting database no later than September 2011. Subsequent data reporting on progress against these market transformation indicators also shall be posted to the EEGA site starting in January 2012.
5. The Joint Utilities are directed to track and report progress against the approved Program Performance Metrics on an annual basis or as specified in Appendix A.
6. This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on December 2, 2010; the following Commissioners voting favorably thereon:

Paul Clanon
Executive Director

PROGRAM PERFORMANCE METRICS for STATEWIDE PROGRAMS and SUBPROGRAMS

Legend for Metric Type and Reporting Frequency:

Metric Type	Description	IOU Reporting Frequency
2a	Short term (2010-2012) program activity, output or outcome	IOUs report <i>annually</i>
2b		IOUs report <i>at the end of the program cycle</i>

Note: "Y/N" indicates a Yes/No metric. These are binary metrics based on whether the condition is or is not satisfied.

SW PROGRAM / Sub-Program	PROGRAM PERFORMANCE METRIC (PPM)	Metric Type
COMMERCIAL / INDUSTRIAL / AGRICULTURAL COMBINED * Data to be reported in disaggregate form by SW program (commercial, industrial, and agricultural)		
	*1. Number and percent (relative to all eligible customers) of commercial, industrial and agricultural customers participating in sub-programs (NRA, Deemed, Calculated, and CEI) by NAICS code, by size (+/- 200 kW per yr or +/- 50K therms per yr), and by Hard to Reach (HTR)** ** "HTR" is as defined in the EE Policy Manual	2a
Continuous Energy Improvement (CEI)	*1. Number and percent of commercial, industrial, and agricultural CEI participants that meet short-term (2010-2012) milestones as identified by their long term energy plans.	2a
	*2. Lessons learned, best practices, and plan to ramp up the CEI program are developed. (Y/N)	2a
	*3. Number and percent of commercial, industrial and agricultural customers that created an energy plan via CEI will be tracked by program.	2a
Non-Residential Audit Program (NRA)	*1. Number and percent of commercial, industrial, and agricultural customers receiving non-residential audits by NAICS and SIC code.	2b
	*2. For commercial, industrial, and agricultural customers who received audits, the number and percent of adopted audit-recommended technologies, processes and practices, (Report disaggregated data by type of audit - Basic, Integrated, and Retro-commissioning audit).** **Data sources for reporting will come from (a) program tracking databases and (b) process evaluation to refine estimates.	2b
Deemed Incentives	*1. Number and percent of new, improved, or ETP measures** installed in the commercial, industrial and agricultural programs.	2a

	** "ETP measure" defined as ET measures first introduced into the EE portfolio since January 1, 2006	
Calculated Incentives	*1. Number and percent of new, improved, or ETP measures installed in completed calculated projects.	2a
	*2. Number, percent, and ex-ante savings from commercial, industrial and agricultural sector of projects with ETP measures** included. (Report disaggregated savings by measure and number of installations by measure.) ** "ETP measure" defined as ET measures first introduced into the EE portfolio since January 1, 2006	2b

COMMERCIAL		
Deemed Incentives (Commercial only)	1. Number and percent of participating commercial customers receiving the "Integrated Bonus."** ** "Integration Bonus" is an incentive mechanism to promote greater integration of DSM resources, available to customers who (a) sign up or are already signed up for a DSM program, and (b) purchase, install, and/are eligible to receive a rebate for an energy saving device.	2b
Direct Install	1. Number and percent of Direct Install participants that participate in other resource programs or OBF.	2a
	2. Number of and percent of participants that are hard to reach (HTR).** ** "HTR" is as defined in the EE Policy Manual	2a

INDUSTRIAL		
	1. The number and percent of first time** participants in energy efficiency programs. (Report disaggregate data by sub-program) **"First time" means customer has not participated in energy efficiency programs since December 31, 2005.	2a

AGRICULTURE		
	1. Number and percent of first-time** participants in energy efficiency programs. (Report disaggregate data by sub-program) **"First time" means customer has not participated in energy efficiency programs since December 31, 2005.	2b
Pump and Test Repair	1. Percent of agricultural pump tests that lead to a repair or replacement.	2b

