

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Application of Southern California Edison
Company (U 338-E) for Approval of Energy
Efficiency Rolling Portfolio Business Plan.

And Related Matters

A.17-01-013
(Filed January 13, 2017)

A.17-01-014
A.17-01-015
A.17-01-016
A.17-01-017

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) RESPONSE TO THE
QUESTIONS IN ATTACHMENT A OF ADMINISTRATIVE LAW JUDGE'S RULING
SEEKING COMMENTS ON ENERGY EFFICIENCY BUSINESS PLAN METRICS**

FADIA RAFEEDIE KHOURY
JANE LEE COLE

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-3860
Facsimile: (626) 302-7740
E-mail: Jane.Lee.Cole@sce.com

Dated: **May 22, 2017**

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Application of Southern California Edison
Company (U 338-E) for Approval of Energy
Efficiency Rolling Portfolio Business Plan.

And Related Matters

A.17-01-013
(Filed January 13, 2017)

A.17-01-014
A.17-01-015
A.17-01-016
A.17-01-017

**SOUTHERN CALIFORNIA EDISON COMPANY’S (U 338-E) RESPONSE TO THE
QUESTIONS IN ATTACHMENT A OF ADMINISTRATIVE LAW JUDGE’S RULING
SEEKING COMMENTS ON ENERGY EFFICIENCY BUSINESS PLAN METRICS**

I.

INTRODUCTION

Pursuant to the Rules of Practice and Procedure of the California Public Utilities Commission (Commission or CPUC), and in compliance with Administrative Law Judge’s (ALJ) Ruling Seeking Comments on Energy Efficiency Business Plan Metrics, issued on April 14, 2017 (Ruling), Southern California Edison Company (SCE) respectfully submits these responses to the relevant questions included in Attachment A of the Ruling.

**SOUTHERN CALIFORNIA EDISON COMPANY’S (U 338-E) RESPONSE TO
QUESTIONS IN ATTACHMENT A- QUESTIONS FOR BUSINESS PLAN
PROPOSERS**

**I. QUESTIONS APPLICABLE TO ALL PROSPECTIVE PROGRAM
ADMINISTRATORS (PAs)**

1. *Demonstrate in a quantitative way, via table or graphic, how the proposed metrics cumulatively are useful and effective indicators of each PA’s likely achievement of targeted energy efficiency program uptake and overall savings goals.*

SCE recommends this topic be discussed at the Metrics Workshop on May 26, 2017. This would enable Energy Division to clarify the “proposed metrics” to which this question refers (i.e., portfolio or sector-level metrics), and whether “cumulative” refers to the eight-year Business Plan period or how savings from programs yield cumulative sector-level savings. If the question refers to portfolio metrics for the eight-year Business Plan period, SCE proposes using a simple methodology as illustrated in Figure 1 below with a hypothetical graph of savings achieved mapped against expected progress towards the eight-year savings goal. If the question refers to how individual program savings will cumulatively yield sector-level savings, SCE suggests using a “framework of indicators” such as the draft framework developed by Energy Division in 2011.¹

¹ Draft Framework of Indicators for Assessing Achievement of Long Term Energy Efficiency Objectives (2011), *available at* ftp://ftp2.cpuc.ca.gov/PG&E20150130ResponseToA1312012Ruling/2011/10/SB_GT&S_0821678.pdf

