A.17-01-013
SDG&E 2018-2025 EE Rolling Portfolio Business Plan

TURN Data Request TURN-SCE-01

To: Jane Lee Cole, Southern California Edison Company (SCE)
From: Hayley Goodson, The Utility Reform Network (TURN)
Date Sent: May 8, 2017
Response Due: May 22, 2017

Please provide electronic responses to the following questions which pertain to SCE's Application 17-01-013, requesting approval of SCE's 2018-2025 Energy Efficiency Rolling Portfolio Business Plan.

If partial responses are available prior to the requested due date, please forward them as soon as they become available. If any of these requests are unclear or otherwise objectionable, please contact me as soon as possible so that we may attempt to resolve any problems.

Responses should be provided to the following people:

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Portfolio Cost-Effectiveness

1. SCE assumes that a 1.0 cost-effectiveness threshold applies to the Business Plan, such that the TRC and PAC test estimates must exceed 1.0 for 2018-2020. (A.17-01-013, Amended Application, pp. 2-4). Please explain SCE's understanding of why the Commission previously required SCE to meet a 1.25 cost-effectiveness threshold on an ex ante forecast basis (without Codes and Standards (C&S) advocacy savings and spillover effects, thus leaving C&S and spillover to serve as a "bonus" or "hedge" against the possibility that the portfolio as implemented would underperform relative to SCE's forecast and drop below a 1.0 cost-effectiveness level), including why SCE believes that the Commission's prior caution is unnecessary to protect ratepayers in the current context.

Statewide Program Administration

2. The following questions pertain to the "Statewide Administration Approach" proposed jointly by PG&E, SCE, SoCalGas, and SDG&E, which appears as Exhibit SCE-04 to SCE's application.

    a. On page 2, the Joint IOUs point to the Commission's desire to prioritize "lower transaction costs for PAs and implementers," among other anticipated benefits of the new statewide program requirements. Does SCE's Business Plan budget request reflect a projection of lower transaction costs resulting from the proposed "Statewide Administration Approach"? If so, please quantify the cost reductions SCE projects and explain where specifically in SCE's budget those reductions are captured in Appendix C to SCE's Business Plan.

    b. On page 4, the Joint IOUs indicate that they considered specific factors in the marketplace in determining "natural bundling" of statewide programs, such as whether "different end uses or technologies require different skillsets, a different set of manufacturers, trade organizations, and distributors to engage." The IOUs report, "This is particularly true in the area of lighting and HVAC where the suppliers and experts in each area are vastly different."

        i. Please provide a listing of all manufacturers whose lighting, HVAC, and Plug Load & Appliances (PLA) products are/were included in SCE's 2016 and 2017 portfolios, ranked by dollar amount of contract.

        ii. Please provide all research and analysis used by the Joint IOUs in assessing "natural bundling" opportunities, and specifically supporting the continued segregation of Lighting, HVAC, and PLA end uses into distinct statewide programs, and assigning Lighting to a different statewide administrator than HVAC and PLA.

        iii. Despite the Joint IOUs' proposal to assign PLA and HVAC to SDG&E and Lighting to SCE, have SCE and SDG&E discussed the possibility of jointly bidding out implementation of the three programs so as to capture any synergetic opportunities that a common implementer for Lighting and PLA (or Lighting and HVAC) might offer? Please explain the status of any such discussions and indicate whether you expect the forthcoming "bottom-up review" (as described in the PA presentation to CAEECC on 12/7/16 and in the IOUs' joint response to Question 4 of TURN's Nov. 9, 2016 Data Request in R.13-11-005) to inform such bidding strategies.

    c. On page 4, the Joint IOUs' mention their consideration of the historic cost-effectiveness of each PA in delivering each statewide program. Please clarify what year(s) of data were used by the Joint IOUs in this assessment and whether savings were IOU-reported gross savings or Energy Division's *ex post* net savings.