RESIDENTIAL		
	1. By targeted populations (homeowners, renters, property owners/managers),	2b

	percent increase in the level of: (a) EE awareness (b) EE knowledge (c) EE attitude...("AKA")	
Home Energy Efficiency Survey (HEES)	1. Percentage of HEES participants that enroll in (a) whole house and (b) other resource programs	2b
Home Energy Efficiency Rebate	1. Percentage of program rebates made through the point-of-sale mode relative to all rebates	2a
	2. Percentage of participating stores located in hard-to-reach (HTR)** zip-codes relative to all program participating stores. ** "HTR" is as defined in the EE Policy Manual	2a
	1. Percentage of non-lighting measure savings as compared to the total EE measures adopted in the MFEER program. (KWh for single-commodity IOU and BTU for mixed-commodity IOU.)	2a
Business Consumer Electronics (BCE)	1a: Number of participating retailers and other resellers receiving training. 1b: Number of participating retailers receiving detailing.	2a
	2. The numbers and names of specific types of market actors (retailers, buying groups, manufacturers, and distributors) participating in the program and the approximate percent of all potential market actors that this represents (Reported as specified in reporting template include at the end of this Appendix.)	2b
Advanced Lighting	1. Percent kW/kWh/Quantity of incented products under the Advanced Lighting program as compared to the Basic Lighting program, by product type.	2a
	2. Percent of products incented under the Advanced Lighting Program by distribution channel* and by hard-to-reach (HTR)** zip-codes. *Distribution channels" are as defined in 06-08 Upstream Lighting Study **"HTR" is as defined in the EE Policy Manual	2a
	1. During 2010-2012, implement marketing efforts and/or campaign to encourage prompt installation of CFLs as required in D.09-09-047. (Y/N)	2b
Basic CFL	2. Percent of products incented under the Basic Lighting Program by distribution channel* and by hard-to-reach (HTR)** zip-codes. *Distribution channels" are as defined in 06-08 Upstream Lighting Study **"HTR" is as defined in the EE Policy Manual	2a
	3. Percent kW/kWh/Quantity of incented products under the Basic CFL program as compared to the Advanced Lighting program	2b
	1. Level of program participants' AKA ("Awareness, Knowledge, Attitude") toward the appliance recycling subprogram.	2b
Appliance Recycling	2. Number of program appliance units by year, appliance type, model # (as	2a

	available), age (estimated), and size.	
Whole House Retrofit	1. Number of homes treated in the program for 2010-2012. (Report by prescriptive and performance program.)	2a
	2. Number of enrolled contracting firms participating in the program	2a
	3. Average Ex-ante savings per home as reported (average kWh, therms, kW) for both performance and prescriptive programs by climate zone	2a
	4. Average and range of evaluated energy savings per home (prescriptive and performance programs)	2b
	5. Number and percentage of homes not passing Quality Assurance/Quality Control review, by IOU	2a

LIGHTING MARKET TRANSFORMATION (LMT)		
	1. Develop a lighting technology roadmap (i.e., what's new and available by when (MM/YY), using available information from all IOU and external parties) by January 2011 and update bi-annually. (Y/N)	2b
	2. Develop a communication plan, by March 2011, to make the lighting technology roadmap, pipeline plans, and technology resource information from this program available on the statewide marketing, education and outreach (ME&O) web portal by July 2011, and update annually. (Y/N)	2b
	3. Number of recommended projects initiated and completed, with findings and recommendations (i.e., this is a tracking of lighting related projects for ET, Advanced Lighting and 3 rd parties), by project type: (a) work papers, (b) white paper, (c) pilot project (d) strategy document.	2b
	4. Number of EE lighting measures added, removed, or updated as a result of LMT activities and influence, and reported in annual LMT June Report	2a

NEW CONSTRUCTION		
California Advanced Homes Program (CAHP)	1. Number and percentage of committed CAHP participant homes (applied and accepted) with modeled, <i>ex-ante</i> savings exceeding 2008 T24 units (Single family (SF) and multi-family (MF)) by 15%-19%, by 20%-29%, 30%-39%, and 40+%.	2a
	2a. Percentage of (current year SF CAHP program paid units)/ (SF building permits within service territories from the previous year)	2a
	2b. Percentage of (current year MF CAHP program paid units)/ (MF building permits within service territories from the previous year)	
	3. Number and percentage of CAHP participant new homes: (a) verified by IOUs as built exceeding Title 24 (T24) building standards (SF and MF) by 15%-19%, 20%-29%, 30%-39%, 40%-70%.	2b

Residential ENERGY STAR® Manufactured Housing	1. Number of manufactured housing units sold in IOU service territories (via retailers and/or manufacturers) participating in program	2a
	2. Number and percentage of participating projects utilizing: (a) whole house incentive for gas heat; (b) whole house incentive for electric heat	2a
Commercial Savings by Design	1. Average site energy install, ex-ante (kBtu/sq ft-yr and demand (kW/sq ft) for participating commercial new construction by building type and climate zone	2b
	2. Percentage of committed participating Whole Building Approach projects that are expected to reach a minimum of 40% less energy than 2008 T24 codes requirements	2b

