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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Examine the Commission's Post-2008 Energy Efficiency Policies, Programs, Evaluation, Measurement, and Verification, and Related Issues.	Rulemaking 09-11-014 (Filed November 20, 2009)

ASSIGNED COMMISSIONER'S RULING AND SCOPING MEMO, PHASE I

1. Introduction

California Public Utilities Commission (Commission) Decision (D.) 09-09-047 identified the need for a comprehensive review of the Commission's existing energy efficiency evaluation, measurement, and verification (EM&V) practices.[1] The Commission explained that the purpose of the review was to "set a course to develop effective EM&V going forward, post-2012."

This Assigned Commissioner's Ruling and Scoping Memo describes the impetus for the EM&V review and outlines the process by which the review will be conducted. As required by Rule 7.3 of the Commission's Rules of Practice and Procedure, this ruling affirms that the proceeding category is quasi-legislative and determines that evidentiary hearings will not be necessary.

[1] D.09-09-047 at 302.

2. Background

The Commission's current EM&V policy and methodological framework stems largely from a series of decisions and rulings made between 2005 and 2008 in Rulemaking (R.) 01-08-028, R.06-04-010, and in response to consolidated Application (A.) 05-06-004 and A.08-07-021.

2.1 EM&V Policy Framework

In 2003, the Commission, in collaboration with the California Energy Commission (CEC) and the California Consumer Power and Conservation Financing Authority[2] developed California's first Energy Action Plan (EAP).[3] The EAP sets forth a loading order, prioritizing which energy resources California will use to meet its future energy needs. The loading order stipulates that energy efficiency is California's "resource of first choice." In other words, before supply-side resources are procured, all cost-effective energy efficiencies must be achieved. Since the loading order issued the Commission has required that California energy utilities invest in energy efficiency programs designed to displace or defer costly supply-side alternatives.

It is within the context of energy efficiency as a resource that the Commission's existing EM&V policy framework took shape. D.05-01-055 returned California's Investor Owned Utilities (IOUs) to the role of energy efficiency program administrators and tasked the Energy Division with EM&V of the utility programs. D.05-01-055 defined the objectives of EM&V as follows:

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[2] The California Consumer Power and Conservation Financing Authority is no longer in existence.

[3] "Energy Action Plan I,"California Energy Commission, California Public Utilities Commission and California Consumer Power and Conservation Financing Authority, May 8, 2003. Available at http://docs.cpuc.ca.gov/word_pdf/REPORT/28715/pdf.

> *1) measure and verify energy and peak load savings for individual programs, groups of programs, and at the portfolio level; 2) generate data for savings estimates and cost-effectiveness inputs; 3) measure and evaluate the achievements of energy efficiency programs, groups of programs and/or the portfolio in terms of the "performance basis" established under Commission-adopted EM&V protocols; and 4) evaluate whether programs or portfolio goals are met.*

D.05-04-051 followed closely thereafter, adopting policy rules for energy efficiency[4] and defining the utilities' "performance earning basis." Informed by these fundamental components of, and plans for, EM&V, the IOUs designed their 2006-2008 energy efficiency portfolios. The portfolios, subsequently approved in D.05-09-043, were largely made up of up-stream lighting programs, especially focused in Compact Fluorescent Lighting (CFL) markets. The goal of the programs was to achieve the energy savings targets adopted in D.04-09-060.

In 2007 the Commission issued D.07-09-043, laying the groundwork for a Risk/Reward Incentive Mechanism (RRIM) through which utility shareholders may profit from achieving defined energy savings targets, while at the same time setting up penalties for significant underperformance. Determination of utility earnings or penalties through the RRIM was to rest on evaluations of program performance. The need to inform these determinations added new and greater emphasis on the transparency, accuracy, and reliability of EM&V results. Since its inception, the mechanics of the RRIM, as well as the defined targets ("goals"), have been highly contentious. Parties disagree over whether the RRIM effectively incentivizes improvements in energy efficiency program design or performance. This debate is ongoing in R.09-11-019.

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[4] Energy Efficiency Policy Manual, Version 3.

