

PUBLIC UTILITIES COMMISSION

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Date: September 8, 2021

To: Southern California Edison Company (SCE)

From: Rashid Mir and Peter Biermayer, California Public Utilities Commission (CPUC)

Cc: R.13-11-005 Service Lists

Subject: MID-YEAR FEEDBACK - 2021 EX ANTE REVIEW (EAR) SCORING AND EVALUATION PERFORMANCE

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Pursuant to Decision (D).13-09-023, D.15-10-028, D.16-08-019, and D.20-11-013, California Public Utilities Commission (CPUC) Staff and consultants are providing the 2021 Ex Ante Review (EAR) Scoring and Evaluation Performance Mid-year Feedback on the investor-owned utilities (IOUs) respective activities as of June 30, 2021. D.20-11-013 placed a moratorium on EAR awards¹ but directed that EAR scoring and evaluation processes shall continue. The mid-year feedback focuses on specific accomplishments and issues or concerns identified as part of ongoing workpaper and custom project reviews. This feedback will help the IOUs address these issues for the remaining year.

I. CPUC Staff Findings 2021 Mid-year Activities Feedback

The following sections of this memorandum provide a description of the findings, including areas of achievement and areas requiring improvement for both custom projects and workpapers review activities.

A. Custom Projects Review Overview

1. Summary of 2021 Mid-year Achievements

This feedback is based on ten CPUC project review dispositions issued between January and June 2021. SCE continues to demonstrate efforts to improve its performance. CPUC Staff's observations include:

- **SCE has consistently submitted quality documentation.** In the first half of 2021, SCE has been consistently providing all documents and required information on projects, including clear project scoping to assist CPUC staff with reviews.

2. Summary of Areas Requiring Improvement

Areas that were most problematic, frequent, and/or are in need of improvement include:

- **SCE's QA/QC processes and methodologies regarding analysis assumptions needs further improvement.** In the first half of 2021, 4 issues occurred in this category where analysis assumptions were noted to be a significant deficiency at the measure level. Most of the issues identified involved NMEC modeling assumptions. SCE should improve quality control addressing the issues identified during the first half of 2021 reviews.
- **The number of issues regarding gross savings impacts are high.** In the first half of 2021, the number of issues related to gross savings impacts was 9. Staff noted there have been projects that encountered issues with analysis assumptions, calculation methods, and M&V plans.

¹ The EAR awards were part of the Efficiency Savings and Performance Incentive (ESPI) awards.

B. Workpapers Review Overview

1. Summary of 2021 Mid-Year Achievements

CPUC staff observed strengths in SCE's development and management of workpaper submissions in the following area:

- **SCE continues to demonstrate effective workpaper leadership**, managing the submissions for more complex and new measures including Heat Pump Water Heaters, Air-cooled Chiller Path B, higher SEER HVAC measures, and Commercial Conveyorized Toaster.
- **SCE demonstrated effective due diligence and QA/QC** by updating eleven workpapers cost and other minor updates.

2. Summary of Areas of Improvement

CPUC Staff highlights the following direction for improvement:

- **SCE should be sure data collected and submitted for review is complete** and clearly presented for the workpaper review team to minimize delays.
- **SCE should make sure that a commercial product such as a conveyor toaster is available to the general public and not just a custom-made product for a single customer.**

II. Discussion

The following sections of this memorandum provide a detailed description of the findings, including, areas of achievement and areas requiring improvement for both custom projects and workpapers.

A. Custom Projects Performance Review

Each year, CPUC Staff reviews a sample of custom project energy efficiency program applications. The review findings and directions to the IOUs are presented in documents referred to as "dispositions". This feedback is based on ten CPUC project review dispositions issued between January and June 2021.

The comments below are organized by the five metric areas prescribed in D.16-08-019. No scores are provided for these metrics in the mid-year memo. All feedback provided at this time is qualitative.

1. Timeliness of Submittals

SCE complied with SB1131 guidelines for submitting documentation before the 15 business days required. For the first half of 2021, no projects were found to be late and 7 out of the 10 projects submitted were uploaded 5 or more days earlier than required. This means SCE is complying with CPUC requirements under this metric and making attempts to upload submissions earlier than

required.

