











2025 CODE CYCLE

Verification Clean Up

Codes and Standards Enhancement (CASE) Proposal Multifamily | Restructuring



Lucy Albin May 22, 2023





Agenda



Overview of Code Change Proposal

Summary of Stakeholder Feedback

Evolution of the Measure

Next Steps



Code Change Proposal

Proposed Code Change

Goal is to align compliance options for all multifamily buildings, regardless of number of stories, to streamline requirements and compliance

Three aspects of the proposed code change:

- 1. Extend existing HERS compliance credits to multifamily buildings with four or more habitable stories
- 2. Remove verification requirements for buildings with three or fewer habitable stories, so that the compliance options can be claimed without verification for all applicable multifamily buildings
- 3. Remove compliance options that are not applicable or common in multifamily buildings

Proposed Code Change

	Compliance Options Affected	Buildings ≤ 3 Stories		Buildings ≥ 4 Stories	
		Current Code	Proposed Code	Current Code	Proposed Code
1. Extend Compliance Options	 Low Leakage Airhandling Units Variable Capacity Heat Pump (VCHP) 	Available with HERS verification	Available with HERS verification	Not available	Available with HERS verification
2. Remove Verification Requirements	 Verified EER/EER2 Verified SEER/SEER2 Verified HSPF/HSPF2 Rated Heat Pump Capacity Verification 	Available with HERS verification	Available without HERS verification	Available without HERS verification	Available without HERS verification
3. Remove Compliance Options	 Evaporatively Cooled Condensers Whole House Fan Central Fan Ventilation Cooling System 	Available with HERS verification	Not available	Not available	Not available



Summary of Stakeholder Feedback

- Summary of Feedback Received
- Measure Evolution
- Potential Barriers and Solutions
- Cost Information

Summary of Feedback Received

Stakeholders expressed a desire for streamlining code requirements

Central fan ventilation cooling system and whole house fan identified as least common measures in multifamily

Proposal simplifies and streamlines requirements

Compliance options that are uncommon removed for multifamily

Stakeholder feedback was split on whether to maintain division of dwelling unit and common use area verification measures between HERS Raters and ATTS

Some stakeholders expressed the belief that HERS program should be limited to buildings ≤ 3 stories

No change proposed

Not expanding HERS verification to more complex systems

Evolution of the Measure – Extend Compliance Options

- Initially proposed extending all compliance options to buildings with four or more habitable stories that are not currently allowed
 - Based on stakeholder feedback, changed proposal to:
 - Extend only low leakage air-handling units and VCHP
- No barriers identified for extending compliance options to dwelling units in multifamily buildings with four or more habitable stories

- Low leakage air-handling units are on a list of approved units published by the CEC with a leakage rate of ≤ 5%. Field verification of air handler model number is required
- Variable capacity heat pump (VCHP) option verifies that: system equipment is listed in CEC lowstatic pressure systems, non-continuous fan operation, refrigerant charge, low leakage ducts in conditioned space, ductless system in conditioned space, airflow to all habitable spaces, wallmounted thermostats for zones >150 ft2, ducted airflow, and air filter pressure drop

Poll Request

- Measure Name: Verification Clean Up
- Type of Poll: Multiple choice (one answer)
- Question: Do you support the proposal to extend low leakage air-handling units and VCHP compliance options to all multifamily buildings?
- Answers: Yes, Yes with additional change, No, Not sure
- Placement: after slide 24 (Evolution of Measure)

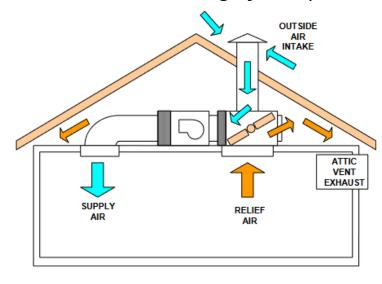
Evolution of the Measure – Remove Compliance Options

- Initially proposed extending all compliance options to buildings with four or more habitable stories that are not currently allowed
- Based on stakeholder feedback, changed proposal to:
 - Remove options not common in multifamily buildings (whole house fan, evaporatively cooled condensers, and central fan ventilation cooling systems)
- Proposal will avoid poor compliance and verification challenges that result from HERS raters not
 practicing these verifications regularly and developers not claiming these measures regularly and
 streamline requirements
- Fewer overall compliance options for multifamily buildings, not expected to impact compliance as claiming these are uncommon
- No other barriers identified for removing uncommon compliance options in multifamily buildings