CODES AND STANDARDS		
Building Standards Advocacy	1. Number of Residential and Commercial CASE studies, as defined in Building Standards Objectives 1 & 2 for which adoption by the CEC is anticipated by the IOUs, targeting efficient technologies practices and design in each of the following areas: lighting; HVAC; envelope; water heating; and cross-cutting measures in support of the following: (a) Integrated Design, including data management and automated diagnostic systems, with emphasis on HVAC aspects of Whole Building, (b) ZNE technologies, practices, and design in Residential Sector, (c) Peak efficient technologies including plug loads and HVAC technologies, (d) Advanced Lighting Technologies	2b
Appliance Standards Advocacy	1. Number of draft CASE Studies, as defined in Appliance Standards Objective 1, developed as mutually agreed upon by the CEC and IOUs in support of plug loads, refrigeration, advanced lighting, and/or other technologies that are adopted by the CEC, within authorized budget.	2b
Compliance Enhancement	1. Number of role-based, Title 24, training sessions delivered.	2a
Reach Codes (RC)	1. Number of jurisdictions in IOU Service territories implementing Reach Codes in residential and/or commercial sectors as a result of the RC sub-program activities.	2b

RESIDENTIAL and COMMERCIAL HVAC		
Upstream HVAC	1. kW/ton incentivized in the program. (Note: Decrease in metric indicates positive progress), combined with the number of units that are incentivized in the program vs. units over 5.4 tons shipped to California as tracked through AHRI shipment data. (Assuming the availability of AHRI data.)	2a
	2. The distributor stocking percentage of units eligible for program. (Note: Assumes availability of individual distributor data and/or aggregated data from HARDI.)	2b

<p>Residential Energy Star Quality Installation</p> <p>Contracting installations that are participating in statewide residential QI program as a share of the targeted market*</p> <p>* "Target market" defined as C20 licensed HVAC contracting companies in CA.</p>	<p>2a</p> <p>2. Average percentage of "certified" HVAC technicians within each contracting company that participates in the residential QI program.</p>	<p>2b</p>
<p>Commercial Quality Installation</p>	<p>1. Percentage of HVAC contracting companies that are participating in statewide commercial QI program as a share of the targeted market*</p> <p>* "Target market" defined as C20 licensed HVAC contracting companies in CA.</p>	<p>2a</p>
<p>Quality Maintenance Development</p>	<p>2. Average percentage of "certified" HVAC technicians within each contracting company that participates in the commercial QI program.</p>	<p>2b</p>
<p>Technologies and System Diagnostics</p>	<p>1. Measured progress towards specific milestones provided in the project GANTT chart indicating the development/finalization of this IOU program based on Quality Maintenance standards.</p>	<p>2a</p>
<p>Workforce Education & Training</p>	<p>1. Status of progress towards completion of roadmap (i.e., plan and recommendations) to support the development of a national standard diagnostic protocol (activities, concrete actions taken).</p>	<p>2a</p>
<p>1. Status of progress towards completion (activities, concrete actions taken) of detailed WE&T roadmap (plans, goals, timelines and recommendations).</p>		<p>2a</p>

<p>EMERGING TECHNOLOGIES (ET)</p>		
	<p>1. The number of new "proven" ET measures adopted* into the EE Portfolio.</p> <p>* "Adoption" means measure is available to end-use customers through IOU programs. Adoption of a measure may be attributed to one or more ET sub-programs</p>	<p>2b</p>
	<p>2. Potential energy impacts* (energy savings and demand reduction) of the adopted ET measures into the EE portfolio.</p> <p>* Potential energy impacts to be reported based on ET project findings and estimated market potential (reported through quarterly ET database updates)</p>	<p>2b</p>
<p>Technology Assessment (TA)</p>	<p>1. Number of ETP measures which have undergone TA that are adopted* into the EE portfolio, including but not limited to each of the following:</p> <p>(a) Advance HVAC technologies</p> <p>(b) High efficiency plug loads and appliances</p> <p>(c) Advanced lighting technologies</p>	<p>2b</p>

	* "Adoption" means measure is available to end-use customers through IOU programs.	
Scaled Field Placement (SFP)	1. Number of ETP measures that have undergone SFP and are adopted* into the EE portfolio. * "Adoption" means measure is available to end-use customers through IOU programs.	2b
Demonstration Showcases (DS)	1. Self-reported increase in knowledge by randomly selected sample of targeted stakeholders who either 1) visited the DS or 2) were informed about the DS in a workshop about benefits of the DS.	2b
Market and Behavioral (M&B) Studies	1. Self-reported increased in knowledge among internal ET stakeholders about the technologies targeted by the M&B studies.	2b
Technology Development Support (TDS)	1. Number of new performance specifications and/or Use Cases* produced as a result of TDS sub-program. * "Use Cases" describe the need for a technology or application.	2b
	2. Number of new performance specifications and/or Use Cases presented to manufacturers/private industry for possible action.* * "Possible action" means that the manufacturer/private industry considered TDS results in their product development efforts.	2b
Technology Resource Incubation and Outreach	1. Percent of attendees who voluntarily respond and self-report increased understanding on how to do business with utilities.	2b
Technology and Testing Center (TTC)	1. Number of ETP measures evaluated at the TTCs in support of ET Assessments Sub-Program that are adopted* into the EE portfolio (and/or available in the market). * "Adoption" means measure is available to end-use customers through IOU programs.	2b

