

CalPlug Set-Top Box Workshop

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy



Department of Energy
Power Mode Regulatory
Requirements

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*“The Department of Energy is amending its rulemaking schedule for set-top boxes to suspend the issuance of a proposed rule for a regulatory test procedure or energy conservation standard until after October 1, 2012. This suspension will allow industry representatives and energy efficiency advocates time to negotiate a non-regulatory agreement to improve the energy efficiency of set-top boxes. If successful, a non-regulatory agreement could become effective quickly. DOE will provide technical support to ensure that any non-regulatory agreement sufficiently addresses the public interest in improving set-top box energy efficiency. **DOE will also continue testing and evaluating the energy efficiency of set-top boxes in support of developing a DOE test procedure. DOE will undertake analysis in preparation for a regulatory standard in the event a non-regulatory agreement cannot be reached or to cover any class of set-top boxes not covered by a non-regulatory agreement.**”*

http://www1.eere.energy.gov/buildings/appliance_standards/residential/set_top_boxes.html

- DOE is in process of developing a test procedure for Set-Top Boxes
 - The next stage in the rulemaking process would be the publication of a Notice of Proposed Rulemaking (NOPR) for DOE STB Test Procedure
 - Once finalized, the DOE Test Procedure would be used to measure the energy consumption of STBs for use with any voluntary (e.g. ENERGYSTAR), state, or federal standard
 - DOE Test Procedure will define and provide test method for all modes of operation required by EISA.
 - Unable to discuss a potential NOPR until it is published by DOE

Pursuant to EPCA (as amended by EISA 2007)

Test procedures for all covered products shall be amended to include active mode, standby mode and off mode energy consumption with such energy consumption integrated into the overall energy efficiency, energy consumption, or other energy descriptor for each covered product

42 USC 6295 (gg) Paragraph (2) (A)

Any final rule establishing or revising a standard for a covered product, adopted after July 1, 2010, shall incorporate active mode, standby mode and off mode energy use into a single amended or new standard.

42 USC 6295 (gg) Paragraph (3) (A)

- The term ‘active mode’ means the condition in which an energy-using product—
 - (I) is connected to a main power source;
 - (II) has been activated; and
 - (III) provides 1 or more main functions.

42 USC 6295 (gg) Paragraph (1) (A)(i)

- The term ‘standby mode’ means the condition in which an energy-using product—
 - (I) is connected to a main power source; and
 - (II) offers 1 or more of the following user oriented or protective functions:
 - (aa) To facilitate the activation or deactivation of other functions (including active mode) by remote switch (including remote control), internal sensor, or timer.
 - (bb) Continuous functions, including information or status displays (including clocks) or sensor-based functions.

42 USC 6295 (gg) Paragraph (1) (A)(iii)

- The term ‘off mode’ means the condition in which an energy-using product—
 - (I) is connected to a main power source; and
 - (II) is not providing any standby or active mode function.

42 USC 6295 (gg) Paragraph (1) (A)(ii)

- It is possible to define multiple specific modes for each required mode (i.e. – can have several different “active modes” such as “On-Live” or “On-Record” or several different standby modes) and would have a specific test method for each specific mode.
- Any standardized terminology can be used instead of “active, standby, and off” provided it meets the definition.
- DOE encourages stakeholder comments to any proposed rule and we will take into account and hope to incorporate any harmonization of terms into the DOE test procedure