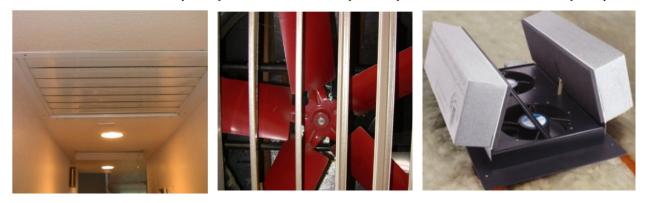
Measures being Dropped

- Central Fan Ventilation Cooling System essentially an outdoor air economizer for residential dwelling units
- Whole House Fan increases ventilation of attic space when hot outside – reduces temperature of attic reducing heat transmission into cooling ducts and into conditioned space below.
- Evaporatively cooled condensers
 - certification water use ≤ 0.15 gpm/ton
 - supply line diameter ≤ ½ inch

Central Fan Ventilation Cooling System (Outdoor Air Mode)



Whole House fan (dampers closed, dampers open and insulated dampers)



Images from residential compliance manual

Poll Request

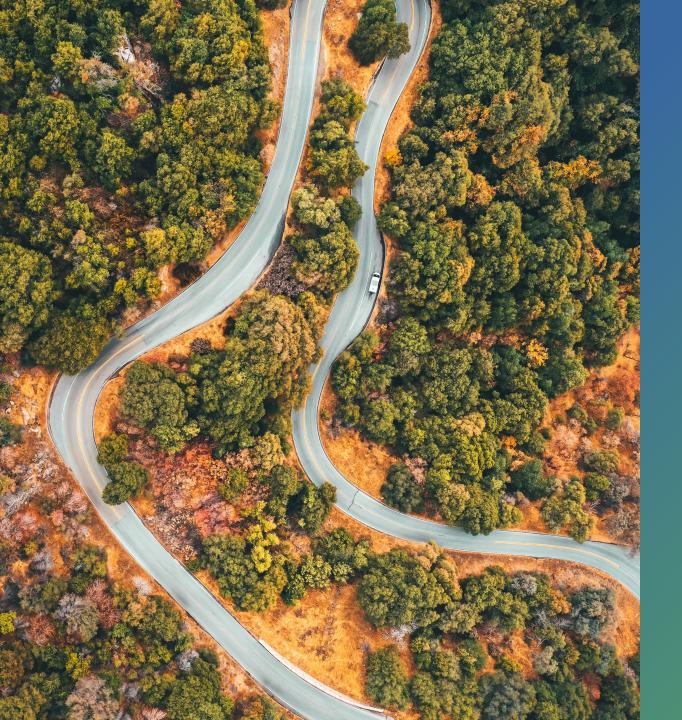
- Measure Name: Verification Clean Up
- Type of Poll: Multiple choice (one answer)
- Question: Do you support the proposal to remove compliance options that are uncommon in multifamily buildings?
- Answers: Yes, Yes with additional change, No, Not sure
- Placement: after slide 27 (Evolution of Measure)

Evolution of the Measure – Remove Verification Requirements

- Initially requested stakeholder feedback to understand the necessity for requiring verification for existing performance credits in buildings with four or more habitable stories
- Now, we are proposing to remove third party verification requirement for buildings with three or fewer habitable stories to align requirements
 - Verified EER/EER2
 - Verified SEER/SEER2
 - Verified HSPF/HSPF2
 - Rated Heat Pump Capacity Verification
- Easily confirmed by building inspector
- Proposal will streamline requirements across all multifamily buildings

Poll Request

- Measure Name: Verification Clean Up
- Type of Poll: Multiple choice (one answer)
- Question: Do you support removing verification requirements from compliance options in MF blds ≤ 3 stories to align with current requirements for MF blds ≥ 4 stories?
- Answers: Yes, Yes with additional change, No, Not sure
- Placement: after slide 30 (Evolution of Measure)



Discussion and Next Steps

We want to hear from you!

- Provide any last comments or feedback on this presentation now verbally or over the GoTo Webinar Questions Pane
- More information on pre-rulemaking for the 2025
 Energy Code at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2025-building-energy-efficiency

Comments on this measure are due by May 31, 2023. Please send comments

to <u>info@title24stakeholders.com</u> and copy CASE Authors (see contact info on following slide).

Thank You

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