

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

Application of Southern California Edison Company
(U338E) for Approval of Energy Efficiency Rolling
Portfolio Business Plan and Related Matters

Application 17-01-013
(filed January 17, 2017)

Application 17-01-014
Application 17-01-015
Application 17-01-016
Application 17-01-017
(Consolidated)

**FIRST SET OF DATA REQUESTS TO
PACIFIC GAS AND ELECTRIC COMPANY
BY
THE COALITION FOR ENERGY EFFICIENCY**

The following data requests are submitted to Pacific Gas and Electric Company (“PG&E”) by the Coalition for Energy Efficiency (“CEE” or the “Coalition”). Please provide your responses, via email or disc if available, by April 1, 2017 to:

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INSTRUCTIONS

1. When available, provide documents in their original electronic format. Documents produced in response to the Data Requests should be Bates-numbered, and indexed if voluminous. Responses to Data Requests that refer to or incorporate documents should identify the particular documents referenced by Bates-numbers or Bates-range.

2. Restate the text of each request prior to providing the response.

3. Identify the person providing the answer to each Data Request and identify the individual who would be designated as a witness for cross-examination of the response if hearings are held in this proceeding. If witnesses have not yet been selected at the time a data response is provided, please supplement the response once witnesses have been selected.
4. For questions that seek a “yes” or “no” answer, please respond if possible with an unqualified yes or an unqualified no. If it is not possible to provide either an unqualified yes or no to a particular question as posed, please include in each response an explanation as to why an unqualified yes or no is not possible.
5. To the extent you object to a request or portion of a request, or assert privilege, please describe in detail the basis for the objection and/or assertion of privilege.
6. If a request is unclear, please contact CEE immediately to seek clarification. In any event, answer the request to the fullest extent possible, specifying the reason for your inability to answer the remaining portion of the data request.
7. Responses to these data requests are requested as soon as possible, and no later than 10 business days of receipt of the requests. If you are unable to meet this schedule, please inform CEE as soon as possible.

CEE DATA REQUEST SET ONE

1. Decision 12-11-015 at p. 126 directed the utilities to “develop pilot approaches collaboratively with stakeholders to incorporate workforce diversity and inclusion goals into their third-party contractor selection process.”
 - (a) Please describe what actions were taken in response to this direction and provide copies of any studies or reports prepared as a result of this decision.
 - (b) Please provide a copy of any workforce diversity and/or inclusion requirements or goals that have been incorporated into energy efficiency programs (pilot or otherwise) and identify what programs have required compliance with these goals.

2. Does PG&E agree that it has the authority or discretion to incorporate workforce diversity and inclusion goals into their requirements for energy efficiency programs? If no, on what basis is this claim made?
3. Does PG&E agree with SDG&E’s assertion that connecting disadvantaged workers to job and career pathways is out of the scope of the energy efficiency programs?¹ If yes, on what basis?
4. Does PG&E agree with SDG&E’s assertion that workforce development and job creation are not components of the workforce education and training (“WE&T”) program?² If yes, on what basis?
5. In the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), Southern California Edison Company (“SCE”), San Diego Gas & Electric Company (“SDG&E”), Pacific Gas and Electric Company (“PG&E”), and Southern California Gas Company (“SoCalGas”) (jointly, the “IOUs”) stated that they would address “EE skills building and fund training programs that connect disadvantaged workers to job and career pathways in EE,” including developing “an EE career pathway framework for disadvantaged workers that identify pathways for at least three occupations.”
 - (a) Are these activities being continued under the under the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan? If yes, how does the Business Plan ensure that these activities will be continued?
 - (b) Did the IOUs develop “an EE career pathway framework for disadvantaged workers that identify pathways for at least three occupations”? If yes, please provide a copy.

¹ See SDG&E 2018-2025 Energy Efficiency Rolling Portfolio Business Plan, Appendix F External Stakeholder Observations, ID #075.

² See SDG&E 2018-2025 Energy Efficiency Rolling Portfolio Business Plan, Appendix F External Stakeholder Observations, ID #075.