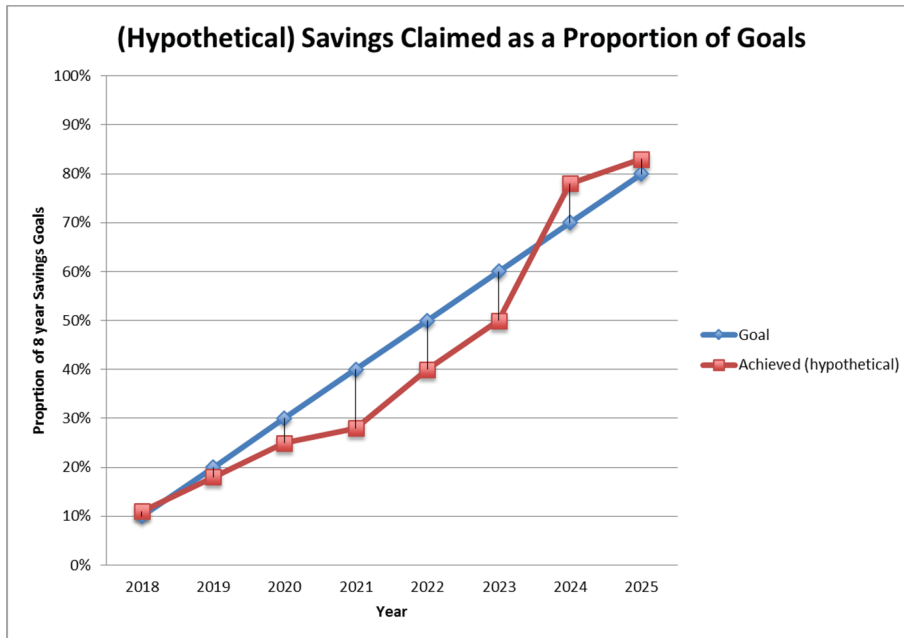


Figure 1. Savings Claimed as a Proportion of Goals

SCE recommends against broadly assuming that “energy efficiency program uptake” at the sector-level should be tracked with the same metric for all sectors. For example, in the Commercial Sector Business Plan, some strategies are designed to target a few high-potential, large commercial customers who can deliver deep energy savings, while other strategies are designed to target the more numerous small business customers with low-cost/no-cost measures. The tradeoff between participation rate and depth of savings would be different for these two commercial segments, and any cumulative participation metric or depth-of-savings metric for the entire commercial sector would not reflect the successes of implementation-level uptake strategies.

2. *Provide the number of multi-family units and multi-family properties in your respective geographic areas.*

SCE estimates that there is a total of 1.2 million multi-family units (defined as a residence with two or more units) in SCE’s service territory. SCE does not know the total number of multi-family properties in its service territory.

II. QUESTIONS APPLICABLE TO ALL INVESTOR-OWNED UTILITIES (IOUs)

A. Regarding Metrics

3. *What metric would best ensure that projects provide actionable data to complete work papers?*

SCE recommends this topic be discussed either at the May 26, 2017 workshop on metrics or at a future California Energy Efficiency Coordinating Committee (CAEECC) meeting so that the Commission can provide clarity on what type of metric it is seeking. This would help SCE better understand what is meant by “actionable data to complete work papers.” In addition, this question appears to pertain to project or program-level metrics, which are not intended to be a part of the business plan,² so this metric may be better addressed in Implementation Plans.

4. *What metric would best ensure that projects provide information required by incentive programs or codes and standards?*

SCE recommends this topic be discussed either at the May 26 workshop on metrics or at a future CAEECC meeting so that the Commission can provide clarity on what is meant by “information required by incentive programs or codes and standards.” In addition, similar to Question 3, this question appears to pertain to project-level metrics, which are not intended to be a part of the business plan. Therefore, this metric may be better addressed in Implementation Plans.

² The Commission’s Decision (D.)15-10-028 states, at p. 53: “PAs will still need to set more granular metrics than just sector-level metrics, but they will do so in implementation plans, not business plans. It is in the implementation plans that we want to see *at least* one metric for each program/strategy/sub-sector/intervention strategy; more than one where appropriate. The business plan is not the place for that additional level of detail.”

B. Workforce Education and Training (WE&T)

5. *How does the number of training partners indicate how well the spectrum of entities involved in the workforce is covered?*

The number of training partners, by itself, does not track how well the spectrum of entities involved in the workforce is covered. The number of training partners is just one indicator, and needs to be used in conjunction with other information such as degree of alignment with high-potential partners and high-potential sectors. The program managers will track the number of training partners across the spectrum in order to help monitor whether resources are distributed appropriately, and not concentrated on a few entities.

6. *Please provide more information on how all targets involving percentage increases were developed or determined.*

SCE has yet to determine or develop targets for its WE&T metrics. Baselines will need to be determined for sector-level metrics, and targets can be set once enough data produces a trend line from which targets can be extrapolated. SCE expects baseline data to be collected by the end of the first year of the Business Plan portfolio and preliminary trends to be established by the end of the second year. At that time, SCE will propose targets for the short-, mid-, and long-term, to be updated as better information becomes available.

