

**PACIFIC GAS AND ELECTRIC COMPANY**  
**Energy Efficiency 2018-2025 Rolling Portfolio Business Plan**  
**Application 17-01-015**  
**Data Response**

PG&E Data Request No.:	CCEE_001-Q31		
PG&E File Name:	EnergyEfficiency2018-2025-RollingPortfolioBusinessPlan_DR_CCEE_001-Q31		
Request Date:	March 22, 2017	Requester DR No.:	001
Date Sent:	April 7, 2017	Requesting Party:	California Coalition for Energy Efficiency
		Requester:	Thomas A. Enslow

**SUBJECT: APPLICATION OF SOUTHERN CALIFORNIA EDISON COMPANY (U338E) FOR APPROVAL OF ENERGY EFFICIENCY ROLLING PORTFOLIO BUSINESS PLAN AND RELATED MATTERS. CCE-DR01**

**QUESTION 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 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.

### ANSWER 31

a) PG&E appreciates that CEE discovered an error in this reference. PG&E intended to reference the HVAC 6 Draft Report (DNV GL). Please note the HVAC 6 study assesses energy code compliance, not health and safety code compliance.

b) PG&E objects to CEE's request to "provide copies of any reports, memorandum, contracts, studies, updates, data, emails, correspondence or other documents related to PG&E's assertion that the link between permitting and code compliance is tenuous under Rule 10.1 of the CPUC's Rules of Practice and Procedure because the burden, expense, or intrusiveness of that discovery clearly outweighs the likelihood that the information sought will lead to the discovery of admissible evidence. The slim possibility that such documents could lead to an admissible fact does not outweigh the considerable burden of having to comb through PG&E's workforce and database to locate every item sought by CEE. Accordingly, PG&E will not provide non-final documents, notes, data, or email in response.

Notwithstanding these objections and without waiving PG&E's right to object to the admissibility of the requested information into evidence, PG&E is **attaching** the following documents: "HVAC Permitting: A Study to Inform IOU HVAC Programs", the "Results of HVAC6 Phase One Market Assessment of Residential HVAC Installations", the "Results of Phase I Market Assessment of HVAC6 Residential Partial-Compliance," and the "Draft Report: 2014 – 2016 HVAC Permit and Code Compliance Market Assessment (Work Order 6) Volume I – Report."

c) Yes.

d) In the Phase I research, a sufficient number of customers agreed to site visits from both permitted and non-permitted sites to yield precision estimates of +/- 3 – 8% for the Electric HVAC Installation Efficacy rate (HIE) metric that DNV GL devised to assess the energy usage performance of new HVAC installations. (See **Table 14** of "Results of HVAC6 Phase One Market Assessment of Residential HVAC Installations.") These precision estimates provide for a reasonable comparison between permitted and non-permitted sites. This comparison did not demonstrate statistically significant differences.


e) The study was based on randomly selected households that undertook new HVAC equipment installations for which a permit was required. As is the case in many evaluations, this random sample had the potential for selection bias. The selection bias would be most likely to impact the findings regarding permitting rates and far less likely to impact the assessment of the correlation between permitting and code compliance. Selection bias may have led to higher permitting rates in the former because customers may be hesitant to report their HVAC installation did not obtain the legally required permit. The latter question was assessed via on-site measurements of permitted and non-permitted sites. While customers may be less inclined to respond accurately to a surveyor inquiring about permitting status, PG&E believes customers are far less likely to mislead an on-site analysis assessing the specific and technical code compliance elements that DNV GL studied.


f) The title of Slide 10 clearly states the study applies to the residential sector.


g) PG&E believes permitting rates are likely to be low for other sectors and other technologies. More research would be helpful to assess these markets.

h) PG&E notes the Phase 1 Study was commissioned, in part, to assess permitted HVAC installations. It was not intended to verify whether all steps of the permitting process, including the HERS assessment, were completed or completed properly. PG&E does not answer for the Commission and/or DNV GL. We refer the CEE to these organizations for more information on the intentions of the Phase I study and all other research under their purview.

i) These documents have been provided as part of the response to part (b).

 Atch01\_CCEE\_001\_PGE HVAC Permitting\_Q31.pdf

 Atch02\_CCEE\_001\_HVAC WO6 DRAFT\_Q31.pdf

 Atch03\_CCEE\_001\_HVAC6 Market Assessment of Res HVAC Phase One FINAL\_Q31.pdf

 Atch04\_CCEE\_001\_HVAC6 Residential Partial Compliance Results Phase One\_Q31.pdf