- (c) Please describe any other steps or activities that were taken to address “EE skills building and fund training programs that connect disadvantaged workers to job and career pathways in EE.”
 - (d) Please provide any studies, reports, memorandums, data or other documents describing WE&T activities that connected disadvantaged workers to job and career pathways in EE.
6. In the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), the IOUs stated that they would hire an “inclusion consultant” to advise regarding the potential development of a workforce inclusion program to broaden access to living wage jobs and career pathways in EE for workers from disadvantaged communities.”
- (a) Was an inclusion consultant” hired?
 - (b) If yes, please provide a copy of the RFP and consultant contract, and a copy of any reports, memorandums or studies prepared by the inclusion consultant.
7. In the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), the IOUs stated that they would add “workforce inclusion as a factor in ranking proposals by third-party contractors.”
- (a) Has “workforce inclusion” been added as a factor in ranking proposals by third-party contractors?
 - (b) If yes, to what proposals does this requirement apply, what workforce inclusion information is required to be included in proposals, and how is it assessed in ranking proposals?
 - (c) Will workforce inclusion be included as a factor in ranking proposals by third-party contractors under the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan? If yes, how does the Business Plan ensure this will occur?
8. PG&E’s 2018-2025 Energy Efficiency Rolling Portfolio Business Plan states that job placement activities will *not* be funded through the Career and Workforce Readiness

program (“CWR”) on the ground that other organizations are currently funded to perform job placement activities.³ On what basis does PG&E assume adequate job placement services will be available to disadvantaged workers receiving WE&T training? Please provide any data supporting this assumption.

9. Do energy savings and cost-effectiveness calculations for *upstream* energy efficiency programs take into account the risk of lost energy savings due to poorly installed energy efficiency measures? If yes, please describe and provide documentation showing: (a) how and where this is taken into account, (b) in what programs this is taken into account, (c) what adjustment factors (if any) were applied, and (d) the basis for the adjustment factor.
10. Do energy savings and cost-effectiveness calculations for *midstream* energy efficiency programs take into account the risk of lost energy savings due to poorly installed energy efficiency measures? If yes, please describe and provide documentation showing: (a) how and where this is taken into account, (b) in what programs this is taken into account, (c) what adjustment factors (if any) were applied, and (d) the basis for the adjustment factor.
11. Do energy savings and cost-effectiveness calculations for *downstream* energy efficiency programs take into account the risk of lost energy savings due to poorly installed energy efficiency measures? If yes, please describe and provide documentation showing: (a) how and where this is taken into account, (b) in what programs this is taken into account, (c) what adjustment factors (if any) were applied, and (d) the basis for the adjustment factor.
12. PG&E’s 2018-2025 Energy Efficiency Rolling Portfolio Business Plan states that detailed workforce standards will be required for “specific programs” as “applicable” and that implementation plans will “consider the appropriate workforce standard requirements, such as any required certifications, minimum performance standards, or pre-qualification process for specific programs in support of its energy efficiency portfolio.”⁴

³ PG&E 2018-2025 Energy Efficiency Rolling Portfolio Business Plan, Statewide Administration chapter at p. 25.

⁴ PG&E 2018-2025 Energy Efficiency Rolling Portfolio Business Plan, Residential chapter at p. 50, Commercial chapter at p. 56, Public chapter at p. 39.

- (a) Please define the following terms in the context of the above strategy: (i) “specific programs”; (ii) “as applicable”; and (iii) “appropriate workforce standards.”
- (b) Under this requirement, will each energy efficiency program be required to identify the minimum knowledge, skills and abilities (KSAs) necessary to ensure quality installation of the ratepayer-subsidized energy efficiency measure?
- (c) Does this requirement mean that workforce skills, training, certification or qualification standards appropriate and applicable for the proper installation of the energy efficiency measure will be required for each program or does this mean that workforce standards will only be required for certain specific programs if workforce standards are determined appropriate and applicable? If it is the latter, how will “appropriateness and applicability be determined? If this will only apply to “specific programs,” how will PG&E determine which specific programs this will be subject to this requirement?
- (d) Under this requirement, are the recommendations contained in the DVC Workforce Guidance Plan considered appropriate and applicable workforce standards? The DVC Workforce Guidance Plan identifies approaches in addition to certification that are likely to result in better workforce quality, including (1) prevailing wage requirements for certain projects – so that contractors that invest in a skilled and trained workforce won’t be out-bid solely based on the cheap labor costs of contractors who do not invest in a skilled and trained workforce; and (2) skilled workforce prequalification requirements based on requiring jobsite workers to be comprised of a certain percentage of journey persons or apprentices from a registered apprenticeship program. Are these additional strategies to be included in the suite of options that a program may require to address workforce quality?
- (e) What is meant by “minimum performance standards” and how is that different from current code and installation requirements? How would compliance with minimum performance standards be verified or enforced? Please provide any documents, data, reports or other evidence on which this strategy is based.