VII. Questions Applicable to Southern California Edison (SCE)

A. Residential Sector

39. Please complete the highlighted sections of this metric and effects table for the multi-family sector in your service territory:

Please see the Table below for the metrics and effects for the multi-family sector in the SCE territory.

GOAL: Increase savings from MF properties						
Intervention Strategies	Metric	Baseline	Metric Source	Short Term Target (1-3 years)	Mid Term Target (4-6 years)	Long Term Target (7-9 years)
<ul style="list-style-type: none"> • Building Energy Benchmarking Data Access • Partnering • Intelligent Outreach 	Electricity savings from MF customers	16.9 Gross GWh/year	Net ex ante savings from program databases	39.1 Total Gross GWh reduction Determine mid- and long-term goals	TBD	TBD
	<ul style="list-style-type: none"> • Rural & Disadvantaged Community Outreach • Single Point of Contact 	Demand savings from MF customers	1.6 MW Gross MW/year	Net ex ante savings from program databases	3.7 Total Gross MW reduction Determine mid- and long-term goals	TBD
<ul style="list-style-type: none"> • Technical Assistance • Direct Install / Turnkey • Customer Incentives • Financing 	Indicators Number of MF properties and units served in MF energy efficiency programs.					
Note: Mid-Term and Long Term Targets will be established during the development of Intervention Strategies in the Implementation Plans.						

B. Third Party/Commercial Sector (Small and Medium Business (SMB))

40. *What are SCE's objectives and metrics for the third party programs?*

Consistent with the guidance in D.15-10-028, SCE did not develop program-level objectives and metrics in its EE Business Plan; therefore, it did not include objectives or metrics for third-party programs. When SCE develops implementation plans for programs, SCE will also develop objectives and metrics for programs that utilize third-party contractors, which will include internal metrics and key performance indicators (KPIs), to monitor the performance of vendors. In addition, SCE will track and monitor the percentage of its total portfolio budget spent on programs designed and delivered by third parties to verify whether SCE is on track to achieve the Commission's goal for the IOU PAs to outsource at least 60 percent of their EE portfolios to third parties.³

C. Public Sector

41. *How does "the number of customers participating in EE programs," cited as the metric in row 2 of Table 31, help measure and verify permanent modifications to customer practices?*

SCE assumes this question is referencing row 2 of Table 51 in its Amended Business Plan. This metric is meant to be a distal indicator (measuring long-term outcome) that will help measure permanent modifications of customer processes by Public Sector customers considering and adopting EE solutions in the future.

To help customers begin to consider and adopt EE solutions, SCE will develop segment-specific intervention strategies in the Implementation Plans within the Public Sector. Because customers considering and adopting EE solution during the procurement process will be different across Public Sector segments, it is difficult to define a single

³ D.16-08-019, p. 111 (OP 12).

indicator that would capture comparable changes in the different procurement processes. However, once customer practices have changed to consider and adopt EE solutions, the result would be greater participation in EE programs. Therefore, SCE is using a participation metric to measure if customers have modified practices.

D. Codes and Standards (C&S)

42. *Expanded Subprograms: Some metrics require more detail. For instance, page 239 of the amended business plan says the metric is “milestones achieved.” What are the milestones and how are they selected?*

SCE has not yet developed or selected milestones for metrics that SCE indicated as “milestones achieved.” SCE considers these subprogram-level metrics to be appropriate for the Implementation Plan, consistent with guidance regarding program-level and subprogram-level metrics in D.15-10-028.⁴ SCE plans to select and develop the milestones during the development of the Codes & Standards Implementation Plans

E. Emerging Technologies (ET)

43. *Questions concerning the tracking metrics listed at the end of SCE’s business plan, Appendix K:*

- a. *Does “# of adoptions into C&S” include both technologies that move from ET to C&S and technologies that move from ET through the portfolio into C&S? Or are both of these pathways into C&S going to be quantified separately?*

The “# of adoptions into C&S” includes both technologies that have moved from the ET Program (ETP) to C&S and technologies that move from ETP through the portfolio into C&S. This metric is intended to be a retrospective metric, which will

⁴ See *supra.*, at footnote 2.

report new codes and standards in the past year that have been supported by ETP projects at some point in the code development process. This metric should be considered informational as it will be difficult to track due to some code adoptions occurring years after the completion of an ETP assessment project.

