

State of California

M e m o r a n d u m



Date: February 19, 2020

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CC:

From: Peter Biermayer - Utilities Engineer, Industrial/ Agricultural Programs and Portfolio Forecasting Section, Energy Efficiency Branch, Energy Division, CPUC

Subject: Disposition Approving Statewide Workpaper: Variable Speed Drive for HVAC Fan Controls **SWHC018-02**

1. Discussion and Direction

The California Public Utilities Commission (CPUC) approves the revised statewide workpaper SWHC018-02 Variable Speed Drive (VSD) for HVAC Fan Controls. This workpaper is a Phase 2 submission for 2020 effective February 19, 2020. This statewide consolidated workpaper will supersede the existing statewide consolidated workpaper SWHC018-01.

2. Workpaper Summary

This workpaper is a revision to the Phase 1 statewide consolidated workpaper SWHC018-01 to include grocery building type modeled using eQUEST 3.65-7175 energy modeling software to estimate energy savings and demand reduction. In addition, the models use DEER 2020 prototypes obtained from MASControl3 serving as the base case with the 2010 climate zone (CZ2010) weather files and the same modifications for D03-051 to represent the measure case. The model inputs, and simulation results were reviewed and are deemed reasonable.

This measure pertains to the installation of an electronic variable speed drive (VSD) on a ventilation fan. A VSD is a more efficient method of regulating speed or torque than throttling valves, inlet vanes, and fan dampers. A VSD on the fan motor will enable the fan to reduce its speed and reduce air flow more efficiently when the building load determines a need for lower air flow volume, thereby reducing the energy use of the fan.

This workpaper covers the statewide measure: SWHC018A VSD on HVAC Fan Control