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***Staff Supplement to California Statewide Codes and Standards
Enhancement (CASE) Team Measure Proposal Multifamily Domestic Hot
Water***

Date: March 28, 2024

Pages: 2

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Description of Proposed Regulatory Changes

The measure change proposal submitted by CASE team and titled “Multifamily Domestic Hot Water” proposes to make the following changes to the Standards:

- Add mandatory ventilation and backup heat requirements to heat pump water heater installation to ensure best practice in heat pump water heater installation and energy efficiency.
- Add a new mandatory requirement for field verification of insulation quality in central systems. In addition, clarify the pipe insulation requirement by a comprehensive list of mandatory pipe insulation requirements including explicitly naming components that would require insulation.
- Update the prescriptive requirements for central heat pump water heaters and add new alternative option for NEEA Advanced Water Heater Specification for commercial heat pump water heater Tier 2 or higher. The update limits the prescriptive option to single-pass heat pump water heater, and requirement related to multi-pass systems have been removed. Multi-pass system can continue to meet the prescriptive requirement with the new NEEA alternative option. The primary storage tank plumbing configuration requirement has been removed to allow design flexibility.
- Add new prescriptive requirements for central system hot water distribution piping to be sized in accordance with the California Plumbing Code Appendix M.
- Add new prescriptive requirements for thermostatic master mixing valves for central recirculation systems.

- Add general requirements applicable for all electric ready requirements. This new requirement ensures the entire building's electrical system have sufficient capacity to supply full rated amperage for all electric ready appliance in accordance with the California Electrical Code.
- Add new compliance credit for thermostatic balancing valve for central systems.
- Add electric ready requirements for central heat pump water heater. This new requirement includes space reserved for heat pump, storage tank, condensate drainage piping, and electrical bus.
- Add new Joint Reference Appendix JA15 is to support updates to the Standard language relating to central heat pump water heater ready.

Staff agrees with the proposed changes to Sections 110.3, 160.4(e), 160.9, 170.2(d), and JA15 and have incorporated substantively similar changes into the proposed Express Terms. JA15 has been renumbered to JA16 due to new proposed JA15 from the CASE proposal Multifamily Domestic Hot Water.

Staff Analysis and Conclusion

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

- Based on the evidence presented in the proposal, the measures, as proposed, is cost effective and the author has appropriately followed the Energy Commission's Life Cycle Cost methodology.
- Measure costs premiums presented in the proposal are reasonable and appropriate for the measure proposed.
- Measure energy savings presented in the proposal are appropriately modeled and appear credible.
- Measure environmental impacts presented in the proposal are reasonable and appropriate for the measure proposed.