3. At the December 7, 2016 CAEECC meeting, SCE presented a powerpoint called "Bottom-up Program Analysis: High-level Scope of Work," responsive to D.16-08-019.[1] Slide 4 of this presentation suggests a Phase I scope including the following: "Catalog all programs and their key characteristics (e.g. intervention strategy, tactics, measures, delivery channels, etc.) across all PAs consistent with the Business Plans"; "Do a comparison between all programs across the state looking for efficiencies in delivery and best practices (e.g. $/kWh, etc.)"; and "Define additional midstream and upstream programs that should be Statewide Administered under the new definition." Slide 5 suggests the Phase 2 scope will be as follows: "Compare current portfolio of programs across PAs against recent market potential studies," and "Identify untapped opportunities that can be addressed through expanded or new programs."

    a. Please provide all updates and revisions to the proposed analyses for Phases 1 and 2, and indicate when this information will be posted on the CAEECC website.

    b. Please provide the status of the analyses for Phases 1 and 2.

    c. Please provide the cost of the work and who is conducting it (consultant and / or in-house).

    d. Please explain whether the analysis of all programs is intended to consider the measures being promoted. If so, will the analysis develop a listing of all the programs in which lighting measures are being promoted, by key lighting measures, intervention strategy, and delivery channel? Similarly, will the analysis develop listings by key measures for the other major end uses?

    e. Please explain whether the analysis will identify opportunities to consolidate existing single PA contracts with manufacturers, distributors, and retailers (M,D,R) in appliances, lighting, HVAC, and other relevant technologies.

    f. Please explain whether the analysis will identify opportunities to leverage M,D,R contracts across appliances, lighting, HVAC, and other relevant technologies.

    g. Please explain whether the analysis will identify opportunities to work with all elements of the M,D,R and Downstream channels, beginning first with the manufacturer level for equipment and appliances.

    h. Please explain whether the analysis will identify opportunities to expand M and D contracts to include current commercial, industrial, agricultural, and water and waste water treatment facility equipment, that is currently only promoted through downstream rebates and incentives.

    i. Please explain whether the analysis will identify additional measures currently not part of the PAs' portfolio of programs for inclusion in a statewide Up- and

[1] This presentation is available at: http://media.wix.com/ugd/0c9650_baf5a6c31ee546d3992689ebfb4eabff.pdf

Midstream program, including but not limited to targeting second refrigerators in residential dwelling units for early retirement or replace-on-burnout as part of promoting appliance EE.

4. On page 23 of SCE-01 (SCE's Business Plan), SCE offers the following rationale in support of its proposal to serve as the lead statewide administrator of the statewide Lighting program, encompassing Primary Lighting, Lighting Innovation, and Lighting Market Transformation: "SCE leads the state in energy savings claimed through the statewide primarily [sic] lighting programs and is the low-cost leader compared to the other IOUs on a $/kWh basis…" In SCE-04 (Statewide Administration Approach), at p. 14, footnote 12, SCE further explains that it provided 75% of the energy savings claimed through the statewide primary lighting program. Regarding these statements:

    a. Please provide the program year for the 75% savings claim.

    b. Explain whether the data supporting these statements is IOU-reported gross accomplishments or Energy Division-evaluated net accomplishments.

    c. Provide a breakout of claimed savings supporting these statements by CFL, LF, Halogen, and LED lamps and bulbs; and CFL, LF, Halogen and LED fixtures.

    d. Provide the total statewide primary lighting program budget and total recorded costs, and SCE's portion of each, for the year of the savings claim.

5. On page 23 of SCE-01 (SCE's Business Plan), SCE offers the following rationale in support of its proposal to serve as the lead statewide administrator of the statewide Lighting program, encompassing Primary Lighting, Lighting Innovation, and Lighting Market Transformation: "SCE's upstream lighting approach concept has been replicated in other states." See also SCE-04 (Statewide Administration Approach), at p. 14. Regarding these statements:

    a. Describe SCE's "upstream lighting approach concept" and explain how it differs from the approaches undertaken by PG&E and SDG&E.

    b. Please describe the programs in other states that are based on SCE's approach and provide any available documentation demonstrating that SCE's approach has been replicated in other states.

6. On page 15 of SCE-04 (Statewide Administration Approach), SCE explains that while it proposed to defund both LMT [Lighting Market Transformation] and LI [Lighting Innovation] as stand-alone program areas in its 2017 Budget Advice Letter, SCE now intends to continue those strategies in the immediate term and will consider third-party solicitations for new program ideas. In its 2017 Budget Advice Letter, SCE AL 3465-E, at p. 7, SCE stated as follows: "LED technology continues to improve and the manufacturing cost of LED lighting continues to decrease as the market demand increases. Because the lighting market has transformed, the effectiveness of the LMT program is diminishing, therefore, SCE will sunset the LMT program for 2017."

a. Please explain whether SCE continues to believe that the "lighting market has transformed." If so, clarify whether SCE's response pertains to the replacement/upgrade markets for lamps and blubs; fixtures, and/or lighting systems including controls; or all of the above.

b. Given SCE's assessment of the LED lighting market, does SCE believe that the LED lighting market is an appropriate target for a statewide market transformation initiative(s)? See *Assigned Commissioner and Administrative Law Judge's Ruling and Amended Scoping Memorandum (Regarding Phase III of R.13-11-005)*, issued in R.13-11-005 on Nov. 2, 2016, at pp. 4-6 for a discussion of statewide market transformation programs per SB 350.