- b. *Explain the methodology and attribution method behind "Gross first-year kWh and kW saved" in detail.*

When SCE files revised proposed metrics, per the Ruling, SCE will modify “Gross first year kWh and kW saved” to “Potential first-year (ex-ante) energy savings” for clarity. Please see SCE’s response to Question 43c. The ETP database currently includes the estimated ex-ante (gross) kWh and kW savings potential. The methodology for estimating technical potential varies, and usually is obtained by multiplying manufacturer-claimed, per-unit energy savings by market size, with the latter taken from secondary sources. Attribution at this stage is not necessary because these are potential energy savings. This high-level, rough estimate of savings potential is useful as a criterion for prioritizing ETP projects and budgets.

- c. *Does "(Desired) Estimated energy savings" refer to predicted energy savings (ex-ante) or realized energy savings (ex-post)? Explain.*

“(Desired) estimated energy savings” refers to the “potential first year energy (ex-ante) savings”. The ETP database contains savings based on the estimated technical potential of the technology and are used as one criteria to prioritize ETP projects.

- d. *What metric tracks the Emerging Technologies Program and Technology Priority Map alignment with state goals such as SB 350 and Zero Net Energy?*

SCE did not propose a metric that tracks Emerging Technologies Programs and Technology Priority Map (TPM) alignment with state goals. The TPM development process is intended to capture state goals, such as SB 350 and Zero Net Energy, and the primary objective is to help resource programs fulfill state goals, including savings and

policy goals. State goals usually revolve around savings and markets and rely on the resource programs to achieve the goals. ETP's role is to support the resource programs, and ETP supports state goals only through these resource programs.

44. *Define "technologies," how that definition is related to a project, and how "technologies" will be tracked when transferred into the portfolio as deemed and custom measures.*

Historically, ETP has defined technologies by end use, with modifiers to specify application and market segment when appropriate (e.g., hot-dry residential HVAC). As the measure portfolio moves toward integrated measures and systems-level, holistic solutions, SCE proposes that the ETP's definition of "technology" be expanded to include all solutions that may meet customer energy savings needs including, but not limited to, hardware, holistic solutions, and program delivery approaches. There is not a one-to-one mapping between projects and technologies. Often, one technology would have multiple projects, with a different project at each different stage of testing. The technologies that are "adopted" either as a deemed or custom measure into resource programs are assigned a Measure ID number, but these may change over time as new Measure IDs are assigned with each new application. The initial Measure ID is tracked in the ETP database.

a. *How will the metric be reported?*

ETP will report the number of technologies that have been assigned a Measure ID. This is a field in the ETP database and part of regular reporting to the Commission.

b. *How does SCE propose to benchmark the reporting over time to develop success criteria in the future?*

SCE proposes to benchmark using the number of technology assessment reports produced by ETP annually, as a function of budget. SCE proposed this metric as part of its EE Business Plan and has several years of historical data to use for benchmarking.

This is an appropriate metric because ETP is a technology assessment program and

should be measured on the relevance of the technologies assessed, on the number of assessments, and the usefulness of the assessments by the resource program managers. Number of technologies that become measures would not be an appropriate for benchmarking because ETP does not control which technologies are chosen by PAs as measures.

45. *Provide a list of technologies that have moved from ET directly into code, with associated dates and kW and kWh savings.*

SCE does not track technologies that have moved from the ETP directly into code.

46. *Provide a list of technologies that have moved from ET into the portfolio, with associated dates and kW and kWh savings.*

Please see Appendix A for SCE's list of technologies that have moved from the ET program into the portfolio since 2009. Because SCE does not currently have a systematic process for tracking this information, the list provided may not be exhaustive. ETP is a non-resource program and SCE is not able to provide the kW and kWh savings for these technologies. ETP keeps track of a technology that has become a measure by storing in the ETP database the Measure ID for the technology that was adopted. However, that same technology may then be offered to additional customer segments and it will get additional Measure IDs for each "version" of the measure that is offered. ETP does not track the additional Measure IDs and cannot obtain the kW and kWh savings for all measures tied to the original technology.

