

PUBLIC UTILITIES COMMISSION

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Date: July 30, 2018

To: Southern California Edison (SCE)

From: Peter Lai, California Public Utilities Commission

Cc: R.12-01-005 and R.13-11-005 Service Lists

Subject: Mid-year Feedback- 2018 Efficiency Savings and Performance Incentive (ESPI) Ex Ante Review

Table of Contents

I. Commission Staff Findings 2018 Ex Ante Activities 2

 A. Custom Projects Review Overview..... 2

 B. Deemed Workpapers Review Overview 2

II. Discussion 3

 A. Custom Projects Ex Ante Review Discussion..... 3

 B. Deemed Workpapers Ex Ante Review Discussion 5

Attachment A: Workpaper Feedback..... 8

Pursuant to Decision (D).13-09-023, D.15-10-028 and D.16-08-019, California Public Utilities Commission (Commission) staff and consultants are providing mid-year feedback on the program administrators' (PA) respective ex ante activities as of June 30, 2018. The mid-year feedback focuses on specific issues and concerns identified as part of ongoing workpaper and custom project ex ante reviews. This feedback will help the PA address these issues for the remaining year.

I. Commission Staff Findings 2018 Ex Ante Activities

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 2018 Mid-year Achievements

SCE continues to demonstrate efforts to improve its performance. Commission staff's observations include:

- SCE staff continues to collaborate, hold productive discussions to clarify various Commission staff guidance.
- SCE initiated collaborative discussions with Commission Staff on restarting their pumps program.
- SCE has implemented an early project review protocol. Staff applauds the PA's efforts as it will find any project deficiencies early in the project development rather than later after customer expectations are set.
- Commission staff applauds SCE's staff for its continued efforts on updating its Customized Calculated Savings Guidelines.

2. Summary of Areas Requiring Improvement

Areas in need of improvement include some concerns that Commission staff have highlighted in prior years.

- For the systematic errors in the EnergyPro™ calculation tool, SCE must take more care to review the results provided by the tool and not rely only on vendors or other agency's reviews to ensure the accuracy of the tool. Additionally, SCE should respond quickly to complying with Commission staff disposition and communicating to the program implementation staff and customers of the systematic errors.
- SCE should take more care to review calculation methodology and analysis approaches as discussed in Project 0155 below.
- SCE should take more care in the development and review of measurement and verification plans as discussed in Project 0043 below.

B. Deemed Workpapers Review Overview

1. Summary of 2018 Mid-year Achievements

For the 2018 mid-year review Commission Staff observed improvements and continued performance in

the following areas:

- SCE responded to the Phase 1 disposition for LED lighting workpapers.
- SCE submits workpaper development plans for workpapers under development.
- SCE has begun submitting workpapers for the 2019 program cycle, well in advance of effective dates.
- Commission staff are aware that all four PAs are now working together to collaboratively develop statewide standardized documentation and processes for several deemed measures / work papers. Commission staff applaud this effort and expect that it will result in improved Statewide portfolio performance in the coming years.

2. Summary of Areas of Improvement

Commission staff encourages SCE to review the 2017 annual ESPI memo and continue to focus on improvements noted in that memo. Commission staff also highlights the following additional recommendations for improvement:

1. SCE should examine current deemed measure workpapers and program offerings and consider improvements that reflect current industry standard practice, including measures that have been removed from the 2018 Goals and Potential Study.
2. SCE should improve its efforts to update workpapers based on recent Federal or State code revisions and remove measures from program offerings that are based on out-of-date codes or standard practice baselines.
3. SCE should examine its current body of ongoing research and ensure that workpaper savings values are developed using the most current research as well as research carried out in accordance with Commission directed protocols.

II. Discussion

A. Custom Projects Ex Ante Review Discussion

Commission staff issued one disposition to SCE (CPUC Project ID -0043) during the first six months of 2018 and no new projects were selected during this period. Most of the custom project review activities were focused on meetings between SCE and Commission staff where various ongoing projects and policy issues were discussed. The Commission is in the process of selecting a new contractor to assist staff with the custom projects ex ante review and expects an increase in ex ante review activity to occur starting in the fourth quarter of 2018.