7. Please explain how SCE, as administrator of the statewide Lighting program, would support the specific Lighting goals set forth in the *California Energy Efficiency Strategic Plan*, January 2011 Update, Section 13.

8. On page 25 of SCE-01 (SCE's Business Plan), SCE recommends that PAs be allowed to "continue local pilot activities that would otherwise qualify for statewide administration but are not ready for statewide treatment." Please explain whether SCE has specific pilot activities in mind that it seeks to continue, including but not limited to the "10-10-10+ MF Behavioral Pilot" and "Energy Pledge" pilot discussed on pp. 73-74 of SCE-01.

<u>Portfolio Budgets, Energy Savings, and Cost-Effectiveness</u>

9. Regarding Table 2 ("SCE's Proposed Annual EE Budget 2018-2025") presented on page 5 of SCE's Amended Application and reproduced here for your convenience:

Table 2. 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[10]	$17,169	$6,670	$109,030	$155,925	$13,333	$15,547	$317,673
2016[11]	$15,469	$5,042	$103,981	$146,436	$13,333	$17,314	$301,575
2017[12]	$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

10 Actual expenditures.
11 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.
12 This is the budget SCE proposed in AL 3465-E.

a. Please describe the basis for SCE's projection of a decrease in costs in the "Administration" category from 2017 to 2018, followed by increases in 2019 and 2020. In your response, identify the type(s) of administration costs driving the expected decrease and increases.

b. Please describe the basis for SCE's projection of a $10 million increase in "Direct Implementation" costs from 2018 to 2020. In your response, identify the categories of direct implementation costs driving the expected increase, and their amounts. Also indicate whether SCE expects the percentage of Direct Implementation costs associated with direct install activities to increase or decrease over the 2018 to 2020 time period.

c. Please describe the basis for SCE's projection of a $22 million increase in "Incentives" costs from 2018 to 2020. In your response, identify the Incentives costs driving the expected increase by key measure; delivery channel (upstream, midstream, downstream, deemed, custom, direct install); and early retirement or replacement on burnout. Also indicate whether SCE expects the percentage of Incentives costs associated with direct install activities to increase or decrease over the 2018 to 2020 time period.

Portfolio Measure Composition and Intervention Strategies

10. On page 3 of SCE's Amended Application, SCE refers to "the new residential program." Does this refer to the Residential Direct Install program described in SCE's 2017 Budget Advice Letter, SCE AL 3465-E, and in SCE-01 (SCE's Business Plan) on pages 37-38 and 66?

11. On pages 39-40 of SCE-01 (SCE's Business Plan), SCE discusses the challenges with the Middle Income Direct Install (MIDI) pilot leading to very low program enrollment, including "constrained measure offering, inconsistent concentrations of income-eligible customers, and/or willingness of customers to provide income documentation." SCE explains, "The Residential Direct Install (Res-DI) Program incorporates these lessons learned, resulting in a scalable, cost-effective program that supports several local and state initiatives." On page 11 of SCE's 2017 Budget Advice Letter, SCE AL 3465-E, SCE further states, "The [Res-DI] program will collaborate with gas utilities and water agencies to promote both EE and water conservation. This approach has the potential to provide customers with a comprehensive set of measures including water conservation measures such as toilets, low-flow shower heads, and faucet aerators in addition to energy efficiency products offered." Regarding the Res-DI program:

a. Please explain specifically how the Res-DI will overcome the challenges faced by the MIDI pilot.

b. If not already addressed in your response to part (a), compare the energy saving measures offered through the MIDI pilot to those that SCE intends to offer through the Res-DI program.

c. Does SCE expect the Res-DI program to be cost-effective based on electricity savings alone? If not, please explain what SCE means by "cost-effective program" in the context of the proposed Res-DI program.

d. If not already addressed in your response to part (c), explain how the measures to be offered through the Res-DI program will deliver cost-effective savings, despite the traditionally costly direct install delivery channel.