2. Content, Completeness, and Quality of Submissions

Out of the ten project dispositions issued in the first six months of 2021, CPUC staff noted nine action items impacting gross savings and five action items impacting process, policy and program rules. Deficiencies included non-IOU energy sources not being accounted for, M&V plan not being in compliance, missing savings calculations, and incorrect measure EUL. Collectively these deficiencies can lead to a significant loss of EAR points under this metric.

CPUC staff found M&V plans being out of compliance on several measures. The main areas of concern were incorrect adjustments in NMEC models to account for non-routine events (NRE) and the methodology of identifying outliers. Several projects were also noted to have analysis assumption deficiencies related to the treatment of NREs requiring model revisions. SCE should review its process of addressing NREs and adjusting for outlier events prior to submitting documentation to avoid the loss of EAR points under this metric.

Table 1 below summarizes the 17 action items identified across ten dispositions issued between January 1, 2021 and June 30, 2021.

Table 1: Summary of Categorized Action Items for Custom Projects

| Issue Area | Action Categories | Summary of CPUC Staff Required Action by the PA: | Summary of CPUC Staff Notes or Instructions: | Total | Percent of Total |
|---|---|--|--|-----------|------------------|
| Issues Related to Gross Savings Impacts | Analysis assumptions | 4 | 0 | 4 | 44% |
| | Calculation method | 3 | 0 | 3 | 33% |
| | M&V plan | 2 | 0 | 2 | 22% |
| | Subtotals | 9 | 0 | 9 | 50% |
| Process, Policy, Program Rules | EUL/RUL | 1 | 0 | 1 | 20% |
| | Measure type | 2 | 0 | 2 | 40% |
| | Self-generation | 2 | 0 | 2 | 40% |
| | Subtotals | 5 | 0 | 5 | 28% |
| Issues Related to Net Impacts | Program influence | 1 | 0 | 1 | 20% |
| | Subtotals | 1 | 0 | 1 | 6% |
| Other Issues | Other 1 – Bimonthly upload savings do not match project documentation | 1 | 0 | 1 | 33% |
| | Other 2 – SPB > EUL | 1 | 0 | 1 | 33% |
| | Other 3 – Prospective review of withdrawn project | 0 | 1 | 1 | 33% |
| | Subtotals | 2 | 1 | 3 | 17% |
| Grand Total | | 17 | 1 | 18 | 100% |

3. Proactive Initiative of Collaboration

Commission Staff found that SCE made significant efforts to bring measures, projects, or studies forward for discussion prior to review. In addition, they continue to take an active and engaged lead in statewide collaboration efforts as champions of several statewide initiatives. In particular, SCE is leading a Statewide effort to improve QC of Savings by Design (SBD) projects partially in response to the SBD project rejections that occurred in the first six months of 2021.

4. PA's Due Diligence, Quality Assurance, and Quality Control (QA/QC)

Project and measure level disposition performance results reviewed under Metric 2 are used as a proxy for the level of QA/QC occurring by the PA. As noted above, staff found several deficiencies related to gross savings impacts and process, policy, and program rules in the first six months of 2021, demonstrating a need for SCE to improve the effectiveness of its QC processes. Additionally, the number of dispositions proceeding without exception was weighed against those approved with exceptions or resulting in rejections. Out of the ten dispositions issued from January 2021 – June 2021, three were either advisory or prospective. Of the remaining seven dispositions issued, zero proceeded without exception, five projects (71 percent) were allowed to proceed with exceptions as noted, and two projects (29 percent) were rejected. The first six months of 2021 demonstrate that SCE has QC issues with projects either receiving rejections or proceeding with exceptions, in large part due to issues with custom projects using NMEC modeling methods. These issues should be corrected on future submissions to avoid a significant loss of EAR points under this metric at the end of 2021.

5. PA's Responsiveness

When reviewed at a portfolio level, CPUC Staff assesses the time series of rejections and exceptions, the alignment of program policy and procedures with the number of actual rejections and exceptions based on eligibility and attribution, and the adaption to changes in rules over time.

For dispositions issued in the first six months of 2021, CPUC Staff found that projects exhibited a slight upward trend in terms of project performance over time (i.e., project submissions had fewer issues when submitted later in 2021 compared to earlier in the year). However, the number of issues in the Process, Policy and Program Rules issue area was five in the first half of 2021. These issues would suggest an overall lower than expected performance for this EAR metric at the end of 2021 if these trends continue.