47. *Provide a list of technologies that have moved from ET first into the portfolio, then into code, with associated dates and kW and kWh savings.*

As discussed in SCE's response to Question 45, SCE does not track technologies that eventually are included in code. Although this information is not tracked, SCE has provided in Appendix B an estimate of technologies that have moved from ETP into the portfolio then into code. The technologies were derived from the program year 2006-2008 ETP evaluation. For the same reasons explained in SCE's response to Question 46, SCE is not able to provide the kW and kWh savings for these technologies.

48. *What metric could best quantify coordination with other technology development actors such as EPIC, CalSEED, and RocketFund (others identified in the 2012 Technology Development Actors Study)? This could be based on the number of projects that are passed from one program to the other, and the number of projects that come into ET from other sources such as industry and direct application. What metric would best ensure that projects provide actionable data to complete work papers?*

Program-level issues such as coordination are best assessed through periodic process evaluations that target specific technology development actors and provide specific recommendations to improve coordination, rather than being addressed with sector-level metrics. SCE recommends that ETP define successful coordination to include not duplicating work performed by another entity because it would be difficult to capture in a metric.

Please see SCE's response to Question 3 regarding metrics related to projects providing actionable data to complete work papers.

F. Workforce Education and Training

49. *Each metric's short term target states, "Evaluation criteria defined and measurement to establish baseline begins."*

a. *Is more information available regarding these targets / this timeline?*

SCE does not currently have more information regarding these targets. The evaluation criteria and baselines will be defined no later than Q2 2018 and data collection will commence immediately upon defining the baselines.

b. *Does this indicate that it could take up to three years before measurement begins?*

No, this does not indicate that it will take up to three years before measurement begins. SCE intends to begin collecting baseline data as soon as the baselines are defined. SCE expects baselines to be reported at the end of Year 1, and each subsequent year's data can be compared against Year 1.

50. *How do these metrics compare to previously-used sector metrics? Will any previously-used sector metrics be continued?*

SCE did not have any previously used sector-level metrics. The previous Program Performance Metrics were program-specific. The WE&T PAs have had stakeholder discussions to review and revise the objectives of the WE&T. The Business Plan sector-level metrics are designed to track progress towards these sector level objectives, independent of particular program metrics.

51. *For "percent offerings that align with market needs:"*

a. *How will "market needs" be defined?*

Historically, market needs have been identified by:

- Looking at enrollment rates and satisfaction ratings for current offerings (if enrollment rates or satisfaction rates drop, it is an indicator that the market no longer needs the WE&T training course);
- Gathering suggestions from the target audience. For example, participants fill out a survey after each course and are given an opportunity to request new courses, and the PAs conduct periodic process evaluations that survey participants about any WE&T needs not met. If these surveys indicate sufficient interest, WE&T will then consider offering a course in that area;
- Looking at recent and active mandates (e.g., benchmarking requirements); and
- Taking suggestions from the EE program managers, including C&S and ETP, who receive feedback from their program participants.

b. Will there be a process in place to shift this definition as market needs change, and what will that look like?

SCE will solicit stakeholder engagement through the CAEECC and WE&T stakeholder engagement to identify WE&T market need changes. SCE’s WE&T current review process takes place at least once a year, when the course offerings are designed and planned. All suggestions up to that point are aggregated and reviewed. Given sufficient budget and resource availability, suggestions for new courses may also be addressed as the need arises throughout the year.

52. *For “percent offerings that reach disadvantaged workers:”*

a. Is there a working definition of “reach” and “disadvantaged”?

SCE’s WE&T program defines “reach” as enrollment into a WE&T course offering, and preliminarily defines “disadvantaged worker” as those who live in ZIP codes that are hard-to-reach as defined by the Energy Efficiency Policy Manual and that meet CalEnviroScreen criteria as disproportionately burdened by environmental

pollution. To the extent the Commission adopts a formal definition for “disadvantaged,” SCE will align its policies with that definition.

b. Is this intended to measure the percent of offerings that target specifically disadvantaged workers, or derived on an individual participant basis, perhaps by participants listing zip codes at checkin?

