SoCalGas’ response to CPUC Comments on SWHC001-02 Wall Furnace, Residential

Lead PA: SCG

Workpaper Submittal Date: 10/29/2020

CPUC Review Date: 11/25/2020

SCG Response Date: 12/4/2020

CPUC Additional Comments: 12/18/2020

SCG Response Date: 12/31/2020

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 |
| In your example of the Williams furnace below we noted on your application that that furnace is not eligible for downstream incentives, see highlighted. Please explain how that differs from the model you provided in your example below. | The requirement excluding Williams furnaces is for the current downstream rebate only on gravity-type furnaces.  Upon the approval of the revised workpaper for the new fan-type model, the program eligibility and the rebate application will be reviewed and revised as the model in the example is a new rebate category (fan-type) that will be added to the programs. Fan-type wall furnaces have not been offered in our programs due to available models meeting code/standard but not exceeding it in the past. |
| Regarding the Electric impact profile. After reviewing the residential furnace measure, we note that you were using the appropriate **DEER:HVAC\_Eff\_AC** previously. Please revise back to previous. We also note that there are no electric impacts noted from the fan in the wall furnace – similar to how the residential furnace is modeled. Please explain. | We can revert back to the load shape DEER:HVAC\_Eff\_AC.  The fan-type wall furnace would have some electricity consumption.  The electric consumption was not accounted for in the workpaper because it is a very small amount and it assumed to be the same consumption in the measure and base cases, as they are both fan type wall furnaces.   For the electric consumption of small fan, the new technology is under development to completely remove the need for the external AC power input but still achieve the similar AFUE. |
| The measure description says that ≥ 25 kBtu/hr to ≤ 60 kBtu/hr fan type wall furnaces are eligible. However, the measure impacts are provided for 30 kBtu/h size only. What is the basis of using 30 kBtu/h size? Why does the WP not report impacts for different sizes just like with gravity wall furnace? | Gravity-type wall furnace has qualifying units that meet each of three size bins.  Fan-type wall furnace has a qualifying unit only for the smaller size at 30,000 Btu/h so the impacts for the larger sizes were not generated. The text on the measure case description will be revised to limit wall furnaces to capacity <= 42,000 Btu/h, instead of <=60,000 Btu/hr. |
| General comment:  There are several grammatical and formatting errors in the WP. Please review thoroughly. | We will review and revise to correct all errors and resubmit. |
| No match. NTG ID for 2020 "all-default <= 2 years" is not listed in PEAR. Please revise to the correct NTG ID. | Correct NTG ID spelling is “All-Default<=2yrs”. In the EAD, the NTG ID was incorrectly written as “All-Default>2yrs. It will be corrected to the proper spelling. |
| No match found on PEAR. EAD uses "DEER:HVAC\_Eff\_AC" Please select correct profile. | We noted that there is an electric impact profile “DEER:HVAC\_Eff\_AC” in READI Ex Ante Database (see screenshot below). However, we will switch it to “DEER:Indoor\_CFL\_Ltg”. Please note that this profile ID is only a placeholder as there are no electric savings in this measure. |
| Fan-type wall furnaces have been around for a while and are not considered emerging technologies. One criteria for allowing an ET is if it has been in a program for less than 2 years. Another criteria is CPUC determination that it is not an emerging technology. Fan-type wall furnace seems to have been around for since 2014 and even earlier.  There already are Title 24 requirements for fan-type wall furnaces. | We believe this comment is related to the adoption of NTG ID “All-Default<=2yrs” for 0.70 NTGR. Although the fan-type wall furnace technology is not new to the market, this higher efficiency model is new to the market.  For a long time, fan-type wall furnaces have typically been built to barely meet code requirements of 75% or 76% as shown in below table.  SoCalGas has been working closely with a manufacturer during the product development stages to make sure they are provided incentives for designing and building units with much higher efficiency (82% AFUE in this case) than the code minimum. See screenshots from Williams and distributor websites below. We believe 0.70 NTG ID “All-Default<=2yrs” is applicable for the new fan-type furnace measure. |