

# Panasonic Proposals for Draft TV ENERGY STAR Specification Revisions

ENERGY STAR TV Stakeholder Meeting

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**Panasonic ideas for life**

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# Panasonic TV Technologies

- Panasonic sells numerous types of TV technologies in U.S. market including:
  - 42 inches and larger plasma display TVs
  - 26 and 32-inch LCD TVs
  - 50 to 61-inch LCD rear projection TVs



# Recommendations for Modifications to Draft

- Exclude rear projection TVs from calculations
- Maintain IEC measurement conditions
- Internet content should not be factored into calculations at this time
- Modify formula to reflect unique energy needs tied to 1080p resolution (“full HD”)

# EPA Data Unfairly Weights Certain Technologies

TV Technology	Total No. of TVs	No. Meet Standby	% Meet Standby	No. Meet Active	% Meet Active	No. Pass Both	% Pass Both
CRT	7	2	28.6 %	5	71.4%	2	28.6%
LCD	56	47	83.9%	18	32.1%	14	25.0%
Plasma	19	16	84.2%	1	5.3%	1	5.3%
RP-DLP	4	1	25.0%	4	100.0 %	1	25.0%
RP-LCD	6	6	100%	6	100.0 %	6	100.0 %
Total	92	72	78.3%	34	37%	24	26.1%

- Rear projection TVs use same amount of energy regardless of display size
- By including rear projection models in the calculations, flat panel TVs are penalized by a more challenging specification
- Excluding rear projection TVs from calculations would make a more “fair” specification

# IEC Measurement Conditions

- EPA has consistently supported use of IEC 62087 as the most equitable measurement method
  - Request EPA use IEC 62087 (edition 2)
    - Fair to all TV technologies
    - Utilizes dynamic broadcasting content
  - Picture level adjustments per IEC 62087 section 11.3.6 “shall be set as originally adjusted by the manufacturer to the end user”
    - “In the case that a setting mode must be chosen on initial activation, the ‘standard mode’ or equivalent shall be chosen”
    - Settings used in retail environment should be ignored; focus should be on consumer-recommended standard mode

# TV Specification Should Not Include Internet Content

- EPA's draft clearly states qualifying products are marketed "focusing on television as the primary function"
  - Current use of TVs to view internet content is very limited
  - No real usage data exists so proper weighting recommendations are virtually impossible
- Internet video streaming is gaining popularity and has APL similar to dynamic broadcast content
  - However, the IEC internet content video signal “was chosen to best model the actual APL of popular web pages”, not video streaming
- Consequently, internet content should not be factored into ENERGY STAR energy use calculations at this time
  - Requiring on mode testing with internet content video signals unnecessary in this draft specification
  - Future data on TV internet usage patterns could prompt subsequent revisions to ENERGY STAR on mode test procedures

# Resolution an Important Factor in Energy Use

- After screen size, resolution is perhaps the next biggest determinant of energy use
- Full HD (1080p) has 50% more lines than 720p
- European regulators (through European Preparatory Study) are considering energy consumption proposal that recognizes energy use tied to 1080p by giving an allowance of up to 40%
  - EU also considering delaying standard on Full HD until later generation products become more widely available
- Market acceleration toward 1080p needs to recognize energy demands created by full HD
- Yet 1080p resolution ignored by ENERGY STAR draft despite EPA's earlier suggestion that "differences in resolution" could be factored into a specification

## Full HD Only in 1<sup>st</sup> Generation for PDP TVs

- Plasma display TVs only recently have offered 1080p, which is currently in 1<sup>st</sup> generation in response to new consumer demand
  - Short term negative impact on PDP luminescent efficiency, reversing some recent efficiency gains
  - Contrast with LCD TVs, which have offered full HD for multiple generations
  - Subsequent generations of 1080p in PDP TVs should see additional efficiency improvements
  - Consequently, a separate power equation is needed to fairly address additional power needs linked to full HD
  - Precedent exists for dividing ENERGY STAR specs into categories by “performance” (e.g., computers spec)