1. Issues Related to Gross Savings Impacts

In 2017 Commission staff reviewed two PG&E and two SDG&E Savings by Design projects that used the EnergyPro™ software tool for their savings impact analysis. The ex ante review found that the EnergyPro™ tool is flawed. It became evident that SCE and the statewide team for this program had not vetted this tool before using it in this program. Commission staff and staff consultant had 2 meetings in early 2018 with the statewide utility staff and the software developer. As June 30, 2018 of the 22 issues originally identified, seven have been adequately corrected, and six have been partially corrected. Nine remaining issues are still outstanding. Additionally, the PA appeared to be slow in communicating the software tool error to program staff and customers. SCE should have stopped using the tool to estimate savings for new projects and followed Commission Decision 15-10-028 Section 3.2.3.4 direction on grandfathering of impacted pipeline projects when it became aware of the errors.

When accepting analysis tools for use in estimating savings for custom projects, PA staff must take more care to review the results provided by the tool and not rely on vendors or other agency's reviews to ensure the accuracy of the tool under the range of uses expected in the PA programs. Commission staff also note that many of the errors identified in the dispositions are user input errors in the EnergyPro™ software. User input errors are a sign that the software users may not have the expertise to perform the modelling and that the technical reviewers may not have the expertise to review the simulation models created by the implementation teams. These issues must be addressed by the statewide team.

For CPUC ID 0155, which is a statewide HVAC project at multiple sites of one customer, Commission Staff found that the proposed Calculation methodology was flawed, with errors identified in the spreadsheet supporting the analysis. Commission Staff are disappointed that despite having two IOUs (SCE and SDG&E) reviewing this submittal, these errors were not identified.

For CPUC ID 0043, the implementer's resubmitted M&V plan deviated from the past SCE and Commission staff accepted methodology to capture critical details in determining the efficiency savings impacts. SCE should have recognized this and not resubmitted the implementer's plans again to Commission staff for review.

2. Process, Policy, Program Rules

Commission staff applauds SCE's staff for its continued efforts on updating its Customized Calculated Savings Guidelines. This provides clarity and transparency to third-party implementers and customers so that everyone is clearly aware of the rules.

3. Documentation Issues

In the first six months of 2018 documentation issues were not significant. Commission Staff note that no new projects were selected for ex ante review in this timeframe and documentation issues for ongoing projects under review in this period have been previously resolved.

4. Issues Related to Net Impacts

Commission staff continue to be concerned about issues related to net savings impacts. For each project, SCE should provide documentation that demonstrates what the customer was planning to do prior to the energy efficiency program intervened in the project. The documentation needs to demonstrate how the program enabled the customer to adopt an alternative action that improves final efficiency and provides incremental savings benefits to ratepayers over what the customer was otherwise planning to implement.

Net Impacts should be based on real and convincing evidence of program influence included in the documentation submitted for every project. The evidence of program influence should outweigh evidence that suggests the customer would have chosen the efficient alternative absent the program information or financial support. It is important that SCE make significant progress in reducing free ridership since as of January 1, 2018 all portfolio goals are based on net savings impacts.

5. Contracting issue- Third-Party Implementer Contract Structure:

The 2016 and 2017 ESPI memoranda noted several issues with third party contracts including some projects that seemed to have unexpectedly large performance payment rates, a lack of meaningful third-party performance payment caps, and a contract structure based solely on first year claimed gross

savings impacts with no consideration for net impacts. Pursuit of large performance payments can create an environment in which implementers maximize the ex ante savings estimates at the expense of compliance with Commission policy, appropriate and accurate assessment of program influence, measure eligibility or classification and savings impacts. The upcoming third-party contract solicitation must address these issues.

6. Potential Reviewer-Program Implementer Conflicts of Interest

Issue:

The 2015, 2016 and 2017 ESPI review memoranda expressed concern that some third-party implementer firms also perform technical review of program applications. Commission staff believes, and has expressed this several times to SCE staff, as well as to other PA staff, in meetings that a conflict of interest exists for several of SCE's technical review contractors that are also third-party implementers. While Commission staff understand that implementers do not in most cases review projects which their firm is also implementing, there is an inherent conflict related to being on both the enforcement and user side of rules and policies that has contributed to the lack of progress on many of the issues discussed above. SCE has not informed Commission staff what actions have or will be taken to address and mitigate this problem.