13. On what basis does the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan assume that increasing awareness of training opportunities would significantly reduce the number of HVAC and lighting system measures being installed by inadequately trained

technicians?⁵ Please provide the documents, studies, data, reports or other evidence on which this assumption is based.

14. Will ratepayer money be allowed to subsidize energy efficiency measures that are installed by contractors that do not employ adequately trained and skilled workers?
15. PG&E's 2018-2025 Energy Efficiency Rolling Portfolio Business Plan states that PG&E has required the completion of training programs as a prerequisite for participation in its HVAC and Home Upgrade offerings.⁶
 - (a) What training programs are required as a prerequisite for participation in PG&E's HVAC and Home Upgrade offerings?
 - (b) Please provide documentation describing the content of these training programs and providing the basis for assuming that this training will ensure quality installation.
 - (c) Who is required to complete the prerequisite training programs: contractors or the workers who actually perform the energy efficiency work?
 - (d) Please describe which HVAC programs require compliance with this training requirement?
 - (e) Please list all HVAC upstream, midstream, and downstream energy efficiency programs available over the past two years that did not require completion of the above training programs.
16. Please list all PG&E upstream, midstream and downstream energy efficiency programs available over the past two years that impose training or skills standards, certification requirements, prevailing wage requirements, prequalification requirements, apprenticeship requirements, or other workforce quality requirements. For each program that contains such requirements, please provide a description of the program and the requirements.
17. In the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E;

⁵ PG&E 2018-2025 Energy Efficiency Rolling Portfolio Business Plan, Appendix WE&T at p. 8.

⁶ PG&E 2018-2025 Energy Efficiency Rolling Portfolio Business Plan, Residential at p. 49.

SoCalGas Advice 4765-G), the IOUs stated that they would initiate the following activity as a priority issue: “[a]dopting skill certification requirements for advanced lighting controls and HVAC Quality Installation and Quality Maintenance and other available skill standards and certification guidance.”⁷

- (a) What skills standards or certification requirements have been adopted or initiated and to which programs do these requirements apply?
- (b) Please provide any studies, reports, memorandums, data or other documents describing the actions taken to initiate this activity.
- (c) Will the adoption of “skill certification requirements for advanced lighting controls and HVAC Quality Installation and Quality Maintenance and other available skill standards and certification guidance” remain a priority issue under the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan? If yes, how does the Business Plan ensure that this will remain a priority?

18. In the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), the IOUs stated that they would adopt a responsible contractor policy for contractors that work directly with the IOUs.⁸

- (a) Was a responsible contractor policy adopted for contractors that work directly with the IOUs?
- (b) If yes, please provide a copy of the policy and identify what programs are required to comply with this policy.
- (c) If no, please provide any studies, reports, memorandums, data or other documents describing the steps taken to comply with this commitment.

19. In the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), the IOUs stated that they would meet with WE&T stakeholders in 2016 to present their plans for the remaining UC-Berkeley Don Vial Center

⁷ Advice Letter at p. 5.

⁸ Advice Letter at p. 8.

Workforce Guidance Plan recommendations summarized in Appendix 1 of the Advice Letter.⁹

- (a) Was a plan for the remaining UC-Berkeley Don Vial Center Workforce Guidance Plan recommendations ever presented to stakeholders?
- (b) If yes, please provide a copy of this plan and identify the stakeholders who were invited to the presentation.