INTEGRATED DEMAND-SIDE MANAGEMENT (IDSM)

	1. Awareness and knowledge among relevant IOU program staff (to be specified – e.g. account reps, engineers that administer the audit (3 rd party); program designers and managers) regarding how IDSM relates to and impacts their efforts and programs	2b
	2. Complete and make available integrated audit or survey tools (on line and on-site) to residential and non-residential customers in all IOU programs that provide audits / surveys (and include EE, Demand Response (DR), and Distributed Generation (DG) recommendations). (Y/N)	2b
	3. Number and percentage of integrated audits provided to each customer class and NAICS code.	2b
	4. A status report that identifies how well "integrated" (EE, DR, DG) all IOU demand-side energy program offerings and components are (e.g., CEI, Commercial, Agricultural, Industrial, Residential, Audits) including lessons learned, best practices, improvement plans, and how the program portfolio is	2b

	addressing strategic planning goals / objectives and D.09-09-047 directives regarding integration, as well as the IDSM program objectives specified in the PPM Worksheet. The report will review how the IOUs have developed internal and external frameworks that support integration of IDSM programs and technologies. (Y/N)	
	5. Number and percent of integrated audit participants (identify NRA participants) in all customer classes (Residential, Commercial, Industrial, Agriculture) that implement recommended DSM measures / participate in other DSM programs (EE, DR, DG – Track which categories implemented / participated in) or other recommended technical process and practice improvements. (If possible, identify whether participants received incentives or not.)* *Data sources for reporting will come from (a) program tracking databases and (b) process evaluation to refine estimates.	2b
	6. Program participant awareness of IDSM practices in each of the market sector subprograms.	2b

MARKETING, EDUCATION AND OUTREACH (ME&O)		
	1. Awareness and knowledge of key elements of the Engage360 brand among customer groups specifically targeted by grassroots and social networking phase of the program.	2a
	2. Awareness and knowledge of energy efficient actions promoted by the ME&O program among customer groups specifically targeted by grassroots and social networking phase of the program.	2b
	3. The number and type of energy efficient actions self-reported by customer groups specifically targeted by grassroots and social networking phase of the program.	2b

WORKFORCE EDUCATION AND TRAINING (WE&T)		
Centergies	1. Percent increase in educational collaboration with partners from 2011 baseline. (Tracked and reported by educational level, and by number of partners operating in Title-1 communities.) * Educational “collaboration” is defined as seminars, outreach events and consultations as needed. These collaborations include exchanges of monetary or in-kind support and services (i.e., sharing meeting facilities, marketing/promotional services, etc.).	2b
	2. Percent increase in educational collaboration with organizations serving disadvantaged communities * Educational “collaboration” is defined as seminars, outreach events and consultations as needed. These collaborations include exchanges of monetary or in-kind support and services (i.e., sharing meeting facilities, marketing/promotional services, etc.).	2b
	3. Number of IDSM educational classes with substantial IDSM (EE, DR, and DG) content. * “Substantial” is defined as approximately 50% or more of class content must address	2b

	IDSM subject matter	
Connections	1. Percent increase in educational collaboration with partners. (Tracked and reported by educational level, and by number of partners operating in Title-1 communities.) * Educational "collaboration" is defined as seminars, outreach events and consultations as needed. These collaborations include exchanges of monetary or in-kind support and services (i.e., sharing meeting facilities, marketing/promotional services, etc.).	2b
	2. Percent of K-12 WET Connection program participants that are from Title-1 schools	2a
	3a. Complete baseline study to determine the current number of partnerships. (Y/N) 3b: Number of high school continuing education outreach partnerships in WET Connection	2a* * Starting 2011.