B. Deemed Workpapers Ex Ante Review Discussion

SCE's deemed program continued at a similar pace to previous years but with an additional effort to submit 2019 workpapers well in advance of effective dates. The deemed ex ante review included several Phase 1 workpapers which were included in dispositions published on March 1st, 2018. Additionally, one Phase 2 workpaper was reviewed. The comments below are organized by the 5 metric areas of scoring. A table of all submitted and reviewed workpapers, along with feedback of each reviewed workpaper, is included in Attachment A **Error! Reference source not found..Error! Reference source not found.**

1. Timeliness

SCE resubmitted workpapers for deemed LED measures in a timely fashion once final interim values were developed in collaboration with PG&E. SCE also started to submit workpapers and workpaper revisions in response to DEER2019 updates well in advance of that January 1, 2019 effective date.

On the other hand, Commission staff was expecting submission of updated workpapers for the 2018 Phase 1 review period. In January 2017, Commission staff issued direction to SCE to research and update the industry standard practice (ISP) for interior and exterior lighting fixtures to reflect DEER 2018 updates as well as the rapid shift under way in lighting markets to LEDs. SCE did not submit any revised workpapers for Phase 1 and, as of this memo, ISP research efforts are still in the planning phases. Another example is residential and small commercial water heaters. Federal regulations require residential and small commercial water heaters to be rated under a revised testing and reporting standard as of December 2017. Commission staff was expecting revised workpapers to be submitted as part of Phase 1 that reflected these code changes. Instead, Commission staff had to issue a uniform disposition covering all PAs' water heating workpapers, regardless of whether revisions were submitted as part of Phase 1.

PAs are responsible for updating workpapers for code changes and where changes in DEER would cause changes in non-DEER measures. As the statewide PA lead, SCE has been submitting a consolidated workpaper plan that includes, for a subset of currently active workpapers, information such

as: the lead PA on the workpaper and the anticipated submission dates of revisions. At this time, this workpaper plan contains little information about the underlying reasons for updating workpapers or carrying them over into an upcoming program year without revisions. This makes it difficult for Commission staff to form a complete picture of the timeliness of SCE's Phase 1 submissions. Commission staff recommends adding a brief analysis to the consolidated workpaper plan that summarizes, for each workpaper, any code changes, previous Commission staff direction, Commission decisions or resolutions, DEER revisions and EM&V findings that would necessitate Phase 1 workpaper revisions.

2. Content, Completeness, and Quality of Submissions

As discussed for Metric 1, Commission staff concerns revolve mostly around what was expected to be submitted, and there has been limited review on what SCE has submitted since January 1. Commission staff did review one workpaper covering connected automatic smart power strips (APS) and found serious short comings in the supporting information. First, the research to support the savings values was never not submitted for staff review through the Commission staff's EM&V portal on Basecamp. Then, upon review, Commission staff discovered several problems with the overall research formulation and execution. For example, there is no discussion of the sampling plan, demographics of participants or what audio/visual equipment were connected to each studied APS. During meetings covering the workpaper review, SCE staff stated this workpaper was intended to support multi-family direct install programs, however, there were no restrictions noted in the workpaper, and there also appeared to be no multi-family dwellings included in the study.

3. Proactive Initiative of Collaboration

SCE has improved its efforts to provide Commission staff with updates and preliminary work products on upcoming workpapers. Examples are the recently submitted workplans for development of workpapers covering advanced HVAC ventilation controls for buildings and space usages that require high amounts of outside air. Commission staff encourages SCE to review the 2017 Final ESPI memo for further guidance on areas where collaboration would have improved the quality of ex ante values as well as improved SCE's score in this category. SCE should reach out to Commission staff and consultant if our direction is unclear or when major shifts from the direction are anticipated.

