

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

Amended Application of Southern California Edison Company (U 338-E) for Approval of Energy Efficiency Rolling Portfolio Business Plan.	Application 17-01-013 (Filed January 17, 2017)
Application of San Diego Gas & Electric Company (U 902-M) to adopt Energy Efficiency Rolling Portfolio Business Plan Pursuant to Decision 16-08-012.	Application 17-01-014 (Filed January 17, 2017)
Application of Pacific Gas and Electric Company for Approval of 2018-2025 Rolling Portfolio Energy Efficiency Business Plan and Budget (U 39-M).	Application 17-01-015 (Filed January 17, 2017)
Application of Southern California Gas Company (U 904-G) for adoption of its Energy Efficiency Rolling Portfolio Business Plan and related relief.	Application 17-01-016 (Filed January 17, 2017)
In the matter of the Application of Marin Clean Energy for Approval of its Energy Efficiency Business Plan.	Application 17-01-017 (Filed January 17, 2017)

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) AMENDED ENERGY  
EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN APPLICATION 17-01-013**

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Dated: **February 10, 2017**

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**I.**

**INTRODUCTION**

Pursuant to Rule 1.12 (a) of the California Public Utilities Commission’s (“Commission’s” or “CPUC’s”) Rules of Practice and Procedure, Southern California Edison Company (“SCE”) hereby files an Amended Energy Efficiency Rolling Portfolio Business Plan Application (“Amended Application”). On January 17, 2017, SCE filed Application No. A.17-01-013 (“Application”) pursuant to, and in

accordance with, Decision (“D.”) 15-10-028 and D.16-08-019 (“Guidance Decisions”),<sup>1</sup> requesting the Commission’s approval of SCE’s Energy Efficiency (“EE”) Rolling Portfolio Business Plan for 2018-2025 (“Business Plan”), which was attached as Exhibit SCE-1.<sup>2</sup>

SCE amends its Application and associated exhibits filed January 17, 2017 to make corrections associated with its Total Resource Cost (TRC) calculations and to make other clarifications and non-substantive corrections.

**A. TRC-Related Changes**

In the original Application, SCE initially calculated the cost-effectiveness for its EE portfolio for program years 2018-2020, *including* codes and standards (C&S), which produced a TRC value of 1.01.<sup>3</sup> SCE’s original Application should have *excluded* C&S, consistent with the Commission’s most recent EE decision, D.16-08-019, and prior decisions.<sup>4</sup> Table 12 of SCE’s initial Business Plan also did not indicate clearly whether SCE had included C&S in computing the TRC of 1.01, though Appendix D showed detail reflecting the inclusion of C&S. Including C&S in the calculation was a regrettable oversight. Consistent with the Commission’s direction to exclude C&S, SCE examined its original Application and now makes corrections to modify its Business Plan proposal so that it will achieve a cost-effective portfolio (with a TRC of at least 1.0) exclusive of C&S.<sup>5</sup> The resulting revised TRC is shown, by sector, below:

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<sup>1</sup> D. 15-10-028, *Decision Re Energy Efficiency Goals for 2016 and Beyond and Energy Efficiency Rolling Portfolio Mechanics*, Oct. 28, 2015, at p. 123 (OP 1 and 2); and D. 16-08-019, *Decision Providing Guidance for Initial Energy Efficiency Rolling Portfolio Business Plan Filings*, Aug. 25, 2016 at pp. 108-113.

<sup>2</sup> SCE is re-submitting an electronic copy of the exhibits in an archival-quality DVD to the CPUC docket office concurrent with the filing of this Amended Application. SCE is also posting an electronic copy of the Amended Business Plan Application and the supporting documents on [www.sce.com](http://www.sce.com). Please refer to SCE’s Notice of Availability of SCE’s Posting of Amended Energy Efficiency Rolling Portfolio Business Plan Application and Supporting Documents, filed concurrently with this Application, for instructions on how to access the documents on [www.sce.com](http://www.sce.com).

<sup>3</sup> Relatedly, the original filing also included C&S in the Program Administrator Cost (PAC) and that error has been corrected here.

<sup>4</sup> D.16-08-019, pp. 30-31.

<sup>5</sup> In D.14-10-046, the Commission noted that corrections to the cost-effectiveness calculations “will materially lower TRCs” and that “to the extent they drop below 1.0 we will require portfolio adjustments to exceed that

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**Table 1: SCE EE Portfolio Cost-Effectiveness Forecast 2018-2020**

Sector	2018		2019		2020	
	TRC	PAC	TRC	PAC	TRC	PAC
Residential	1.22	1.57	1.26	1.63	1.28	1.61
Commercial	0.97	1.30	1.46	1.95	1.51	2.02
Industrial	1.09	2.03	1.15	2.12	1.20	2.23
Agriculture	0.15	0.16	0.15	0.17	0.16	0.18
Public	0.62	0.76	0.65	0.79	0.68	0.83
Codes & Standards	1.49	45.10	1.56	45.74	1.63	46.80
<b>Total without C&amp;S</b>	<b>1.00</b>	<b>1.29</b>	<b>1.05</b>	<b>1.35</b>	<b>1.10</b>	<b>1.42</b>
<b>Total with C&amp;S</b>	<b>1.19</b>	<b>2.31</b>	<b>1.23</b>	<b>2.34</b>	<b>1.28</b>	<b>2.38</b>

Upon excluding C&S from its portfolio cost-effectiveness calculations, SCE examined ways to modify the Business Plan proposal to achieve a cost-effective portfolio (with a TRC of at least 1.0), and did so using three efforts (not listed in sequential order because the process is iterative). First, while leaving the programs and measures SCE envisioned for its portfolio<sup>6</sup> from the initial application intact, SCE identified forecast costs in each proposed measure, assessed the TRC output, and, if necessary, re-allocated budgets from lower-TRC measures to higher-TRC measures. Second, SCE increased its proposed funding in high TRC measures—such as those in the new residential program—to replace low cost measures that are scheduled to be replaced by new codes taking effect in 2018. Third, SCE reduced certain non-resource related costs, which had the impact of improving the overall TRC. SCE’s adjustments are consistent with an observation in D.14-10-046 that “EE is designed to be cost-effective

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minimum threshold.” D.14-10-046, p. 6, fn. 3. The Commission also recognized, but did not resolve, what it called a “tension” between the prior TRC expectation of 1.25 and the modified expectations made for 2015. *Id.*, p. 110, fn. 96. Then, in D.16-08-019 (pp. 30-31), the Commission did not address this tension but referred generally to the requirement that the “utility portfolio . . . be cost-effective on its own, prior to consideration of the costs and benefits of the codes and standards activities.” *See, also, Energy Efficiency Policy Manual*, which states “[t]he portfolio of energy efficiency programs are required to show a positive net benefit, based on the TRC and PAC tests, on a prospective basis during the program planning stage. Test results are usually shown as benefit cost ratio, and a portfolio is said to have “passed” a test if the benefit cost ratio is greater than 1.” *EE Policy Manual*, Version 5, pp. 18-19. July 2013.

<sup>6</sup> The TRC values shown by sector in Table 1 above exclude codes and standards.

as a whole portfolio, in which the cost of measures with a low TRC is offset in the portfolio by the higher savings of measures with high TRC.”<sup>7</sup>

The proposed changes to the Business Plan proposal necessary to achieve a cost-effective portfolio excluding C&S also has the effect of increasing the overall portfolio budget. The average annual budget (for the years 2018-2025) in SCE’s Amended Business Plan is \$289.1 million compared to the average annual budget of \$271 million in the initial application for the same period. Although the revised budget is higher in the Amended Application compared to the original, it is still lower than what is currently authorized by the Commission.<sup>8</sup> Pursuant to D.15-10-028, the budget presented in this Amended Business Plan is high-level. The Annual Budget Advice Letter, to be filed on September 1, 2017 for the 2018 program year (PY), will provide a “more fully developed” budget based on budget expectations the Commission will establish in a decision adopting the Business Plans.<sup>9</sup>

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D.14-10-046, p. 24. The updated Cost-Effectiveness Tool (CET) output Excel spreadsheets are included in Appendix D to the Amended Business Plan.

<sup>8</sup> SCE’s budget for 2015 was \$332,786,000 as authorized in D.14-10-046, p. 108. D.14-10-046 (at. 31-32) also states that 2015 budgets shall remain in place until the Commission provides superseding direction. *See also* D.15-01-002 (correcting errors in D.14-10-046) and D.15-01-023 (correcting additional technical errors in D.15-01-002).

<sup>9</sup> D.15-10-028, p. 43.

**Table 2. SCE’s Proposed Annual EE Budget 2018-2025**

<b>PY</b>	<b>Administration (\$000)</b>	<b>Marketing (\$000)</b>	<b>Direct Implementation (\$000)</b>	<b>Incentives (\$000)</b>	<b>EM&amp;V (\$000)</b>	<b>SoCalREN (\$000)</b>	<b>Total Portfolio Budget (\$000)</b>
2015 <sup>10</sup>	\$17,169	\$6,670	\$109,030	\$155,925	\$13,333	\$15,547	\$317,673
2016 <sup>11</sup>	\$15,469	\$5,042	\$103,981	\$146,436	\$13,333	\$17,314	\$301,575
2017 <sup>12</sup>	\$15,685	\$3,506	\$86,636	\$144,538	\$11,151	\$17,262	\$278,777
2018	\$14,758	\$3,309	\$86,853	\$118,095	\$10,012	\$17,262	\$250,289
2019	\$17,141	\$3,409	\$92,369	\$129,620	\$10,825	\$17,262	\$270,625
2020	\$19,403	\$3,477	\$97,096	\$140,311	\$11,565	\$17,262	\$289,114
2021	\$19,015	\$3,414	\$95,338	\$137,673	\$11,363	\$17,262	\$284,065
2022	\$19,586	\$3,516	\$98,198	\$141,803	\$11,682	\$17,262	\$292,047
2023	\$20,173	\$3,621	\$101,144	\$146,058	\$12,011	\$17,262	\$300,269
2024	\$20,779	\$3,730	\$104,178	\$150,439	\$12,350	\$17,262	\$308,738
2025	\$21,402	\$3,842	\$107,304	\$154,952	\$12,698	\$17,262	\$317,460

**B. Clarifications and Non-Substantive Corrections**

The remaining amendments in this Amended Application are more minor, as they address clarifications and non-substantive errors discovered after SCE filed the original Application.

**C. Organization of Amended Business Plan and Next Steps**

To facilitate review of the amendments, SCE includes in Attachment 1 a list of table numbers and page references from the exhibits to the original Business Plan Application, plus the corresponding (select) pages reflecting redlines of the changes. Additions are identified with blue underscore (e.g., XXXXXX) while deletions are identified in red strikethrough (e.g., ~~XXXXXX~~). Attachment 2 then provides a clean version of SCE’s *Amended Energy Efficiency Rolling Portfolio Business Plan Application* and supporting (clean) exhibits (collectively known as the Business Plan). In addition, SCE is providing to the Docket Office a DVD containing a clean and redlined version of the Amended Business Plan incorporating the TRC-related and non-substantive changes.

<sup>10</sup> Actual expenditures.

<sup>11</sup> Projected expenditures; expenditures are projected for 2016 because savings and expenditures will not be finalized until SCE submits its EE Annual Report on June 1, 2017.

<sup>12</sup> This is the budget SCE proposed in AL 3465-E.

As stated in the procedural email SCE sent to the service list on February 3, 2017, providing advanced notice of this amended filing, SCE is willing to meet with Commission staff or any parties to the proceeding seeking to better understand SCE's Amended Application and Business Plan, and provide an overview of the changes and answer any questions. The protest period has automatically been re-set to permit parties sufficient time to review and respond to this Amended Application.

Respectfully submitted,

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February 10, 2017

**ATTACHMENT 1**

*Table of Amendments to Southern California Edison Company's Energy Efficiency Rolling Portfolio  
Business Plan, and Corresponding Redlined Excerpted Pages*

## TRC-Related Amendments to the Business Plan

Page No. (Redline)	Chapter/Section	Item	Name/Description
27 - 28	III.F	Text and footnote 43	Section on annual budget request
28 -29	III.F	Table 9	SCE's Proposed Annual EE Budget 2018-2025
30-31	III.G	Table 11	SCE's EE Portfolio Savings Forecast 2018-2025
31-33	III.H	Text	New section on Portfolio Cost Effectiveness
33-34	III.H	Table 12	New table re SCE EE Portfolio Cost –Effectiveness 2018-2020
43	IV.A	Table 13	SCE's EE Residential Sector Savings Forecast 2018-2020
77	IV.E	Table 19	SCE's EE Sector Proposed Budget for 2018-2025
87-88	V.A	Table 22	SCE's EE Commercial Sector Savings Forecast 2018-2025
112	V.E	Table 29	SCE's EE Commercial Sector Proposed Budget for 2018-2025
120-121	VI.A	Table 31	SCE's EE Industrial Sector Savings Forecast 2018-2025
136-137	VI.E	Table 36	SCE's Industrial Sector Proposed Budget for 2018-2025
142-143	VII.A	Table 37	SCE's EE Agricultural Sector Savings Forecast 2018-2025
156	VII.E	Table 42	SCE's Agricultural Sector Proposed Budget for 2018-2025
164	VIII.A	Table 43	SCE's EE Public Sector Savings Forecast 2018-2025
193	VIII.E	Table 52	SCE's Public Sector Proposed Budget for 2018-2025
237	IX.B.7	Table 63	SCE's C&S Proposed Budget for 2018-2025
302	IX.D.7	Table 74	SCE's WE&T Proposed Budget for 2018-2025
--	---	Appendix D to the Business Plan	New 2018-2020 Planning CET Output (with and without Codes and Standards) <sup>13</sup>

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<sup>13</sup> SCE will be developing a roadmap for ease of parties' review and comparison to the January 17, 2017 CET output table in Appendix D. This roadmap will be shared with Commission staff and any parties seeking to understand the changes in Appendix D.

## Clarification Amendments to the Business Plan

<b>Other Amendments to Provide Clarification</b>				
<b>Page</b>	<b>Chapter/Section</b>	<b>Item</b>	<b>Name/Description</b>	<b>Comments</b>
8	III.A.1	Table 1	EE Budget and Savings By Sector	Inserted footnote to add clarity on percentages of EE portfolio budget and savings.
163	VIII.A	Text	Section on Vision and Goals	Change in SCE's primary goal for Public Sector's GWh and MW savings in 2018.
169	VIII.B.2	Text	Public Sector EE Potential	Deleted one sentence
178	VIII.C.3.d	Text	Additional Public Sector Challenges	Deleted one sentence.
262-263	IX.C.8	Table 69	ETP Metrics Framework	Inputted values into table.

## Non-Substantive Amendments to the Business Plan

<b>Page</b>	<b>Chapter/Section</b>	<b>Item</b>	<b>Name/Description</b>	<b>Comments</b>
268	IX.C.10	Table 69	ETP Collaboration	Updated Table Number to 70.
291-292	IX.D.6	Table 70	Goal 1 Market Barriers, Intervention Strategies, and Primary Tactics	Updated Table Number to 71.
295-299	IX.D.6	Table 71	Goal 2 Market Barriers, Intervention Strategies, and Primary Tactics	Updated Table Number to 72.
300-301	IX.D.6	Table 72	Goal 3 Market Barriers, Intervention Strategies, and Primary Tactics	Updated Table Number to 73.

## **Page Excerpts in Redlines**

1 duration of the business plan” and that the decision on the business plans “will establish a  
2 ‘ballpark’ figure for spending for the life of the business plan.”<sup>40</sup> Therefore, SCE’s proposed  
3 budget for its business plan provides “high-level budget estimates” rather than detailed estimates.

4 To determine its annual budget estimates for 2018-2025, SCE used its proposed budget  
5 from the 2017 Annual Budget Advice Letter as a baseline and scaled this budget relative to the  
6 annual energy savings estimates found in Table 9, below.<sup>41</sup> SCE’s proposed budget for 2017  
7 was \$278.78 million, which was a decrease from the \$333.32 million annual budget authorized  
8 in D.15-01-002 for 2015-2025. At the time of the filing of this business plan, SCE’s 2017  
9 proposed budget was not yet approved by the Commission.<sup>42</sup> If the Commission does not  
10 approve SCE’s proposed 2017 budget, SCE would need to modify its 2018-2025 budgets  
11 accordingly. SCE anticipates that its average annual budget request will be approximately  
12 ~~\$271~~ \$289.1 million each year from 2018-2025.<sup>43</sup> The specific budget in the annual request will  
13 be influenced by several factors including, but not limited to:

- 14 • Policy changes, including measure baselines and eligibility,
- 15 • Changes in measure costs,
- 16 • Legislation,
- 17 • New state or federal building codes or appliance standards,
- 18 • Updated potential savings forecasts and associated goals, and
- 19 • Inclusion of non-energy benefits or additional changes to avoided costs

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<sup>40</sup> *Id.* at 55-56.

<sup>41</sup> The scaling process includes such activities as: moving incentives / costs from programs / measures with lower cost-effectiveness to ones with higher cost-effectiveness, added budget for expected new programs, adjusted non-direct implementation costs to account for transition of current third-party program contracts to new implementers, and removing measures that are proposed to sunset.

<sup>42</sup> SCE filed its 2017 budget in AL 3465-E. On September 22, Energy Division suspended the advice letter for Staff Review. SCE filed supplemental AL 3465-E-A on December 14 to make modifications and correct minor errors.

<sup>43</sup> ~~\$271~~ \$289.1 million is the average of the budgets for 2018 – 2025 in Table 9.

In SCE’s January 17, 2017 filing, SCE calculated the cost-effectiveness for its proposed EE portfolio for program years 2018-2020 inclusive of Codes and Standards, which resulted in the overall portfolio budget to be \$271 million (see Section III.H).<sup>44</sup> Upon excluding C&S from the cost effectiveness calculations, changes to the portfolio resulted in an increase to the overall portfolio budget to 289.1 million (See Section III.H. below for portfolio changes).<sup>45</sup> Table 9 below represents SCE’s proposed portfolio budgets, replacing wholesale all budgets included in the January 17, 2017 filing.