This metric is intended to track both the percent of offerings that specifically target disadvantage workers and the number of individual participants. Both measurements will be tracked separately.

53. *Provide more information on how “market penetration” will be measured, or suggested approaches to measuring market penetration.*

SCE proposes to measure market penetration as the percentage of the target market that has participated in a WE&T offering. The overall target market size will be defined by existing occupation data from the California Employment Development Department and other secondary sources of labor market data.

II.

CONCLUSION

SCE appreciates the opportunity to provide these responses to the relevant questions posed in Attachment A of the Ruling.

Respectfully submitted,

FADIA RAFEEDIE KHOURY
JANE LEE COLE

/s/ Jane Lee Cole

By: Jane Lee Cole

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-3860
Facsimile: (626) 302-7740
E-mail: Jane.Lee.Cole@sce.com

Date: May 22, 2017

Appendix A

Emerging Technologies Program Adopted Measures Since 2009

Project Number	Project Name	Report / deliverable complete
ET06SCE1060	LED in Low Temperature Reach in Refrigerated Display Case	12/1/09
ET06SCE1070	High Efficiency Medium Temperature Display Case	6/22/09
ET07SCE1030	LED Under Cabinet Lighting	12/31/09
ET07SCE1090	Water Treatment Strategies for Evaporative Cooling Systems	12/31/12
ET07SCE1100	Demand Control Kitchen Ventilation	2/14/08
ET07SCE1101	DCV For Commercial Kitchens	6/30/14
ET07SCE1110	Exterior Parking Lighting Evaluation	12/31/11
ET07SCE1120	LED Screw-in Floodlight Systems	12/15/08
ET07SCE1140	LED MR16 Lamp	12/31/08
ET07SCE1150	Residential LED Down Lights	12/31/09
ET07SCE1170	Hot/Dry Air Conditioner	9/30/12
ET08SCE1020	Air Source Heat Pump for Emergency Generators	
ET08SCE1080	Performance Evaluation of an Evaporatively-Cooled Split-System Air Conditioner	11/20/09
ET08SCE1150	Car Wash Vacuum Variable Speed Drive	8/16/10
ET08SCE1160	5 ton Indirect Hybrid Unit	12/31/11
ET09SCE1010	Light Emitting Diode (LED) lighting technology for Street Lighting	12/31/09
ET09SCE1080	Deck Ovens	9/30/11
ET09SCE1090	Half size convection oven	9/30/11
ET09SCE1091	Convection Ovens for Food Service Applications	9/30/11
ET09SCE1210	Office of the Future Federal Building Demonstration	12/31/11
ET10SCE1020	Combination Ovens for Food Service Applications	3/31/11
ET10SCE1130	LED Light for Commercial Pools	12/31/11
ET10SCE1220	L Prize A-Lamp for Hospitality Applications	12/31/10
ET10SCE1230	L Prize A-Lamp Laboratory Assessment	12/29/10
ET10SCE1250	Smart Corridor Bi-Level Lighting for Office Applications	12/31/11
ET10SCE1290	LED A-Lamp Laboratory Assessment	12/31/10
ET10SCE1310	Hot Food Holding Cabinets for Foodservice	12/31/11
ET10SCE1330	Combination Ovens for Food Service	6/30/11
ET10SCE1390	Steamers for Food Service Applications	12/31/11
ET10SCE1410	High Density Holding Cabinets for Food Service	9/30/11
ET10SCE1430	Hot Food Induction Holding Well	9/30/11
ET10SCE1440	Steamer/Kettle for Food Service Applications	9/30/11
ET10SCE1450	Vacuum Sealing/Packaging Machines for Food Service	9/30/12
ET10SCE3010	LED Street Lighting	6/30/14
ET10SCE3020	Climate Appropriate HVAC	3/31/13
ET11SCE1010	Backlit Signs and Menu Boards Lab Evaluation	12/31/11
ET11SCE1011	Backlit Signs and Menu Boards Field Evaluation	9/30/12
ET11SCE1030	Hospitality VRF Evaluation	12/31/12
ET11SCE1040	High Efficiency Blower Under 50hp Retrofit	12/31/11
ET11SCE1130	Evaporator Fan Delay Control	12/31/11
ET11SCE1190	HVAC Electrostatic Filter	6/30/12