B. Workpapers Performance Review

SCE had twenty-seven workpapers disposed in the first half of 2021 and have four workpapers under detailed review. The majority of the workpapers had minor cost updates or minor updates triggered by Resolution E-5082.

The comments below are organized by the five scoring metric areas created in D.16-08-019. The narrative includes observations common to multiple workpapers and feedback related to the workpaper development process as well as direction for future workpapers.

Specific workpaper feedback is provided in tables in Attachment A, at the end of this document. The first table, the Workpaper Reviews table provides feedback on the twenty-seven workpapers reviewed and disposed. The second table, the Workpaper Submissions table lists all workpapers submitted by SCE during the review period that are under current review. The Staff acknowledges that workpaper development may have been supported by multiple PAs; however, at the time of this mid-year review, feedback is directed to the submitting PA, with the assumption that they have led the development.

1. Timeliness of Submittals

SCE has met the minimum requirements for workpaper submissions and responses to workpaper comments.

The pending DEER Resolution E-5152 outlines a schedule for measure package updates for upcoming PY2023 and PY2024-26. CPUC will expect SCE to work closely with CPUC and other stakeholders to establish and adhere to a submission and review schedule.

2. Content, Completeness, and Quality of Submissions

SCE has developed three new workpapers and has included new measures in two existing workpapers. SCE workpapers overall have been of moderate quality. The data provided and the methods used have been included with the submission but follow up meetings with reviewers have been necessary to clarify and correct inconsistencies. The Air-cooled chiller workpaper lacked necessary data for immediate approval as a deemed measure, but subsequent analysis by SCE sufficed and the workpaper was ultimately approved.

3. Proactive Initiative of Collaboration

SCE has proactively engaged with CPUC during the development of new workpapers: Air-cooled Chillers Path B and Ductless Heat Pump HVAC Residential. They have submitted workpaper plans for new measures and when early feedback was requested from the CPUC. In addition, SCE collaborated with BayREN to update the Ductless HVAC Residential Fuel Substitution workpaper.

4. PA's Due Diligence, Quality Assurance, and Quality Control(QA/QC)

SCE demonstrated due diligence and QA/QC by submitting eleven workpapers with minor cost and narrative clarifications for PY2022.

5. PA's Responsiveness

SCE has been responsive to comments and feedback from CPUC on workpaper reviews and continues to be a leader in the development of new workpapers and updates to existing workpapers. The forthcoming Smart Controlled Thermostats (SCT) workpaper update has many complexities and will need to be closely managed prior to the deadline for submission 90-days prior to January 1, 2022.

III. Attachments

Attachment A: Workpaper Feedback contains the workpaper summary tables showing the qualitative components for each metric. Each reviewed workpaper was first determined to have components either applicable or not applicable to a metric. If an item was determined to have activity applicable to a metric, the item was then assigned a qualitative rating as to the level of due diligence applied to the item as either deficient (or “-“), apparent but minimal (or “yes”), or superior (or “+”).

Questions or comments about the feedback or final scores should be directed to Rashid Mir (rashid.mir@cpuc.ca.gov) or Peter Biermayer (peter.biermayer@cpuc.ca.gov). Note that pursuant to D.13-09-023, CPUC Staff will schedule a meeting with SCE staff to discuss this memorandum.

Attachment A: Workpaper Feedback

The table below lists the ID numbers associated with each workpaper submission or disposition and the workpaper review process scoring area. The PA may refer to the individual dispositions for more detailed descriptions of the specific actions staff required for each workpaper. The qualitative EAR scoring feedbacks are designated as follows:

- ‘+’ indicates a positive (from midpoint) scoring impact on a metric.
- ‘-’ indicates a negative (from midpoint) scoring impact on a metric.
- ‘Yes’ indicates meeting expectation; neutral (midpoint) scoring impact on a metric.
- ‘No’ indicates the review feedback is not applicable to a metric and has no impact.

