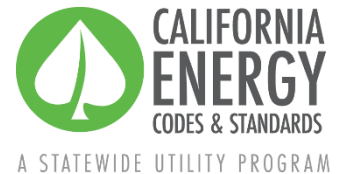


Proposal Summary



2022 California Energy Code (Title 24, Part 6)

Multifamily Domestic Hot Water – Drain Water Heat Recovery

Updated: February 11, 2020

Prepared by: Jingjuan (Dove) Feng (TRC)

Introduction

The document summarizes proposed revisions to the California Energy Code (Title 24, Part 6) that will be discussed during Round 2 of the utility-sponsored stakeholder meeting on March 17, 2020. The Statewide Utility Codes and Standards Enhancement (CASE) Team is seeking input and feedback. To provide your comments, email info@title24stakeholders.com.

Measure Description

The Statewide Codes and Standards Enhancement (CASE) Team has evaluated the drain water heat recovery (DWHR) measure that would prescriptively require DWHR in all multifamily buildings for all hot water system types.

However, Senate Bill 7 (SB7) introduced a significant hurdle for the multifamily DWHR topic. The requirement for submetering of all water use in multifamily dwelling units adds an estimated cost of \$175 per dwelling unit served to the installation of a DWHR device. The requirements in SB7 would require the submeters for market-rate dwelling units, but not for affordable housing. This presented another layer of complexity. The Statewide CASE Team met with HCD on multiple occasions to discuss this measure and proposed a submetering exception for DHWR, but HCD ultimately denied the exemption.

In analyzing the cost effectiveness of a prescriptive DWHR requirement for multifamily buildings, the Statewide CASE Team has demonstrated marginal cost effectiveness in most climate zones without the submetering requirement. Benefit-to-cost ratios range from 0.60 in the mid-rise prototype for Climate Zone 15 to 1.38 in the low-rise garden prototype for Climate Zone 1. However, with the submetering requirement, DWHR is not cost effective. Initial calculations for benefit-to-cost ratio range from 0.29 in the mid-rise prototype for Climate Zone 15 to 0.81 in the low-rise garden prototype for Climate Zone 1.

Consequently, the Statewide CASE Team is not justified in proposing a prescriptive requirement for DWHR in multifamily buildings and recommend that this measure be reconsidered if a change in SB7 removes the requirement for submeters in market-rate multifamily buildings, if HCD provides an exception, or if a change in market conditions increases cost-effectiveness significantly.

Draft Code Language



The Energy Commission plans to create a multifamily chapter for inclusion in 2022 Title 24, Part 6. The multifamily chapter will draw from the appropriate sections of the 2019 residential and nonresidential Standards.

No code change proposed.