4. PA's Due Diligence, Quality Assurance, and Quality Control

Commission staff maintains its concerns on this metric. Several examples are available for this year's mid-year memo. SCE's research plan to support the development of ISP baselines for exterior lighting appears to now have a major focus on identifying population based existing conditions. Commission staff direction was to complete research that supports a forward looking standard practice baseline. An existing condition may only be used in accelerated replacement (AR) applications and does not represent a standard practice baseline. Furthermore, Commission direction is that projects files for each AR project must include documentation of actual existing conditions in the project files. Therefore, a population-based study of existing conditions is not useful since the actual existing conditions are available to perform more accurate savings estimates. Additionally, the SCE study plan proposes to investigate recent sales; however, Commission staff has made clear that this alone will not yield a "forward looking" ISP, which is what is needed to establish reliable ex ante savings for future claims. Commission staff noted that two viable ways to estimated forward looking practices is to review current building permits and the recent requests for quotations for lighting systems as these reflect what

designers and contractors are planning to purchase and install in the coming months or years. As discussed in Section 2, SCE's research intended to support increased savings values for automatic power strips did not follow Commission directed submission, review and approval requirements. Also, in a recently submitted workpaper development plan for residential HVAC fan controllers, SCE references only an older emerging technology study and does not consider previous Commission staff review nor does it consider any of the more recent research of this technology.

5. PA's Responsiveness

SCE has shown initiative by starting to submit workpapers for the 2019 program cycle, well in advance of their effective date. Commission staff has not review any of these workpapers yet, but nevertheless appreciates SCE's efforts to stay ahead in the workpaper submission process. Commission staff encourages SCE to revise their deemed savings programs to remove out-of-date and standard technologies. Commission staff is concerned that SCE is still offering incentives for CFLs¹ and linear fluorescent technologies even as the Commission's Goals and Potential Study have removed or greatly reduced these measures for 2018 and beyond. Commission staff are also aware of heat pump water heater rebates being offered to residential customers with efficiency levels well below the DEER minimum measure efficiency requirements.

[Attachment A](#) 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 Peter Lai (peter.lai@cpuc.ca.gov). Note that pursuant to D.13-09-023, Commission staff will schedule a conference call meeting with SCE staff to discuss and answer clarifying questions of this memorandum.

¹ D18-05-041 at 19 "Several evaluation studies have shown that the energy savings are diminishing, customer acceptance is lower, and continued funding of CFL incentives may actually delay the adoption of preferable light-emitting diode (LED) technologies. In addition, the potential and goals study addressed in D.17-09-025 does not assume that CFL measures were part of the energy savings potential upon which the goals were based. Therefore, we will require the PAs to take action to end incentives for CFLs of all types and to comply with Commission staff guidance on updating workpapers to reflect accurate savings. CFL incentives should be removed from all portfolios by no later than December 31, 2018."

OP 5: "Program administrators shall discontinue payment of incentives as part of the business plan energy efficiency program for compact fluorescent lighting no later than December 31, 2018. This prohibition shall also be reflected in the implementation plans, as well as in the annual budget advice letter filing for 2019."

Attachment A: Workpaper Feedback

The table below lists the ID numbers associated with each workpaper submission or disposition and the workpaper review process “score enhancements” scoring area. The listed weight is used in the combining all the individual rows together into a single score for all the rows in the two scoring components (“direct review” and “process issues”); then each category total score gets equal weighting in the final total score for the metric. The PA may refer to the individual dispositions for more detailed descriptions of the specific actions staff required for each workpaper. The qualitative ESPI 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.