Two significant developments in 2008 reshaped California's energy efficiency landscape, adding new objectives to those identified in the EAP. First, pursuant to Assembly Bill (AB) 32, California's Global Warming Solutions Act, the California Air Resources Board (CARB) expects to achieve up to 15% of the mandated reductions in Greenhouse Gas (GHG) emissions through energy efficiency. Thus, with the passage of AB 32, energy efficiency became not only the state's energy resource of choice, but also a primary factor in achieving California's GHG reduction targets.

The second development, inspired in part by the AB 32 agenda, was the development of the California Long Term Energy Efficiency Strategic Plan (Strategic Plan).[5] The Strategic Plan envisions an energy efficient future for each customer segment and identifies market transformation strategies to bring energy efficiency programs to the market place. The Strategic Plan also directs IOU energy efficiency programs to transition away from measures which provide short-term energy savings (e.g., CFLs) in favor of more comprehensive, long-term savings (e.g., whole-building retrofits).

In D.08-07-047 the Commission updated its energy efficiency goals. Before this decision energy efficiency goals were limited to energy savings achieved by IOU programs, which had the unintended outcome of disincentivizing cooperative programs.[6] D.08-07-047 replaced the earlier, narrower, definition of goals with "Total Market Gross" goals. Total Market Gross goals reflect the Commission's expectation that utility programs should complement and enhance

[5] www.californiaenergyefficiency.com.

[6] D.04-09-060, Table 1A-1E.

state building standards, expected federal appliance standards, Big Bold Energy Efficiency Strategies, and AB 1109.

In 2009 the Strategic Plan's emphasis on market transformation and long-term savings began to be incorporated into the IOUs' programmatic energy efficiency activities. D.09-09-047 approved the IOUs' 2010-2012 portfolios and began the implementation of energy efficiency programs designed to achieve the objectives of AB 32 and the Strategic Plan. In D.10-04-029, the Commission authorized a Joint Energy Division/IOU EM&V plan to evaluate the 2010-2012 programs. The 2010-2012 energy efficiency programs reflect the Commission's new emphasis on market transformation and long-term savings. The evaluation of those programs will help bridge the gap between the past and future of energy efficiency. For the first time, evaluations will measure savings from behavior-based programs and progress toward the market transformation objectives outlined in the Strategic Plan.

California is now being served by a multitude of energy efficiency programs. In addition to the Commission's energy efficiency programs, energy efficiency services are being provided through the American Recovery and Reinvestment Act (ARRA), local governments, and private entities, as well as building and appliance standards. Furthermore, financing solutions through Property-Assessed Clean Energy (PACE) Programs and California's AB 811 will allow property owners to install energy efficiency measures without a large up-front payment. Each of these services is provided by a unique administrator with its own funding mechanism, program structure, and performance metric.

This presents new challenges for EM&V.[7] Among other things, determinations of program impact and cost-effectiveness will have to meld multiple expenditure streams. The success of these programs will depend on our ability to integrate efforts and leverage resources; disputes over who gets to claim energy efficiency savings ("attribution") will inhibit success.

In short, the policy framework underlying energy efficiency EM&V methodology has undergone significant transformation since its conception more than five years ago. Energy efficiency faces new priorities and challenges in an evolving market. The time is ripe to take stock of the current framework to ensure that it meets California's needs going forward.

2.2 EM&V Methodological Framework

EM&V's methodological framework dates back to two primary sources: the California Evaluation Framework (Evaluation Framework)[8] and the California Energy Efficiency Protocols (Protocols).[9] The Framework was developed though the collaborative work of the IOUs, Energy Division and TecMarket Works, a team of professional evaluators. The Framework was published in June 2004. It sought to provide a consistent, cyclical approach to planning and conducting evaluations of energy efficiency programs. The Protocols were initially adopted by ALJ Ruling in April of 2006 as a follow up to

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[7] "Lessons Learned and Next Steps in Energy Efficiency Measurement and Attribution: Energy Savings, Net to Gross, Non-energy Benefits, and Persistence of Energy Efficiency Behavior." Skumatz, Lisa, Ph.D. and Skumatz Economic Research Associates (SERA). November 2009.

