CPUC Comments on SWWH027-02 – Heat Pump Water Heater, Commercial, Fuel Substitution

Lead PA: SCE

Workpaper Submittal Date: 12/7/2020

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.

|  |  |
| --- | --- |
| CPUC Comment | PA Response |
| In Base Case Description section, workpaper mentions “The measure assumes that the customer’s existing case and the code/standard case baselines are the same.” There are technically pre-existing (early/accel. Replacement) baseline technologies and standard/code (normal replacement) baseline technologies described in the v4.2 calculator. If the workpaper assumes baseline = standard/code, it must be ensured that the normal replacement UES savings are used (“AStdWBkWh”, “AStdWBkW”, and AStdWBtherm”). | Updated the Base Case Description to: The measure assumes pre-existing (accelerated replacement) baseline technologies and standard/code (normal replacement) baseline technologies described in the DEER Water Heater Calculator tool version 4.2 |
| SWWH027A through SWWH027R are Water Heater Calculator v.4.2 measures and in the workpaper are described as the “Com” variety (commercial sector). SWWH027S through SWWH027AJ are described identically to the A to R “Com” varieties except they are designated “Ind” (industrial sector). However, the industrial sector measures are not listed in EAD tables or elsewhere, other than the workpaper measure case description section. How will these measures be used and what UES will be applied for them? | Removed MeasureIDs SWWH027S through SWWH027AJ (intended for industrial sector) and replaced with duplication of Com IDs SWWH027A through SWWH027R but for Ind sector. The UES from the DEER Water Heater Calculator tool version 4.2 (which include results for MBT and MLI building types) will be used for the Ind measures. |
| The electric savings (kWh) section mentions that *“The DEER Water Heater Calculator tool version 4.2 includes a Com building list which includes two building types which are classified as Industrial (MBT and MLI). These two building types were removed from the Com results and new Energy Impact IDs and Measure IDs were created for Industrial sector using the DEER Water Heater Calculator tool version 4.2 results for MBT and MLI building types.”*  However, the included water heater calculator workbook does not appear to have modified the Com building list removing the MBT and MLI weights. Additionally, new MeasureIDs are not present in the calculator workbook created for the MBT and MLI building types. Can you provide the calculator workbook that makes those modifications? | Updated the electric savings (kWh) sectionin the workpaper to “ The DEER Water Heater Calculator tool version 4.2 Com building type list includes two building types which are classified as Industrial (MBT and MLI). The Com Measure IDs were duplicated for Industrial sector referencing the Com Energy Impact IDs from the DEER Water Heater Calculator tool version 4.2 which include results for MBT and MLI building types*.”*  No changes were made to the weighted Com building type energy savings. |
| DEER Difference Summary table: With respect to the comment above, if any weights were adjusted in the calculator, explain specifically what was changed. | No weights were adjusted or applied. All energy impacts are directly from the results of DEER Water Heater Calculator tool version 4.2 |
| The water heater calculator measures used in this workpaper have baseline water heaters with draw patterns and measure water heaters without draw patterns. The data collection effort should include a method to obtain the existing or proposed draw pattern or first hour rating. This will allow proper measure assignment. | 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) |
| How can a 60 gallon hi draw, gas WH be replaced by a lower volume HPWH without excessive electrical resistance use?  See measure table -  Heat Pump Water Heater, >45 to ≤55 Gal, UEF=3.09 (Com)  Storage Natural Gas Water Heater, 50 to less than 60 Gal, Hi Draw, UEF=0.63 | Updated base case descriptions to avoid the baseline unit being replaced by a lower volume unit. The description is now “Heat Pump Water Heater, >45 to ≤55 Gal, UEF=3.09 replacing Storage Natural Gas Water Heater, >45 to ≤55-Gal, High Draw, UEF=0.63”.  Above 55 gallons was moved to the next tier being replaced by a 65-gallon heat pump. Updated EAD tables measure descriptions, but no changes were required to calculations. |