Workpaper Detailed Reviews				ESPI Metrics					
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5
SCE13LG111	1	LED High and Low Bay Fixtures	Positive: SCE submitted short form workpaper based on PG&E's approved PGECOLTG178 in a timely manner. Opportunities: Workpaper was last updated in 2015 and should have been updated pursuant to CPUC staff directed ISP research in time for incorporation into 2018 deemed and custom savings values. In February 2017, CPUC staff issued a custom project disposition that directed SCE to collaborate with other PAs and complete and ISP study for interior and exterior lighting by October 1, 2017 (in time to incorporate results into 2018 deemed and custom savings values). At this time, SCE is still in the planning stages and expects to complete the work by the fall of 2018 (about a year later than directed). Some of the delay appears to be due to an increase in scope to investigate current existing conditions (which would serve as a first baseline only in AR claims).		-	no	no	-	-
SCE17LG086	0	Interior Linear Fluorescent Fixture	See comment on SCE13LG111		-	no	no	-	-
SCE17LG097	1	LED Street Lighting	Positive: SCE submitted workpaper in compliance with direction in recent CPUC decision for AR of streetlights being sold to local jurisdictions. Their second workpaper for NR applications was submitted in compliance with PG&E interim approved workpaper.		+	+	no	no	no

Workpaper Detailed Reviews				ESPI Metrics					
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5
SCE17LG105	1	LED Exterior Landscape Lighting Fixture	Positive: SCE submitted workpaper a new short form workpaper, SCE17LG134, adopting PG&E's approved workpaper in place of this workpaper. Opportunities: CPUC staff was expecting and update to this workpaper to reflect previous direction to update ISP. In February 2017, CPUC staff issued a custom project disposition that directed SCE to collaborate with other PAs and complete and ISP study for interior and exterior lighting by October 1, 2017 (in time to incorporate results into 2018 deemed and custom savings values). At this time, SCE is still in the planning stages and expects to complete the work by the fall of 2018 (about a year later than directed). Some of the delay appears to be due to an increase in scope to investigate current existing conditions (which would serve as a first baseline only in AR claims).		-	no	no	-	no
SCE17LG114	1	LED Exterior Light Fixture with Motion Sensor	See comment for SCE17LG105		-	no	no	-	no
SCE17LG120	1	LED Exterior Fixture below 24 ft.	See comment for SCE17LG105		-	no	no	-	no
SCE17WH001	0	Heat Pump Water Heater	Opportunities: Starting 2018, residential and small commercial water heaters are required by Federal standards to be tested and rated with an Uniform Energy Factor (UEF). However, it appears that all IOU programs are still defining measures using the outdated Energy Factor (EF). As part of the Phase 1 disposition, CPUC staff developed measure definitions using UEF, but no workpapers have been submitted following this direction.		-	no	no	no	no
SCE17LG133	1	LED A-Lamps	Positive: SCE submitted a workpaper based on PG&E's final PGECOLTG165 in a timely manner. Opportunities: Initial 2018 submissions did not consider that Title 20 requirements would generally prohibit the sale of incandescent A-lamps and MR-16 lamps in California on 1/1/2018.		-	no	no	no	no
SCE17LG103	0	Interior LED Downlight Fixtures	See comment on SCE17LG133		-	no	no	no	no
SCE17LG127	1	LED PAR Lamps	See comment on SCE17LG133		-	no	no	no	no
SCE17LG129	0	LED Candelabra Lamps	See comment on SCE17LG133		-	no	no	no	no
SCE17LG130	0	LED Globe Lamps	See comment on SCE17LG133		-	no	no	no	no
SCE17LG131	1	LED BR-R Lamps	See comment on SCE17LG133		-	no	no	no	no
SCE17CS014	1	Tier 2 Advanced Smart Connected Power Strip	Opportunities: Research was not performed in a way that was consistent with directed M&V development and staff review requirements.		+	-	-	-	-

Workpaper Detailed Reviews				ESPI Metrics					
WP ID	Rev	Title	Comments	Weight	1	2	3	4	5