Table 9 shows SCE’s actual portfolio expenditures for 2015, projected expenditures for 2016, proposed portfolio budget for 2017, and proposed portfolio budgets for each year of this business plan (2018 – 2025). Budgets are presented in the standard EE categories of Administration, Marketing, Direct Implementation, Incentives, and EM&V. SCE’s budget also includes the budget for the Southern California Regional Energy Network (SoCalREN).

**Table 9. SCE’s Proposed Annual EE Budget 2018-2025**

PY	Administration (\$000)	Marketing (\$000)	Direct Implementation (\$000)	Incentives (\$000)	EM&V (\$000)	SoCalREN (\$000)	Total Portfolio Budget (\$000)
2015 <sup>46</sup>	\$17,169	\$6,670	\$109,030	\$155,925	\$13,333	\$15,547	\$317,673
2016 <sup>47</sup>	\$15,469	\$5,042	\$103,981	\$146,436	\$13,333	\$17,314	\$301,575
2017 <sup>48</sup>	\$15,685	\$3,506	\$86,636	\$144,538	\$11,151	\$17,262	\$278,777
2018	<del>\$14,398</del> <u>\$14,758</u>	<del>\$3,265</del> <u>\$3,309</u>	<del>\$86,917</del> <u>\$86,853</u>	<del>\$114,584</del> <u>\$118,095</u>	<del>\$8,363</del> <u>\$10,012</u>	\$17,262	<del>\$242,481</del> <u>\$250,289</u>
2019	<del>\$14,815</del> <u>\$17,141</u>	<del>\$3,363</del> <u>\$3,409</u>	<del>\$89,370</del> <u>\$92,369</u>	<del>\$118,022</del> <u>\$129,620</u>	<del>\$8,614</del> <u>\$10,825</u>	\$17,262	<del>\$257,049</del> <u>\$270,625</u>
2020	<del>\$15,101</del> <u>\$19,403</u>	<del>\$3,430</del> <u>\$3,477</u>	<del>\$91,054</del> <u>\$97,096</u>	<del>\$120,382</del> <u>\$140,311</u>	<del>\$8,787</del> <u>\$11,565</u>	\$17,262	<del>\$269,830</del> <u>\$289,114</u>
2021	<del>\$14,809</del> <u>\$19,015</u>	<del>\$3,361</del> <u>\$3,414</u>	<del>\$89,336</del> <u>\$95,338</u>	<del>\$117,975</del> <u>\$137,673</u>	<del>\$9,050</del> <u>\$11,363</u>	\$17,262	<del>\$265,331</del> <u>\$284,065</u>
2022	<del>\$15,238</del>	<del>\$3,462</del>	<del>\$91,861</del>	<del>\$121,514</del>	<del>\$9,322</del>	\$17,262	<del>\$272,604</del>

<sup>44</sup> \$271 million is the average of the budgets for 2018-2025 in SCE’s January 17 filing

<sup>45</sup> \$289.1 million is the average of the budgets for 2018 – 2025 in Table 9.

<sup>46</sup> Actual expenditures.

<sup>47</sup> Projected expenditures; expenditures are projected for 2016 because savings and expenditures will not be finalized until SCE submits its EE Annual Report on June 1, 2017.

<sup>48</sup> This is the budget SCE proposed in AL 3465-E.

	<u>\$19,586</u>	<u>\$3,516</u>	<u>\$98,198</u>	<u>\$141,803</u>	<u>\$11,682</u>		<u>\$292,047</u>
2023	<del>\$15,680</del> <u>\$20,173</u>	<del>\$3,566</del> <u>\$3,621</u>	<del>\$94,463</del> <u>\$101,144</u>	<del>\$125,159</del> <u>\$146,058</u>	<del>\$9,601</del> <u>\$12,011</u>	\$17,262	<del>\$280,094</del> <u>\$300,269</u>
2024	<del>\$16,135</del> <u>\$20,779</u>	<del>\$3,673</del> <u>\$3,730</u>	<del>\$97,142</del> <u>\$104,178</u>	<del>\$128,914</del> <u>\$150,439</u>	<del>\$9,889</del> <u>\$12,350</u>	\$17,262	<del>\$287,809</del> <u>\$308,738</u>
2025	<del>\$16,604</del> <u>\$21,402</u>	<del>\$3,783</del> <u>\$3,842</u>	<del>\$99,902</del> <u>\$107,304</u>	<del>\$132,781</del> <u>\$154,952</u>	<del>\$10,186</del> <u>\$12,698</u>	\$17,262	<del>\$295,756</del> <u>\$317,460</u>

1 SCE’s EE accounting practices conform with D.09-09-047, which requires that  
2 administrative costs be capped at 10 percent of the total budget; marketing, education, and  
3 outreach (ME&O) costs have a target of six percent of the budget; non-incentive direct  
4 implementation costs have a target of 20 percent of the total budget; and EM&V funding is  
5 capped at four percent of the authorized budget.<sup>49</sup> In addition, The Utility Audit, Finance and  
6 Compliance Branch of the Commission conducted an audit of SCE’s 2014 EE program year  
7 activity with no significant findings, thus demonstrating SCE’s compliance with the  
8 Commission’s accounting directives.<sup>50</sup>

9 D.12-04-045 required, and D.14-01-004 later affirmed, that after 2012, future authority  
10 and funding for the DR portion of all Integrated DSM (IDSM) activities should be proposed and  
11 approved in the EE proceeding.<sup>51</sup> The funding for EE aspects of IDSM is included in the EE  
12 portfolio budget in Table 9 (and the relevant sector-level budgets). Table 10 shows SCE’s  
13 proposed budget for DR aspects of IDSM for each year of the business plan (including actual DR  
14 IDSM expenditures for 2015, projected DR IDSM expenditures for 2016, and proposed DR  
15 IDSM budget for 2017). IDSM strategies are discussed in various sections of this document and  
16 specific details about IDSM will be included in Implementation Plans at the appropriate time.

<sup>49</sup> D.09-09-047, p.354 and p. 369.

<sup>50</sup> Financial, Management, Regulatory, and Compliance Examination Report on Southern California Edison Company's Energy Efficiency (EE) Program For the Period January 1, 2014 through December 31, 2014.

<sup>51</sup> D.14-01-004, p. 12.

**Table 10. SCE’s Proposed Annual DR IDSM Budget 2018-2025**

<b>Program Year</b>	<b>Total DR IDSM Budget (\$000)</b>
2015 <sup>52</sup>	\$3,065
2016 <sup>53</sup>	\$11,746
2017 <sup>54</sup>	\$10,137
2018	\$8,780
2019	\$9,360
2020	\$9,871
2021	\$9,678
2022	\$9,961
2023	\$10,253
2024	\$10,554
2025	\$10,864

1 **G. Portfolio Savings**

2 Table 11 shows SCE’s savings forecast for its EE portfolio for 2018 through 2025  
 3 (including claimed savings for 2015 and projected savings for 2016 and 2017). These forecasts  
 4 include savings for SoCalREN and SCE’s Energy Savings Assistance (ESA) program. Savings  
 5 forecasts for individual sectors can be found in the respective sector chapters. Appendix C  
 6 includes a table showing all of the elements of the savings forecasts.

**Table 11. SCE’s EE Portfolio Savings Forecast 2018-2025<sup>55-56</sup>**

<b>Program Year</b>	<b>Total kWh Portfolio Savings</b>	<b>Total kW Portfolio Savings</b>
2015 <sup>57</sup>	1,494,018,584	258,877
2016 <sup>58</sup>	1,319,775,449	269,339
2017 <sup>59</sup>	1,409,599,931	279,650

<sup>52</sup> Actual expenditures.

<sup>53</sup> Projected expenditures; expenditures are projected for 2016 because savings and expenditures will not be finalized until SCE submits its EE Annual Report on June 1, 2017.

<sup>54</sup> This is the budget SCE proposed in AL 3465-E.

<sup>55</sup> 2015-2016 Savings are shows for historical purposes.

<sup>56</sup> Energy savings reflect gross savings except for the savings from Codes & Standards, which are net savings.

<sup>57</sup> Claimed savings.

<sup>58</sup> Projected savings.

<sup>59</sup> Projected savings.

2018	<del>991,623,854</del> <u>1,133,420,125</u>	<del>259,949</del> <u>264,425</u>
2019	<del>1,025,899,878</del> <u>1,171,950,036</u>	<del>276,475</del> <u>281,085</u>
2020	<del>1,040,961,380</del> <u>1,189,932,542</u>	<del>287,816</del> <u>292,519</u>
2021	<del>968,465,452</del> <u>1,114,457,191</u>	<del>276,932</del> <u>281,541</u>
2022	<del>951,253,266</del> <u>1,101,624,757</u>	<del>277,000</del> <u>281,747</u>
2023	<del>924,903,359</del> <u>1,079,785,995</u>	<del>277,226</del> <u>282,115</u>
2024	<del>928,099,514</del> <u>1,087,628,629</u>	<del>279,693</del> <u>284,729</u>
2025	<del>955,942,500</del> <u>1,120,257,488</u>	<del>288,084</del> <u>293,271</u>

1 **H. Portfolio Cost-Effectiveness**

2 In SCE’s January 17, 2017 filing, SCE calculated the cost-effectiveness for its proposed  
3 EE portfolio for program years 2018-2020 which showed a Total Resource Cost (TRC) value of  
4 1.01 and a Program Administrator Cost (PAC) of 1.97 including Codes and Standards (C&S) for  
5 2018. SCE did not show the TRC value or PAC value of its proposed EE portfolio without C&S  
6 and Table 12 below did not indicate clearly that SCE had included C&S in computing the TRC  
7 of 1.01. The minimum threshold value<sup>60</sup> should have been calculated excluding C&S consistent  
8 with the Commission’s most recent decision in D.16-08-019.<sup>61</sup> In this Amended Business Plan,  
9 SCE modified its proposed budgets for certain measures within its program portfolio to reach a  
10 higher TRC than what was originally filed. Table 12 below shows the revised portfolio TRC and  
11 PAC ratios both ways (including and excluding C&S).

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<sup>60</sup> In D.14-10-046, the Commission noted that corrections to the cost-effectiveness calculations “will materially lower TRCs” and that “to the extent they drop below 1.0 we will require portfolio adjustments to exceed that minimum threshold.” D.14-10-046, p. 6, fn. 3. The Commission also recognized, but did not resolve, what it called a “tension” between the prior TRC expectation of 1.25 and the modified expectations made for 2015. *Id.*, p. 110, fn. 96. Then, in D.16-08-019 (pp. 30-31), the Commission did not address this tension but referred generally to the requirement that the “utility portfolio . . . be cost-effective on its own, prior to consideration of the costs and benefits of the codes and standards activities.”

<sup>61</sup> In D.16-08-019, pp. 30-31.

1 Consistent with the Commission direction, SCE examined its original filing and has made  
2 corrections to achieve a TRC of at least 1.0 excluding C&S.<sup>62</sup> Upon excluding C&S from the  
3 cost-effectiveness analysis of its proposed portfolio, SCE achieved a TRC of at least 1.0, using  
4 three efforts (not listed in sequential order because the process is iterative). First, while keeping  
5 the proposed programs and measures SCE envisioned from its portfolio<sup>63</sup> from the initial  
6 application intact, SCE identified forecast costs in each proposed measure, assessed the TRC  
7 output, and, if necessary, re-allocated budgets from lower-TRC measures to higher-TRC  
8 measures. Second, SCE increased its proposed funding in high TRC measures—such as those in  
9 the new residential program—to replace low cost measures that are scheduled to be replaced by  
10 new codes taking effect in 2018. Third, SCE reduced certain non-resource related costs, which  
11 had the impact of improving the overall TRC. SCE’s adjustments are consistent with an  
12 observation in D.14-10-046 that “EE is designed to be cost-effective as a whole portfolio, in  
13 which the cost of measures with a low TRC is offset in the portfolio by the higher savings of  
14 measures with high TRC.”<sup>64</sup>

15 Table 12 provides the forecasted TRC and PAC cost-effectiveness results for SCE’s  
16 portfolio for 2018-2020 by sector. The cost effectiveness results for the proposed portfolio was  
17 performed pursuant to the California Standard Practice Manual using the 2017 updated avoided  
18 cost and cost-effectiveness inputs approved in Resolution E-4801.<sup>65</sup> The estimated cost-  
19 effectiveness and savings targets are based on SCE’s projections for the 2018-2020 time-period.  
20 However, these cost-effectiveness forecasts are subject to updates based on market or regulatory  
21 changes. In addition, as noted previously, budgets will be more fully developed in annual budget

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<sup>62</sup> See, *Energy Efficiency Policy Manual*, which states “[t]he portfolio of energy efficiency programs are required to show a positive net benefit, based on the TRC and PAC tests, on a prospective basis during the program planning stage. Test results are usually shown as benefit cost ratio, and a portfolio is said to have “passed” a test if the benefit cost ratio is greater than 1.” EE Policy Manual, Version 5, pp. 18-19. July 2013.

<sup>63</sup> The TRC values shown by sector in Table 12 exclude codes and standards.

<sup>64</sup> D.14-10-046, p. 24.

<sup>65</sup> California Standard Practice Manual: Economic Analysis of Demand Side Management Programs and Projects, 2002. [http://www.calmac.org/events/spm\\_9\\_20\\_02.pdf](http://www.calmac.org/events/spm_9_20_02.pdf).

1 [advice filings. Similar to SCE’s January 17, 2017 filing, SCE did not calculate the cost-](#)  
2 [effectiveness for the remaining years because little is known about what market or regulatory](#)  
3 [changes might affect the proposed portfolio cost-effectiveness beyond 2020. The Cost-](#)  
4 [Effectiveness Tool \(CET\) output Excel spreadsheets are included in Appendix D.](#)

5 ~~SCE calculated the cost-effectiveness for its proposed EE portfolio for program years~~  
6 ~~2018-2020. SCE did not calculate the cost-effectiveness for the remaining years of the time~~  
7 ~~period covered by the business plan because little is known about what changes might affect~~  
8 ~~portfolio cost-effectiveness beyond 2020. Table 12 shows the forecasted Total Resource Cost~~  
9 ~~(TRC) and Program Administrator Cost (PAC) cost-effectiveness calculations for SCE’s~~  
10 ~~portfolio for 2018-2020. The Cost-Effectiveness Tool (CET) output Excel spreadsheets are~~  
11 ~~included in Appendix D.~~

12 **Table 12. SCE EE Portfolio Cost-Effectiveness Forecast 2018-2020**  
[\(With and Without Codes & Standards\)](#)

<b>Program Year</b>	<b>TRC</b>	<b>PAC</b>
<b>2018</b>	<b>1.01</b>	<b>1.97</b>
<b>2019</b>	<b>1.04</b>	<b>1.98</b>
<b>2020</b>	<b>1.08</b>	<b>2.01</b>

<u>Sector</u>	<u>2018</u>		<u>2019</u>		<u>2020</u>	
	<u>TRC</u>	<u>PAC</u>	<u>TRC</u>	<u>PAC</u>	<u>TRC</u>	<u>PAC</u>
<u>Residential</u>	<u>1.22</u>	<u>1.57</u>	<u>1.26</u>	<u>1.63</u>	<u>1.28</u>	<u>1.61</u>
<u>Commercial</u>	<u>0.97</u>	<u>1.30</u>	<u>1.46</u>	<u>1.95</u>	<u>1.51</u>	<u>2.02</u>
<u>Industrial</u>	<u>1.09</u>	<u>2.03</u>	<u>1.15</u>	<u>2.12</u>	<u>1.20</u>	<u>2.23</u>
<u>Agriculture</u>	<u>0.15</u>	<u>0.16</u>	<u>0.15</u>	<u>0.17</u>	<u>0.16</u>	<u>0.18</u>
<u>Public</u>	<u>0.62</u>	<u>0.76</u>	<u>0.65</u>	<u>0.79</u>	<u>0.68</u>	<u>0.83</u>
<u>Codes &amp; Standards</u>	<u>1.49</u>	<u>45.10</u>	<u>1.56</u>	<u>45.74</u>	<u>1.63</u>	<u>46.80</u>
<u>Total without C&amp;S</u>	<u>1.00</u>	<u>1.29</u>	<u>1.05</u>	<u>1.35</u>	<u>1.10</u>	<u>1.42</u>
<u>Total with C&amp;S</u>	<u>1.19</u>	<u>2.31</u>	<u>1.23</u>	<u>2.34</u>	<u>1.28</u>	<u>2.38</u>

1 **I. Portfolio Performance Metrics**

2 D.15-10-028 requires the PAs to include in their business plans “[p]ortfolio and sector  
3 level metrics for regulatory oversight (GWh, MW, therms, cost-effectiveness, and other metrics  
4 where applicable), including performance metrics for non-resource programs.”<sup>66</sup> The metrics are  
5 to be used by the Commission, the PAs, and stakeholders to “gauge portfolio and/or program  
6 performance.”<sup>67</sup> Metrics for SCE’s resource programs focus on energy savings while the metrics  
7 for non-resource, cross-cutting programs support relevant strategic plan directives.

8 For tracking portfolio progress and performance, SCE will use the following metrics:

- 9
- 10 • Energy Consumption (GWh) and Demand (MW) Savings
  - 11 • Portfolio Cost-Effectiveness (TRC and PAC)
  - 12 • GHG Emissions

13 SCE proposes to report the savings and cost-effectiveness portfolio metrics in its monthly  
EE Report and the GHG emissions annually.

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<sup>66</sup> D.15-10-028, p. 47.

<sup>67</sup> *Id.* p. 52.

