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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Approval of Energy Efficiency Rolling Portfolio Business Plan.

Application 17-01-013

And Related Matters.

Application 17-01-014
Application 17-01-015
Application 17-01-016
Application 17-01-017

ADMINISTRATIVE LAW JUDGE’S RULING ON CERTAIN MEASUREMENT AND VERIFICATION ISSUES, INCLUDING FOR THIRD PARTY PROGRAMS

This ruling provides guidance in response to comments on the March 23, 2018 Administrative Law Judges’ Ruling Seeking Comment on Certain Measurement and Verification Issues, Including for Third Party Programs, issued pursuant to Decision (D.) 18-01-004.

This ruling also acknowledges two broad categories of normalized metered energy consumption (NMEC) approaches: “site-level,” where savings are calculated at an individual building, project, or site level; and “population-level,” where savings are measured based on the aggregation of many buildings. This ruling confirms that site-level NMEC will be classified as custom and will follow a modified custom process review. This ruling confirms that, in the absence of alternative approaches, measure-level analysis is necessary to inform lifecycle savings and program or project benefits.

Finally, this ruling directs staff to lead an NMEC working group to develop further rules and guidance for programs leveraging NMEC methods.

1. Background

In D.18-01-004, the California Public Utilities Commission (CPUC or Commission) delegated to the assigned Commissioner or Administrative Law Judges (ALJs) to issue a ruling “specifying a set of rules, guidelines, and specific requirements to address the critical issues and uncertainties” related to measurement and verification (M&V).¹ On March 23, 2018, the Commission issued an Administrative Law Judge Ruling (ALJ Ruling), which directed staff to develop and maintain rules and requirements applicable to NMEC approaches in a section of the CPUC website. Pursuant to this direction, Commission staff prepared a Rulebook for programs and projects that apply Normalized Metered Energy Consumption methods (Rulebook) and made this document available on the CPUC website.² This Rulebook compiles Commission-adopted rules applicable to NMEC projects and programs. The ALJ Ruling acknowledged the rapidly changing environment of NMEC methods, and embedded M&V more generally, and clarified that Commission staff will continue to update these rules as further developments become warranted to ensure continued appropriate implementation of ratepayer-funded programs.

As part of ongoing updates to NMEC rules, the ALJ Ruling requested stakeholder comments on a set of Commission staff-proposed requirements for NMEC for custom projects, and responses to the following questions:

1. Additional rules/requirements: What additional rules and requirements are necessary or important to guide design and implementation of embedded measurement and verification (M&V) in general?
2. Update process for rules and requirements, and technical guidelines: What would be the appropriate process for regular updating of the rules/requirements

¹ D.18-01-004 at 45.

² This section is a repository of rules and requirements related to the implementation of the Rolling Portfolio, available at: <http://www.cpuc.ca.gov/General.aspx?id=6442456320>.

and technical guidelines, including steps, implementation schedule, roles and responsibilities, and effective date for changes? Provide justification for your proposal.

3. Additional technical guidance: What additional technical guidance is necessary or important to guide design and implementation of embedded M&V in general?

Timely comments were filed by University of California (UC); Joule Capital (Joule); CLEARResult; Southern California REN (SocalREN); the California Efficiency Demand Management Council (CEDMC); Pacific Gas and Electric Company (PG&E); Southern California Edison Company (SCE); the Public Advocate's Office of the Public Utilities Commission (Cal Advocates);³ Natural Resource Defense Council (NRDC); Future Grid Coalition (FGC); San Diego Gas & Electric Company and Southern California Gas Company (SDG&E/SCG); and Kilowatt Engineering (KW). Timely reply comments were filed by UC; Small Business Utility Advocates (SBUA); FGC; National Association of Energy Service Companies (NAESCO); Cal Advocates; The Utility Reform Network (TURN); and Engie Services U.S. (ESUS). Comments focused on the following general topic areas: additional guidance; program and projects review and approval; roll-out of updates; and other proposed requirements.

2. Additional Guidance

2.1. Site-Level vs. Population-Level

The ALJ Ruling proposed that “[p]rograms and projects using NMEC to calculate savings at the building, site, or project level are classified as custom and will meet custom rules, processes, and procedures.”

