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Docket Number:	17-BSTD-02
Project Title:	2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking
TN #:	222263
Document Title:	Staff Supplement Drain Water Heat Recovery
Description:	Staff Supplement to CASE Report #2019-RES-DHW2-F by Danny Tam.
Filer:	Adrian Ownby
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	1/19/2018 2:21:00 PM
Docketed Date:	1/19/2018

**CALIFORNIA ENERGY COMMISSION**

1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

Staff Supplement to CASE Report #2019-RES-DHW2-F

Date: 2017-10-20

Pages: 2

Author: Danny Tam

Subject: Drain Water Heat Recovery - 2019-RES-DHW2-F

DESCRIPTION OF PROPOSED REGULATORY CHANGES

CASE report #2019-RES-DHW2-F titled Drain Water Heat Recovery, proposes to make the following changes to the Standards:

- The CASE proposal recommends the addition of a new compliance credit for Drain Water Heat Recovery (DWHR) systems. The proposal covers both vertical and horizontal configurations and impact single family and low-rise multifamily newly constructed buildings.
- The CASE proposal recommends changes to Section 150.1(c)8Aii to add a prescriptive alternative option for DWHR system in single family buildings.
- The CASE proposal recommends changes to Section 150.1(c)Biii to add a prescriptive alternative option for DWHR system with reduced solar fraction requirement for multifamily buildings.
- The CASE proposal recommends new sections RA3.6.9 and RA4.4.21 in the Residential Appendix to specify eligibility requirements for the DWHR compliance credit.
- The CASE proposal recommends changes in the Residential ACM Reference Manual Appendix B-Water Heating Calculation Method. The proposed change will modify the hot water consumption and cold water inlet temperature formulas when a DWHR system is installed.

Staff agrees with the recommended changes to Section 150.1, RA3.6.9, RA4.4.21 and Residential ACM Reference Manual and has incorporated substantively similar changes into the proposed Express Terms.

STAFF ANALYSIS AND CONCLUSION

Staff has analyzed the submitted CASE report and reached the following conclusions for the measures included in the Express Terms:

- Based on the evidence presented in the CASE Report, the measures, as proposed, have appropriately followed the Energy Commission's Life Cycle Cost methodology.
- Measure costs premiums presented in the CASE Report are reasonable and appropriate for the measure proposed.
- Measure energy savings presented in the CASE Report appear to have been appropriately modeled and are credible.