**Table 13. SCE’s EE Residential Sector Savings Forecast 2018-2025**

<b>Program Year</b>	<b>Total kWh Sector Savings</b>	<b>Total kW Sector Savings</b>
2015 <sup>85</sup>	452,402,078	36,627
2016 <sup>86</sup>	283,305,940	53,308
2017 <sup>87</sup>	349,456,319	83,627
2018	<del>202,863,704</del> <u>210,128,400</u>	<del>88,755</del> <u>92,455</u>
2019	<del>234,533,592</del> <u>242,017,259</u>	<del>102,420</del> <u>106,232</u>
2020	<del>265,533,592</del> <u>272,818,826</u>	<del>115,634</del> <u>119,522</u>
2021	<del>259,881,776</del> <u>267,362,449</u>	<del>113,321</del> <u>117,132</u>
2022	<del>267,678,229</del> <u>275,383,323</u>	<del>116,721</del> <u>120,646</u>
2023	<del>275,708,576</del> <u>283,644,823</u>	<del>120,222</del> <u>124,265</u>
2024	<del>283,979,833</del> <u>292,154,167</u>	<del>123,829</del> <u>127,993</u>
2025	<del>292,499,228</del> <u>300,918,792</u>	<del>127,544</del> <u>131,833</u>

1 **B. Residential Market Characterization**

2 SCE's Residential sector consists of approximately 4.4 million service accounts, includes  
3 approximately 14 million people, and spans eight climate zones. Residential accounts represent  
4 87 percent of SCE's total service account volume. In 2015, residential customers used  
5 approximately 33 percent (26,730 GWh) of the total electricity consumption in SCE's service  
6 territory. Also in 2015, SCE's Residential sector represented 32 percent of the total EE portfolio  
7 budget and achieved 30 percent of the portfolio's GWh savings. The Residential sector is one of  
8 the largest sectors in terms of usage, budget, and savings, and can provide some of the key  
9 savings opportunities for SCE's EE portfolio.

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<sup>85</sup> Claimed savings.

<sup>86</sup> Projected savings.

<sup>87</sup> Projected savings.

The evaluation results will yield insights into the cost-effectiveness of implementing alternate behavior approaches.

**E. Budget**

Table 19 shows SCE's planned budget for the Residential sector for 2018-2025. The majority of the change in budget between 2017 and 2018 is associated with the decrease in primary lighting due to the changes in code. More details about SCE's budgeting process are described in the Portfolio Summary chapter (Section III.F).

**Table 19. SCE's Residential Sector Proposed Budget for 2018-2025**

Program Year	Administration (\$000)	Marketing (\$000)	Direct Implementation (\$000)	Incentives (\$000)	Total Sector Budget (\$000)
2015 <sup>151</sup>	\$2,918	\$3,034	\$18,555	\$68,640	\$93,147
2016 <sup>152</sup>	\$3,907	\$2,016	\$20,934	\$68,419	\$95,277
2017 <sup>153</sup>	\$4,879	\$1,992	\$16,095	\$70,479	\$93,444
2018	<del>\$2,104</del> <u>\$4,105</u>	\$1,801	<del>\$15,164</del> <u>\$17,164</u>	<del>\$45,546</del> <u>\$45,317</u>	<del>\$64,615</del> <u>\$68,386</u>
2019	<del>\$2,168</del> <u>\$6,168</u>	\$1,855	<del>\$15,619</del> <u>\$20,589</u>	<del>\$54,894</del> <u>\$54,658</u>	<del>\$74,535</del> <u>\$83,269</u>
2020	<del>\$2,211</del> <u>\$8,211</u>	\$1,892	<del>\$15,931</del> <u>\$23,880</u>	<del>\$64,091</del> <u>\$63,850</u>	<del>\$84,124</del> <u>\$97,833</u>
2021	<del>\$2,167</del> <u>\$8,047</u>	\$1,854	<del>\$15,612</del> <u>\$23,403</u>	<del>\$62,808</del> <u>\$62,573</u>	<del>\$82,442</del> <u>\$95,877</u>
2022	<del>\$2,232</del> <u>\$8,288</u>	\$1,910	<del>\$16,081</del> <u>\$24,105</u>	<del>\$64,693</del> <u>\$64,450</u>	<del>\$84,915</del> <u>\$98,753</u>
2023	<del>\$2,299</del> <u>\$8,537</u>	\$1,967	<del>\$16,563</del> <u>\$24,828</u>	<del>\$66,634</del> <u>\$66,384</u>	<del>\$87,463</del> <u>\$101,716</u>
2024	<del>\$2,368</del> <u>\$8,793</u>	\$2,026	<del>\$17,060</del> <u>\$25,573</u>	<del>\$68,632</del> <u>\$68,375</u>	<del>\$90,087</del> <u>\$104,767</u>
2025	<del>\$2,439</del> <u>\$9,057</u>	\$2,087	<del>\$17,572</del> <u>\$26,340</u>	<del>\$70,692</del> <u>\$70,427</u>	<del>\$92,789</del> <u>\$107,910</u>

<sup>151</sup> Actual expenditures.

<sup>152</sup> Actual operating budget.

<sup>153</sup> Proposed budget.

V.

**Commercial Sector**

**A. Commercial Sector Vision and Goals**

SCE's vision for its Commercial sector is to achieve cost-effective energy savings by tailoring EE services based on customer size and behavior, piloting innovative EE solutions, and increasing education and awareness for customers and partners. California has established several policy goals that rely on increased energy efficiency. The Commercial sector accounts for 36 percent of electric usage in SCE's territory; thus, it plays an integral role in achieving these state policies.

SCE's primary goal for the Commercial Sector is to achieve 194.19 GWh and 45.4 MW in electric energy savings in 2018. Table 22 shows SCE's annual savings forecasts for the Commercial sector through 2025 (including claimed savings for 2015 and projected savings for 2016 and 2017). These forecasts are based on the overall portfolio goals from D.15-10-028.

**Table 22. SCE's EE Commercial Sector Savings Forecast 2018-2025**

<b>Program Year</b>	<b>Total kWh Sector Savings</b>	<b>Total kW Sector Savings</b>
2015 <sup>156</sup>	211,622,092	47,009
2016 <sup>157</sup>	227,905,939	49,353
2017 <sup>158</sup>	218,508,623	47,115
2018	<del>197,577,971</del> <u>287,445,930</u>	<del>44,781</del> <u>47,981</u>
2019	<del>203,505,310</del> <u>296,069,308</u>	<del>46,124</del> <u>49,421</u>
2020	<del>207,575,417</del> <u>301,990,694</u>	<del>47,047</del> <u>50,409</u>
2021	<del>203,423,908</del> <u>295,950,880</u>	<del>46,106</del> <u>49,401</u>
2022	<del>209,526,625</del> <u>304,829,407</u>	<del>47,489</del> <u>50,883</u>
2023	<del>215,812,424</del> <u>313,974,289</u>	<del>48,913</del> <u>52,409</u>

<sup>156</sup> Claimed savings.

<sup>157</sup> Projected savings.

<sup>158</sup> Projected savings.

2024	<del>222,286,797</del> <u>323,393,517</u>	<del>50,381</del> <u>53,982</u>
2025	<del>228,955,401</del> <u>333,095,323</u>	<del>51,892</del> <u>55,601</u>

**B. Commercial Market Characterization**

SCE's Commercial sector consists of approximately 520,000 service accounts.<sup>159</sup> In 2015, these accounts used approximately 36 percent (29,000 GWh) of the total electricity consumption (81,000 GWh) in SCE's service territory, which makes it the largest sector in terms of electricity consumption. Also in 2015, SCE's Commercial sector EE programs represented 38 percent of the total EE portfolio budget and achieved 29 percent of the portfolio's GWh savings. Because Commercial is such a prominent sector in terms of usage, budget, and savings, it provides some of the key opportunities for SCE's EE portfolio.

**1. Customer Landscape**

a) Segments and End Uses

SCE's Commercial sector consists of the following customer segments:

- Retail
- Office
- Restaurants
- Grocery stores
- Warehouses
- Refrigerated warehouses
- Technology industries
- Lodging (hotel / motel), and
- Miscellaneous (assembly, etc.)

Figure 12 displays the percentage of all Commercial usage and percentage of all Commercial service accounts (SAs) for each Commercial segment.

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<sup>159</sup> The Commercial sector does not count institutions such as schools and public hospitals, per sector-specific statewide categorizations agreed upon by PAs. Schools, public hospitals and other public institutions are accounted for in the Public sector.

1 **E. Budget**

2 Table 29 SCE's planned budget for the Commercial sector for 2018-2025. More details  
3 about SCE's budgeting process are described in the Portfolio Summary chapter (Section III.F).

**Table 29. SCE Commercial Sector Proposed Budget 2018-2025**

Program Year	Administration (\$000)	Marketing (\$000)	Direct Implementation (\$000)	Incentives (\$000)	Total Sector Budget (\$000)
2015 <sup>212</sup>	\$5,098	\$1,651	\$35,863	\$65,478	\$108,090
2016 <sup>213</sup>	\$5,412	\$906	\$27,000	\$54,811	\$88,128
2017 <sup>214</sup>	\$5,055	\$662	\$27,782	\$50,730	\$84,229
2018	\$5,168	\$698	<del>\$30,783</del> <u>\$28,635</u>	<del>\$47,522</del> <u>\$50,897</u>	<del>\$84,171</del> <u>\$85,398</u>
2019	\$5,323	\$719	<del>\$31,706</del> <u>\$29,494</u>	<del>\$48,947</del> <u>\$52,423</u>	<del>\$86,696</del> <u>\$87,960</u>
2020	\$5,430	\$734	<del>\$32,341</del> <u>\$30,084</u>	<del>\$49,923</del> <u>\$53,472</u>	<del>\$88,430</del> <u>\$89,719</u>
2021	\$5,321	\$719	<del>\$31,694</del> <u>\$29,482</u>	<del>\$48,928</del> <u>\$52,403</u>	<del>\$86,662</del> <u>\$87,925</u>
2022	\$5,481	\$741	<del>\$32,645</del> <u>\$30,367</u>	<del>\$50,396</del> <u>\$53,975</u>	<del>\$89,262</del> <u>\$90,563</u>
2023	\$5,645	\$763	<del>\$33,624</del> <u>\$31,278</u>	<del>\$51,907</del> <u>\$55,594</u>	<del>\$91,939</del> <u>\$93,280</u>
2024	\$5,815	\$786	<del>\$34,633</del> <u>\$32,216</u>	<del>\$53,465</del> <u>\$57,262</u>	<del>\$94,698</del> <u>\$96,077</u>
2025	<del>\$5,999</del> <u>\$5,989</u>	\$809	<del>\$35,672</del> <u>\$33,182</u>	<del>\$55,069</del> <u>\$58,980</u>	<del>\$97,538</del> <u>\$98,960</u>

4 **F. Coordination and Integration**

5 **1. Key Partners**

6 To successfully deliver EE in the Commercial sector, SCE interacts and integrates  
7 with the following key partners:

- 8 • *Regulatory and Legislative agencies:* Examples include the CPUC, CEC, and  
9 Federal and State governments.

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<sup>212</sup> Actual expenditures.

<sup>213</sup> Actual operating budget.

<sup>214</sup> Proposed budget.

1 VI.

2 **Industrial Sector**

3 A. **Industrial Sector Vision and Goals**

4 SCE's vision for its Industrial sector is to achieve cost-effective energy savings by  
5 tailoring EE services based on customer size and behavior, piloting innovative EE solutions, and  
6 increasing education and awareness for customers and partners. California has established  
7 several policy goals that rely on increased energy efficiency. The Industrial sector accounts for  
8 18 percent of electric usage in SCE's territory; thus, it plays an important role in achieving these  
9 state policies.

10 SCE's primary goal for the Industrial Sector is to achieve 98.91 GWh and 11.1 MW in  
11 electric energy savings in 2018. Table 31 shows SCE's annual savings forecasts for the  
12 Industrial sector through 2025 (including claimed savings for 2015 and projected savings for  
13 2016 and 2017). These forecasts are based on the overall portfolio goals from D.15-10-028.

**Table 31. SCE's EE Industrial Sector Savings Forecast 2018-2025**

Program Year	Total kWh Sector Savings	Total kW Sector Savings
2015 <sup>217</sup>	91,592,104	12,241
2016 <sup>218</sup>	115,228,721	14,076
2017 <sup>219</sup>	101,235,053	11,123
2018	<del>98,910,312</del> <u>141,767,309</u>	<del>11,103</del> <u>9,021</u>
2019	<del>101,877,621</del> <u>146,020,329</u>	<del>11,437</del> <u>9,291</u>
2020	<del>103,915,174</del> <u>148,940,735</u>	<del>11,665</del> <u>9,477</u>
2021	<del>101,836,870</del> <u>145,961,920</u>	<del>11,432</del> <u>9,287</u>
2022	<del>104,891,976</del> <u>150,340,778</u>	<del>11,775</del> <u>9,566</u>
2023	<del>108,038,736</del> <u>154,851,001</u>	<del>12,128</del> <u>9,853</u>

<sup>217</sup> Claimed savings.

<sup>218</sup> Projected savings.

<sup>219</sup> Projected savings.

2024	<del>111,279,898</del> <u>159,496,531</u>	<del>12,492</del> <u>10,149</u>
2025	<del>114,618,295</del> <u>164,281,427</u>	<del>12,867</del> <u>10,453</u>

1 **B. Industrial Market Characterization**

2 SCE's Industrial sector consists of approximately 50,000 service accounts. In 2015, these  
3 accounts used approximately 18 percent (15,000 GWh) of the total electricity consumption  
4 (81,000 GWh) in SCE's service territory. This is the third largest percentage of all sectors. Also  
5 in 2015, SCE's Industrial sector EE programs represented nine percent of the total EE portfolio  
6 budget and achieved eight percent of the portfolio's GWh savings.

7 **1. Customer Landscape**

8 a) **Segments and End Uses**

9 SCE's Industrial sector consists of the following customer segments:

- 10 • Food & Kindred Products
- 11 • Petroleum Refining
- 12 • Transportation Equipment
- 13 • Paper & Allied Products
- 14 • Stone, Clay, and Glass
- 15 • Industrial Machinery
- 16 • Chemical & Allied Products
- 17 • Instruments
- 18 • Rubber & Plastics
- 19 • Printing & Publishing
- 20 • Primary Metals
- 21 • Textiles & Apparel
- 22 • Electronics
- 23 • Lumber & Furniture
- 24 • Fabricated Metals

no more than ten projects. This pilot may be implemented concurrently with the Industrial EMS pilot proposed above. SCE will develop the pilot in 2017 and use an RFP process to solicit bids from third parties. The pilot will likely be limited to fewer than 10 projects due to budget constraints.

c) Rapid Response Pilot

This is a pilot for both the Commercial and Industrial sectors and is described in Section V.D.5.c of the Commercial chapter.

d) Nonresidential ZNE IDSM Retrofit Pilot

This is a pilot for both the Commercial and Industrial sectors and is described in Section V.D.5.e of the Commercial chapter.

**E. Budget**

Table 36 shows SCE's planned budget for the Industrial sector for 2018-2025. More details about SCE's budgeting process are described in the Portfolio Summary chapter (Section III.F).

**Table 36. SCE Industrial Sector Proposed Budget 2018-2025**

Program Year	Administration (\$000)	Marketing (\$000)	Direct Implementation (\$000)	Incentives (\$000)	Total Sector Budget (\$000)
2015 <sup>236</sup>	\$2,261	\$933	\$12,662	\$9,778	\$25,635
2016 <sup>237</sup>	\$1,810	\$367	\$10,398	\$13,452	\$26,027
2017 <sup>238</sup>	\$1,894	\$350	\$12,089	\$11,520	\$25,853
2018	\$1,883	\$348	<del>\$12,015</del> <u>\$11,815</u>	<del>\$11,362</del> <u>\$13,593</u>	<del>\$25,608</del> <u>\$27,639</u>
2019	\$1,939	\$358	<del>\$12,375</del> <u>\$12,169</u>	<del>\$11,703</del> <u>\$14,001</u>	<del>\$26,376</del> <u>\$28,468</u>
2020	\$1,978	\$365	<del>\$12,623</del> <u>\$12,413</u>	<del>\$11,937</del> <u>\$14,281</u>	<del>\$26,903</del> <u>\$29,037</u>
2021	\$1,939	\$358	<del>\$12,370</del> <u>\$12,164</u>	<del>\$11,698</del> <u>\$13,996</u>	<del>\$26,365</del> <u>\$28,457</u>
2022	\$1,997	\$369	<del>\$12,742</del> <u>\$12,529</u>	<del>\$12,049</del> <u>\$14,415</u>	<del>\$27,156</del> <u>\$29,310</u>

<sup>236</sup> Actual expenditures

<sup>237</sup> Actual operating budget

<sup>238</sup> Proposed budget

2023	\$2,057	\$380	<del>\$13,124</del> <u>\$12,905</u>	<del>\$12,411</del> <u>\$14,847</u>	<del>\$27,971</del> <u>\$30,190</u>
2024	\$2,118	\$391	<del>\$13,518</del> <u>\$13,292</u>	<del>\$12,783</del> <u>\$15,293</u>	<del>\$28,810</del> <u>\$31,095</u>
2025	\$2,182	\$403	<del>\$13,923</del> <u>\$13,691</u>	<del>\$13,167</del> <u>\$15,752</u>	<del>\$29,675</del> <u>\$32,028</u>

1 **F. Coordination and Integration**

2 **1. Key Partners**

3 To successfully deliver EE in the Industrial sector, SCE interacts and integrates  
4 with the following key partners:

- 5 • Regulatory and Legislative agencies: Examples include the CPUC, CEC, and  
6 federal and state governments.
- 7 • PAs: Other PAs are key SCE partners in program development,  
8 implementation, and coordination. Examples include IOUs, RENs, and  
9 CCAs.
- 10 • Advocacy Groups: These are stakeholder groups that represent constituencies  
11 that are affected by EE. They include environmental advocacy groups,  
12 customer advocacy groups, and other stakeholders.
- 13 • Trade partners: These are companies providing implementation and technical  
14 support for EE programs, or associations representative of industry  
15 participants. This includes third party implementers.

16 **2. Cross-PA Coordination**

17 a) Statewide Coordination

18 The Industrial programs that are part of the new statewide administration  
19 model include:

- 20 • HVAC – upstream and midstream (Proposed Statewide Lead:  
21 SDG&E);
- 22 • Savings by Design (Proposed Statewide Lead: SCE); and
- 23 • Financing: New Finance Offerings (Proposed Statewide Lead: PG&E).

VII.

**Agricultural Sector**

**A. Agricultural Sector Vision and Goals**

SCE's vision for its Agricultural sector is to achieve cost-effective energy savings by tailoring EE services based on customer size and behavior, piloting innovative EE solutions, and increasing education and awareness for customers and partners. California has established several policy goals that rely on increased EE. The Agricultural sector accounts for approximately three percent of electric usage in SCE's territory and therefore has limited ability to contribute to the achievement of these state policies.