| Workpaper Reviews – Scored Workpapers 2021 | | | | EAR Metrics | | | | |
|---|-----|---|---|-------------|-----|-----|-----|-----|
| WP ID | Rev | Title | Comments | 1 | 2 | 3 | 4 | 5 |
| SWAP011 | 2 | Vending and Beverage Merchandise Controller | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWCR001 | 2 | Anti-Sweat Heat Controls | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWCR002 | 2 | Low-Temperature Display Case Doors with No Anti-Sweat Heaters | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWCR005 | 2 | Auto Closer for Refrigerated Storage Door | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWCR007 | 2 | Floating Head Pressure Controls, Multiplex | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWCR008 | 2 | Floating Suction Controls, Multiplex | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWCR022 | 2 | Efficient Adiabatic Condenser | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWFS023 | 1 | Converyorized Toaster, Commercial | New workpaper for 2021. Reviewers commented on the validity of data for various offerings. SCE worked with reviewers to clarify comments. Workpaper was well managed. | Yes | Yes | + | Yes | Yes |
| SWHC005 | 2 | Water-Cooled Chiller | Workpaper submittal triggered by resolution. Workpaper reviewed with minimal comment. | Yes | Yes | Yes | Yes | Yes |
| SWHC020 | 2 | Air-Cooled Chiller | Workpaper submittal triggered by resolution. Workpaper reviewed with minimal | Yes | Yes | Yes | Yes | Yes |

| Workpaper Reviews – Scored Workpapers 2021 | | | | EAR Metrics | | | | |
|---|-----|---|--|-------------|-----|-----|-----|-----|
| WP ID | Rev | Title | Comments | 1 | 2 | 3 | 4 | 5 |
| | | | comment. | | | | | |
| SWHC024 | 2 | Cogged V-Belt for HVAC Fan, Commercial | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWHC029 | 2 | Fan Controller for Air Conditioner, Residential | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWHC030 | 2 | Whole House Fan, Residential | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWHC038 | 2 | Brushless Fan Motor Replacement, Residential | Workpaper submittal triggered by resolution. Workpaper reviewed with minimal comment. | Yes | Yes | Yes | Yes | Yes |
| SWHC041 | 2 | Software-Controlled Switch Reluctance Motor | Workpaper submittal triggered by resolution. Workpaper reviewed with minimal comment. | Yes | Yes | Yes | Yes | Yes |
| SWHC042 | 2 | Evaporative Pre-Cooler System And Controls For Packaged HVAC Unit | Updates to include additional climate zones and sectors. Workpaper was well managed. | Yes | Yes | Yes | Yes | Yes |
| SWHC044 | 2 | Ductless HVAC, Residential, Fuel Substitution | Workpaper submitted in collaboration with BayREN to add offerings for measures without AC as an existing load. Workpaper revisions were delayed due to multiple meetings and clarifications needed by reviewers. | Yes | Yes | Yes | Yes | Yes |
| SWHC049 | 2 | HVAC, SEER-Rated AC and HP Equipment, Residential | Workpaper submittal triggered by resolution. Workpaper reviewed with minimal comment. | Yes | Yes | Yes | Yes | Yes |
| SWHC050 | 2 | Ductless Heat Pump, HVAC, Residential | Workpaper revised to update methodology and performance data to support high SEER measures. Workpaper was well managed. | Yes | Yes | Yes | Yes | Yes |
| SWHC052 | 1 | Air-Cooled Chiller, Path B | New workpaper to support Path B Air Cooled chillers. Workpaper required multiple meetings with CPUC reviewers. Workpaper was in development for multiple | Yes | Yes | + | Yes | + |
| SWPR004 | 2 | Circulating Block Heater | Minor updates to workpaper. Reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWWB006 | 3 | High Performance Crawlspace | Revisions to add offerings for Double wide mobile homes. SCE showed proactive response to the needs of the programs. | Yes | Yes | Yes | + | Yes |
| SWWH014 | 3 | Heat Pump Water Heater, Residential | Revised workpaper due to updated water heater calculator. Minimal comment. | Yes | Yes | Yes | + | Yes |
| SWWH025 | 3 | Residential Heat Pump Water Heater, Fuel Substitution | Revisions to add offerings for smaller sized water heaters. SCE showed proactive response to the needs of the programs. | Yes | Yes | Yes | + | Yes |
| SWWH025 | 4 | Residential Heat Pump Water Heater, Fuel Substitution | Workpaper submittal triggered by resolution. Workpaper reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |

| Workpaper Reviews – Scored Workpapers 2021 | | | | EAR Metrics | | | | |
|---|-----|---|---|-------------|-----|-----|---|-----|
| WP ID | Rev | Title | Comments | 1 | 2 | 3 | 4 | 5 |
| SWWH027 | 2 | Heat Pump Water Heater, Commercial, Fuel Substitution | Workpaper submittal triggered by resolution. Workpaper reviewed with minimal comment. | Yes | Yes | Yes | + | Yes |
| SWWH031 | 1 | Heat Pump Water Heater, Commercial | New water heater workpaper for commercial applications. Reviewers commented on eligibility and data gathering requirements. SCE worked with reviewers to modify language. Workpaper was well managed. | Yes | Yes | Yes | + | Yes |

| Workpaper Submission Status – All workpapers submitted in 2021 | | | |
|--|-----|---|-------------------|
| WP ID | Rev | Title | Comments |
| SWAP011 | 2 | Vending and Beverage Merchandise Controller | Interim approval. |
| SWCR001 | 2 | Anti-Sweat Heat Controls | Interim approval. |
| SWCR002 | 2 | Low-Temperature Display Case Doors with No Anti-Sweat Heaters | Interim approval. |
| SWCR005 | 2 | Auto Closer for Refrigerated Storage Door | Interim approval. |
| SWCR007 | 2 | Floating Head Pressure Controls, Multiplex | Interim approval. |
| SWCR008 | 2 | Floating Suction Controls, Multiplex | Interim approval. |
| SWCR022 | 2 | Efficient Adiabatic Condenser | Interim approval. |
| SWFS023 | 1 | Converyorized Toaster, Commercial | Interim approval. |
| SWHC005 | 2 | Water-Cooled Chiller | Interim approval. |
| SWHC020 | 2 | Air-Cooled Chiller | Interim approval. |
| SWHC024 | 2 | Cogged V-Belt for HVAC Fan, Commercial | Interim approval. |
| SWHC029 | 2 | Fan Controller for Air Conditioner, Residential | Interim approval. |
| SWHC030 | 2 | Whole House Fan, Residential | Interim approval. |
| SWHC038 | 2 | Brushless Fan Motor Replacement, Residential | Interim approval. |
| SWHC041 | 2 | Software-Controlled Switch Reluctance Motor | Interim approval. |
| SWHC042 | 2 | Evaporative Pre-Cooler System And Controls For Packaged HVAC Unit | Interim approval. |
| SWHC044 | 2 | Ductless HVAC, Residential, Fuel Substitution | Interim approval. |

Workpaper Submission Status – All workpapers submitted in 2021

| WP ID | Rev | Title | Comments |
|---------|-----|---|------------------------------|
| SWHC049 | 2 | HVAC, SEER-Rated AC and HP Equipment, Residential | Interim approval. |
| SWHC050 | 2 | Ductless Heat Pump, HVAC, Residential | Interim approval. |
| SWHC052 | 1 | Air-Cooled Chiller, Path B | Interim approval. |
| SWPR004 | 2 | Circulating Block Heater | Interim approval. |
| SWWB006 | 3 | High Performance Crawlspace | Interim approval. |
| SWWH014 | 3 | Heat Pump Water Heater, Residential | Interim approval. |
| SWWH025 | 3 | Residential Heat Pump Water Heater, Fuel Substitution | Interim approval. |
| SWWH025 | 4 | Residential Heat Pump Water Heater, Fuel Substitution | Interim approval. |
| SWWH027 | 2 | Heat Pump Water Heater, Commercial, Fuel Substitution | Interim approval. |
| SWWH031 | 1 | Heat Pump Water Heater, Commercial | Interim approval. |
| SWFS007 | 3 | Insulated Hot Food Holding Cabinet | Detailed review in progress. |
| SWFS010 | 2 | Commercial Hand Wrap Machine | Detailed review in progress. |
| SWFS009 | 2 | Commercial Deck Oven, Electric | Detailed review in progress. |
| SWRE005 | 1 | Heat Pump Pool Heater, Residential, Fuel Substitution | Detailed review in progress. |