20. In Appendix 1 of the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), the IOUs stated that they would initiate establishing prevailing wage and targeted hire goals for contractors that are preselected by the IOUs or have a direct contracting relationship with the IOUs.¹⁰

- (a) Were prevailing wage and targeted hiring goals established for contractors that are preselected by the IOUs or have a direct contracting relationship with the IOUs?
- (b) If yes, please provide a copy of these goals and identify what programs are required to comply with these goals.
- (c) If no, please explain why this did not happen.

21. In Appendix 2 (2015 WE&T PIP Addendum) of the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), the IOUs stated that they would “evaluate the impacts associated with implementing targeted hiring goals, prevailing wage and wage floors in the IOUs’ Resource Programs.”¹¹

- (a) What is the status of this evaluation?
- (b) Please provide copies of any reports, memorandum, contracts, studies, updates, data, emails, correspondence or other documents related to this evaluation.

22. In Appendix 2 (2015 WE&T PIP Addendum) of the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E;

⁹ Advice Letter at p. 10.

¹⁰ Advice Letter, Appendix 1 at p. 5.

¹¹ Advice Letter, Appendix 2 at p. 5.

SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), the IOUs stated that they would prepare the following studies: (1) “WE&T Skill Standards for IOU Resource Program,” (2) “CALCTP Contractor Training Assessment,” and (3) the “SCE and SDG&E Lighting Control Pilot Program.”

- (a) What is the status of each of these studies? If a study has not been completed, please state when the study is expected to be complete.
- (b) Please provide copies of any reports, memorandum, contracts, studies, updates, data, emails, correspondence or other documents related to these studies.

23. In Appendix 1 of the joint February 23, 2015 Advice Letter on the WE&T Program Implementation Plan Addendum (PG&E Advice 3567-G/4592-E; SDG&E Advice 3179-E; SCE Advice 3179-E; SoCalGas Advice 4765-G), the IOUs identify numerous actions that they will explore in 2016 and beyond.

- (a) Have any of these 2016 and beyond activities been initiated?
- (b) If yes, please describe these activities.
- (c) Which of the activities that the IOUs stated would be explored in 2016 and beyond will be initiated under the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan?

24. In its comments on the draft Business Plans submitted during the CAEECC review, CEE recommended expressly identifying the “lack of economic incentives for contractors to invest in worker training” as a market barrier to achieving Long-Term Energy Efficiency Strategic Plan’s goal of an adequately trained and engaged workforce to achieve California’s economic energy efficiency potential. Please explain why the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan does not disclose or address this barrier.

25. In its comments on the draft Business Plans submitted during the CAEECC review, CEE recommended expressly identifying lost energy savings from poorly installed retrofits as a barrier to meeting each sector’s energy efficiency goals. Please explain why the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan does not disclose this as a barrier to each sector’s energy efficiency goals.

26. Have the IOU WE&T programs established the minimum knowledge, skills and abilities (KSAs) necessary to ensure quality installation for any specific energy efficiency measures or energy efficiency occupations? If yes, please identify the KSAs and please provide copies of any studies or reports upon which the KSAs are based.
27. Have the IOU WE&T programs established a worker quality baseline for any specific energy efficiency measures or energy efficiency occupations (i.e. the percentage of workers installing specific energy efficiency measures determined to have the appropriate skills, training, and certifications)? If yes, please provide a copy of any studies, reports or data on which this baseline is estimated.
28. How will the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan ensure that midstream and upstream programs do not subsidize energy efficiency equipment or measures that are installed by contractors that violate permit or code requirements?
29. What is meant by the compliance strategy to “simplify” the codes?¹²
 - (a) What code requirements have been identified as too complex or amenable to simplification without reducing safety or energy efficiency?
 - (b) Please provide any data, reports, studies or other evidentiary basis to support the assumption that simplifying the codes will increase code compliance?
30. PG&E’s 2018-2025 Energy Efficiency Rolling Portfolio Business Plan claims that it cannot support the creation and maintenance of an HVAC equipment tracking database because PG&E programs impact a small fraction of HVAC equipment sales.¹³
 - (a) What is the basis for this claim?
 - (b) Why is PG&E’s ability to support such a database related to the number of equipment sales that the PG&E’s programs currently impact?
31. On Page 30 of the Residential Appendix to the PG&E 2018-2015 Business Plan, PG&E states that the “link between permitting and code compliance is tenuous.” In support of this

¹² PG&E 2018-2025 Energy Efficiency Rolling Portfolio Business Plan, Codes & Standards at p. 21.