SCE's primary goal for the Agricultural Sector is to achieve 2.51 GWh and 0.61 MW in electric energy savings in 2018. Table 37 shows SCE's annual savings forecasts for the Agricultural sector through 2025 (including claimed savings for 2015 and projected savings for 2016 and 2017). These forecasts are based on the overall portfolio goals from D.15-10-028.

**Table 37. SCE's EE Agricultural Sector Savings Forecast 2018-2025**

Program Year	Total kWh Sector Savings	Total kW Sector Savings
2015 <sup>239</sup>	35,988,457	7,321
2016 <sup>240</sup>	8,425,713	998
2017 <sup>241</sup>	3,056,925	615
2018	<del>2,513,985</del> <u>2,019,644</u>	<del>612</del> <u>466</u>
2019	<del>2,589,405</del> <u>2,080,233</u>	<del>630</del> <u>480</u>
2020	<del>2,641,193</del> <u>2,121,838</u>	<del>643</del> <u>490</u>
2021	<del>2,588,369</del> <u>2,079,401</u>	<del>630</del> <u>480</u>
2022	<del>2,666,020</del> <u>2,141,783</u>	<del>649</del> <u>495</u>
2023	<del>2,746,001</del> <u>2,206,037</u>	<del>668</del> <u>509</u>

<sup>239</sup> Claimed savings.

<sup>240</sup> Projected savings.

<sup>241</sup> Projected savings.

2024	<del>2,828,381</del> <u>2,272,218</u>	<del>688</del> <u>525</u>
2025	<del>2,913,232</del> <u>2,340,384</u>	<del>709</del> <u>540</u>

**B. Agricultural Market Characterization**

SCE's Agricultural sector consists of approximately 30,000 service accounts.<sup>242</sup> In 2015, these accounts used approximately three percent (2,000 GWh) of the total electricity consumption (81,000 GWh) in SCE's service territory. This is the smallest percentage of all sectors. Also in 2015, SCE's Agricultural sector EE programs represented four percent of the total EE portfolio budget and achieved three percent of the portfolio's GWh savings.

**1. Customer Landscape**

SCE has Agricultural customers throughout its territory, but the majority are located in the northern part of SCE's service territory. This includes counties such as Tulare, Kern, Ventura, and Kings.

a) Segments and End Uses

SCE's Agricultural sector consists of the following customer segments:

- Field & Seed Crops
- Fruit & Nut Crops
- Vegetables & Melons
- Livestock, Poultry, & Products, and
- Floriculture.

Agricultural sector customers use electricity for the following purposes:

- Lighting
- HVAC, and
- Process Machine Drive.

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<sup>242</sup> Agricultural sector originally had ~50,000 SAs, but with the creation of the Public sector category, SCE has Agricultural accounts which will be part of the Public sector. For example, the Agricultural sector no longer includes water or wastewater facilities that are not specifically for Agricultural purposes. This has resulted in the transfer of approximately 20,000 SAs from the Agricultural sector to the Public sector.

**Table 42. SCE Agricultural Sector Proposed Budget 2018-2027**

<b>Program Year</b>	<b>Administration (\$000)</b>	<b>Marketing (\$000)</b>	<b>Direct Implementation (\$000)</b>	<b>Incentives (\$000)</b>	<b>Total Sector Budget (\$000)</b>
2015 <sup>260</sup>	\$214	\$17	\$3,650	\$3,529	\$7,410
2016 <sup>261</sup>	\$297	\$17	\$2,797	\$1,450	\$4,561
2017 <sup>262</sup>	\$254	\$17	\$2,741	\$464	\$3,477
2018	\$247	\$17	<del>\$2,669</del> <u>\$2,569</u>	<del>\$372</del> <u>\$256</u>	<del>\$3,305</del> <u>\$3,089</u>
2019	\$255	\$17	<del>\$2,749</del> <u>\$2,646</u>	<del>\$383</del> <u>\$263</u>	<del>\$3,404</del> <u>\$3,181</u>
2020	\$260	\$18	<del>\$2,804</del> <u>\$2,699</u>	<del>\$391</del> <u>\$268</u>	<del>\$3,472</del> <u>\$3,245</u>
2021	\$255	\$17	<del>\$2,748</del> <u>\$2,645</u>	<del>\$383</del> <u>\$263</u>	<del>\$3,403</del> <u>\$3,180</u>
2022	\$262	\$18	<del>\$2,830</del> <u>\$2,724</u>	<del>\$394</del> <u>\$271</u>	<del>\$3,505</del> <u>\$3,275</u>
2023	\$270	\$18	<del>\$2,915</del> <u>\$2,806</u>	<del>\$406</del> <u>\$279</u>	<del>\$3,610</del> <u>\$3,374</u>
2024	\$278	\$19	<del>\$3,003</del> <u>\$2,890</u>	<del>\$419</del> <u>\$287</u>	<del>\$3,718</del> <u>\$3,475</u>
2025	\$287	\$20	<del>\$3,093</del> <u>\$2,977</u>	<del>\$431</del> <u>\$296</u>	<del>\$3,830</del> <u>\$3,579</u>

**F. Agricultural Sector Coordination and Integration**

**1. Key Partners**

To successfully deliver EE in the Agricultural sector, SCE interacts and integrates with the following key partners:

- Regulatory and Legislative agencies: Examples include the CPUC, CEC, and federal and state governments.
- PAs: Other PAs are key SCE partners in program development, implementation, and coordination. Examples include IOUs, RENs, and CCAs.

<sup>260</sup> Actual expenditures.

<sup>261</sup> Actual operating budget.

<sup>262</sup> Proposed budget.

**Table 43. SCE’s EE Public Sector Savings Forecast 2018-2025**

Program Year	Total kWh Sector Savings	Total kW Sector Savings
2015 <sup>263</sup>	30,837,743	3,721
2016 <sup>264</sup>	32,721,359	2,921
2017 <sup>265</sup>	36,334,556	4,099
2018	<del>28,443,223</del> <u>30,743,183</u>	<del>4,213</del> <u>4,016</u>
2019	<del>29,296,520</del> <u>31,665,478</u>	<del>4,339</del> <u>4,136</u>
2020	<del>29,882,450</del> <u>32,298,788</u>	<del>4,426</del> <u>4,219</u>
2021	<del>29,284,801</del> <u>31,652,812</u>	<del>4,337</del> <u>4,135</u>
2022	<del>30,163,345</del> <u>32,602,397</u>	<del>4,467</del> <u>4,259</u>
2023	<del>31,068,246</del> <u>33,580,469</u>	<del>4,601</del> <u>4,386</u>
2024	<del>32,000,293</del> <u>34,587,883</u>	<del>4,739</del> <u>4,518</u>
2025	<del>32,960,302</del> <u>35,625,519</u>	<del>4,882</del> <u>4,654</u>

**B. Market Characterization**

The Public sector is comprised of government agencies (local governments, special districts, and state and federal agencies) and education entities (colleges, universities, libraries, and K–12 schools), and consists of approximately 75,000 service accounts in eight climate zones. Traditionally, the Public sector has been classified as part of the Commercial sector. However, due to its unique attributes, the Commission has ordered that the Public sector be treated in a separate chapter in the business plan.<sup>266</sup> The Public sector is unique because its customers are in a position to influence, and in some instances regulate, their communities, adhere to a unique public decision-making process, possess a vast amount of institutional knowledge, and are permanent entities. Table 44 identifies several differences between common Public and Commercial sector customers. For example, Commercial customers are often farther

<sup>263</sup> Claimed savings.

<sup>264</sup> Projected savings.

<sup>265</sup> Projected savings.

<sup>266</sup> D.15-10-028, p. 47.

**E. Public Sector Budget**

Table 52 shows SCE's planned budget for the Public sector for 2018-2025. More details about SCE's budgeting process are described in the Portfolio Summary chapter (Section III.F).

**Table 52. SCE's Residential Public Sector Proposed Budget for 2018-2025**

Program Year	Administration (\$000)	Marketing (\$000)	Direct Implementation (\$000)	Incentives (\$000)	Total Sector Budget (\$000)
2015 <sup>297</sup>	\$3,264	\$445	\$8,085	\$8,460	\$20,254
2016 <sup>298</sup>	\$1,895	\$1,299	\$11,362	\$7,760	\$22,316
2017 <sup>299</sup>	\$2,133	\$336	\$9,999	\$11,345	\$23,813
2018	\$1,886	\$297	<del>\$8,840</del> <u>\$8,740</u>	<del>\$8,585</del> <u>\$8,032</u>	<del>\$19,608</del> <u>\$18,956</u>
2019	\$1,943	\$306	<del>\$9,105</del> <u>\$9,002</u>	<del>\$8,843</del> <u>\$8,273</u>	<del>\$20,197</del> <u>\$19,525</u>
2020	\$1,982	\$312	<del>\$9,287</del> <u>\$9,182</u>	<del>\$9,019</del> <u>\$8,439</u>	<del>\$20,601</del> <u>\$19,915</u>
2021	\$1,942	<del>\$306</del> <u>\$312</u>	<del>\$9,102</del> <u>\$9,182</u>	<del>\$8,839</del> <u>\$8,439</u>	<del>\$20,189</del> <u>\$19,875</u>
2022	\$2,000	<del>\$315</del> <u>\$322</u>	<del>\$9,375</del> <u>\$9,458</u>	<del>\$9,104</del> <u>\$8,692</u>	<del>\$20,794</del> <u>\$20,472</u>
2023	\$2,060	<del>\$325</del> <u>\$331</u>	<del>\$9,656</del> <u>\$9,741</u>	<del>\$9,377</del> <u>\$8,953</u>	<del>\$21,418</del> <u>\$21,086</u>
2024	\$2,122	<del>\$334</del> <u>\$341</u>	<del>\$9,946</del> <u>\$10,034</u>	<del>\$9,659</del> <u>\$9,221</u>	<del>\$22,061</del> <u>\$21,718</u>
2025	\$2,186	<del>\$344</del> <u>\$351</u>	<del>\$10,244</del> <u>\$10,335</u>	<del>\$9,948</del> <u>\$9,498</u>	<del>\$22,722</del> <u>\$22,370</u>

**F. Public Sector Coordination and Integration**

**1. Key Partners**

The Public sector contains many partners working together to further the State's GHG emissions and EE goals. The primary partners are Public sector customers: local, state, and federal government entities, higher education customers, and K-12 schools. Table 53 outlines the key partners of the Public sector.

<sup>297</sup> Actual expenditures.

<sup>298</sup> Actual operating budget.

<sup>299</sup> Proposed budget.

**Table 63. SCE's C&S Proposed Budget for 2018-2025**

Program Year	Administration (\$000)	Marketing (\$000)	Direct Implementation (\$000)	Incentives (\$000)	Total Sector Budget (\$000)
2015 <sup>334</sup>	\$515	\$276	\$6,093	\$-	\$6,608
2016 <sup>335</sup>	\$471	\$-	\$5,192	\$-	\$5,663
2017 <sup>336</sup>	\$509	\$-	\$5,152	\$-	\$5,661
2018	\$509	\$-	\$5,152	\$-	\$5,661
2019	<del>\$509</del> \$524	\$-	<del>\$5,152</del> \$5,307	\$-	<del>\$5,661</del> \$5,831
2020	<del>\$509</del> \$535	\$-	<del>\$5,152</del> \$5,413	\$-	<del>\$5,661</del> \$5,948
2021	<del>\$509</del> \$524	\$-	<del>\$5,152</del> \$5,305	\$-	<del>\$5,661</del> \$5,829
2022	<del>\$509</del> \$540	\$-	<del>\$5,152</del> \$5,464	\$-	<del>\$5,661</del> \$6,004
2023	<del>\$509</del> \$556	\$-	<del>\$5,152</del> \$5,628	\$-	<del>\$5,661</del> \$6,184
2024	<del>\$509</del> \$573	\$-	<del>\$5,152</del> \$5,796	\$-	<del>\$5,661</del> \$6,369
2025	<del>\$509</del> \$590	\$-	<del>\$5,152</del> \$5,970	\$-	<del>\$5,661</del> \$6,560

**8. Metrics**

The C&S Program has supported various statewide policy goals and intends to enhance its efforts with the expansion proposed in this plan that will enhance portfolio integration and support a broader range of long-term goals. Success will be measured, in part, by the feasibility of new or modified standards to be used as a tool in meeting ZNE objectives in practice. The C&S Program will also be measured by the success in improving compliance and supporting the creation of electronic infrastructure systems, such as databases and repositories that collect information that provides evidence of improved uptake of adopted standards.

<sup>334</sup> Actual expenditures.

<sup>335</sup> Actual operating budget.

<sup>336</sup> Proposed budget.

1           **7.     Workforce Education and Training Budget**

2           Table 74 shows SCE's planned budget for the WE&T program for 2018-2025.  
 3 More details about SCE’s budgeting process are described in the Portfolio Summary chapter  
 4 (Section III.F).

5           **Table ~~73~~ 74. SCE's WE&T Proposed Budget for 2018-2025** **Table 74. SCE's Emerging**  
 6           **Technologies Proposed Budget for 2018-2025**

Program Year	Administration (\$000)	Marketing (\$000)	Direct Implementation (\$000)	Incentives (\$000)	Total Sector Budget (\$000)
2015 <sup>410</sup>	\$1,173	\$345	\$8,517	\$-	\$10,035
2016 <sup>411</sup>	\$399	\$283	\$5,891	\$97	\$6,670
2017 <sup>412</sup>	\$291	\$-	\$4,554	\$-	\$4,845
2018	\$291	\$-	\$4,554	\$-	\$4,845
2019	\$300	\$-	\$4,691	\$-	\$4,990
2020	\$306	\$-	\$4,784	\$-	\$5,090
2021	\$300	\$-	\$4,689	\$-	\$4,988
2022	\$309	\$-	\$4,829	\$-	\$5,138
2023	\$318	\$-	\$4,974	\$-	\$5,292
2024	\$328	\$-	\$5,123	\$-	\$5,451
2025	\$337	\$-	\$5,277	\$-	<del>\$5,614</del> \$5,615

7           **8.     Metrics**

8           SCE proposes a set of metrics for WE&T to measure the progress towards the  
 9 goals of the program and the effectiveness of the intervention strategies and tactics outlined in  
 10 this business plan. Metrics are one of several components used in examining the success and  
 11 effectiveness of the Program (e.g., in addition to EM&V studies). The metrics are designed to  
 12 measure progress against the intended outcomes and priorities of the WE&T cross-cutting sector.

13           Historically, the effectiveness of IOU WE&T offerings has been reported through  
 14 data and indicators that focus on output-oriented activity. The metrics outlined in the table  
 15 below seek to examine the effect of WE&T on the EE market through outcome-oriented activity

<sup>410</sup> Actual expenditures.

<sup>411</sup> Actual operating budget.

<sup>412</sup> Proposed budget.

delegates from government agencies, gas and electric utilities, and academia. Other ETCC events include symposia that educate third parties on doing business with utilities, Open Forums that serve as platforms for tech companies to introduce their products to utilities, and regular ETCC Advisory Council activities that bring North American utility and industry ET voices to the ETCC.

Though ETCC is the largest collaborative effort across the ETP, the constituent utilities are highly active in a number of additional consortia, initiatives, and groups identified in Table 70.

**Table 70. ETP Collaborations**

Category	Partners
ETCC Members	SCE, PG&E, SDG&E, SCG, CEC, SMUD, LADWP
Research entities	CEC <ul style="list-style-type: none"> <li>• Electric Program Investment Charge (EPIC)</li> <li>• Public Interest Energy Research (PIER) programs</li> </ul> UCD Center for Energy Efficiency <ul style="list-style-type: none"> <li>• CA Lighting Technology Center</li> <li>• Western Cooling Efficiency Center</li> </ul> Lawrence Berkeley National Laboratories Advanced Projects Agency – Energy (ARPA-E) U.S. Dept. of Energy (DOE)
Technology commercialization / entrepreneurship entities	Technology developers Technology financiers Clean tech accelerators DOE's First Look West Cleantech Open California Sustainable Energy Entrepreneur Development (CalSEED)
Strategic organizations	Consortium for Energy Efficiency (CEE) E Source New Buildings Institute (NBI) American Council for an Energy-Efficient Economy (ACEEE) California Institute of Technology (Caltech) Electric Power Research Institute (EPRI) Gas Technology Institute (GTI)
Technology adopters and ET demonstration hosts	Owners, tenants, property managers, third-party vendors (through the Technology Resource Innovation Program (TRIP))

1 outcomes identified in the revised Program Theory and Logic Model for WE&T from 2014.<sup>409</sup>  
 2 Additional details on how SCE will implement intervention strategies and tactics to address  
 3 market barriers and achieve goals are outlined in Table 71.

**Table 70-71. Goal 1 Market Barriers, Intervention Strategies, and Primary Tactics**

Market Barriers				
<ul style="list-style-type: none"> <li>• The WE&amp;T landscape is complex and diverse, spanning a multitude of skill levels, end-use roles, high-potential markets, and delivery channels</li> <li>• California's EE goals are aggressive and require substantial engagement by a diverse mix of stakeholder participants throughout the State</li> <li>• EE is often a low priority among workers and other core education providers</li> </ul>				
Intervention Strategies	Primary Tactics	E - Existing N - New M - Modified	S - Short-Term M - Mid-Term L - Long-Term	Cross-Cutting Sector Focus
Align WE&T offerings to support the EE market based on EE potential data, policy mandates, industry needs, and emerging trends	Establish a comprehensive engagement and feedback process to inform delivery of the right services to the right audience through the right channels, where stakeholders will be actively engaged and part of a process of continuous improvement and feedback	E	S, M	WE&T
	Leverage energy savings potential studies and job market data to prioritize WE&T offerings in partnership and collaboration with other IOU and non-IOU WE&T Program Administrators	N	S	WE&T
	Implement joint IOU WE&T initiatives locally to support State's goals, where WE&T programs are aligned to State needs and goals, and provide a consistency for the four IOUs	E	S, M, L	WE&T
	Where appropriate, assimilate recommendations from prior EM&V studies, evaluations, and reports, to help ensure alignment and to support joint-IOU efforts	E	S, M, L	WE&T

<sup>409</sup> Opinion Dynamics, 2013-2014 Statewide WE&T Program: Program Theory and Logic Model Update; Centergies Data Needs; and Critical WE&T Data Needs (June 2014), available at [http://calmac.org/publications/2013-2014\\_WET\\_PTLM\\_and\\_Critical\\_Data\\_Gap\\_Assessment.pdf](http://calmac.org/publications/2013-2014_WET_PTLM_and_Critical_Data_Gap_Assessment.pdf).

