

State of California

Memorandum



Date: 06/10/2024

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CC: Leanne Hoadley

From: Peter Biermayer P.E., Utilities Engineer, EE Planning & Forecasting Section, Energy Division, CPUC

Subject: Disposition Approving Large Heat Pump Water Heater, Commercial and Multifamily, Fuel Substitution – Measure Package SWWH028-04

1. Discussion and Direction

The California Public Utilities Commission (CPUC) approves the statewide measure package for Large Heat Pump Water Heater, Commercial and Multifamily, Fuel Substitution – SWWH028-04. This is a revision to an existing measure package SWWH028-03, updated mid-cycle because of an error correction in the multifamily central HPWH EnergyPlus model and savings records. The existing EnergyPlus model overstated the heat pump efficiency by roughly 6 times leading to under reported electric consumption in

SWWH028-03. The EnergyPlus model has been corrected by fixing the condenser object within the EnergyPlus model which led to more reasonable heat pump efficiency ratings compared to the baseline. This update results in significant increases in electric consumption for the central multifamily offerings. There are no changes to the commercial offerings. SWWH028-04 will become effective retroactive to January 1, 2024.

2. Measure Package Summary

SWWH028-04 was submitted to the CPUC for review on May 7, 2024. The Ex Ante Review Team had minor permutation versioning and minor text edit comments. The measure package was resubmitted with all comments addressed on May 20, 2024. This measure package is a large heat pump water heater fuel substitution measure package eligible for multifamily and commercial buildings. The commercial heat pump water heater records are unchanged compared to SWWH028-03. The error correction only impacted the multifamily offerings.

Key updates include:

- Corrected the multifamily measure offerings to use the DEER2024 EnergyPlus model version for energy savings
- Added rebate greater than IMC addendum language

3. Critical Review Issues

All updates were completed in accordance with CPUC policy and guidance. The Ex Ante Team produced the updated DEER2024 central multifamily records for use to correct the under reported electric consumption. The measure package developer brought those updates in as expected. The Ex Ante Review Team recommends approval of SWWH028-04.