[8] ftp://ftp.cpuc.ca.gov/Egy_Efficiency/CaliforniaEvaluationFrameworkSept2004.doc.

[9] ftp://ftp.cpuc.ca.gov/puc/energy/electric/energy+efficiency/em+and+v/Evaluators Protocols_Final_AdoptedviaRuling_06-19-2006.doc

the Framework. Minor updates were adopted by ruling in June 2006. The Protocols were developed by TechMarket Works to guide evaluation of the 2006-2008 IOU energy efficiency program cycles. The Protocols specify in detail acceptable approaches and procedures for the evaluation of IOU energy efficiency portfolios. The methodological framework has remained largely unchanged since 2006 and, to California's credit, its Protocols serve as the standard for EM&V methodology across the nation.

2.3 2006-2008 Energy Efficiency Evaluation Report

On April 15, 2010, Energy Division issued a draft Energy Efficiency Evaluation Report for program years 2006-2008 (06-08 Draft Evaluation Report).[10] In the 06-08 Draft Evaluation Report the previously discussed policy and methodological frameworks are combined to measure and verify energy savings, test the cost-effectiveness of IOU portfolios, and evaluate whether energy savings program goals were achieved. The completion of this energy efficiency EM&V effort is a remarkable accomplishment as it is the largest energy efficiency EM&V effort ever undertaken.

The 06-08 Draft Evaluation Report finds that between 2006 and 2008, IOU programs saved 4,093 GWh, 44 MMTherms, and reduced peak electric load by 779 MW. Also significant is the number of tons of CO2 reduced: 2.6 million. And, overall, the 2006-2008 portfolios were cost-effective.

The 06-08 Draft Evaluation Report includes recommendations for improving future EM&V. One recommendation speaks to the changes that have

[10] http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/EM+and+V/2006-2008+Energy+Efficiency+Evaluation+Report.htm.

occurred in California's energy efficiency policy framework and implications for future EM&V.

> *The Commission should consider evaluation priorities for future program cycles that recognize expanded program and policy objectives for energy efficiency. The evaluation framework for 2006-2008 may not address the multiple and diverse evaluation needs for meeting AB32, the California Strategic Plan for Energy Efficiency, and Long-Term Procurement Plan objectives.*[11]

This recommendation summarizes the challenges and opportunities for the EM&V Review being initiated by this Ruling.

3. Scope

The Commission's objective in this phase (Phase I) of the current proceeding is to prepare for the 2013-2015 energy efficiency program cycle by updating the Commission's energy efficiency EM&V and ensuring effective measurement of both efficiency resource objectives and progress in achieving the goals of the Strategic Plan. The Commission will determine what, if any, changes it should make to the existing EM&V policy and methodological framework before the IOUs begin planning their 2013-2015 program cycle.

Through this process, the Commission intends to begin developing an approach to EM&V that is not only in line with the Strategic Plan, and the change in the type and number of EE projects in California, but also provides a better value to ratepayers, produces results in a more timely fashion, and to the extent possible is less controversial.

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[11] 06-08 Draft Evaluation Report at 125.

As noted above, the current approach we take to EM&V was developed over five years ago in a very different context. Since then energy efficiency has evolved, AB 32 has become a statewide priority, our Strategic Plan has become the basis for California's energy efficiency efforts, more comprehensive programs have been authorized, new actors have entered the market, influences on energy consumers have multiplied, and we have advanced technologically through investments in new metering infrastructure. Our current EM&V policy and methodological framework must be updated to reflect this evolution.

The following questions will be considered in this phase of the proceeding and we ask parties to submit initial comments by June 4, 2010:

1) D.09-09-047 restated the core objectives for EM&V in the context of 2010-2012 program year savings measurement and verification, program evaluation, market assessment, policy and planning support, and financial and management audits.[12]
   a. Should these objectives be modified or expanded for program years 2013 and beyond?
   b. In particular, are these objectives sufficient for the Commission to assess California's progress in achieving the goals of the Strategic Plan and the utilities' contribution thereto?
2) In light of changes in energy efficiency activities since 2006, particularly new non-utility service offerings, funding mechanisms, and additional policy objectives, what are the most important changes, if any, that should be made to the "California Evaluation Framework"[13] and "California Energy Efficiency Evaluation Protocols"?[14]

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[12] D.09-09-047 at 297-298.