Market Barriers				
<ul style="list-style-type: none"> <li>• <b>The WE&amp;T landscape is complex and diverse, spanning a multitude of skill levels, end-use roles, high-potential markets, and delivery channels</b></li> <li>• <b>California's EE goals are aggressive and require substantial engagement by a diverse mix of stakeholder participants throughout the State</b></li> <li>• <b>EE is often a low priority among workers and other core education providers</b></li> </ul>				
Intervention Strategies	Primary Tactics	E - Existing N - New M - Modified	S - Short-Term M - Mid-Term L - Long-Term	Cross-Cutting Sector Focus
Collaborate with relevant education and training providers to expand or enhance the EE content of their overall training program	Collaborate with external educational providers to deliver core EE education (e.g., community colleges, unions, vocational schools, etc.)	E, N	S, M, L	WE&T
	Collaborate with targeted organizations to expand access and reach to WE&T programs	E, N	S, M, L	WE&T
	Support specific industry-recognized certifications as well as workforce development agencies & organizations by providing EE teaching materials and career awareness resources	E, N	S, M, L	WE&T
	Leverage IOU resources to develop new or deliver current/relevant WE&T offerings to teaching professionals within current education providers as well as trade training programs	E, N	S, M, L	WE&T
	Develop and share specific curriculum for high-potential opportunities with other education providers	E, N	S, M, L	WE&T
	Provide seed funding for curriculum development and sharing initiatives	E, N	S, M, L	WE&T
	Leverage established core WE&T offerings for direct infusion or articulation into the training portfolios of other education providers	E, N	S, M, L	WE&T
Support Statewide WE&T Programs and initiatives	Continue to support the delivery of the joint-IOU-offered curriculum and other energy center specific EE educational resources	E	S, M	WE&T
	Support the development and delivery of other existing and/or new statewide WE&T programs (e.g. Career Connections, Career and Workforce Readiness Programs).	N	M, L	WE&T

**Table 71-72. Goal 2 Market Barriers, Intervention Strategies, and Primary Tactics**

Market Barriers
<ul style="list-style-type: none"> <li>• <b>The WE&amp;T landscape is complex and diverse, spanning a multitude of skill levels, end-use roles, high-potential markets, and delivery channels;</b></li> <li>• <b>EE is often a low priority among workers and other core education providers</b></li> <li>• <b>Key market actors and decision makers do not always understand the value of EE</b></li> <li>• <b>Awareness of WE&amp;T and EE opportunities is a significant barrier to participation in WE&amp;T offerings</b></li> <li>• <b>California’s energy code is complex and constantly changing</b></li> </ul>

Intervention Strategies	Primary Tactics	E - Existing N - New M - Modified	S - Short-Term M - Mid-Term L - Long-Term	Cross-Cutting Sector Focus
Develop and deliver WE&T offerings to support / shape the EE market and achieve the State's aggressive EE goals, based on EE potential data, policy mandates, industry needs, emerging trends, and IOU EE Portfolio goals.	Develop and deliver technician and installer training that will support meter-based energy savings projects related to AB 802 implementation	N	S, M, L	Cross-Cutting
	Develop and deliver EE program opportunity and new technology training targeted towards the distributor community as the EE Portfolio shifts downstream offerings more to midstream	N	S, M, L	Cross-Cutting
	Continue to deliver industry-valued commercial advanced lighting controls installation and commissioning curriculum and pathways to certification	E	S, M	Commercial
	Support the development of curricula and other related educational resources to help improve commercial lighting system design	N, M	S, M	Commercial
	Work with current commercial advanced lighting controls training providers to enhance the existing curriculum by integrating major manufacturer training	N	M, L	Commercial
Develop and deliver WE&T offerings to support / shape the EE market and achieve the State's aggressive EE goals, based on EE potential data, policy mandates, industry needs, emerging trends, and IOU EE Portfolio goals.	Work with current training providers to enhance technical and soft skills offerings that target the following subjects: <ul style="list-style-type: none"> <li>• Understanding the lifecycle of installed Commercial measures</li> <li>• Knowledge of, and how to sell additional EE opportunities to end-use customers</li> <li>• Understanding end-use customer needs</li> <li>• Right-sizing of equipment and systems</li> <li>• Ability to bid, manage, and supervise projects</li> <li>• Knowledge of systems integration and overall functions/components</li> </ul>	M	S, M	Commercial

Intervention Strategies	Primary Tactics	E - Existing N - New M - Modified	S - Short-Term M - Mid-Term L - Long-Term	Cross-Cutting Sector Focus
	Continue to deliver industry-valued standards-based commercial HVAC quality installation and maintenance curriculum and pathways to certification	E	S, M, L	Commercial
	Continue to deliver industry-valued standards-based residential HVAC quality installation and maintenance curriculum and pathways to certification	E	S, M, L	Residential
	<p>Work with current training providers to enhance Residential HVAC technical and soft skills offerings that target the following subjects:</p> <ul style="list-style-type: none"> <li>• Understanding the lifecycle of installed Commercial measures</li> <li>• Knowledge of, and how to sell additional EE opportunities to end-use customers</li> <li>• Understanding end-use customer needs</li> <li>• Right-sizing of equipment and systems</li> <li>• Ability to bid, manage, and supervise projects</li> <li>• Knowledge of systems integration and overall functions/components</li> </ul>	N	M, L	Residential
Develop and deliver WE&T offerings to support / shape the EE market and achieve the State's aggressive EE goals, based on EE potential data, policy mandates, industry needs, emerging trends, and IOU EE Portfolio goals.	Partner with CA Community Colleges and relevant trades to build curriculum targeted to building operators and facility managers that addresses HVAC QI / QM gaps	N	M, L	Commercial / Industrial
	<ul style="list-style-type: none"> <li>• Focus efforts in local jurisdictions through in-field offerings to Plans Examiners, Building Inspectors, and other decision makers in Government on baseline code and expected changes in future code, while encouraging the adoption of voluntary or measure-specific reach codes.</li> <li>• Continue to collaborate with IOU Codes and Standards, Compliance Improvement teams to design, develop, and deliver relevant and timely codes training</li> </ul>	E	S, M	Public
	Continue to collaborate with IOU Codes and Standards, Compliance Improvement teams to design, develop, and deliver relevant and timely codes training to high-potential market actors and decision makers	E, N, M	S, M	Commercial/ Industrial

Intervention Strategies	Primary Tactics	E - Existing N - New M - Modified	S - Short-Term M - Mid-Term L - Long-Term	Cross-Cutting Sector Focus
	<ul style="list-style-type: none"> <li>Develop new curriculum and other educational tools and offerings, targeted to high-potential market actors and decision makers, to enhance knowledge of technological innovations and integrated business strategies that are required to effectively understand, interpret, and meet the ZNE goals.</li> <li>Help develop a well-informed support industry including building inspectors, financial and real estate professionals, and other industries central to the advancement of ZNE</li> </ul>	N	M, L	Residential
	Develop new curriculum and other educational tools and offerings, targeted to high-potential market actors and decision makers, to enhance knowledge of technological innovations and integrated business strategies that are required to effectively understand, interpret, and meet the ZNE goals	N	M, L	Commercial
	Partner with IOU Savings By Design teams and other key industry stakeholders to develop integrated, whole building design curricula for targeted, high-potential market actors and decision makers in the Commercial new construction sector	N	M, L	Commercial
Develop and deliver WE&T offerings to support / shape the EE market and achieve the State's aggressive EE goals, based on EE potential data, policy mandates, industry needs, emerging trends, and IOU EE Portfolio goals.	Enhance Benchmarking and Multifamily Energy Star® Portfolio Manager training awareness, availability, and frequency to high-potential market actors, decision makers, and building owners	M	M, L	Commercial / Residential
	<ul style="list-style-type: none"> <li>Align WE&amp;T offerings to both Commercial and Residential whole building/integrated energy efficiency, to enhance EE opportunity awareness and skills.</li> <li>Aside from traditional workshops and seminars, provide enhanced technical consultations, equipment demonstrations, and building performance tool loans from the Tool Lending Library.</li> </ul>	N, M	S, M, L	Commercial / Residential
	Include special skills training in core WE&T activities to help meet demand, spur	E	S, M	Cross-Cutting

Intervention Strategies	Primary Tactics	E - Existing N - New M - Modified	S - Short-Term M - Mid-Term L - Long-Term	Cross-Cutting Sector Focus
	innovation, and increase the body of knowledgeable building professionals.			
	Develop new Ag-focused offerings targeted towards high-potential market actors and decision makers that focus on EE program participation opportunities, new and emerging technologies, and available financing opportunities, while collaborating with other educational providers to expand access and reach of WE&T offerings.	N	M, L	Agricultural
	The IOUs will offer targeted Energy Efficiency Sales training programs to help increase energy savings potential, bring awareness to the value of energy efficiency, and support market transformation in market actors and decisions makers across industry sectors	N	M, L	Cross-Cutting
Assist workers from disadvantaged communities in gaining skills that may lead to employment and/or advancement in rewarding career track jobs in EE fields	Support the development and delivery of the proposed Statewide Career and Workforce Readiness Pilot Program	N	M, L	WE&T
	Collaborate with other educational and/or service providers who already have connections and pathways to reach high-potential WE&T participants from disadvantaged communities (e.g. WIBs, CBOs, etc.)	N	M, L	WE&T
	Leverage the tools developed and knowledge gained from IOU WE&T Inclusion studies to inform activities and tactics with high-potential participants from disadvantaged communities	N	S, M, L	WE&T
Enhance and modify where appropriate, EE market and skills, building educational offerings, resources, and tools that support and advance WE&T portfolio of workshops and seminars.	Develop new hands-on teaching tools, exhibits, demonstrations, and training equipment that aligns with the portfolio of educational offerings to enhance the learning environment and drive adult learning principles	N, M	M, L	WE&T
Providing EE education opportunities along an educational	Support the development and delivery of other existing and/or new statewide WE&T programs	N	M, L	WE&T

Intervention Strategies	Primary Tactics	E - Existing N - New M - Modified	S - Short-Term M - Mid-Term L - Long-Term	Cross-Cutting Sector Focus
pathway for post-secondary students and the potential EE workforce that includes career awareness, core energy education and career enhancement and technical upskill.				

1                    Goal 3: Design and deliver a WE&T program that continuously enhances the  
2 performance of SCE’s EE Portfolio.

3                    SCE's WE&T offerings, delivered either through the Energy Education Centers,  
4 online or on-demand, or in the field, have a unique opportunity to interact with key decision  
5 makers in high-potential sectors and cultivate new EE opportunities and Program participants.  
6 Leveraging opportunities to lower program costs while still delivering comprehensive and  
7 compliant programming, are necessary in a dynamic and complex EE environment.

8                    Additionally, in support of SCE's overall EE portfolio cost-effectiveness  
9 initiatives, it is incumbent upon SCE's WE&T program to ensure it is operating as efficiently as  
10 possible. As a cross-cutting program, WE&T also plays a key role in providing targeted support  
11 to the EE portfolio by ensuring the training and engagement of workers installing and  
12 implementing EE measures and projects with the proper skills to carry out the work.

13                    To enhance and increase efficacy in this area, and to support the EE portfolio in  
14 overcoming cost-effectiveness challenges, SCE's WE&T program will:

- Reinforce WE&T as a support and advisory role to the EE portfolio, providing efficiency and cost-effective interventions, offerings, and other educational resources targeted to specific portfolio needs, across all sectors;
- Enhance and streamline the WE&T Program to facilitate cost efficiencies and focus on training opportunities that offer the most benefit for near term employment opportunities;
- Modify offering design and delivery to lower program implementation costs throughout the WE&T portfolio; and
- Improve and expand access and reach, building awareness in high-potential sectors and target markets, while enhancing customer experience and ease of participation;

Details on how SCE will implement intervention strategies and tactics to address this market barrier are outlined in Table 73.

**Table 72-73. Goal 3 Market Barriers, Intervention Strategies, and Sample Tactics**

Market Barrier				
<ul style="list-style-type: none"> <li>• EE is often a low priority among workers and other core education providers</li> <li>• Key market actors and decision makers do not always understand the value of EE</li> <li>• Awareness of WE&amp;T and EE opportunities is a significant barrier to participation in WE&amp;T offerings</li> <li>• Maintaining operational efficiency and effectiveness of WE&amp;T is challenging in a complex and continuously evolving EE market.</li> </ul>				
Intervention Strategies	Primary Tactics	E - Existing N - New M - Modified	S - Short-Term M - Mid-Term L - Long-Term	Cross-Cutting Sector Focus
Reinforce WE&T as a support and advisory role to the EE portfolio providing efficiency and cost-effective interventions, offerings, and other educational	Drive awareness of EE program opportunities through applicable WE&T offerings	E, M	S, M, L	Cross-Cutting
	Train and prepare high-potential participants for applicable EE Programs and other EE opportunities	E, M	S, M, L	Cross-Cutting

<b>Intervention Strategies</b>	<b>Primary Tactics</b>	<b>E - Existing N - New M - Modified</b>	<b>S - Short-Term M - Mid-Term L - Long-Term</b>	<b>Cross-Cutting Sector Focus</b>
resources targeted to specific portfolio needs across all sectors	Educate high-potential market actors and decision makers in key sectors and end-use roles on key EE policy and code requirements	E	S, M, L	Cross-Cutting
	Provide tactical and operational support for program- and sector-specific education and training needs	E	S, M, L	Cross-Cutting
support and advisory role to the EE portfolio providing efficiency and cost-effective interventions, offerings, and other educational resources targeted to specific portfolio needs across all sectors	Leverage the technical subject matter expertise and direct connection to end-use customers, decision makers and market actors throughout the Centergies program to cultivate new EE opportunities and Program participants	E	S, M, L	Cross-Cutting
Enhance and streamline the WE&T Program to facilitate cost efficiencies and focus on training opportunities that offer the most benefit for near term employment opportunities	Consolidation of program management staff that will lead to a one-stop-shop approach for WE&T programs and through elimination of activities, such as K-12, that have minimal impact on enabling the development of workforce skills needed to support DSM programs today	N	S, M	WE&T
	Restructure the three WE&T subprograms (Connections, Planning, and Centergies) into one consolidated WE&T program	N	S, M	WE&T
Modify offering design and delivery to lower program implementation costs throughout the WE&T portfolio	Actively participate in joint-IOU efforts to deliver a set of consistent market-building offerings through an online/on-demand learning platform	E, N	S, M, L	Cross-Cutting
Improve and expand access and reach, building awareness in high-potential sectors and target markets, while enhancing customer experience and ease of participation	Collaborate with Statewide ME&O on joint-IOU promotion and awareness efforts, focusing on both statewide and regional opportunities	E	M, L	WE&T
	Collaborate with other educational and/or service providers who already have connections and pathways to reach high-potential WE&T participants	E, N	M, L	WE&T

**ATTACHMENT 2**

*Southern California Edison Company's (U 338-E) Amended Energy Efficiency Rolling Portfolio  
Business Plan Application*

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

Amended Application of Southern California Edison Company (U 338-E) for Approval of Energy Efficiency Rolling Portfolio Business Plan.	Application 17-01-013 (Filed January 17, 2017)
Application of San Diego Gas & Electric Company (U 902-M) to adopt Energy Efficiency Rolling Portfolio Business Plan Pursuant to Decision 16-08-012.	Application 17-01-014 (Filed January 17, 2017)
Application of Pacific Gas and Electric Company for Approval of 2018-2025 Rolling Portfolio Energy Efficiency Business Plan and Budget (U 39-M).	Application 17-01-015 (Filed January 17, 2017)
Application of Southern California Gas Company (U 904-G) for adoption of its Energy Efficiency Rolling Portfolio Business Plan and related relief.	Application 17-01-016 (Filed January 17, 2017)
In the matter of the Application of Marin Clean Energy for Approval of its Energy Efficiency Business Plan.	Application 17-01-017 (Filed January 17, 2017)

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) AMENDED ENERGY  
EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN APPLICATION 17-01-013**

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Dated: **February 10, 2017**

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

Amended Application of Southern California Edison Company (U 338-E) for Approval of Energy Efficiency Rolling Portfolio Business Plan.	Application 17-01-013 (Filed January 17, 2017)
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**SOUTHERN CALIFORNIA EDISON COMPANY’S (U 338-E) AMENDED ENERGY  
EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN APPLICATION 17-01-013**

**I.**

**INTRODUCTION**

Pursuant to, and in accordance with, Decision (“D.”) 15-10-028 and D.16-08-019 (“Guidance Decisions”),<sup>1</sup> and Rule 1.12 (a) of the California Public Utilities Commission’s (“Commission’s” or “CPUC’s”) Rules of Practice and Procedure, Southern California Edison Company (“SCE”) files this Amended Application (“Amended Application”) requesting the

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<sup>1</sup> D. 15-10-028, *Decision Re Energy Efficiency Goals for 2016 and Beyond and Energy Efficiency Rolling Portfolio Mechanics*, Oct. 28, 2015, at p. 123 (OP 1 and 2); and D. 16-08-019, *Decision Providing Guidance for Initial Energy Efficiency Rolling Portfolio Business Plan Filings*, Aug. 25, 2016, at pp. 108-113.