Project Number	Project Name	Report / deliverable complete
ET11SCE1221	Exterior LED Lights with Occupancy Sensors	12/31/11
ET11SCE5020	Blower Test Standards	12/31/12
ET12SCE1040	Cheese Melter For Food Service	9/30/12
ET12SCE1080	Conveyor Broilers for Foodservice Applications	12/31/12
ET13SCE1030	Field Test of Controller with Fault Detection and Diagnostics	6/30/13
ET13SCE1070	RTU Retrofit Technologies Assessment (Stepped Fan Speed Control based on occupancy)	2/13/15
ET14SCE1040	LED Tube Retrofit	3/30/16
ET15SCE1060	High-mast LED	1/22/16

Appendix B

SCE Residential ETP Projects with Technologies Transferred to Energy Efficiency Programs

ETP projects from the PY2006-2008 ETP evaluation study⁵ that have informed code setting, and that eventually resulted in a code or standard, including mandatory, prescriptive, performance, comp-ops, and appliance regulations.

ETP Project Name	Project Technologies / Measures
Heat Pump Water Heater	Energy Efficient Electric Water Heater
LED Task Lights	Light Emitting Diode (LED)
LED Exterior Lights	Light Emitting Diode (LED)
Variable-Speed Pool Pump	Variable Speed Pool Pump
Residential Economizer Cycle	Whole house fan
Evaporative Cooling Technologies Assessment	Evaporative cooling
LED Screw-In Floodlight Systems	Light Emitting Diode (LED)
Residential LED Downlights	Light Emitting Diode (LED)
ETP Project Name	Project Technologies / Measures
Chapman University	Screw-In Compact Fluorescent Lamps
City of Compton City Hall	Screw-In Compact Fluorescent Lamps
Los Amigo Market & Liquor T-8 Electronic Ballasts	T-8 or T-5 Lamps w/Electronic Ballasts
Palm Spring Chamber of Commerce - Indirect/Direct Evaporative Cooling	Advanced Evaporative Coolers
Kott's Berry Farm	Commercial Electric Combination Oven
Soak City's Pier Grill	Commercial Electric Combination Oven
RTTC Anti Sweat Heater	Special Doors /low/no Anti-Sweat Heat
Costco	ECM and PSG Motors
CTG Lighting Retrofit	T-8 or T-5 Lamps w/Electronic Ballasts
NRDC Daylighting Control	Photocells
Pomona Portable Classroom Day Lighting Control	Photocells
Long Beach Aquarium VSD Chiller Retrofit	Variable Frequency Drives
Ralph Grocery - Glass Doors	New Refrigeration Display Case w/Door
LA County T5 HO & Variable Geometry Reflector	High Bay Fixtures (T-8 or T-5)
Super T-8 Fluorescent Field Demonstration	T-8 or T-5 Lamps w/Electronic Ballasts
Advanced Classroom Lighting	T-8 or T-5 Lamps w/Electronic Ballasts
Instant Start Super T-8 lamp/ballast - First Presbyterian	T-8 or T-5 Lamps w/Electronic Ballasts
Stairwell Lighting Bi-Level Switching	Occupancy Sensors
Kitchen Down Light	T-8 or T-5 Lamps w/Electronic Ballasts
Portable Office Lights	T-8 or T-5 Lamps w/Electronic Ballasts
Occupancy Sensor Night Lights for Hotels/Motel Guest-Rooms	Occupancy Sensors
Occupancy Bi-level Control of Area Lights	Occupancy Sensors
CEE/FEMP	Commercial Ice Machine

⁵ Final Report: Evaluation of the California Statewide Emerging Technologies Program", CALMAC ID# CPU0031.01

