

## DOCKETED

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**IOUs Computers 15-Day Language CASE Response**

*Additional submitted attachment is included below.*

# Computers

Codes and Standards Enhancement (CASE) Initiative  
For PY 2016: Title 20 Standards Development

Response to CEC 15-day Express Terms for  
**Computers**

Docket #16-AAER-2

December 13, 2016

Prepared for:



PACIFIC GAS &  
ELECTRIC COMPANY



SOUTHERN  
CALIFORNIA EDISON



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ELECTRIC



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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 California Investor Owned Utilities (CASE Team) has provided robust testing, market, and performance data analysis to support this CEC rulemaking since 2013.<sup>1</sup> The CASE Team generally supports adoption of the first-in-the-nation energy efficiency standards for computers proposed by the California Energy Commission (CEC) in the 15-day Language Express Terms. The CASE Team also strongly supports the resolution adopted by the CEC to closely track the market to ensure that the regulations achieve the energy savings projected for that market. After the adoption of this 15-day language, The CASE Team recommends three areas of focus:

- 1) Monitoring the data submitted to the database for model-weighted average TEC and compare that to the CEC Staff Report analysis, with special attention to:
  - % distribution of desktop computers, mobile gaming systems and thin clients in the three computer types defined by expandability score
  - # of models reported as high expandability and workstations computers
  - % of computers utilizing the “remote wake” duty cycle
- 2) Modifications that clarify the regulatory language not previously recommended by the CASE Team to ensure that savings from these cost-effective and feasible standards are achieved:

Issue	Recommended Changes
A) Definitions of system memory	<ul style="list-style-type: none"> <li>● The definition and calculation method for “system memory” should be explicit as it has a prominent role in determining the energy allowances. “System memory” is listed 13 times in the regulation and appears to have three different meanings, but is not defined. We suggest definitions of “total system memory,” “package system memory” and “main system memory,” clarifying our understanding of the intent for each.</li> </ul>
B) Clarification of requirements for the definition and requirements for high expandability computers	<ul style="list-style-type: none"> <li>● The test procedure references the ENERGY STAR 6.1 test procedure and specification where definitions do not align with the Title 20 definitions. More specifically, “desktops” are required to be tested, but high-expandability computers are not considered “desktops,” yet are required to report TEC. Our understanding of the intent is for high-expandability computers to be tested and listed for all rows in Table X, not just the TEC values, but the current language makes this unclear. We recommended a full review and modification to the test procedure language to clarify the intent.</li> </ul>

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<sup>1</sup> Docket 12-AAER-2A

- 3) Modifications recommended in previous comments submitted in response to the CEC's Staff Report<sup>2</sup> and 45-day language<sup>3</sup> regarding key items including the high expandability desktop definition and exemption thresholds, workstation definition and PCI Express-related interfaces definition.

Addressing these elements will allow California to even further respond to some of the statewide policy objectives of the Zero Net Energy California Long Term Energy Efficiency Strategic Plan and AB32 energy efficiency goals. We appreciate careful consideration of these comments.

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<sup>2</sup> [http://docketpublic.energy.ca.gov/PublicDocuments/14-AAER-02/TN211614\\_20160523T163525\\_California\\_Investor\\_Owned\\_Utilities\\_Comments\\_California\\_Investo.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/14-AAER-02/TN211614_20160523T163525_California_Investor_Owned_Utilities_Comments_California_Investo.pdf)

<sup>3</sup> [http://docketpublic.energy.ca.gov/PublicDocuments/16-AAER-02/TN214159\\_20161024T151731\\_California\\_Investor\\_Owned\\_Utilities\\_Comments\\_California\\_Investo.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/16-AAER-02/TN214159_20161024T151731_California_Investor_Owned_Utilities_Comments_California_Investo.pdf)