Workpaper Submissions				ESPI Metrics					
WP ID	Rev	Title	Submission Status: EAR Team Comments	Weight	1	2	3	4	5
SCE13LG111	1	LED High and Low Bay Fixtures	Detailed review – resubmit - scored in detailed review section						
SCE17LG103	0	Interior LED Downlight Fixtures	Detailed review – resubmit - scored in detailed review section						
SCE17LG086	0	Interior Linear Fluorescent Fixture	Detailed review – resubmit - scored in detailed review section						
SCE17LG129	0	LED Candelabra Replacements	Detailed review – resubmit - scored in detailed review section						
SCE17LG130	0	LED Globe Lamps	Detailed review – resubmit - scored in detailed review section						
SCE17LG127	1	LED PAR Lamps	Detailed review – resubmit - scored in detailed review section						
SCE17LG131	1	LED BR-R Lamps	Detailed review – resubmit - scored in detailed review section						
SCE17LG133	1	LED A-Lamps	Detailed review – resubmit - scored in detailed review section						
SCE17LG120	1	LED Exterior Fixture below 24 ft.	Detailed review – resubmit - scored in detailed review section						
SCE17LG114	1	LED Exterior Light Fixture with Motion Sensor	Detailed review – resubmit - scored in detailed review section						
SCE17LG097	1	LED Street Lighting	Detailed review – resubmit - scored in detailed review section						
SCE17WH001	0	Heat Pump Water Heaters	Detailed review – resubmit - scored in detailed review section						
SCE17LG105	1	LED Exterior Landscape Lighting Fixture	Detailed review – resubmit - scored in detailed review section						
SCE17CS014	0	Tier 2 Advanced Smart Connected Power Strip	Detailed review – resubmit - scored in detailed review section						
SCE17RN029	0	Ultra Low Temperature Freezer	Review waived - interim approval		+	no	no	no	no
SCE17LG118	0	LED Troffer Retrofit Kit	Review waived - interim approval		+	no	no	no	no
SCE17HC005	0	Whole House Fan	Review waived - interim approval		+	no	no	no	no
SCE17WP004	1	Faucet Aerator and Low Flow Showerhead	Review waived - interim approval		+	no	no	no	no
SCE17WP001	0	Residential Pool Pump VFD	Detailed review – resubmit - scored in 2017						
SCE17HC049	0	ProgTstat_NRes	Review waived - interim approval		+	no	no	no	no
SCE17MI005	0	Basic Path Enhancement for Whole House	Review waived - interim approval		+	no	no	no	no
SCE17HC030	1	Air - Cooled Packaged Chillers	Review waived - interim approval		+	no	no	no	no
SCE17HC043	0	Water Cooled Chillers	Review waived - interim approval		+	no	no	no	no
SCE17RN024	1	Refrigerated Storage Auto Closer	Review waived - interim approval		+	no	no	no	no
SCE13CC005	5	Electric Griddle	Review waived - interim approval		+	no	no	no	no

Workpaper Submissions				ESPI Metrics					
WP ID	Rev	Title	Submission Status: EAR Team Comments	Weight	1	2	3	4	5
SCE17RN023	1	Refrigeration Floating Suction and Head Pressure Controls	Review waived - interim approval		+	no	no	no	no
SCE17HC055	0	Circulating Block Heater	Review waived - interim approval		+	no	no	no	no
SCE17RN009	1	Anti-Sweat Heat (ASH) Controls	Review waived - interim approval		+	no	no	no	no
SCE17RN003	1	Insulation of Bare Refrigeration Suction Lines	Review waived - interim approval		+	no	no	no	no
SCE17WH001	0	Heat Pump Water Heater	Detailed review – resubmit - scored in detailed review section						
SCE17CC002	0	Commercial Electric Steamers	Review waived - interim approval		+	no	no	no	no
SCE17CC006	0	Commercial Electric Combination Ovens	Review waived - interim approval		+	no	no	no	no
SCE17HC039	1	VFD Retrofit to Central Plant Systems	Review waived - interim approval		+	no	no	no	no
SCE17CC003	0	Insulated Hot Food Holding Cabinets	Review waived - interim approval		+	no	no	no	no
SCE17CC004	0	Commercial Electric Fryers	Review waived - interim approval		+	no	no	no	no
SCE17CC008	0	Exhaust Hoods Demand Controlled Ventilation	Review waived - interim approval		+	no	no	no	no
SCE17WP008	1	Commercial Variable Speed Swimming Pool Pump	Review waived - interim approval		+	no	no	no	no
SCE17CC007	0	Commercial Ice Machines	Review waived - interim approval		+	no	no	no	no
SCE17HC040	0	Cogged V-belt	Review waived - interim approval		+	no	no	no	no
SCE17CC016	0	Commercial Dishwashers	Review waived - interim approval		+	no	no	no	no
SCE17HC012	1	Commercial Air-cooled Unitary Air Conditioners and Heat Pumps <65 kBtu/h	Review waived - interim approval		+	no	no	no	no
SCE17HC035	1	Commercial Air-cooled Unitary Air Conditioners and Heat Pumps >=65 kBtu/h	Review waived - interim approval		+	no	no	no	no
SCE17AP018	0	High Efficiency Dishwasher - Residential	Review waived - interim approval		+	no	no	no	no
SCE17CC014	1	Commercial Hand Wrap Machines	Review waived - interim approval		+	no	no	no	no
SCE17RN011	0	Evaporator Fan Motors	Review waived - interim approval		+	no	no	no	no
SCE17LG097	2	LED Street Lighting	Review waived - interim approval		+	no	no	no	no
SCE17WP015	0	Water Pump Upgrade	Review waived – Interim approval		+	no	no	no	no
SCE17HC068	0	Single Package Vertical Heat Pump	Review waived – Interim approval		+	no	no	no	no
SCE17WP010	0	High Performance Circulator Pump	Review waived – Interim approval		+	no	no	no	no