Reporting Matrix of Market Actors Participating in the Business and Consumer Electronics Program (each IOU to complete individually)

Category of Market Actors (entity engaged in some aspect of the supply chain for electronics)	Market Actor Category Definition	Market Actor	Number (and percent) of stores within Service Territory	Number (and percent) of stores detailed	Training materials distributed (yes/no)*	Television		Desktop Computers		Computer Monitors		How "double dipping" is avoided
						Business	Consumers	Business	Consumers	Business	Consumers	
Retailers	An entity which sells goods to the consumer. Retailers include large businesses such as Wal-Mart, and also smaller, non-chain locations run independently.					x	x	x	x	x	x	Only incent products sold directly to the end-customers
Buying Groups	An entity that is created to leverage the purchasing power of a group of businesses to obtain discounts from vendors based on the collective buying power of the members. This is a subset of Retailers.						x					Do not incent products sold by the Buying Group to any retailers participating in another portion of the program.
Manufacturers	An entity that makes a good through a process involving raw materials, components, or assemblies, usually on a large scale. Manufacturers (e.g., H-P, Dell, Sony) sell through many channels, including: direct to end customers (business and consumer), to Distributors, to Value Added Resellers and to Retailers.		n/a	n/a		x	x	x	x	x	x	Only incent on products sold to the end customer online, through phone sales or in-person sales (disallow any sales to retailers, distributors or other market actors)
			n/a	n/a								
Distributors	An entity that buys non-competing products or product-lines, warehouses them, and resells them to retailers, value added resellers (VARs) or direct to the end user. Examples include Ingram Micro, SYNEX and Comcast.											Only incent on products sold to VARs or end customers. Currently, there are no VARs targeted for participation in the program. If VARs are ever included in the incentive program, then sales to VARs would be disallowed.

Note: This matrix will be constantly evolving. New products will be added, some may be taken off once market transformation has occurred. Additionally, the Market Actor categories identified may be expanded. For example, when set-top boxes are added to the program, a different set of market actors will need to be engaged (e.g. Comcast).

* Training materials will be compiled into a portfolio. Materials range from presentations, one-pagers handed to sales associates, on-line training modules, etc.

APPENDIX B

PRELIMINARY LIST OF MARKET TRANSFORMATION INDICATORS for STATEWIDE PROGRAMS and SUBPROGRAMS

Legend for Metric Type and IOU Reporting Frequency:

Metric Type	Description	IOU Reporting Frequency
3	Long term (2013-2030) <i>market outcome</i>	To be Determined *
<p>* The final number, and determination of who is responsible for reporting, is subject to the 2010-2012 EM&V work plan process (pursuant to D.10-04-029) and the prioritization and negotiations between Energy Division and the IOUs. Market transformation indicator results shall be reported, as available, by Energy Division or the IOUs, depending on who conducts the necessary market studies.</p>		

Note: "Y/N" indicates a Yes/No metric. These are binary metrics based on whether the condition is or is not satisfied.

SW Program/ Sub-Program	MARKET TRANSFORMATION INDICATOR	Metric Type
COMMERCIAL / INDUSTRIAL / AGRICULTURAL COMBINED		
* Data to be reported in disaggregate form by SW program (commercial, industrial, and agricultural)		
Continuous Energy Improvement (CEI)	*1. Number and percent of Calculated Incentive participants who go on to implement a long-term energy plan under the Continuous Energy Improvement program.	3
	*2. Number and percent of CEI participants who developed a long-term energy plan before the end of 2012 and are implementing their plan without IOU support.	3
	*3. Number and percent of CEI Participants who achieve all scheduled milestones, as identified in their long-term energy plans.	3
	*4. Number and percent of California corporations that include greenhouse gas reduction measurement, monitoring, and reduction strategies in their long-term energy plans.	3
Non-Residential Audit Program (NRA)	*1. Percent of NRA participants that implement recommended measures without needing an IOU Incentive.	3
Deemed Incentives	*1. All measures determined to be "standard practice" are phased out at various levels of the program (depending on the technology within the customer class) and replaced by new, improved or ETP measures. (Y/N) Note: IOUs to define 'standard practice' by the end of 2011.	3
Calculated Incentives	*1. All measures determined to be "standard practice" are phased out at various levels of the program (depending on the technology within the customer class and replaced by ETP or "Advanced Technology" measures. (Y/N)	3

	Note: IOUs to define "standard practice" and "advanced technology" by the end of 2011.	
Direct Install (DI)	*1. Measures determined to be "standard practice" are phased out at various levels of the program (depending on the technology within the customer class) and replaced by new, improved or ETP measures. (Y/N)	3
	*2. Percent of DI participants that routinely consider energy efficiency when making capital purchases.	3

COMMERCIAL

	1. Square footage of existing commercial space in California retrofitted X % beyond current Title 24 building standard (2011).	3
	Note: "X" to be determined by study and defined by the end of 2012.	
	2. Percentage of commercial participants, tracked by NRA, Calculated and Deemed subprogram, who go on to implement a long-term energy plan	3

