

## DOCKETED

<b>Docket Number:</b>	15-AAER-01
<b>Project Title:</b>	Appliance Efficiency Rulemaking for Toilets, Urinals, Faucets, HVAC Air Filters, Fluorescent Dimming Ballasts, and Heat Pump Water Chilling Packages
<b>TN #:</b>	204198
<b>Document Title:</b>	Nate Dewart, Energy Solutions, on behalf of California IOUs Comments: IOU CASE Response_Title 20 45-Day Language_Federal Alignment
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Nate Dewart, Energy Solutions, on behalf of California IOUs
<b>Submitter Role:</b>	Other Interested Person
<b>Submission Date:</b>	4/14/2015 11:03:39 PM
<b>Docketed Date:</b>	4/14/2015

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*Submitted On: 4/14/2015*  
*Docket Number: 15-AAER-01*

**IOU CASE Response\_Title 20 45-Day Language\_Federal Alignment**

*Additional submitted attachment is included below.*

# Title 20

Codes and Standards Enhancement (CASE) Initiative  
For PY 2015: Title 20 Standards Development

Response to 45-Day Language for  
**Alignment with Federal Standards**

April 15, 2015

Prepared for:



PACIFIC GAS & ELECTRIC  
COMPANY



SOUTHERN CALIFORNIA  
EDISON



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This report was prepared by the California Statewide Utility Codes and Standards Program and funded by the California utility customers under the auspices of the California Public Utilities Commission.

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# 1 Executive Summary

The Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), Southern California Gas (SCG), San Diego Gas & Electric (SDG&E) Codes and Standards Enhancement (CASE) Initiative Project seeks to address energy efficiency opportunities through development of new and updated Title 20 standards. The comments provided in this document are made in response to the California Energy Commission's 45-Day Language for maintaining the Title 20 Document to accurately reflect federal standards.

## 2 Comments on 45-day Language

### 2.1 The 45-day Language Should Be Modified to Accurately Reflect Current Federal Standards

We recommend CEC modify the 45-day language to accurately reflect federal standards as written, with the following changes:

- 1) (a3) Automatic Commercial Ice Makers: There are new federal standards that have been finalized and take effect in January 2018. These future standards should be listed in the proposed update to the Title 20 language.
- 2) (u) Power Supplies: There are new federal standards that have been finalized and take effect in February 2016. These future standards should be listed in the proposed update to the Title 20 language.
- 3) (d) Furnace Fans: There are new federal standards that have been finalized and take effect in July 2019. These future standards should be listed in the proposed update to the Title 20 language in 1605.1. In 1606, the proposed permissible answers in Table X do not correspond to "furnace fan type" as these entries are different HVAC system combinations into which any particular furnace fan may be included. There are a variety of furnace fan types many of which were identified in the DOE rulemaking as technology options:

- PSC motor fans
- Constant torque BPM (single and multi-stage)
- Constant airflow BPM
- Other max tech options (premium BPM with backward-curve impeller)

It is unclear whether CEC intends to collect the HVAC system into which a furnace fan may be paired with or was simply mistaken in listing different HVAC systems as furnace fan types. If the former, we recommend an additional row with the HVAC system type a furnace fan is being paired.

- 4) (f) Residential Water Heaters: the current Title 20 standards need to be further aligned with the Federal standards in the following sections:
  - Definitions: The "energy factor" definition should be updated based on DOE's new "Uniform Energy Factor" on page 27.