Workpaper Submissions				ESPI Metrics					
WP ID	Rev	Title	Submission Status: EAR Team Comments	Weight	1	2	3	4	5
SCE17RN018	0	Low ASH Display Doors	Review waived – Interim approval		+	no	no	no	no
SCE17LG103	1	Interior LED Downlight Fixtures	Review waived – Interim approval		+	no	no	no	no
SCE17LG127	2	LED PAR Lamps	Review waived – Interim approval		+	no	no	no	no
SCE17LG129	1	LED Candelabra Lamps	Review waived – Interim approval		+	no	no	no	no
SCE17LG130	1	LED Globe Lamps	Review waived – Interim approval		+	no	no	no	no
SCE17LG131	2	LED BR-R Lamps	Review waived – Interim approval		+	no	no	no	no
SCE17CS014	1	Tier 2 Advanced Smart Connected Power Strip	Detailed review – resubmit - scored in detailed review section						
SCE17CC017	0	Refrigerated Chef Bases	Review waived – Interim approval		+	no	no	no	no
SCE17AP003	0	Energy Star Clothes Washers	Review waived – Interim approval		+	no	no	no	no
SCE17LG133	2	LED A-Lamps	Review waived – Interim approval		+	no	no	no	no
SCE17WP004	1	Faucet Aerator and Low Flow Showerhead	Review waived – Interim approval		+	no	no	no	no
SCE17LG017	1	Upstream Interior 3-way and Dimmable CFLs	Review waived – Interim approval		+	no	no	no	no
SCE17LG072	1	Upstream Interior 3-way and Dimmable CFLs	Review waived – Interim approval		+	no	no	no	no
SCE17HC055	2	Circulating Block Heater	Not yet reviewed - 2019 Phase 1 submission		+	no	no	no	no
SCE17CC001	0	Commercial Reach In Refrigerators and Freezers	Review waived – Interim approval		+	no	no	no	no
SCE17LG111	0	LED High-Bay and Low-Bay Fixtures	Review waived – Interim approval		+	no	no	no	no
SCE17LG134	0	LED Outdoor Area and Street Lighting	Review waived – Interim approval		+	no	no	no	no
SCE17HC013	1	Direct Evaporative Coolers Final	Not yet reviewed - 2019 Phase 1 submission		+	no	no	no	no
SCE17HC017	1	Direct-indirect Evaporative Coolers	Review waived – Interim approval		+	no	no	no	no
SCE17WP016	0	Recirc Pump Control	Review waived – Interim approval		+	no	no	no	no
SCE17HC007	1	High Efficiency PTACHP 24kBtuh	Not yet reviewed - 2019 Phase 1 submission		+	no	no	no	no
SCE17PR005	1	Air Compressor VSD	Not yet reviewed - 2019 Phase 1 submission		+	no	no	no	no
SCE17HC028	1	BFM ResCentralAC	Review waived – Interim approval		+	no	no	no	no