INDUSTRIAL

	1. The number and percentage of participants in the Industrial programs who go on to implement an energy plan under the Continuous Energy Improvement subprogram	3
	2. Energy intensity (per gross dollar of production value) for industrial entities.	3
	3. The percentage of large customers (businesses that are responsible for 80% of sectoral energy usage) that adopt energy efficiency certification and/or benchmarking.	3

AGRICULTURE

	1. Percentage of participants in the Agricultural program who go on to implement a long-term energy plan.	3
Pump and Test Repair	1. Percent of Ag customers renovating and/or maintaining their pump after receiving a pump test that shows OPE is above the baseline OPE level determined through the Market Characterization Study.	3

RESIDENTIAL

	1. Average energy use/ft2 in existing homes (kwh, therms, KW), reported by single-family and multi-family.	3
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	2. Percentage and number of homes where the purchased energy is reduced by 20%, 40% or 70% by 2013, 2017 and 2020 from 2008 baseline	3
Business Consumer Electronics (bce)	1. percent decrease in average plug load attributable to electronic products that are in the BCE program.	3
Advanced Lighting	1. The average lighting power density of residential and commercial lighting applications.	3
Appliance Recycling	1. Saturation levels of “inefficient, older refrigerators and freezers” in California homes as demonstrated through appliance: age, size and efficiency. Note: “Inefficient, older refrigerators and freezers” needs to be defined.	3
Basic CFL	1. Number of basic CFLs sold annually in California Note: For entire market, not IOU-rebated CFLs	3
	2. Price of non-discounted MSB CFLs	3
	3. Saturation of eligible sockets (MSB, non-dimming, interior) with CFLs or better	3
Home Energy Efficiency Survey	NONE PROPOSED	
Home Energy Efficiency Rebate	1. Statewide market penetration of ENERGY STAR appliances sold at retail level across various store sizes.	3
	2. Median age of in-home appliances statewide in single-family (SF) and multi-family (MF) homes	3
Multi-Family Energy Efficiency Rebate	1. Percentage of multi-family buildings achieving purchased energy reduction by 10%, or 20% or 30% or 40% and above.	3
	2. Average efficiency of common area fixtures and appliances in MF properties	3
Whole House Retrofit	1. Costs to customers of whole house retrofits, including costs of goods and labor.	3
	2. The proportion (%) of households that elect not to perform comprehensive energy upgrades due to lack of available financing.	3

LIGHTING MARKET TRANSFORMATION (LMT)

	1. Percentage of total lighting sales comprised of Best Practice technologies (by sector)	3
	2. Number of technologies (by sector) for which market transformation is achieved (as defined by the program)	3
	3. Number of technologies by sector that no longer require IOU program interventions	3

NEW CONSTRUCTION		
California Advanced Homes Program	1. Total number/percentage of California-wide, new homes of all production types (SF, MF), modeled 15-19%, 20-29%, 30-39%,40+% above T24 building code (2008 and subsequent code updates). Includes participants and non-participants; for all indicators suggested, baseline year would be years from which data for baseline study is drawn.	3
	2. Number/percentage of zero net energy (ZNE), and zero peak new homes of all production types (SF, MF) in California (includes participants and non-participants)	3
	3. Average incremental cost of new homes more efficient than Title 24 (2008) (and subsequent code levels) by: 15%-19%; 20%-29%; 30-39%, 40+%; ZNE and zero peak homes	3
	4. Average electricity and energy use levels of California new residential units (KW/ft2; KBTU/ft2/year)	3
Residential ENERGY STAR® Manufactured Housing	1. Penetration rates of ENERGY STAR® manufactured homes in California as compared to homes meeting HUD specifications	3
	2. Incremental cost to customer of ENERGY STAR® manufactured as compared to homes meeting HUD specifications	3
	3. Average energy savings of ENERGY STAR® manufactured homes as compared to baseline (homes meeting HUD specifications in X year)	3
	4. Percentage and number of retailers that market ENERGY STAR® homes as their "standard home" (defined as ENERGY STAR homes comprise 50% or more of a retailers sales)	3
Commercial Savings by Design (SBD)	1. Percentage decrease in average site energy* use (kBtu/sq ft-yr) and demand reduction (kW/sq ft) for commercial new construction by building type in California. * "Total site energy" comprises building site energy and exterior lighting, architectural lighting/signage, all non-building energy use (fountains, irrigation, vehicle charging stations) non-occupied space (garages, walkways), and building end-uses unregulated by T24 (plug loads, process loads, appliances, occupancy, etc)	3
	2. Percentage of completed commercial new construction buildings in California implementing Integrated Design/Whole Building Approaches (ID/WBA)* * "Integrated Design/WBA" is as defined in SBD program: <ul style="list-style-type: none"> • If project is >50% Design Development, it is too late for ID/WBA: then becomes a Systems project in SBD. • A complete building model is still done for systems projects • A complete building model looks at interactive affects, day lighting, etc. • Most likely non-participant ID/WBA will be identified by % > T24. For 	3