¹³ See PG&E 2018-2025 Energy Efficiency Rolling Portfolio Business Plan, Appendix Residential at p. 30, fn. 15.

statement, PG&E cites “*California HVAC Contractor & Technician Behavior Study, Phase II*, Energy Market Innovations Consulting, (2015).” This study does not address or provide an opinion on the link between permitting and code compliance.

- (a) If PG&E asserts that the report “*California HVAC Contractor & Technician Behavior Study, Phase II*, Energy Market Innovations Consulting, (2015)” supports the statement that the “link between permitting and code compliance is tenuous,” please cite the page or pages of this report that support this statement.
- (b) Please provide any reports, memorandum, contracts, studies, data, emails, correspondence or other documents that PG&E relies upon to support its assertion that the “link between permitting and code compliance is tenuous.”
- (c) Does PG&E still assert that the DNV GL Res HVAC Retrofit Study Phase 1 found that “overall energy savings in permitted retrofits [are] only slightly higher than Energy Savings in retrofits without permits,” as stated in Slide 10 of the PG&E’s July 13, 2016 presentation on “Codes and Standards Program: Understanding Energy Code Compliance” made to the CAEECC?
- (d) Please explain why Slide 10 claimed that the DNV GL Res HVAC Retrofit Study Phase 1 study found that “overall energy savings in permitted retrofits [are] only slightly higher than Energy Savings in retrofits without permits” when the study expressly states that it is reporting on preliminary results and that no valid findings can be drawn by these preliminary results.
- (e) Please explain why Slide 10 claimed that the study was based on randomly selected retrofits when the report expressly states that the retrofits reviewed had a “significant potential for self-selection bias.”
- (f) Please explain why Slide 10 fails to disclose that the DNV GL Res HVAC Retrofit Study Phase 1 is limited solely to HVAC systems in single family residential homes.
- (g) Does PG&E agree that the preliminary findings in the DNV GL Res HVAC Retrofit Study Phase 1 study have no applicability to compliance rates for HVAC systems in multi-family or nonresidential buildings or to compliance rates for lighting systems or other non-HVAC energy efficiency retrofits?

- (h) Please explain why the DNV GL Res HVAC Retrofit Study Phase 1 study identified projects that pulled permits *but did not comply with Title 24 HERS verification requirements* as having complied with permitting requirements.
 - (i) Please provide any reports, memorandum, contracts, studies, data, emails, correspondence or other documents related to the DNV GL Res HVAC Retrofit Study, including any documents or data related to the current status of the DNV GL Res HVAC Retrofit Study.
32. Does PG&E agree that it has the authority or discretion to support code enforcement efforts as part of its energy efficiency programs? If no, please explain.
33. Please describe how the proposed 2018-2025 Energy Efficiency Rolling Portfolio Business Plan Public Sector budget amounts were determined?
34. What is the definition of (a) downstream programs; (b) midstream programs; and (c) upstream programs?
35. Does PG&E intend to shift any incentive funds away from downstream programs to midstream and upstream programs during the 2018-2025 Energy Efficiency Rolling Portfolio Business Plan? If yes, please respond to the following:
- (a) Please describe the anticipated scope of this funding shift, including the amount of funds to be shifted, the sectors involved and the current downstream programs expected to be affected by this shift in funding.
 - (b) Please describe the purpose and justification for this funding shift, including the evidentiary basis for the justification.
 - (c) Provide any correspondence, notes, memos, emails, reports, studies, or other documents related to the decision to shift incentive funds away from downstream programs to midstream and upstream programs.
 - (d) For budget years 2014, 2015 and 2016, what was the percentage of energy efficiency funding allocated to (a) downstream programs; (b) midstream programs; and (c) upstream programs?