Commission’s approval of SCE’s Amended Energy Efficiency (“EE”) Rolling Portfolio Business Plan for 2018-2025 (“Amended Business Plan”), which is attached to this Amended Application as Exhibit SCE-1.<sup>2</sup> As explained in this Amended Application and throughout various sections of the Amended Business Plan, the Commission should approve SCE’s Amended Business Plan because it promotes the State’s and the Commission’s EE goals through cost-effective energy savings. SCE seeks prompt approval of its Amended Business Plan for 2018-2025 so that it can actively pursue its EE programs as detailed in the Amended Business Plan and timely launch its 2017 EE Request for Proposals (“RFP”) in order to serve the needs of its customers and cost-effectively meet the State and the Commission’s EE goals. Additionally, as discussed in Sections II and IV below, and in various sections of its Amended Business Plan, SCE proposes several recommendations relating to the Amended Business Plan that, if adopted by the Commission, will improve SCE’s ability to achieve the Commission’s EE goals while delivering cost-effective EE programs and services to achieve SCE’s portfolio goals.<sup>3</sup>

## II.

### **SCE’S AMENDED BUSINESS PLAN IS REASONABLE AND SHOULD BE APPROVED**

As discussed in detail below and in SCE’s Amended Business Plan, the Commission should approve SCE’s Amended Business Plan because it promotes the State’s and the Commission’s EE goals. Specifically, SCE’s Amended Business Plan sets forth SCE’s vision for its EE portfolio for 2018-2025, which is to continue to achieve cost-effective energy savings, expand innovative EE solutions through increased use of third-party providers and third-party proposed, designed, implemented, and delivered offerings, and increase customer adoption of EE

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<sup>2</sup> SCE is submitting an electronic copy of the exhibits in an archival-quality DVD to the CPUC docket office concurrent with the filing of this Amended Application. SCE is also posting an electronic copy of the Amended Application and the supporting documents on [www.sce.com](http://www.sce.com). Please refer to SCE’s Notice of Availability of SCE’s Posting of Energy Efficiency Rolling Portfolio Amended Business Plan Application and Supporting Documents, filed concurrently with this Application, for instructions on how to access the documents on [www.sce.com](http://www.sce.com).

<sup>3</sup> See Exh. SCE-1, Chapter 3, pp. 19-25.

services through market transformation activities and by specifically tailoring SCE’s programs to meet the needs of its customers. Approval of SCE’s Amended Business Plan will promote the Commission’s goals of cost-effective resource procurement and market transformation for the deployment of EE products and services.

**A. SCE’s Amended Business Plan Complies with the Commission’s Energy Efficiency Guidance Decisions**

In Rulemaking (R.) 13-11-005, the Commission contemplated moving away from triennial review of program administrators’ portfolios of EE programs in favor of a “rolling” review of portfolios. However, the Commission recognized that “review and analysis of ‘Rolling Portfolios’ will not be complete in time for the 2015 budget cycle,” and so the Commission divided R.13-11-005 into three phases.<sup>4</sup> Phase 1 of the proceeding concluded in D.14-10-046 with the Commission providing ongoing funding for EE programs from 2015 through 2025 until the Commission changes funding levels.<sup>5</sup> In phase 2, the Commission established, among other things, “a ‘Rolling Portfolio’ process for regularly reviewing and revising portfolios”<sup>6</sup> and business plans which “PAs file periodically via application for Commission review.”<sup>7</sup> The Commission specified that the business plan is to “explain at a relatively high level of generality how PAs will effectuate the strategic plan”<sup>8</sup> and which “leads to a Commission guidance decision adopting the business plan and setting budget expectations to be more fully developed in annual budget filings.”<sup>9</sup> The annual budget advice letter, which is filed in September of each year, provides a detailed budget that results in setting an authorized

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<sup>4</sup> Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues, issued November 21, 2013, pp. 4, 6.

<sup>5</sup> D.14-10-046, pp. 31-32.

<sup>6</sup> D. 15-10-028, p. 2.

<sup>7</sup> *Id.* at p.43.

<sup>8</sup> *Id.* at 46.

<sup>9</sup> *Id.* at 43.

revenue requirement for rate recovery purposes.<sup>10</sup> Implementation plans, which are not filed with the Commission, provide details on EE programs and implementation strategies.<sup>11</sup>

In D.15-10-028, the Commission also adopted a stakeholder process to enable interested parties to collaborate with PAs and provide recommendations and advice.<sup>12</sup> The adopted stakeholder process is called the California Energy Efficiency Coordinating Committee (“CAEECC”). Among other tasks, one of the primary functions of CAEECC is to “[p]rovide input into development of business plans *prior to and throughout the drafting process.*”<sup>13</sup> SCE actively participated in all CAEECC meetings during the development of its Business Plan and solicited feedback from CAEECC stakeholders on early drafts of its Business Plan.

The Commission provided detailed guidance on the contents of the PAs’ business plan.<sup>14</sup> For instance, the Commission required its Staff to develop a whitepaper to further define what information should be included in the business plans, followed by informal comments on the white paper, leading to a guidance document for business plan contents.<sup>15</sup> On May 2, 2016, Energy Division issued the Energy Efficiency Rolling Portfolio Business Plan Guidance white paper.<sup>16</sup> The Commission also ordered that business plans “must contain the information described in Appendix 4 to [that] decision.”<sup>17</sup> The Commission provided further policy guidance on PAs’ initial business plan filings in D.16-08-019, such as the “next steps for regional energy networks, the appropriate baselines to be used to measure energy savings for specific programs and measures, transition for statewide and third-party programs, and changes to the evaluation and shareholder incentive frameworks.”<sup>18</sup> The Commission also adopted a new program administrative structure requiring, among other things, that all upstream and midstream programs

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<sup>10</sup> *Id.* at 62.

<sup>11</sup> *Id.* at 43.

<sup>12</sup> *Id.* at 70-79.

<sup>13</sup> *Id.* at 73 (Emphasis in Original).

<sup>14</sup> *Id.* at 47-48. “Business plans shall containing the following...”

<sup>15</sup> *Id.* at 57-58. See also, Appendix 3 and 4 to D.15-10-028.

<sup>16</sup> An updated version was issued on May 10, 2016 to correct an error in the original version.

<sup>17</sup> D. 15-10-028, p. 123 (OP 1). Please note that Appendix 3 is titled “Business Plan Template” and Appendix 4 is titled “Implementation Plan Template.”

<sup>18</sup> D.16-08-019, p 2.

be delivered uniformly throughout the four large IOU service territories, overseen by a single lead program administrator.<sup>19</sup> A new definition for “third-party programs” was adopted in D.16-08-019 that requires a program to be proposed, designed, implemented, and delivered by non-utility personnel under contract with an IOU PA. IOU PAs must also “outsource at least 20 percent of its program activity to third parties” and must include in their Business Plans a plan to “transition to at least 60 percent of their portfolios to be outsourced to third parties . . . by the end of 2020.”<sup>20</sup>

SCE’s Amended Business Plan includes the required content provided in the Guidance Decisions and largely follows the structure of the Energy Division’s business plan guidance template/document. To further guide the Commission, SCE has included as Appendix A to the Amended Business Plan, a checklist of required contents and the location of where those contents can be found in various sections of the Amended Business Plan. SCE has also collaborated with various stakeholders on the CAEECC to develop a consensus outline that incorporates the Energy Division guidance and additional items stakeholders deemed important. SCE’s Amended Business Plan closely follows this outline, though some changes were necessary to improve the flow of the document and minimize redundancies.

As discussed above, the Commission already authorized funding amounts for the PAs through 2025.<sup>21</sup> SCE is not requesting more funding in this Amended Application than what was already authorized in D.14-10-046 and D.15-01-002. However, SCE will need to file another business plan, at a minimum, no less than one year before current funding authorization expires in 2025.<sup>22</sup>

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<sup>19</sup> *Id.* at 109-110 (OP 5).

<sup>20</sup> *Id.* at 111 (OP 11 & 12).

<sup>21</sup> D.14-10-046, p. 167 (OP 21). *See also* D.15-01-002 (correcting errors in D.14-10-046) and D.15-01-023 (correcting technical errors in D.15-01-002).

<sup>22</sup> D.15-10-028, p. 46.

**B. Approval of SCE’s Amended Business Plan Will Promote the State’s and the Commission’s EE Goals**

**1. SCE’s Overall Vision for Its Energy Efficiency Portfolio**

SCE serves over 5 million customer accounts in an area of over 50,000 square miles in eastern and southern California. In 2015, SCE’s EE programs collectively achieved over 1.5 billion kilowatt-hours (kWh) in annual energy savings and 300 megawatts (MW) of peak demand reduction. SCE’s vision for its EE portfolio from 2018 through 2025 is to continue to achieve cost-effective energy savings, expand innovative EE solutions, and drive toward market transformation. To realize this vision, SCE will employ various strategies across the portfolio as discussed in Chapter 3 of its Amended Business Plan as well as in various sector chapters of the Amended Business Plan.<sup>23</sup> In order to expand the innovative solutions it offers to customers, SCE plans to increase the use of third-party providers and rely more on offerings proposed, designed, delivered, and implemented by third parties. By increasing customer adoption of EE services and expanding innovation, SCE will continue to drive towards market transformation in the EE marketplace. SCE will also leverage cross-cutting portfolio resources, such as Codes & Standards (C&S), Workforce Education and Training (WE&T), and the Emerging Technology Program (ETP), to further enable market transformation activities, particularly in the residential sector.

As described in Chapter 2 of SCE’s Amended Business Plan, SCE has been successful in delivering value for its customers by pursuing various activities to optimize its EE portfolio including improving the performance of existing programs, canceling non-cost-effective programs, reallocating resources from low- to high-performing measures and programs, pursuing new sourcing strategies, and directing resources to serve high-value locational resource needs.<sup>24</sup> Hence, SCE’s overall goal for its EE portfolio is to enhance customer value by

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<sup>23</sup> See Exh. SCE-1, Chapter 3, pp.14-16.

<sup>24</sup> See Exh. SCE-1, Chapter 2, p. 4.

delivering more EE savings at an affordable cost. To achieve this goal, SCE sought to reduce its authorized expenditures for EE in 2017 by approximately 16 percent compared to the current authorized budget in D.15-01-002, and to pursue new procurement strategies to capture innovation and reduce the overall delivery costs while maximizing customer value and experience.<sup>25</sup>

## **2. Summary of SCE's Portfolio Goals**

SCE's primary goal for its EE portfolio is to achieve the annual energy and demand savings goals identified in Table 1 below. These goals are the annual goals established by the Commission in D.15-10-028. Because the 2017 potential and goals study is expected to modify SCE's savings goals, SCE may update its Amended Business Plan in the future to ensure that any new goals will be met in the most cost effective manner. In addition to the savings goals, SCE has additional goals for particular sectors. These sector goals are described in the sector chapters of the Business Plan.

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<sup>25</sup> SCE sought this reduction through its 2017 Annual EE Budget Advice Letter 3465-E. On September 22, Energy Division suspended the advice letter for Staff Review. SCE filed supplemental AL 3465-E-A on December 14 to make modifications and correct minor errors. The proposed budget is pending approval.

**Table 1. SCE’s Annual Energy and Demand Savings Goals 2018-2024<sup>26</sup>**

Year	2018	2019	2020	2021	2022	2023	2024
IOU Programs (GWh)	528	542	553	542	559	573	593
Net C&S (GWh)	421	414	393	337	304	262	247
Total Energy Savings (GWh)	949	955	946	879	863	835	840
IOU Programs (MW)	99	103	107	103	109	113	119
Net C&S (MW)	106	107	104	97	92	87	84
Total Demand Savings (MW)	206	210	211	201	201	200	203

As discussed in Chapter 3 of SCE’s Amended Business Plan, SCE’s portfolio is shaped by various drivers and barriers (including regulatory and legislative policies).<sup>27</sup> To overcome these barriers and drivers that affect SCE’s EE portfolio, SCE anticipates that many of the proven, successful intervention strategies it uses today will continue to be used and that new innovative strategies to enhance its portfolio will be added through open solicitations using programs that are proposed, designed, delivered, and implemented by third parties. In some cases, existing strategies may be modified to increase their effectiveness. Intervention strategies that are likely to be used for 2018-2025 are discussed in detail in various sector chapters of its Amended Business Plan, and the high-level strategies it proposes to employ in its EE portfolio are also discussed in Chapter 3 of its Amended Business Plan.<sup>28</sup>

### **3. SCE’s Proposed Portfolio Budget for 2018-2025**

In D.15-10-028, the Commission required that the business plans provide only “*general* information on the expected levels of annual spending for the duration of the business plan” and that the decision on the business plans “will establish a ‘ballpark’ figure for spending for the life of the business plan.”<sup>29</sup> The annual budget advice letter, which is filed in September of each year, provides a detailed budget that results in “spending authorization . . . and revenue

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<sup>26</sup> D.15-10-028, pp. 8-9. These goals are based on Navigant’s revised 2015 study of EE potential and will be “updated every other year, in sync with the CEC’s IPER demand forecast.” See D.15-10-028, p. 6-7 and 84. Thus, the next study will likely occur in 2017 and is expected to modify SCE’s savings goals, particularly for years beyond 2018. Therefore, SCE’s focus in this Business Plan is on achieving the 2018 goals. See Exhibit SCE-1, Chapter 3 for additional details on savings goals.

<sup>27</sup> See Exh. SCE-1, Chapter 3, pp. 11-14.

<sup>28</sup> *Id.* at. pp. 14-16.

<sup>29</sup> D.15-10-028, at 55-56.

requirement for rate recovery purposes.”<sup>30</sup> Therefore, SCE’s proposed budget for its 2018-2025 in its Amended Business Plan provides “high-level budget estimates” rather than detailed estimates. This budget is proposed for the Commission’s consideration “at a general level” in order to provide additional guidance – SCE is not requesting for funding authorization as the Commission will provide such authorization in response to the September 1 Annual Budget Advice Letter filings.<sup>31</sup>

SCE’s budget estimate for 2018-2025 started with its proposed budget from the 2017 Annual Budget Advice Letter as a baseline. SCE’s proposed budget for 2017 was \$278.78 million, which was a decrease from the \$333.32 million annual budget authorized in D.15-01-002 for 2015-2025. At the time of the filing of this Amended Business Plan, SCE’s 2017 proposed budget was not yet approved by the Commission.<sup>32</sup> Should the Commission not approve SCE’s proposed 2017 budget, SCE will need to modify its 2018-2025 budgets accordingly.

Table 9 in Chapter 3 of SCE’s Amended Business Plan shows SCE’s actual portfolio expenditures for 2015, projected expenditures for 2016, proposed portfolio budget for 2017, and proposed portfolio budgets for each year of this Amended Business Plan (2018 – 2025).<sup>33</sup> As indicated above, the changes to the TRC computation also had the effect of increasing the overall portfolio budget compared to SCE’s January 17, 2017 filing. As shown in Table 2 below, SCE anticipates that its annual budget request in the Amended Business Plan will be approximately \$289.1 million on average each year from 2018-2025 compared to the average annual budget of \$271 million in the initial application for the same period.<sup>34</sup>

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<sup>30</sup> *Id.* at 62.

<sup>31</sup> *Id.* at 48.

<sup>32</sup> SCE filed its 2017 budget in AL 3465-E. On September 22, 2016, Energy Division suspended the advice letter for Staff Review. SCE filed supplemental AL 3465-E-A on December 14, 2016 to make modifications and correct minor errors.

<sup>33</sup> *See* Exh. SCE-1, Chapter 3, p. 28-29.

<sup>34</sup> This is the average of the budgets for 2018-2025 in Table 9 of Exh. SCE-1, Chapter 3, p. 28-29.

As discussed below, the proposed changes to the Business Plan proposal necessary to achieve a cost-effective portfolio excluding C&S also has the effect of increasing the overall portfolio budget. The average annual budget (for the years 2018-2025) in SCE's Amended Business Plan is \$289.1 million compared to the average annual budget of \$271 million in the initial application for the same period. Although the revised budget is higher in the Amended Application compared to the original, it is still lower than what is currently authorized by the Commission.<sup>35</sup> Pursuant to D.15-10-028, the budget presented in this Amended Business Plan is high-level. The Annual Budget Advice Letter, to be filed on September 1, 2017 for the 2018 program year (PY), will provide a "more fully developed" budget based on budget expectations the Commission will establish in a decision adopting the Business Plans.<sup>36</sup>

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<sup>35</sup> SCE's budget for 2015 was \$332,786,000 as authorized in D.14-10-046, p. 108. D.14-10-046 (at. 31-32) also states that 2015 budgets shall remain in place until the Commission provides superseding direction. *See also* D.15-01-002 (correcting errors in D.14-10-046) and D.15-01-023 (correcting additional technical errors in D.15-01-002).

<sup>36</sup> D.15-10-028, p. 43.

**Table 2. SCE’s Proposed Annual EE Budget 2018-2025**

<b>PY</b>	<b>Administration (\$000)</b>	<b>Marketing (\$000)</b>	<b>Direct Implementation (\$000)</b>	<b>Incentives (\$000)</b>	<b>EM&amp;V (\$000)</b>	<b>SoCalREN (\$000)</b>	<b>Total Portfolio Budget (\$000)</b>
2015 <sup>37</sup>	\$17,169	\$6,670	\$109,030	\$155,925	\$13,333	\$15,547	\$317,673
2016 <sup>38</sup>	\$15,469	\$5,042	\$103,981	\$146,436	\$13,333	\$17,314	\$301,575
2017 <sup>39</sup>	\$15,685	\$3,506	\$86,636	\$144,538	\$11,151	\$17,262	\$278,777
2018	\$14,758	\$3,309	\$86,853	\$118,095	\$10,012	\$17,262	\$250,289
2019	\$17,141	\$3,409	\$92,369	\$129,620	\$10,825	\$17,262	\$270,625
2020	\$19,403	\$3,477	\$97,096	\$140,311	\$11,565	\$17,262	\$289,114
2021	\$19,015	\$3,414	\$95,338	\$137,673	\$11,363	\$17,262	\$284,065
2022	\$19,586	\$3,516	\$98,198	\$141,803	\$11,682	\$17,262	\$292,047
2023	\$20,173	\$3,621	\$101,144	\$146,058	\$12,011	\$17,262	\$300,269
2024	\$20,779	\$3,730	\$104,178	\$150,439	\$12,350	\$17,262	\$308,738
2025	\$21,402	\$3,842	\$107,304	\$154,952	\$12,698	\$17,262	\$317,460

SCE’s budget also includes the budget for the Southern California Regional Energy Network (“SoCalREN”). Additional information and explanation regarding the budget is included in Chapter 3, Exhibit SCE-1 and various sector chapters.<sup>40</sup>

**4. SCE’s Projected Portfolio Cost-Effectiveness**

SCE’s proposed portfolio in its Amended Business Plan was subjected to a cost-effectiveness analysis under both the Total Resource Cost (TRC) test and the Program Administrator Cost (PAC) test. In SCE’s January 17, 2017 filing, SCE initially calculated the cost-effectiveness for its EE portfolio for program years 2018-2020, *including* codes and standards (C&S), which produced a TRC value of 1.01.<sup>41</sup> SCE’s original Application should have *excluded* C&S, consistent with the Commission’s most recent EE decision, D.16-08-019, and prior decisions.<sup>42</sup> Table 12 of SCE’s initial Business Plan also did not indicate clearly

<sup>37</sup> Actual Expenditures.