	example, if project is 15% > T24, project most likely utilized ID/WBA.	
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CODES AND STANDARDS		
	1. Percent of (a) residential (b) commercial buildings in California that are built to comply with code targeting ZNE technologies, practices and design	3
	2. Number of utility incentivized EE measures that become part of the following code cycle (e.g. measures incentivized in 2006-2008 would be part of 2011 or 2014 code) targeting the following: a. advanced climate-appropriate HVAC technologies (equipment controls, including system diagnostics) b. Whole Building approaches in Commercial buildings c. Whole House approaches in Residential homes d. Advanced Lighting e. High efficient peak reduction technologies including plug loads f. Other categories	3
	3. Compliance rates of T24 in (a) existing homes and (b) commercial buildings in California.	3
	4. Compliance rates of T24 in (a) new homes (b) new commercial buildings in California.	3
	5. Percent of building departments (jurisdictions) that adopt and use tools identified as industry best practices to improve permit application, tracking, and inspection processes and increase regional consistency	3
	6. Number of measures from Voluntary beyond code standards and rating systems (LEED, CHPS, 189) that are incorporated into mandatory T24 Standards in the Residential and Commercial Sectors.	3
	7. Number of Jurisdictions in California implementing Reach Codes in the Residential and Commercial Buildings.	3
Building Standards Advocacy	NONE PROPOSED	
Appliance Standards Advocacy	NONE PROPOSED	
Compliance Enhancement	NONE PROPOSED	
Reach Codes	NONE PROPOSED	

COMMERCIAL and RESIDENTIAL HVAC
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Upstream HVAC	1. Market penetration of climate appropriate HVAC equipment.	3
Residential Energy Star Quality Installation	1. Identify the percentage change in the use of Quality Installation guidelines among all California Residential HVAC installation contractors.	3
Commercial Quality Installation	1. Percentage change in the use of Quality Installation guidelines among all California Commercial HVAC installation contractors.	3
Quality Maintenance Development	1. Percent change in the employment of Quality Maintenance practices among all California HVAC contractors and technicians.	3
Technologies and System Diagnostics	1. Code adoption of diagnostic standards (Y/N)	3
Workforce Education & Training	1. Percentage of California HVAC-training institutions offering courses using Quality Installation and Quality Maintenance standards.	3

EMERGING TECHNOLOGIES (ET)

	1. Market penetration (percent of buildings/percent of homes) of new climate-appropriate HVAC technologies (equipment and controls, including system diagnostics) resulting from ETP: (a) Existing Residential (b) Residential New Construction (c) Existing Commercial (d) Commercial New Construction	3
	2. Number of ETP measures adopted* into building codes and/or appliance standards by CEC * "Adoption" means measure is available to end-use customers through IOU programs. Adoption of a measure may be attributed to one or more ET sub-programs	3
Technology Assessment	NONE PROPOSED	
Scaled Field Placement (SFP)	1. Number of new or existing underutilized ETP measures addressed in the SFP that are adopted* that show an increase in the number of rebates in the EE portfolio * "Adoption" means measure is available to end-use customers through IOU programs. Adoption of a measure may be attributed to one or more ET sub-programs	3
Demonstration Showcases	NONE PROPOSED	
Market and Behavioral Studies	NONE PROPOSED	
Technology Development	NONE PROPOSED	

Support		
Technology Research Incubation and Outreach (TRIO)	1. Number of TRIO measures assessed by ET program.	3
	2. Number of TRIO measures adopted* by EE programs. * "Adoption" means measure is available to end-use customers through programs. Adoption of a measure may be attributed to one or more ET sub-programs	3
Technology and Testing Center	NONE PROPOSED	

INTEGRATED DEMAND-SIDE MANAGEMENT (IDSM)

	1. Percent of customers who are aware of online and onsite integrated audits	3
	2. Percent of customers in each customer class who have received an integrated audit and percent of these customers (by audit type) who have implemented one or more of the audit recommendations (indicate how many incentivized vs. non-incentivized)	3
	3. Percent of customers in each customer classes who are aware of integrated programs or incentive opportunities as a result of local integrated marketing collateral (indicate how many of these customers have participated in an integrated program (one that promotes EE, Demand Response (DR) and Distributed Generation (DG))	3
	4. A process evaluation that identifies how well "integrated" (EE, DR, DG) all IOU demand side energy program offerings and components are (ex: CEI, Commercial, Industrial, Agricultural, Residential, audits) including estimated savings of integrated programs and projects, lessons learned, improvement plans, and how the program portfolio is addressing strategic planning goals and objectives / Decision directives with regard to integration. Evaluation will include water conservation, GHG and waste reduction strategies (Y/N)	3
	5. Water conservation, GHG, and waste reduction strategies are incorporated into integrated program offerings. (Y/N)	3

