CPUC Comments on SWWH025-04 Residential Heat Pump Water Heater, Fuel Substitution

Lead PA: SCE

Workpaper Submittal Date: 12/21/2020

CPUC Review Date: 02/23/2021

Please note responses to comments in the table below, revise workpaper, and upload the entire package to the WPA. If needed, please reach out to Workpaper Review Team to set up a call to discuss.

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| CPUC Comment | PA Response |
| Technology summary could use rewording. There is a section which intermingles description of electric resistance water heater with HPWH. | Updated technology summary. Also added a diagram from EnergyStar. |
| In the base case description, it notes “ The measure assumes that the existing case and standard case baselines are the same.” Technically, the “pre” UES are different from the “Std” UES. But based on the workpaper, it appears that the base case will always be assumed to be standard/code i.e., replace on burnout. It is recommended that the workpaper clarifies this. | Updated base case description to state “ This workpaper assumes that the existing case and standard case baselines use the same code compliant equipment.”  Also updated calculation methodology based on version 3 comments to state: “This workpaper assumes that that the existing and standard base cases are both code compliance gas water heaters. Thus, AR measures will adopt the standard savings values for both the first and second baseline. NR measures also adopt the standard savings values as the first baseline.” |
| Data collection requirements:  The measures describe base case equipment with draw patterns, but the measure cases do not. Thus, it is important to collect the existing first hour rating or draw pattern to apply for measure assignment. Otherwise, there will be ambiguity on which measure to select (the medium usage or high usage)  Other data collection recommended:   * Climate zone * Building type (SF, MH, or MF) * Approximate volume of the heat pump water heater tank in gallons * Heat pump water heater UEF * First-hour rating (FHR) of the heat pump water heater * Installed location (conditioned, unconditioned space) * For installations in conditioned space, the building heating and cooling type (e.g., split system AC with gas furnace, split system heat pump, central gas furnace without AC) * Is heat pump water heater exhaust ducted to outside or unconditioned space? (Yes/no) * Is heat pump water heater intake ducted to outside or unconditioned space? (Yes/no) | SCE discussed data collection with the IOUs and have added the following data collection requirements:   * Measure case equipment specifications including:   + Manufacturer and model number   + UEF   + Storage volume in gallons   + First Hour Rating (FHR) * Customer site information including:   + Climate Zone   + Building Type (for downstream measures)   Based on conversations with the IOUs the following will not be included as they were determined to be burdensome and costly to the application process. They also may not be easy for customers to understand and report correctly:   * Installed location (conditioned, unconditioned space) * For installations in conditioned space, the building heating and cooling type (e.g., split system AC with gas furnace, split system heat pump, central gas furnace without AC) * Is heat pump water heater exhaust ducted to outside or unconditioned space? (Yes/no)   Is heat pump water heater intake ducted to outside or unconditioned space? (Yes/no)  Also added “ Required Documentation for Normal Replacement in Upstream and Mid-Stream Delivery”, “ Required Documentation for Normal Replacement, New Construction, and Accelerated Replacement in Downstream and Direct Install Delivery”, “ Incentive Requirements” sections based on version 3 comments. |
| **DEER Difference Summary** section. Please comment in “Reasons for deviation from DEER” describing the need to add “Stor\_UEF-ElecHP-040gal-3.50UEF” in the calculator in order to offer SWWH025U and SWWH025V. While it’s not necessarily a “deviation” from DEER methodology, a custom measure and TechID were added. You can refer to the **Electric Savings (kWh)** section | Added the following to clarify difference:  “ The <45gal HPWH measure was not available in v.4.2. It was added based on analysis of the CEC appliance database, AHRI database, and Energy Star qualified product list.” |