12. On pages 69-70 of SCE-01 (SCE's Business Plan), SCE discusses intervention strategies for residential new construction builders and developers. Please discuss SCE's proposals relative to SoCalGas's plan for the statewide Residential New Construction program, which SoCalGas proposes to administer as statewide lead, as addressed in its Business Plan filed in A.17-01-016 on pages 23-24 (Business Plan, Executive Summary), 49-50 (Business Plan, Executive Summary, Appendix A) and 545-546 (Business Plan, Appendix F). Does SCE view its own proposal as complementary to or duplicative of SoCalGas's proposed statewide program? Please explain.

13. In Appendix R to SCE's Business Plan ("Issue Tracking Workbook"), wherein SCE responds to external stakeholder observations, SCE indicates that it does not plan to target second refrigerators in residential dwelling units for early retirement or replace-on-burnout as part of promoting appliance EE, and appears to suggest that such targeting would not be cost-effective or that SCE has inadequate budget. (See Appendix R, ID # 0940). Regarding this response:

a. Is SCE's response specific to appliance recycling, or does it also reflect SCE's analysis of the potential for energy savings from downstream and midstream programs that expressly encourage retirement/removal of second refrigerators?

b. Does SCE believe that second refrigerators offer lower savings relative to primary refrigerators, cost more to capture, or both? Please explain and provide the basis for your conclusions.

14. The IOUs' joint response to Question 10 of TURN's Nov. 9, 2016 Data Request in R.13-11-005 (addressing the draft business plans of all four IOU PAs) included SCE's top 10 measure groupings expected to drive portfolio savings in 2016 and 2017, with that ranking determined by percentage of portfolio GWh and MW savings provided by each measure grouping (gross and net).

a. Please update your Nov. 2016 response to include the top 10 measure groupings, on a gross and net basis, underlying SCE's forecast of savings and portfolio cost-effectiveness for 2018, as reflected in Appendix C to its Business Plan. In preparing your response, please consider “behavior” or “behavior programs” as a measure category. If the top 10 ten measure groupings underlying your forecast for 2018 do not in aggregate provide at least 50% of the savings in your portfolio, please provide additional measure groupings, ranked by contribution to gross and net kWh and KW, until those measure groupings in aggregate provide at least 50% of the savings in your portfolio as modeled for your Business Plan.

b. For each of the top 10 (or more) measure groups underlying your 2018 savings forecast, as identified in your response to part (a) above, please specify the percentage of savings assumed in your cost-effectiveness calculations to come from each of the following intervention/delivery strategies: upstream/manufacturer, midstream/distribution, midstream/retail, downstream direct install, other downstream, and custom. If your forecast of cost-effectiveness does not reflect any assumptions regarding intervention/delivery strategies, please explain the basis for your “Non-Incentive Implementation” and “Incentive Implementation” cost projections in Appendix C.

c. For each of the top 10 (or more) measure groups underlying your 2018 savings forecast, as identified in your response to part (a) above, please specify whether your savings and cost-effectiveness projections reflect the assumption that the key measure grouping will be targeted in whole or in part through early retirement interventions. If your forecast of cost-effectiveness does not reflect any assumptions regarding early retirement vs. replace-on-burnout interventions, please explain the basis for your “Non-Incentive Implementation” and “Incentive Implementation” cost projections in Appendix C.

15. Following up on the IOUs’ joint response to Question 11 of TURN’s Nov. 9, 2016 Data Request in R.13-11-005 (addressing the draft business plans of all four IOU PAs), as it pertains to SCE:

a. Please update your response, if appropriate in light of your Business Plan, to indicate whether you intend to require or encourage, as a general matter, either higher incentives for greater degree of energy efficiency above code requirements or variation in incentive levels by geography through your implementation plans and solicitations. If you do not expect to require or encourage implementers to offer either, please include in your response an explanation of why you believe this is reasonable given the possibility of stranding achievable, above-code, savings over the life of the new measure.

b. Please specify all instances in your 2016 and 2017 portfolios in which incentives for replace-on-burnout interventions are either higher for greater degree of energy efficiency above code requirements or vary by geography.

c. Please specify all instances in your 2016 and 2017 portfolios in which incentives for early retirement interventions are either higher for greater degree of energy efficiency above code requirements or vary by geography.