Food Service Technology Center	Commercial Electric Combination Oven
Food Service Technology Center	Commercial Electric Convection Oven
CEE/FEMP	Solid Door Reach-In Ref./Freezers
CEE/FEMP	Glass Door Reach-In Refrigerator
LED Channel Light	LED Channel Signs
ETP Project Name	Project Technologies / Measures
College of the Desert Variable Chilled Water Pumping	Variable Frequency Drive
Palm Spring Chamber of Commerce - Indirect/Direct Evaporative Cooling	Advanced Evaporative Coolers
City of Compton City Hall	Screw-In Compact Fluorescent Lamps
Queen Mary Variable Speed Chiller	Variable Frequency Drive
Chapman University	Screw-In Compact Fluorescent Lamps
Long Beach Marina Shipyard Pulse Start Metal Halide	HID Fixtures Exterior
Church of Our Savior - Metal Halide	HID Fixtures Exterior
Knott's Berry Farm	Commercial Electric Combination Oven
Soak City's Pier Grill	Commercial Electric Combination Oven
Knott's Berry Farm	Commercial Electric Convection Oven
Soak City's Pier Grill	Commercial Electric Convection Oven
RTTC Anti Sweat Heater	Special Doors /low/no Anti-Sweat Heat
Costco	ECM and PSG Motors
CTG Lighting Retrofit	T-8 or T-5 Lamps w/Electronic Ballasts
Wrightwood Camp Exterior Lighting - Metal Halide	HID Fixtures Exterior
County of Orange-Pulse start Metal Halide Lights	HID Fixtures Exterior
NRDC Daylighting Control	Photocells
Pomona Portable Classroom Day Lighting Control	Photocells
Long Beach Aquarium VSD Chiller Retrofit	Variable Frequency Drive
South Coast Plaza Variable Speed Chiller Retrofit	Variable Frequency Drive
Ralph Grocery - Glass Doors	New Refrigeration Display Case w/Door
LA County T5 HO & Variable Geometry Reflector	High Bay Fixtures (T-8 or T-5)
Super T-8 Fluorescent Field Demonstration	T-8 or T-5 Lamps w/Electronic Ballasts
Advanced Classroom Lighting	T-8 or T-5 Lamps w/Electronic Ballasts
Instant Start Super T-8 lamp/ballast - First Presbyterian	T-8 or T-5 Lamps w/Electronic Ballasts
Stairwell Lighting Bi-Level Switching	Occupancy Sensors
CTAC Classroom Displacement Ventilation	Advanced Evaporative Coolers
Occupancy Sensor Night Lights for Hotels/Motel Guest-Rooms	Occupancy Sensors
Occupancy Bi-level Control of Area Lights	Occupancy Sensors
CEE/FEMP	Commercial Ice Machine
Food Service Technology Center	Commercial Electric Combination Oven
Food Service Technology Center	Commercial Electric Convection Oven
CEE/FEMP	Solid Door Reach-In Refrigerator./Freezers
CEE/FEMP	Glass Door Reach-In Refrigerator
LED Channel Light	LED Channel Signs

Electronic Dimming Ballasts for Pulse Start Metal Halide	HID Fixtures Exterior
Demand Ventilation for Commercial Kitchens	Variable Frequency Drive
Hot/Dry Air Conditioner	Packaged Terminal AC > 2 tons
Water Treatment Strategies for Evaporative Cooling Systems	Advanced Evaporative Coolers
ETP Project Name	Project Technologies / Measures
Denny's Restaurant - EE Kitchen Ventilation System	EE Kitchen Ventilation System
Stairwell Lighting Bi-Level Switching	Stairwell Lighting Bi-Level Switching
Network Management of Computer	Network Management of Computer
Occupancy Bi-level Control of Area Lights	Occupancy Bi-level Control of Area Lights
Macy's Turbocore Compressor	Turbocore Compressor
Industrial Compressed Air System Index	Industrial Compressed Air System Index
Office of the Future - Phase 1	
Amgen - Automatic Sash Positioning System	Automatic Sash Positioning System
Minimum Safety Illumination Level for Induction Lighting System	Induction Lighting System
Specification and Program Development for Data Center	Specification and Program Development for Data Center
Magna Drive VSD for Large Motors and Pumps	Magna Drive VSD for Large Motors and Pumps
ETP Project Name	Project Technologies / Measures
NRDC Integrated Design	Integrated design
Pomona Portable Classroom Integrated Design	Integrated design
Southeast Learning Center (Maywood Learning Academy)	Integrated design
El Segundo School District - Integrated Design	Integrated design