

NRDC Comments on ENERGY STAR Set Top Box Specification

March 19, 2010



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Comments

- Big Picture Observations/
Challenges
- Specific Comments/Questions
on V3.0 Tier I

Pace of Progress – Fast Enough?

- E-Star looking at set tops for more than 5 years now
- Standby power remains REALLY HIGH
- 50%-70% of the annual energy use of these systems is consumed when the box is NOT IN USE

WHAT IF...

- STBs were battery operated
- Consider your Blackberry or I-Phone

Smart Phones vs. STB

- Smart phones use a trickle of power when in “ready mode.” Same needs/features as STB:
 - ☑ Need to track each discrete user. Billing, security concerns.
 - ☑ Always ready to receive/send e-mail, phone, call, wake instantly
 - ☑ Can receive/play voice, data, video

Need Next Generation STBs

- Only work as hard as task requires
- Standby should be closer to 3W or so when not in use, not 10W – 20W+
- Need to account for all of the components in the system

Allowable Energy

- DVR with HD, multi-tuner, DOCSIS
 - = $72 + 45 + 25 + 16 + 20$
 - = 178 kWh/yr
- About same annual energy as 2010 42”
Panasonic Plasma TV

The DVR uses as much energy as the TV!

A “Low Standby Power World”

If standby $\leq 5W$ and on mode remains $\sim 25W$ then:

Annual energy use = 80kWh/yr

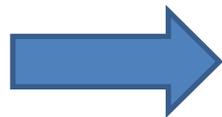
- Specification needs to focus and drive down standby.
- Is the TEC test method/formula really working?

Two Missing Pieces Each 24/7

- LNB – one per dish, if 7W then:

61 kWh/yr EACH

- ONB – optical network box. Now 20W



175 kWh/yr

Verizon Optical Network Terminal



Comments on V3.0 Tier I Spec



V3.0 EPA Data

- Data analysis plot helpful
- Would like to also see actual on and sleep power levels that were reported to better assess where the opportunities lie.
- Nothing confidential about a model's power use
- “Model” specific data useful to compare vs. best in class Asia/Europe models(did EPA try to collect this data?)

Qualification (Lines 54-58)

- Need to continue to “couple”/ “tie” box qualification to particular source provider
- Most demonstrate box as shipped meets the requirements
- Possible same box complies when used on Comcast, but not on Time Warner

Interaction with Service Providers (cont.)

- Could be great box but:
 - a) Service provider turns off certain key energy saving features before deploying
 - b) Service provider's "head end" can not take advantage of box's power saving features

DOCSIS

- What % of models have DOCSIS?
- What is the status of industry's efforts to develop a more efficient version of DOCSIS? Key for TIER 2.

Test Method

- Restricts downloads to 2 hours/day (lines 301-305 of APD section). Good thing.
- Test method does not, however, address this currently. Need to verify this and add needed language.