16. Following up on the IOUs' joint response to Questions 13 and 14 of TURN's Nov. 9, 2016 Data Request in R.13-11-005 (addressing the draft business plans of all four IOU PAs), as it pertains to SCE:

    a. Please specify all instances in your 2016 and 2017 portfolios in which direct install has been/will be used to promote early retirement, and indicate whether programs using this strategy permit "to code" installation, require above-code installation, or use tiered incentives to distinguish among to-code and above-code levels of efficiency. If "to code" installation is allowed, please include in your response an explanation of why you believe this is reasonable given the possibility of stranding achievable, above-code, savings over the life of the new measure.

    b. Please update your response to Question 13, if appropriate in light of your Business Plan, to indicate whether you intend to expand the use direct install to promote early retirement in 2018-2020, relative to your 2016-2017 portfolio. Include the measures, customer sectors, and building types for which you believe DI may be a reasonable strategy to surmount market barriers to EE, given cost-effectiveness considerations.

    c. Please specify all instances in your 2016 and 2017 portfolios in which direct install has been/will be used to promote replace-on-burnout measure interventions, and indicate whether programs using this strategy permit "to code" installation, require above-code installation, or use tiered incentives to distinguish among to-code and above-code levels of efficiency. If "to code" installation is allowed, please include in your response an explanation of why you believe this is reasonable given the possibility of stranding achievable, above-code, savings over the life of the new measure.

    d. Please update your response to Question 14, if appropriate in light of your Business Plan, to indicate whether you intend to expand the use direct install to promote replace-on-burnout measure interventions in 2018-2020, relative to your 2016-2017 portfolio. Include the measures, customer sectors, and building types for which you believe DI may be a reasonable strategy to surmount market barriers to EE at burnout, given cost-effectiveness considerations.

17. Concerning residential space conditioning efficiency, SCE states on pages 52-53 of SCE-01 (SCE's Business Plan) as follows: "New HVAC unit sales in the Residential sector are highly efficient units; however, permit rates are still low for new units and existing efficiency potential in the market resides largely in older HVAC units and their proper installation and maintenance. The residential HVAC market has seen 16 percent increases in average efficiency in the market place, but 42 percent of homes with central A/C systems still have a home with a Seasonal Energy Efficiency Rating (SEER) rating less than 12. Nearly 50 percent of homes with central A/C have a unit more than nine years old and 28 percent have a unit more than 3 years old. The average age of central A/C units increased from 11 years in 2010 to 15 years in 2012, while space cooling systems are newer than in previous studies."

a. Please indicate whether SCE provides incentives for residential high efficiency HVAC units. If yes, provide a table showing for the past 3 years, the estimated total number of units sold in SCE's service territory by efficiency level, and the number of units incented by the most common HVAC unit efficiency levels and tonnages, the incentive amounts, and the claimed savings on a per unit and in total basis.

b. Please indicate whether SCE has required or will require proof of permit for incentive payment in each of the following program years: 2016, 2017, and 2018. If not, why not.

c. Given the increasing average age of existing central HVAC units cited by SCE, does SCE believe that the residential HVAC replacement market offers an opportunity for a targeted HVAC unit replacement program using existing conditions baseline? Why or why not? If yes, please indicate whether SCE believes it would be appropriate to tier incentives to promote above-code units and how the requirements of SB 1414 (Wolk) regarding proof of permit for incentive payment should be satisfied.

18. In SCE's 2017 Budget Advice 1 Letter (AL 3465-E) at p. 9, SCE proposed to discontinue the Residential HVAC program because "[p]rogram results have revealed significant market flaws that prevent SCE from achieving program objectives and energy savings in a cost-effective manner." See also SCE-01 (SCE's Business Plan), p. 65.

a. Please indicate whether SCE discontinued the residential HVAC program this year. If not, please provide the status of the program to date by the major program indicators.

b. Please provide any EM&V studies supporting SCE's proposal to discontinue this program, with citations to the specific information and data indicating program failure and the findings and recommendations regarding program improvements. Explain whether SCE agrees with the information and data indicating program failure and the findings and recommendations regarding program improvements.

c. Beyond contractor education, please indicate whether SCE has considered or is considering contractor incentives to improve compliance as part of an initial market transformation effort. If not, please explain why not. If so, please explain SCE's thinking on how contractor incentives could work.

19. Please provide the following information and data regarding SCE's Nonresidential HVAC early retirement program:

a. Date the program began.

b. By year since program inception, the number and age of the units replaced as early retirement by the most common HVAC unit efficiency levels and tonnages. Correspond this response with item c below.

c. The number of units incented as early retirement by the most common HVAC unit efficiency levels and tonnages, the incentive amounts, and the claimed savings on a per unit basis and total amount.

d. Please provide the claimed savings on a per unit basis and total amount assuming replacement on burnout (ROB) conditions.

e. Provide all information available that demonstrates the units installed followed quality installation best practices.