<sup>38</sup> Projected expenditures; expenditures are projected for 2016 because savings and expenditures will not be finalized until SCE submits its EE Annual Report on June 1, 2017.

<sup>39</sup> This is the budget SCE proposed in AL 3465-E.

<sup>40</sup> See Exh. SCE-1, Chapter 3, pp. 26-29.

<sup>41</sup> Relatedly, the original filing also included C&S in the Program Administrator Cost (PAC) and that error has been corrected here.

<sup>42</sup> D.16-08-019, pp. 30-31.

whether SCE had included C&S in computing the TRC of 1.01, though Appendix D showed detail reflecting the inclusion of C&S. Including C&S in the calculation was a regrettable oversight. Consistent with the Commission’s direction to exclude C&S, SCE examined its original Application and now makes corrections to modify its Business Plan proposal so that it will achieve a cost-effective portfolio (with a TRC of at least 1.0) exclusive of C&S.<sup>43</sup> The resulting revised TRC is shown, by sector, below:

**Table 3: SCE EE Portfolio Cost-Effectiveness Forecast 2018-2020**

Sector	2018		2019		2020	
	TRC	PAC	TRC	PAC	TRC	PAC
Residential	1.22	1.57	1.26	1.63	1.28	1.61
Commercial	0.97	1.30	1.46	1.95	1.51	2.02
Industrial	1.09	2.03	1.15	2.12	1.20	2.23
Agriculture	0.15	0.16	0.15	0.17	0.16	0.18
Public	0.62	0.76	0.65	0.79	0.68	0.83
Codes & Standards	1.49	45.10	1.56	45.74	1.63	46.80
<b>Total without C&amp;S</b>	<b>1.00</b>	<b>1.29</b>	<b>1.05</b>	<b>1.35</b>	<b>1.10</b>	<b>1.42</b>
<b>Total with C&amp;S</b>	<b>1.19</b>	<b>2.31</b>	<b>1.23</b>	<b>2.34</b>	<b>1.28</b>	<b>2.38</b>

Upon excluding C&S from its portfolio cost-effectiveness calculations, SCE examined ways to modify the Business Plan proposal to achieve a cost-effective portfolio (with a TRC of at least 1.0), and did so using three efforts (not listed in sequential order because the process is

<sup>43</sup> In D.14-10-046, the Commission noted that corrections to the cost-effectiveness calculations “will materially lower TRCs” and that “to the extent they drop below 1.0 we will require portfolio adjustments to exceed that minimum threshold.” D.14-10-046, p. 6, fn. 3. The Commission also recognized, but did not resolve, what it called a “tension” between the prior TRC expectation of 1.25 and the modified expectations made for 2015. *Id.*, p. 110, fn. 96. Most recently, in D.16-08-019 (pp. 30-31), the Commission did not address this tension but referred generally to the requirement that the “utility portfolio . . . be cost-effective on its own, prior to consideration of the costs and benefits of the codes and standards activities.” *See also Energy Efficiency Policy Manual*, which states “[t]he portfolio of energy efficiency programs are required to show a positive net benefit, based on the TRC and PAC tests, on a prospective basis during the program planning stage. Test results are usually shown as benefit cost ratio, and a portfolio is said to have “passed” a test if the benefit cost ratio is greater than 1.” *EE Policy Manual*, Version 5, pp. 18-19. July 2013.

iterative). First, while leaving the programs and measures SCE envisioned for its portfolio<sup>44</sup> from the initial application intact, SCE identified forecast costs in each proposed measure, assessed the TRC output, and, if necessary, re-allocated budgets from lower-TRC measures to higher-TRC measures. Second, SCE increased its proposed funding in high TRC measures—such as those in the new residential program—to replace low cost measures that are scheduled to be replaced by new codes taking effect in 2018. Third, SCE reduced certain non-resource related costs, which had the impact of improving the overall TRC. SCE’s adjustments are consistent with an observation in D.14-10-046 that “EE is designed to be cost-effective as a whole portfolio, in which the cost of measures with a low TRC is offset in the portfolio by the higher savings of measures with high TRC.”<sup>45</sup>

**C. Additional and Related Requests**

In addition to SCE’s request for the Commission’s prompt approval of its Amended Business Plan, SCE is also making several related requests, so that it can actively pursue its EE programs as detailed in the Amended Business Plan and timely launch its 2017 RFP.

**1. The Commission Should Approve the Program Administrators’ Proposal on Statewide Lead Administrator**

The Commission in D.16-08-019 requires each IOU PA to include in their business plans “proposals for statewide programs and/or subprograms that comprise at least 25 percent of their portfolio budgets.”<sup>46</sup> To be designated as a statewide program, the program must meet the specific definition as defined in D.16-08-019.<sup>47</sup> The Decision also required that “the

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<sup>44</sup> The TRC values shown by sector in Table 1 above exclude codes and standards.

<sup>45</sup> D.14-10-046, p. 24. The updated Cost-Effectiveness Tool (CET) output Excel spreadsheets are included in Appendix D to the Amended Business Plan.

<sup>46</sup> D.16-08-019 at 110.

<sup>47</sup> *Id.* at 109-111.

business plans brought forward by the program administrators designate the single lead administrator for each.”<sup>48</sup>

As discussed in Exhibit SCE-1, Chapter 3, SCE collaborated with the other PAs to develop a proposal for which PA should be the lead administrator for each statewide EE upstream and midstream program or subprogram. In some cases, the PAs recommend separate leads for different aspects of a program in order to take advantage of a particular PA’s expertise, relationships, and other factors. The Decision expected that “natural leads with the capacity to handle the statewide programs will either volunteer or be nominated by their peers, with a consensus approach brought forward to the Commission for [their] consideration.”<sup>49</sup> The PAs used the following six criteria in determining lead PA assignments: (1) portfolio approach and natural bundling, (2) cost-effectiveness, (3) capacity, (4) expertise, (5) relationship, and (6) stakeholder feedback.<sup>50</sup> The PAs also collaborated to determine a recommendation for which downstream programs should be used to pilot the new statewide approach. These proposals are discussed further in various sections of SCE’s Amended Business Plan and in a whitepaper jointly developed by the IOU PAs titled “Statewide Administration Approach” which is attached as Exhibit 3 to this Amended Application.<sup>51</sup> In particular, Exhibit SCE-1, Chapter 3 identifies the PAs’ recommended statewide lead administrator assignments for all upstream and mid-stream programs and provides justification for the statewide lead administration selection. SCE, for example, was selected by the PAs to be the lead statewide administrator for the following programs: Electric Emerging Technologies Program, Lighting (primary lighting, lighting innovation and lighting market transformation), Commercial New Construction-Savings by Design, and Institutional Government Partnership (UC/CSU and CA Community College).<sup>52</sup>

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<sup>48</sup> *Id.* at pp. 53-54.

<sup>49</sup> *Id.* p. 54.

<sup>50</sup> *See* Exh. 3, Statewide Administration Approach.

<sup>51</sup> *See* Exh. 1, Chapter 3, pp. 22-24, Table 8. *See also*, Exh. 3, Statewide Administration Approach.

<sup>52</sup> *See* Exhibit SCE-1, Chapter 3, pp. 23-24.

SCE respectfully requests that the Commission approve the statewide lead administration assignments as proposed by the PAs.

**2. The Commission Should Allow Flexibility to the IOUs in Meeting the 20 Percent Requirement for Third-Party Programs During the Transition Year in 2018**

In D.16-08-019, the Commission ruled that “[u]tility administrators are required to maintain the current 20 percent requirement for third-party programs, and to present a proposal for transitioning to a portfolio with the majority of program design and delivery provided by third parties, subject to certain exceptions, with at least 60 percent of the total portfolio budget going to third-party programs by 2020, in the business plans.”<sup>53</sup> Ordering paragraph 10 of that Decision also provides the definition of a third-party program, which is that it shall be “proposed, designed, implemented, and delivered by non-utility personnel under contract to a utility program administrator”<sup>54</sup> and ordering paragraph 11 states that “going forward, each utility program administrator shall still be required to outsource at least 20 percent of its program activity to third parties under the definition in Ordering Paragraph 10.”<sup>55</sup> Consistent with D.16-08-019, programs administered under the new statewide model count toward a PA’s third-party percentage goal.<sup>56</sup>

To achieve this goal, SCE plans to leverage existing EE procurement methods and to introduce a new solicitation process as discussed in Chapter 3, Exhibit SCE-1. As further discussed in the Amended Business Plan, SCE plans to achieve transitioning at least 60 percent of its EE portfolio budget to third parties through the new Solicitation for Innovation process and other procurement processes. SCE would like to solicit bids from third parties for program design or resource acquisition strategy proposals as early as the first quarter of 2017 because

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<sup>53</sup> D.16-08-019, pp. 2-3.

<sup>54</sup> *Id.* at p. 111, OP. 10.

<sup>55</sup> *Id.*, at OP. 11.

<sup>56</sup> *Id.* at 94.

current third-party contracts must expire no later than October 31, 2018 per D.15-10-028.<sup>57</sup> However, the Commission has not provided clear guidance on whether the IOUs can solicit bids and enter into new third-party contracts until the Commission issues a final decision on the IOUs' Rolling Portfolio business plans. If the IOUs are required to wait until the Commission approves their new business plans, and the decision is issued after the second quarter of 2017, it would be extremely difficult for the IOUs to issue RFPs, award and finalize contracts, and have the third-party programs up and running by October 2018 to replace the existing third party contracts that must expire in October 2018. This will result in a significant gap in third-party programs and services, and greatly impede SCE's ability to meet the 20 percent requirement as ordered in D.16-08-019.

To avoid this potential gap in EE services, SCE requests that the Commission approve the IOUs' business plans by no later than July 2017 to allow sufficient time for the IOUs to issue RFPs, execute contracts, and finalize relevant implementation plans. In the event the Commission cannot issue the decision by July 2017, the Commission should consider 2018 to be a "transition" year and allow IOUs the flexibility to meet the 20-percent requirement for third-party programs by extending the current third-party contracts as needed until 2020, at which time the IOUs would need to comply with 60 percent of the total budget going to third-party programs, and by procuring third-party contracts under the new definition. Additionally, as explained in SCE's Amended Business Plan, SCE requests the Commission to allow SCE to use portfolio budget for procurement of EE through alternative mechanisms that were not proposed and developed as part of the portfolio, such as an "all source" LCR Request for Offers (RFO) solicitation and market-based procurement (e.g. SCE's Energy Storage and Distribution Deferral RFO), and be able to count those procured resources when calculating the percentage of the

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<sup>57</sup> D.15-10-028, p. 128, OP 22.

portfolio outsourced to third parties.<sup>58</sup> SCE should also be able to count savings procured through alternative mechanisms toward its EE savings goals.

**D. Organization of SCE’s Amended Business Plan**

Exhibit SCE-1, SCE’s Amended Energy Efficiency Business Plan for 2018-2025, is organized into 9 chapters as follows:

- Chapter I Introduction and Organization
- Chapter II SCE’s Vision for EE in California
- Chapter III Portfolio Summary
- Chapter IV Residential Sector
- Chapter V Commercial Sector
- Chapter VI Industrial Sector
- Chapter VII Agricultural Sector
- Chapter VIII Public Sector
- Chapter IX Cross-Cutting Sector that includes:
  - Cross Cutting Sector Goals;
  - Codes & Standards
  - Emerging Technologies Program; and
  - Workforce, Education and Training.

**E. Index Of Exhibits And Appendices To This Amended Application**

SCE’s submissions in support of this Amended Application include the following, which are incorporated herein by reference:

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<sup>58</sup> Exh. SCE-1, Chapter 3, pp. 16-17.

### **Appendices to Amended Application**

Appendix A	Balance Sheet and Income Statement
Appendix B	Summary of Earnings

### **Exhibits to Amended Application**

Exhibit SCE-1	Southern California Edison Company's Amended Energy Efficiency Rolling Portfolio Business Plan for 2018-2025
Exhibit SCE-2	Southern California Edison Company's Amended Energy Efficiency Rolling Portfolio Business Plan for 2018-2025 (redline version)
Exhibit SCE-3	Witness Qualifications <sup>59</sup>
Exhibit SCE-4	Statewide Administration Approach

#### **F. Revenue Requirement and Cost Recovery**

In D.14-10-046, the Commission authorized the annual EE budget for the Program Administrators (PAs) leaving 2015 programs and funding in place until the earlier of when the Commission provides superseding direction, or 2025.<sup>60</sup> The Commission ruled that “[f]or the IOUs, we authorize annualized funding levels at 2015 levels through 2025, until we change funding levels.”<sup>61</sup> The Commission also provided further guidance in D.15-10-028 that

[B]usiness plans are to provide *general* information on the expected levels of annual spending for the duration of the business plan (i.e., “under the business plan, we expect spending to be \$X per year for up to ten years”). The decision on the business plan will provide guidance for the PAs on funding levels to use in

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<sup>59</sup> As discussed in section III below, SCE does not believe hearings are necessary in this proceeding. However, should hearings become necessary, SCE provides the list of witnesses in Exhibit SCE-2 who can testify at the hearings. SCE reserves the right to substitute and/or supplement the witnesses at a later time.

<sup>60</sup> D.14-10-046, at p. 31. See pp. 104-105 of that decision for the total approved budget for each PA from 2015-2025. See also D.15-01-002 (correcting errors in D.14-10-046) and D.15-01-023 (further correcting technical errors in D.15-01-002).

<sup>61</sup> D.14-10-046 at 31-32.

developing the more detailed annual budgets that PAs will file via advice letter.”<sup>62</sup>

Because the Commission ruled that the business plan is to “explain at a relatively high level of generality how PAs will effectuate the strategic plan,”<sup>63</sup> SCE is not requesting a revenue requirement change in this Amended Application. Rather, the revenue requirements through 2025 have already been established by the Commission in D.14-10-046.<sup>64</sup> The Commission also ruled that the business plan “leads to a Commission guidance decision adopting the business plan and setting budget expectations to be more fully developed in annual budget filings.”<sup>65</sup> Thus, the annual budget advice letter, which is filed in September of each year, will provide a detailed budget that results in “spending authorization . . . and revenue requirement for rate recovery purposes.”<sup>66</sup> SCE’s Amended Business Plan in Exhibit 1 contain the budget information as required by the Commission in D.15-10-028, which are: “[p]ortfolio and sector-level budgets that meet portfolio savings and cost effectiveness requirements (note that the Commission will address budgets at a general level in response to business plans, but the Commission will give funding authorization in response to a subsequent PA budget advice letter).”<sup>67</sup>

#### **G. Rate and Bill Impact Analysis**

As stated in Section F above, SCE is not requesting in this Amended Application to change its revenue requirement which was previously established by the Commission in D.14-10-046 and D.15-01-002, thus any otherwise applicable requirement to furnish rate and impact analysis is not necessary.

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<sup>62</sup> D.15-10-028, p. 55.

<sup>63</sup> *Id.* at p. 46.

<sup>64</sup> D.14-10-046, p. 46.

<sup>65</sup> D.15-10-028, p. 43.

<sup>66</sup> *Id.* at 62.

<sup>67</sup> *Id.* at 48.

### III.

#### **STATUTORY AND REGULATORY REQUIREMENTS**

##### **A. Statutory and Procedural Authority**

This Amended Application is made pursuant to D.15-10-028 and D.16-08-019, the Commission's Rules of Practice and Procedure (specifically Rule 1.12), and the California Public Utilities Code.

SCE's request complies with the Commission's Rules of Practice and Procedure Rules 1.5 through 1.11 to 1.13, which specify the procedures for, among other things, filing documents. In addition, this request complies with Rules 2.1, 2.2 and 3.2.

Rule 2.1 requires that all applications: (1) clearly and concisely state authority or relief sought; (2) cite the statutory or other authority under which that relief is sought; and (3) be verified by the applicant. Rule 2.1 sets forth further requirements that are addressed separately below.

The relief being sought is summarized in Sections I, II, and IV of this Amended Application, and is further described in SCE's Business Plan (Exhibit SCE-1) accompanying this Amended Application.

The statutory and other authority for this request includes, but is not limited to, California Public Utilities Code Sections 451, 454, 454.3, 491, 701, 702, 728, 729, Article 2 and Rule 3.2 of the Commission's Rules of Practice and Procedure, and prior decisions, orders, and resolutions of this Commission.

SCE's Amended Application has been verified by an SCE officer as provided in Rules 1.11 and 2.1.

1. **Rule 2.1C**

a) **Proposed Categorization**

SCE proposes to characterize this proceeding as “ratesetting” as defined in the Commission’s Rules of Practice and Procedure Rule 1.3(e) and Public Utilities Code §1701.1(c)(3).

b) **Need For Hearings and Proposed Schedule For Resolution of Issues**

Pursuant to Rule 1.12 (b), “the time for filing a reply, response, protest or answer to an amended document is calculated from the date the amendment is filed.” Thus, parties will have additional time to respond to SCE’s Amended Business Plan Application.

SCE believes its proposals submitted herein and set forth in the supporting Exhibits constitute a sufficient record for the Commission to rule on SCE’s Amended Application without the need for evidentiary hearings. SCE believes that all interested parties can comment and express their views through written protests and comments. However, if hearings are deemed necessary, SCE requests that such proceedings be expedited and the schedule be designed and maintained so that a final decision will be rendered expeditiously so as to avoid any substantial delays in program implementation.

SCE proposes the following schedule, which allows for expedited Commission resolution of the SCE’s Amended Application.