- Test Procedure: Update 1604(f) to reflect the revised test procedure for residential water heaters that was adopted by DOE in 2014.
  - Standards: Table F-3 should include the following changes:
    - A. Gas-fired storage-type water heaters should state the range of the rated storage volume for the less than 55 gallon category and greater than or equal to 55 gallon category (e.g., Gas-fired Water Heaters: greater than or equal to 20 gal and less than 55 gal, rather than less than or equal to 55 gal)
    - B. Oil-fired water heaters should only apply to storage (no standards for oil instantaneous) and should have a rated SV of less than or equal to 50 gal rather than "any"
    - C. Electric storage: same comment as "a" above
    - D. "Electric" should be removed from the tabletop water heaters category. The rated storage volume should be greater than or equal to 20 gal and less than or equal to 100 gal
    - E. Gas-fired and electric instantaneous water heaters should include the rated storage volume range instead of stating "any."
- 5) (a4) Walk-in Coolers and Walk-in Freezers: The updated sections do not and should reflect the complete updates from the final rule which passed last June. There appear to be a few definitions that were updated ("Display Doors" and "Freight Doors"), but not all. Also, for clarification, the added language to the standard should be placed in the following location:
- \*\*\*
- (C) contain wall, ceiling, and door insulation of at least R-25 for coolers and R-32 for freezers, except that this subparagraph shall not apply to glazed portions of doors nor to structural members and a walk-in cooler or walk-in freezer component if the component manufacturer has demonstrated to the satisfaction of the Secretary in a manner consistent with applicable requirements that the component reduces energy consumption at least as much as if such insulation requirements of Section 1605.1(a)(4)(C) of this Article were to apply.
- \*\*\*
- 6) (b) Central Air Conditioners: In Table C-6, Standards for Computer Room Air Conditioners, in the bottom row, Glycol-Cooled with a fluid economizer for cooling capacity < 65,000, the Minimum SCOP efficiencies for down-flow unit for should read 2.40, instead of 2.45.
- 7) (f) (2) Microwave Ovens: The federal standards note "Maximum Standby Power"; the updated language in Title 20 makes a change from "maximum" to "average" in the text. The term "maximum" should not be crossed out and "average" should not be used so that it reads: "..the maximum standby power rating..."
- 8) (p) (1) Residential Clothes Washers:
- Revised T20 standards are missing a reference to test procedure that should be used for products after March 7, 2015 (i.e. Appendix J2 to Subpart B of Part 430)

- Standards for suds-saving product class should include a foot note that says "Applies to standard-size front-loading clothes washers only."
  - Table X should read "Modified Energy Factor" instead of "Energy Factor". In 2015, it should read "Integrated Modified Energy Factor" and "Integrated Water Factor" instead of "Modified Energy Factor" and "Water Factor".
- 9) (p) (3) Commercial Clothes Washers: Proposed language should be updated to reflect changes that were adopted in the DOE Final Rule published December 15, 2014.
- 10) (h) (1) Showerheads: On pg. 126, the final sentence that currently reads, *Showerheads shall also meet the requirements of ASME/ANSI Standard A112.18.1M-1996, 7.4.4(a)* should be revised to:

*When used as a component of any such showerhead, the flow-restricting insert shall be mechanically retained at the point of manufacture such that a force of 8.0 pounds force (36 Newtons) or more is required to remove the flow-restricting insert, except that this requirement shall not apply to showerheads for which removal of the flow-restricting insert would cause water to leak significantly from areas other than the spray face.*

This effectively removes all reference to the old ANSI/ASME standard (ANSI/ASME A112.18.1M-1996 Plumbing Fixture Fittings), and aligns T20 with Federal language.

## 2.2 Additional modifications to Title 20 language:

- 1) Test & List required products: For the following products with a test and list requirement, to help improve compliance, we recommend that Section 1605.3 cross reference the requirements in 1606, as is being proposed for heat-pump water chilling packages in this 45-day language. For example, “there is no energy efficiency standard or energy design standard of XXXXX. The performance of each model shall be reported per the requirements of section 1606 for equipment manufactured on or after XX, XXXX.”
- Commercial Convection Ovens
  - Commercial Range Tops
  - Infrared Gas Space Heaters
  - Spot Air Conditioners
  - Evaporative Coolers
  - Whole House Fans
- 2) Wine Chillers: The sentence below appears to be incomplete and possibly incorrect regarding the date and may need to be corrected to clarify the effective date of the wine chillers standard:

“(7) See Section 1605.3(a) for energy efficiency and energy design standards for refrigerated canned and bottled beverage vending machine manufactured before August 31, 2012, freezers with volume exceeding 30 ft<sup>3</sup> that are consumer products, wine chillers”