[13] ftp://ftp.cpuc.ca.gov/Egy_Efficiency/CaliforniaEvaluationFrameworkSept2004.doc

[14] California Energy Efficiency Evaluation Protocols (ftp://ftp.cpuc.ca.gov/puc/energy/electric/energy+efficiency/em+and+v/Evaluators Protocols_Final_AdoptedviaRuling_06-19-2006.doc)

a. Should existing Protocols be amended? If so, how and why?

b. Should additional methodologies be added to the Protocols? If so, what methodologies should be added, how, and why?

c. Should the Commission add methodologies to measure non-energy benefits such as GHG impact, economic impact, or job creation?

3) The Commission has been made aware of two methodologies that may be used to produce an aggregate-level metric of energy efficiency impact on consumption over time. The first has been introduced by the Natural Resource Defense Council.[15] The second was recently published online in the journal *Energy Efficiency*.[16] Both metrics resemble the proposed metric which D.10-04-029 directs be developed on a pilot basis.[17] Please comment on whether it would be useful for the Commission to use such a metric?

a. What are the advantages and limitations of such a metric?

b. What challenges are associated with adding this metric to our existing EM&V methodological framework?

c. Please provide specific analysis on the referenced methodologies.

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[15] "Exploring Strategies for Implementing a Performance Based State Efficiency Program: State Energy Consumption Metrics – Residential Sector Analyses" Sheppard, Chamberlain, and Jacobson. (Original report: http://www.schatzlab.org/projects/psep/files/uploads/report/Res_ECI-NRDC-SERC-May15_09.pdf; Addendum: http://www.schatzlab.org/projects/psep/files/uploads/adenda/PSEP_Revised_Methods_Results_Dec2_09.pdf)

[16] "Measuring the savings from energy efficiency policies: a step beyond program evaluation." Horowitz, M.J. April 2010. (http://www.springerlink.com/content/120908/?Content+Status=Accepted)

[17] See D.10-04-029, Attachment 1, page 29-30, EM&V Project Number 12: Energy Consumption Surveys" from the Energy Division/IOU 2010-2012 Joint EM&V Plan.

4) D.09-09-047 cites efforts underway in the northeast and northwest to develop more collaborative approaches to EM&V[18] and suggests California may benefit from these and similar efforts.
   a. Are there other states, regions, or industries that have, or are developing, approaches to EM&V that may offer benefits to California's energy efficiency EM&V in the future? If so, how?
   b. Please comment specifically on efforts under way within the Northeast Energy Efficiency Partnership's (NEEP) Regional Evaluation, Measurement and Verification Forum and Northwest Power and Conservation Council's (NWPCC) Regional Technical Forum (RTF).
   c. What specific approaches or methods would be most important for California to consider, and why?
   d. How do others address issues of "attribution" and "cost-effectiveness" in determining the outcome and value of ratepayer supported energy efficiency program expenditures?
5) Can technological innovations (e.g., advanced metering infrastructure) be leveraged to advance our EM&V methodologies? If so, how?
6) What efforts underway or anticipated as part of the Joint Energy Division/IOU EM&V Plan for 2010-1012[19] would be useful to continue or expand for the 2013-2015 period?
   a. What will be the likely direction or outcome?
7) D.09-09-047 stated that this review of EM&V practices should include consideration of the needs and activities of the California Energy Commission, municipal utilities, and California Air Resources Board. Please comment on what changes, if any, should be made to the

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[18] Northeast Energy Efficiency Partnership's (NEEP) Regional Evaluation, Measurement and Verification Forum and Northwest Power and Conservation Council's (NWPCC) Regional Technical Forum (RTP).