Many parties object to the classification of program and projects that calculate savings at the site, building, or project level as custom, while other

³ Senate Bill 854 (Stats. 2018, Ch. 51) amended Public Utilities (Pub. Util.) Code Section 309.5(a) to, in part, rename the Office of Ratepayer Advocates as the Public Advocate's Office of the Public Utilities Commission. We will refer to this party as Cal Advocates.

parties propose limited applicability of the Rulebook. SCE proposes to narrow the applicability of the Rulebook to only large commercial, industrial and agricultural building projects.⁴ Joule suggests a modification of the existing custom rules for NMEC.⁵

Cal Advocates states that the Rulebook “provides helpful guidelines for using NMEC in unique, custom projects,” however the “real promise of NMEC is likely to be realized when it is applied to large batches of projects whose performance can be analyzed using statistical methods appropriate for large sample sizes.”⁶ NRDC argues that the true value of NMEC is the “estimation of aggregated energy savings for a population of projects, which does not fit into any existing Commission framework.”⁷ FGC claims it was not clear which types of NMEC approaches were covered by the Rulebook.⁸

First, it is important to clarify that the Rulebook is a compilation of adopted Commission rules and requirements. The Rulebook is not intended to introduce new rules or alter existing policy.

That said, we acknowledge that there are two broad applications for NMEC methods – site-level and population-level. For this reason, we direct staff to update the Rulebook to clearly distinguish site-level from population-level approaches, and to clarify the applicability of rules to each NMEC approach.

In site-level NMEC approaches, M&V methods are developed based on building/site-specific characteristics and savings are determined on a site-by-site basis, as opposed to unified across a population. In accordance with the customized nature of savings claims, we maintain the custom classification for

⁴ SCE Opening Comments at 7

⁵ Joule Opening Comments at 4.

⁶ Cal PA Opening Comments at 1.

⁷ NRDC Opening Comments at 3.

⁸ FGC Opening Comments at 3.

site-level NMEC. However, as detailed further below, site-level NMEC projects should follow a limited custom review process that does not require staff approval.

There is currently very little guidance, formal or otherwise, on population-level programs. A number of parties noted a belief that most opportunities will lie in population-level approaches, and many parties are supportive of furthering stakeholder input and rule development for population-level programs.

Therefore, as part of our direction to Commission staff to convene a working group to develop rules and guidance for NMEC in general, we encourage staff to prioritize population-level rules and technical guidance as that need is more urgent at this time. Moreover, while Commission guidance on population-level programs is not yet comprehensive, this should not prevent third parties or program implementers from considering population-level NMEC approaches in their third-party program proposals.

3. Program and Project Review for NMEC custom projects

The ALJ Ruling states that a sample of custom NMEC projects will go through the custom process ex-ante review and would follow all custom review rules and requirements.

PG&E argues that treating NMEC projects as custom projects will “eliminate the opportunity to make NMEC’s implementation and evaluation less costly than custom” due to the extensive review requirements, measure-level analysis and eligibility requirements. SBUA argues that custom review will cause delays for projects targeting small/medium segments, compromising viability. SCE states that “a large portion of the custom process review is designed to verify savings estimates, incentive calculations, and to reduce the risk that incentives are paid for savings that may not fully materialize,” while NMEC mitigates this risk by “paying incentive only for savings that are measured at the meter.” Similarly, CEDMC argues “a claim is not made on an ex ante basis, it is

based on normalized ex post results,” and that methods for necessary adjustments are agreed upon upfront in the M&V Plan and “the implementer, customer, and PA accept the risk of missed or gained savings.”

We agree that some traditional custom review rules may be too burdensome to NMEC projects, which generally rely on different M&V methods and base payable and claimable savings on measurements at different times of the project lifecycle. However, we disagree with SCE that incentive payments are based only on metered verified savings. In actuality, a portion of incentives may not need to be tied to performance. In addition, the large-scale use of some emergent methods and the long lead time between project application and the filing of a claim, one to two years post-construction, makes Commission staff feedback desirable on a sample of projects to avoid the risk of low realization rates following Commission staff-led impact evaluation.