MARKETING, EDUCATION & OUTREACH (ME&O)

	NONE PROPOSED	
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WORKFORCE EDUCATION & TRAINING (WE&T)

Centergies	1. Percent of program participants stating an interest in pursuing green careers as a result of program participation.	3
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	2. Percent of program participants reporting utilization of knowledge and skills received from the program.	3
	3. Percent of past Centergies participants that attribute the program as a significant reason they are currently working in a clean energy job. (Identify figures for low-income participants)	3
Connections	1. Percent of prior program cycle participating schools that have continued the WE&T Connection training activities without program support.	3

APPENDIX C

EXAMPLE PPM WORKSHEET FOR RESIDENTIAL ADVANCED LIGHTING SUBPROGRAM

RESIDENTIAL – ADVANCED CONSUMER LIGHTING SUBPROGRAM

	Mission
SW Program: Residential	The Advanced Consumer Lighting Program: The Residential Lighting Incentive Program that has run successfully for several years has been separated into two programs: the Basic CFL program, and the Advanced Consumer Lighting Products program. The Advanced Consumer Lighting program provides participating retailers with up-stream incentives in the form of buy-downs that reduce the cost of energy-efficient lighting products. The program introduces new and advanced energy-efficient lighting products to the market and strives to influence future purchasing behaviors of customers. The definition of advanced lighting is all lighting products excluding bare spiral, non-dimmable CFLs of less than 30 watts.
SW <u>Sub-program</u> : Advanced Consumer Lighting Program	

California Long-Term Energy Efficiency Strategic Plan (CLTEESP) Goals/Strategies Addressed by SW <u>Sub-program</u>:	CLTEESP Ref. pp. #
<u>Goal 4</u> : The residential lighting industry will undergo substantial transformation through the deployment of high-efficiency and high-performance lighting technologies, supported by state and national codes and standards. <u>Strategy 4-1</u> : Drive continual advances in lighting technology through research programs and competitions (near-term objectives)	p. 11
<u>Strategy 4-2</u> : Create demand for improved lighting products through demonstration projects, marketing efforts, and utility programs. (near-term objectives)	p. 24
<u>Strategy 4-3</u> : Continuously strengthen standards. (near-term objectives)	p. 24
<u>Strategy 4-4</u> : Coordinated phase out of Utility promotions for purchase of CFLs. (near-term objectives)	p. 24

Short-term <u>Sub-program</u> PPMs:	Metric Type (2a or 2b)**	Baseline Study Required (Y/N)
PPM 1: Percent kW/kWh/Qty of incented products under the Advanced Lighting program as compared to the Basic Lighting program, by product type	2a	N
PPM 2: Percent of products incented under the Advanced Lighting Program by distribution channel,* and by hard-to-reach (HTR)** zip codes. *Distribution channels are as defined in 06-08 Upstream Lighting Study ** HTR is as defined in the EE Policy Manual.	2a	N

***Metric type: 2a = reported annually, 2b = reported by end of cycle.*

Long-Term (2013-2020) “SMART” <u>Sub-program</u> Objectives:
<u>LT Objective 1:</u> By 2015, double the sales of LED products in the state of California, over 2010 baseline
<u>LT Objective 2:</u> By 2015, double the sales of small, tapered and dimmable CFLs over 2010 baseline.
<u>LT Objective 3:</u> By 2015, reduce the lighting power density for the average residential and commercial application from the 2010 level to meet the Strategic Plan Lighting Chapter best practices retrofit objectives (p. 23 of Strategic Lighting Chapter).

Long-Term <u>Sub-program</u> MT Indicators:	Metric Type (3)**	Baseline Study Required (Y/N)
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MT Indicator 1: The average lighting power density of residential and commercial lighting applications.	3	Y Note: Residential Appliance Saturation Survey (RASS) is a possible source
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***Metric type: 3 = data collection, tracking, and reporting by IOUs or CPUC staff to be determined.*

Strategic Plan goals and strategies, and short and long term objectives associated with all of the PPMs adopted in this resolution are specified in the completed PPM worksheets located at the Commission’s Energy Data Website at: www.energydataweb.com/cpuc/default.aspx. See document in topic area “Complete Program Performance Metrics (PPM) Worksheets for 2010-2012 Energy Efficiency Programs.”