SCE files Amended Application	February 10, 2017
Daily Calendar Notice	February 13, 2017
Protests or Responses to Amended Applications Filed	March 15, 2017
Replies to Protests or Responses	March 27, 2017
Prehearing Conference	April 3, 2017
Scoping Memo Issued	April 11, 2017
Workshops	April 20-21, 2017
Concurrent Opening Comments	May 8, 2017
Concurrent Reply Comments	May 15, 2017
Proposed Decision	May 29, 2017
Comments to Proposed Decision	June 19, 2017
Replies to Comments to Proposed Decision	June 26, 2017
Commission issues Final Decision	July 24, 2017

**c) Issues to be Considered**

The issues to be considered in this Amended Application concern Commission approval of SCE’s proposed Amended Business Plan for 2018-2025, its high level proposed budgets for 2018-2025 which will be filed in SCE’s annual budget advice letter filing on September 1, 2017, and SCE’s proposed recommendations regarding: (1) the new statewide administration of EE programs, and (2) the 20 percent requirement of third party programs as discussed in Section II and IV of this Application.

**2. Legal Name and Correspondence –Rule 2.1(a) and 2.1 (b)**

SCE is a corporation organized and existing under the laws of the State of California and is primarily engaged in the business of generating, purchasing, transmitting, distributing, and selling electric energy for light, heat and power in portions of central and southern California as a public utility subject to the jurisdiction of the Commission. SCE’s properties, substantially all of which are located within the State of California, primarily of hydroelectric and thermal electric generating plants, together with transmission and distribution lines and other property necessary in connection with its business.

The location of SCE's principal place of business is 2244 Walnut Grove Avenue, Post Office Box 800, Rosemead, California 91770, (626) 302-1212. SCE's attorneys in this matter are Fadia Khoury and Jane Lee Cole. Correspondence or communications re: this Amended Application should be addressed to:

Jane Lee Cole  
Attorney  
Southern California Edison Company  
P.O. Box 800  
2244 Walnut Grove Avenue  
Rosemead, California 91770  
Telephone: (626) 302-3860  
Facsimile: (626) 302-7740  
E-mail: Jane.Lee.Cole@sce.com

Case Administration  
Southern California Edison Company  
8631 Rush Street  
Rosemead, California 91770  
Telephone: (626) 302-6906  
Facsimile: (626) 302-5060  
E-mail: case.admin@sce.com

### **3. Organization and Qualification To Transact Business-Rule 2.2**

In compliance with Rule 2.2,<sup>68</sup> A copy of SCE's Certificate of Restated Articles of Incorporation, effective on March 2, 2006, and presently in effect, certified by the California Secretary of State, was filed with the Commission on March 14, 2006, in connection with Application No. 06-03-020,<sup>69</sup> and is incorporated herein by this reference pursuant to Rule 2.2 of the Commission's Rules of Practice and Procedure.

A copy of SCE's Certificate of Determination of Preferences of the Series D Preference Stock filed with the California Secretary of State on March 7, 2011, and as presently

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<sup>68</sup> Rule 2.2 requires the applicant to submit a copy of its organizing documents and evidence of its qualification to transact business in California, or to refer to that documentation if previously filed with the Commission.

<sup>69</sup> Application 06-03-020, *For Approval of Early Transfer of Anaheim's Share of SONGS 2 & 3 to SCE*.

in effect, certified by the California Secretary of State, was filed with the Commission on April 1, 2011, in connection with Application No. 11-04-001, and is by reference made a part hereof.

A copy of SCE's Certificate of Determination of Preferences of the Series E Preference Stock filed with the California Secretary of State on January 12, 2012, and a copy of SCE's Certificate of Increase of Authorized Shares of the Series E Preference Stock filed with the California Secretary of State on January 31, 2012, and as presently in effect, certified by the California Secretary of State, were filed with the Commission on March 5, 2012, in connection with Application No. 12-03-004, and is by reference made a part hereof.

A copy of SCE's Certificate of Increase in Authorized Shares of Series F Preference Stock filed with the California Secretary of State on May 5, 2012, and as presently in effect, certified by the California Secretary of State, was filed with the Commission on June 29, 2012, in connection with Application No. 12-06-017, and is by reference made a part hereof.

A copy of SCE's Certificate of Determination of Preferences of the Series G Preference Stock filed with the California Secretary of State on January 24, 2013, and presently in effect, certified by the California Secretary of State, was filed with the Commission on January 31, 2013, in connection with Application No. 13-01-016, and is by reference made a part hereof.

A copy of SCE's Certificate of Determination of Preferences of the Series H Preference Stock, filed with the California Secretary of State on February 28, 2014, and presently in effect, certified by the California Secretary of State, was filed with the Commission on March 24, 2014, in connection with Application No. 14-03-013, and is by reference made a part hereof.

A copy of SCE's Certificate of Determination of Preferences of the Series J Preference Stock, filed with the California Secretary of State on August 19, 2015, and presently in effect, certified by the California Secretary of State, was filed with the Commission on

October 2, 2015, in connection with Application No. 15-10-001, and is by reference made a part hereof.

A copy of SCE's Certificate of Determination of Preferences of the Series K Preference Stock, filed with the California Secretary of State on March 2, 2016, and presently in effect, certified by the California Secretary of State, was filed with the Commission on April 1, 2016, in connection with Application No. 16-04-001, and is by reference made a part hereof.

Certain classes and series of SCE's capital stock are listed on a "national securities exchange" as defined in the Securities Exchange Act of 1934 and copies of SCE's latest Annual Report to Shareholders and its latest proxy statement sent to its stockholders has been filed with the Commission with a letter of transmittal dated March 18, 2016, pursuant to General Order Nos. 65-A and 104-A of the Commission.

**B. Authority To Increase Rates – Rule 3.2**

**1. Balance Sheet And Income Statement – Rule 3.2.(a)(1)**

Appendix A to this Amended Application contains copies of SCE's balance sheet as of September 30, 2016, and income statement for the period ended September 30, 2016, the most recent period available.

**2. Present And Proposed Rates – Rule 3.2(a)(2) and (a)(3)**

As discussed in sections above, SCE is not requesting in this Amended Application to change its revenue requirement or the presently effective rates, which was previously established by the Commission in D.14-10-046 and D.15-01-002. The annual budget advice letter, which will be filed in September 2017, will provide a detailed budget that results in "spending authorization . . . and revenue requirement for rate recovery purposes."<sup>70</sup>

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<sup>70</sup> D.15-10-028, at 62.

**3. Description Of SCE’s Service Territory And Utility System – Rule 3.2(a)(4)**

Because this submittal is not a general rate application, this requirement is not applicable.

**4. Summary Of Earnings – Rule 3.2.(a)(5)**

Rule 3.2(a)(5) requires:

A summary of earnings (rate of return summary) on a depreciated rate base for the test period or periods upon which applicant bases its justification for an increase.

SCE’s 2015-2017 GRC Authorized Summary of Earnings (2017 PTY escalation) is attached hereto as Appendix B.

**5. Depreciation – Rule 3.2(a)**

Because this submittal is not a general rate application, this requirement is not applicable.

**6. Capital Stock And Proxy Statement – Rule 3.2(a)(8)**

Because this submittal is not a general rate application, this requirement is not applicable.

**7. Service Of Notice – Rule 3.2(b), (c) and (d)**

As stated above in Section II.F, Revenue Requirement and Cost Recovery, SCE is not seeking to increase rates, or to implement changes that would result in increased rates, from previously authorized annual funding that was established in D.14-10-046 and D.15-01-002.

Thus, this Amended Application does not trigger the notice requirements set forth in CPUC Rule 3.2 (b), (c) or (d) and service of notice to customers is not required. The Commission indicated that the business plan “will establish a “ballpark” figure for spending for the life of the business plan. The annual advice letter filings [which will be filed in September of each year] . . . will

propose detailed budgets” that results in spending authorization and revenue requirement for rate recovery purposes.<sup>71</sup>

#### **G. Service List**

The official service list has been established in this proceeding. SCE is serving this Amended Application, the Amended Business Plan and other supporting documents on the service list established by the Commission for A.17-01-013, A.17-01-014, A.17-01-016, A.17-01-017, and R.13-11-005 (Energy Efficiency Business Plan Applications and Rulemaking Proceeding).

### **IV.**

#### **SUMMARY OF REQUESTS**

This Amended Application requests approval of SCE’s Amended Energy Efficiency Rolling Portfolio Business Plan for 2018-2025 and authorize SCE to submit its proposed portfolio budget for its 2018-2025 EE programs in its annual budget advice letter filing. SCE respectfully requests that the Commission issue its decision:

1. Approving SCE’s Amended Energy Efficiency Rolling Portfolio Business Plan for 2018-2025 in Exhibit SCE-1 and authorize SCE to proceed with implementation of its 2018-2025 EE programs as described in SCE’s Amended Business Plan by no later than July 24, 2017.
2. Authorizing SCE to submit its proposed budget for its 2018-2025 EE programs as listed above in Table 2 in SCE’s annual budget advice letter filing on September 1, 2017.

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<sup>71</sup> D.15-10-028, p. 56. Thus, any change in revenue requirement after the approval of SCE’s Business Plan will be requested through its annual budget advice letter filing. Pub. Utilities Code Section 454(a) states: “This notice requirement does not apply to any rate change proposed by a corporation pursuant to an advice letter submitted to the commission in accordance with commission procedures for this means of submission.” Accordingly, the statutory and CPUC’s notice requirements do not apply to either the January 2017 Business Plan filing, or any subsequent Business Plan filing under the Rolling Portfolio Mechanics adopted in D.15-10-028.

3. Approving the statewide lead administration assignment as proposed by the PAs as described in SCE's Amended Energy Efficiency Rolling Portfolio Business Plan for 2018-2025.
4. Allowing some flexibility to the IOUs, in the event the Commission cannot issue the decision by July 2017, to meet the 20-percent requirement for third-party contracts by: (a) considering 2018 to be a "transition" year and allowing IOUs to extend the current third-party contracts as needed until 2020, at which time the IOUs would need to comply with 60 percent of the total budget going to third-party programs, and (b) allowing IOUs to use portfolio budget for procurement of EE through alternative mechanisms that were not proposed and developed as part of the portfolio, such as an "all source" LCR Request for Offers (RFO) solicitation and market-based procurement (e.g. SCE's Energy Storage and Distribution Deferral RFO), and be able to count those procured resources when calculating the percentage of the portfolio outsourced to third parties.
5. Grant such additional relief as the Commission finds just and reasonable.

## V.

### **CONCLUSION**

SCE respectfully requests that the Commission expeditiously approve its Amended Application for Approval of its Amended Energy Efficiency Rolling Portfolio Business Plan for 2018-2025 and requested relief.

Respectfully submitted,

SOUTHERN CALIFORNIA EDISON COMPANY

*/s/ Marc Ulrich*

---

By: Marc L. Ulrich  
Vice President, Customer Programs and Services

FADIA RAFEEDIE KHOURY

JANE LEE COLE

*/s/ Jane Lee Cole*

---

By: Jane Lee Cole

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Date: February 10, 2017



**Appendix A**

**SCE's Balance Sheet and Income Statement as of September 30, 2016**

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET  
SEPTEMBER 30, 2016  
ASSETS  
(in millions)

UTILITY PLANT:

Utility plant, at original cost	\$ 41,954
Less- accumulated provision for depreciation and decommissioning	8,753
	<u>33,201</u>
Construction work in progress	2,738
Nuclear fuel, at amortized cost	125
	<u>36,064</u>

OTHER PROPERTY AND INVESTMENTS:

Nonutility property - less accumulated depreciation of \$78	76
Nuclear decommissioning trusts	4,376
Other investments	41
	<u>4,493</u>

CURRENT ASSETS:

Cash and equivalents	39
Receivables, less allowances of \$58 for uncollectible accounts	980
Accrued unbilled revenue	569
Inventory	251
Derivative assets	60
Regulatory assets	321
Other current assets	223
	<u>2,443</u>

DEFERRED CHARGES:

Regulatory assets	7,844
Derivative assets	67
Other long-term assets	231
	<u>8,142</u>
	<u>\$ 51,142</u>

SOUTHERN CALIFORNIA EDISON COMPANY

BALANCE SHEET  
SEPTEMBER 30, 2016  
CAPITALIZATION AND LIABILITIES  
(in millions)

CAPITALIZATION:

Common stock	\$	2,168
Additional paid-in capital		658
Accumulated other comprehensive loss		(19)
Retained earnings		9,280
Common shareholder's equity		<u>12,087</u>
Preferred and preference stock		2,245
Long-term debt		9,987
Total capitalization		<u>24,319</u>

CURRENT LIABILITIES:

Short-term debt		239
Current portion of long-term debt		479
Accounts payable		1,172
Accrued taxes		156
Customer deposits		264
Derivative liabilities		223
Regulatory liabilities		1,030
Other current liabilities		675
		<u>4,238</u>

DEFERRED CREDITS:

Deferred income taxes and credits		9,765
Derivative liabilities		1,069
Pensions and benefits		1,293
Asset retirement obligations		2,590
Regulatory liabilities		6,020
Other deferred credits and other long-term liabilities		1,848
		<u>22,585</u>

\$ 51,142

SOUTHERN CALIFORNIA EDISON COMPANY

**(h) A balance sheet as of the latest available date, together with an income statement covering the period from close of last year for which an annual report has been filed with the Commission to the date of the balance sheet attached to the application.**

STATEMENT OF INCOME  
NINE MONTHS ENDED SEPTEMBER 30, 2016

(In millions)

OPERATING REVENUE	<u>\$ 8,956</u>
OPERATING EXPENSES:	
Purchase power and fuel	3,576
Other operation and maintenance	1,993
Depreciation, decommissioning and amortization	1,497
Property and other taxes	268
Total operating expenses	<u>7,334</u>
OPERATING INCOME	1,622
Interest and other income	97
Interest expense	(402)
Other expenses	(26)
INCOME BEFORE INCOME TAX	<u>1,291</u>
INCOME TAX	162
NET INCOME	<u>1,129</u>
Less: Preferred and preference stock dividend requirements	<u>92</u>
NET INCOME AVAILABLE FOR COMMON STOCK	<u><u>\$ 1,037</u></u>

**Appendix B**  
**Summary of Earnings**

**Southern California Edison  
Summary of Earnings  
2015 GRC Adopted Revenue Requirement  
Thousands of Dollars**

Line No.	Item	Total
1.	<b>Base Revenues</b>	5,182,297
2.	<b>Expenses:</b>	
3.	Operation & Maintenance	1,984,387
4.	Depreciation	1,532,289
5.	Taxes	442,687
6.	Revenue Credits	(147,491)
7.	Total Expenses	3,811,871
8.	<b>Net Operating Revenue</b>	1,370,425
9.	<b>Rate Base</b>	17,375,834
10.	<b>Rate of Return</b>	7.89%

**Southern California Edison  
Summary of Earnings  
2016 GRC Adopted Revenue Requirement  
Thousands of Dollars**

Line No.	Item	Total
1.	<b>Base Revenues</b>	5,385,537
2.	<b>Expenses:</b>	
3.	Operation & Maintenance	2,037,603
4.	Depreciation	1,546,128
5.	Taxes	474,761
6.	Revenue Credits	(149,196)
7.	Total Expenses	3,909,295
8.	<b>Net Operating Revenue</b>	1,476,242
9.	<b>Rate Base</b>	18,713,446
10.	<b>Rate of Return</b>	7.89%

**Southern California Edison  
Summary of Earnings  
2017 GRC Adopted Revenue Requirement  
Thousands of Dollars**

Line No.	Item	Total
1.	<b>Base Revenues</b>	5,640,432
2.	<b>Expenses:</b>	
3.	Operation & Maintenance	2,079,914
4.	Depreciation	1,575,482
5.	Taxes	541,926
6.	Revenue Credits	(148,671)
7.	Total Expenses	4,048,652
8.	<b>Net Operating Revenue</b>	1,591,780
9.	<b>Rate Base</b>	20,175,952
10.	<b>Rate of Return</b>	7.89%

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

Amended Application of Southern California Edison Company (U 338-E) for Approval of Energy Efficiency Rolling Portfolio Business Plan.	A.17-01-013 (Filed January 13, 2017)
Application of San Diego Gas & Electric Company (U 902-M) to adopt Energy Efficiency Rolling Portfolio Business Plan Pursuant to Decision 16-08-019	Application 17-01-014 (Filed January 17, 2017)
Application of Pacific Gas and Electric Company for Approval of 2018-2025 Rolling Portfolio Energy Efficiency Business Plan and Budget (U 39-M)	Application 17-01-015 (Filed January 17, 2017)
Application of Southern California Gas Company (U 904-G) for adoption of its Energy Efficiency Rolling Portfolio Business Plan and related relief.	Application 17-01-016 (Filed January 17, 2017)
In the Matter of the Application of Marin Clean Energy for Approval of its Energy Efficiency Business Plan	Application 17-01-017 (Filed January 17, 2017)

**CERTIFICATE OF SERVICE**

I hereby certify that, pursuant to the Commission’s Rules of Practice and Procedure, I have this day served a true copy of **SOUTHERN CALIFORNIA EDISON COMPANY’S (U 338-E) AMENDED ENERGY EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN APPLICATION 17-01-013, and NOTICE OF AVAILABILITY OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) OF POSTING OF AMENDED ENERGY EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN APPLICATION 17-01-013 AND SUPPORTING DOCUMENTS** on all parties identified on the attached service list **A.17-01-013 et al.** Service was effected by one or more means indicated below:

- Transmitting the copies via e-mail to all parties who have provided an e-mail address.
- Placing the copies in sealed envelopes and causing such envelopes to be delivered by hand or by overnight courier to the offices of the Assigned ALJ(s) or other addressee(s).

**ALJ Julie A. Fitch**  
**CPUC**  
**505 Van Ness Avenue**  
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**ALJ Valerie Kao**  
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- Placing copies in properly addressed sealed envelopes and depositing such copies in the United States mail with first-class postage prepaid to all parties for those listed on the attached non-email list.

Executed **February 10, 2017**, at Rosemead, California.

*/s/ Irene Gutierrez*

**Irene Gutierrez**

**Legal Assistant**

**SOUTHERN CALIFORNIA EDISON COMPANY**

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Post Office Box 800  
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California  
Public Utilities  
Commission



CPUC Home

## CALIFORNIA PUBLIC UTILITIES COMMISSION

### Service Lists

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**PROCEEDING: A1701013 - APPLICATION OF SOUTH  
FILER: SOUTHERN CALIFORNIA EDISON COMPANY  
LIST NAME: LIST  
LAST CHANGED: FEBRUARY 2, 2017**

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