To clarify, the objective of Commission staff review for site-level NMEC projects is not to approve project savings claims, but to provide early feedback to program administrators and implementors, and to inform Commission staff-led evaluation. Commission staff reviews of NMEC projects will not cause project stoppages or delays, and do not constitute approval. However, the Commission may reconsider this limitation in the scope of reviews should impact evaluation findings point to the need for a more rigorous approach to project reviews.

We clarify that project-level review is not required for population-level NMEC approaches. We direct Commission staff to update the Rulebook to reflect this exception.

Cal Advocates proposes “the IOUs to require M&V plans as part of the bid package for each EE program or project that uses NMEC,” due to the central role the M&V Plan plays in program design. We agree with Cal Advocates on this point and adopt this as a new requirement for all third-party program proposals

utilizing NMEC methods. As such, we direct staff to update the Rulebook to reflect this requirement.

3.1. Measure-Level Analysis

The Rulebook states that project savings estimates must reflect measure-level savings based on a weighted average expected useful life method, unless staff adopts alternative methods for calculation.

Parties object to the need for measure-level analysis for NMEC. SCE argues that the custom review process, which “hinges on disaggregating measure-level data points of all interventions in a project,” is not applicable to NMEC as “disaggregation of measures is not needed and savings from different types of interventions can be measured using one analysis, saving both time and cost.”

Cal Advocates argues that determination of lifecycle savings is based on “annual savings of a measure (and any degradation in those savings over time) over the effective useful life of the measure installed.” Because measures vary significantly in their effective useful life, this analysis is traditionally performed at the measure level to ensure that lifecycle savings estimates accurately reflect the mix of installed measures in a given project or program.” FGC proposes a weighted average analysis to determine lifecycle savings, but at the program level. In the absence of a method to calculate lifecycle savings that does not involve some sort of measure-level analysis, we agree with staff’s recommended measure-level analysis for site-level NMEC and direct staff to update the Rulebook to extend this requirement to population-level NMEC. PAs and implementers may propose alternative lifecycle savings assessments for Commission staff consideration either at the program or project proposal. Alternative methods may also be discussed and vetted as part of the NMEC working group that staff is directed to lead.

4. Roll-out of Updates

The ALJ Ruling asked parties to suggest a process for the roll-out of updates. SCG/SDG&E suggest Energy Division to follow selected projects “to improve NMEC procedures applicable to the next program year” that could be discussed in a workshop and released concurrently with Database for Energy Efficiency Resources (DEER) updates. As NMEC rules may be developed via the working group ordered above or as part of DEER updates or other Commission approval vehicles, we direct staff to update the Rulebook periodically to reflect the most up-to-date Commission adopted guidance. Technical documents, which may not necessarily need to be adopted by the Commission, may be updated to the website as soon as they are vetted by Commission staff.

5. Other Proposed Requirements

SCE and CLEAResult oppose the proposed cap of Normal Replacement measures to a maximum 50 percent of total project expected savings proposed in the ALJ Ruling, arguing NMEC baseline adjustments may be hard to implement. We have removed this requirement, however we confirm that according to Resolution E-4818, standard practice baselines apply to broken equipment.

Finally, the ALJ Ruling proposed net-to-gross (NTG) and gross-realization rates (GRR) for the adjustment of site-level NMEC. Since then, Resolution E-4952 adopted NTG and GRR values for NMEC. We direct staff to update the Rulebook accordingly.

IT IS RULED that:

1. Project review, as described in the NMEC Rulebook, is necessary for site-specific NMEC custom projects. The objective of Commission staff review of NMEC custom projects is not to approve project savings claims, but to provide early feedback for implementation and to inform Commission staff-led evaluation.

2. All third-party proposals utilizing NMEC methods must include an M&V plan as part of the bid proposal.

3. We will require measure-level analysis for both site-level and population-level NMEC at this time. PAs and implementers may propose alternative lifecycle savings assessments for Commission staff consideration either at the program or project proposal or as part of working group activities.

4. Commission staff shall update the Rulebook to reflect the changes adopted in this ruling.

5. Commission staff shall convene a working group to develop rules and guidance for NMEC.

6. Commission staff shall update the Rulebook periodically to reflect the most up-to-date Commission adopted guidance.

Dated January 31, 2019, at San Francisco, California.

/s/ VALERIE U. KAO

Valerie U. Kao
Administrative Law Judge