[19] D.10-04-029, Attachment 1 (http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/116710.pdf)

Commission's EM&V policy and methodological framework to meet the needs of these entities?

a. Do existing metrics adequately account for GHG reductions?

b. Do existing metrics meet the CEC's needs in load forecasting? If not, what changes are required to better assess energy efficiency's impact on future energy demand?

c. Are there any steps the Commission should take to better integrate and coordinate EM&V activities with the other California entities?

Parties should prepare responses to these questions according to the schedule outlined below.

To the extent recommendations made in response to the questions listed above require the Commission to reconsider its existing policies on energy efficiency goals, cost-effectiveness testing, programs, or the RRIM, parties should explain. However, this docket is not the forum we will use to make changes to the RRIM. Any relevant record developed on these topics may be carried forward to subsequent phases or adopted by other proceedings in which energy efficiency policies are under consideration.

4. Procedural Schedule for Phase I

Milestone	Deadline
ACR and Scoping Memo	May 21, 2010
Comments on Ruling	June 4, 2010
Reply Comments on Ruling	June 18, 2010
Subsequent ACR (ACR II) Prioritizing Issues in Scope based on Party Comments	July 2, 2010
Comments on ACR II	July 16, 2010
Reply Comments on ACR II	July 23, 2010
Proposed Decision on Commission Agenda	September 28, 2010
Final Decision	October 28, 2010

5. Category of Proceeding

Rule 7.1(d) provides that the order instituting rulemaking (OIR) shall preliminarily determine the category of the proceeding and the need for hearings. The OIR preliminarily determined that this Rulemaking is quasi-legislative, as that term is defined in Rule 1.3. That determination is confirmed by this ruling.

6. Need for Evidentiary Hearing

We expect that the issues addressed in Phase I of this proceeding will be resolved through comments without the need for evidentiary hearings.

7. Service Lists and Service Requirements

The process for being added to the service list for this proceeding was set forth in the November 11, 2009, Order Instituting Rulemaking (OIR).[20] We will continue to adhere to the process set forth in the OIR for adding parties to the service list.

All comments required by this ruling shall be formally filed at the Commission. All notices, comments and other submittals required by this ruling shall be served on the service list in this proceeding pursuant to the Electronic Service Protocols attached to the OIR and consistent with Rules 1.9 and 1.10. Please note that those protocols require that ALJ Farrar and the Assigned Commissioner are also served hard copies of all submittals.

8. *Ex parte* Communication

This proceeding is subject to Rule 8, which specifies standards for engaging in *ex parte* communications and the reporting of such communications.

IT IS RULED that:

1. The scope of this proceeding is set forth in this ruling.
2. The schedule for Phase I of this proceeding is set forth in this ruling. The assigned ALJ may make any revisions to this schedule as deemed necessary for the fair and efficient management of the proceeding.

[20] See November 20, 2009, OIR, section 7 et. al. at 5.

3. Parties should file and serve comments to this ruling by June 4, 2010, and Reply Comments by June 18, 2010, according the direction provided within.

Dated May 21, 2010, at San Francisco, California.

/s/ MATTHEW TISDALE for
Dian M. Grueneich
Assigned Commissioner

INFORMATION REGARDING SERVICE

I have provided notification of filing to the electronic mail addresses on the attached service list.

Upon confirmation of this document's acceptance for filing, I will cause a Notice of Availability of the filed document to be served upon the service list to this proceeding by U.S. mail. The service list I will use to serve the Notice of Availability of the filed document is current as of today's date.

Dated May 21, 2010, at San Francisco, California.

/s/ TERESITA C. GALLARDO
Teresita C. Gallardo

N O T I C E

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to ensure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

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The Commission's policy is to schedule hearings (meetings, workshops, etc.) in locations that are accessible to people with disabilities. To verify that a particular location is accessible, call: Calendar Clerk (415) 703-1203.

If specialized accommodations for the disabled are needed, e.g., sign language interpreters, those making the arrangements must call the Public Advisor at (415) 703-2074 or TDD# (415) 703-2032 five working days in advance of the event.