

IEC TC100 TV Power Project



An Overview
by Jon Fairhurst
IEC TC100 62087 Project Leader
Sharp Labs of America



- The International Electrotechnical Commission is (IEC) over 100 years old
 - 179 technical committees (TCs) and subcommittees (SCs)
 - 700 project teams / maintenance teams
 - Voting is by National Committee
- We are a Project within TC100 (Technical Committee - Multimedia Systems)
 - Initially an NP (New Project); Now an MT (Maintenance Team)

- IEC Document Number:
 - IEC 62087 Ed. 2 (Edition 2)



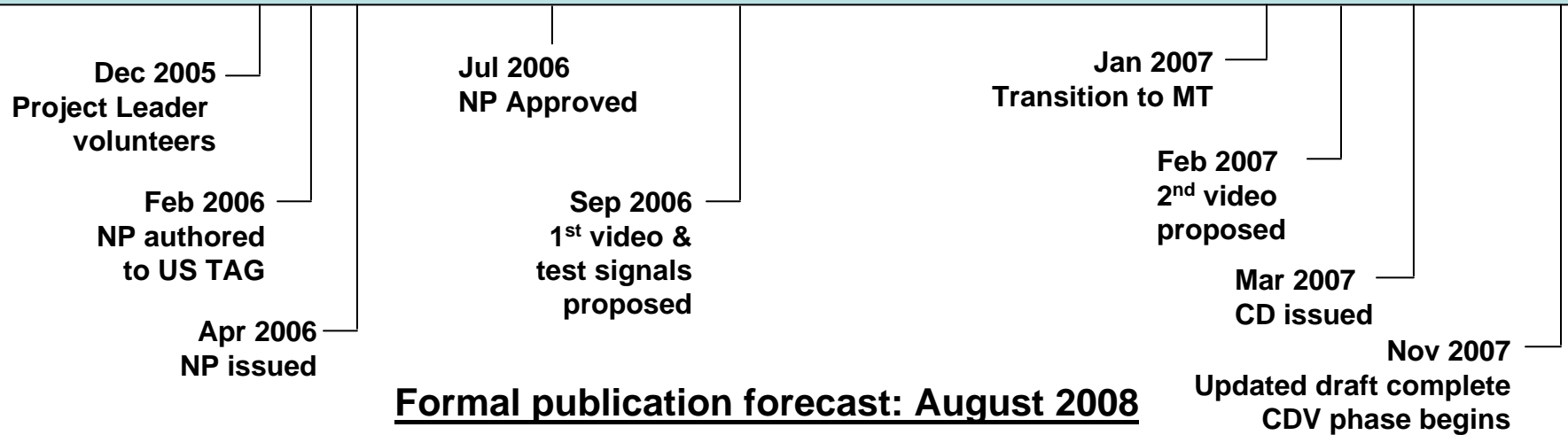
- Scope:
 - Standardize an improved method of measurement for TV On-mode power consumption



- Status:
 - CDV (5 month voting period) to start in November 2007
 - Formal publication forecast: August 2008



Meetings



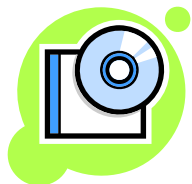
Formal publication forecast: August 2008



- The Team completed the responses to 73 of 74 formal comments



- The Team completed the draft text on all topics, except meter accuracy & editorial items



- The Project Leader has all original video content – mostly in HD
 - We plan 50 & 60 Hz versions
 - We plan DVD, HD DVD & BD versions
 - The new versions will support public power demos



- Normative references:
 - Reference six discs
 - 50 & 60 Hz DVD™
 - 50 & 60 Hz HD DVD™
 - 50 & 60 Hz Blu-ray™ Discs

- Definitions:
 - Clearly define Luma' and APL' as in the "gamma corrected" domain
 - Added various abbreviations, such as DVD™, HD DVD™, Blu-ray™ Disc

- Measurement equipment
 - Working to define meter (or measurement) accuracy
 - Meter is traceable to a national or international standard

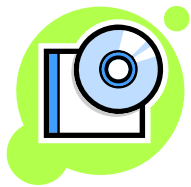
- Clause 6: On (play) mode – maintained for backward compatibility
- Clause 10: Multi-function equipment – maintained for backward compatibility
 - Has been editorially “cleaned up”
 - Does not reference On (average) mode
 - Defines TV with Satellite tuner
 - Defines TV with VCR
 - Note: TV with Terrestrial tuner is just a TV
- Clause 11 (new): TV Power Measurement - On (average) mode
 - Terrestrial, Cable, & Satellite input terminals
 - levels more specifically defined
 - Environmental conditions
 - 23C +/- 5C for sub-clauses 11.5 & 11.6 (broadcast & Internet) only

- Clause 11 (cont.):
 - Stabilization
 - 11.5 (Static signals) remains compatible with JEITA
 - 11.6 & 11.7 (broadcast & Internet) are more tightly defined
 - Stabilize after 1 hour off or disconnected
 - Stabilize for at least one hour, but less than three hours
 - Durations can be reduced if the result is within 2% of full duration tests
 - Defined “Additional Functions”
 - Additional functions are not related to the basic operation of the television set
 - They would include VCR, DVD player, HDD, etc
 - Additional functions to be turned Off
 - *Note that these functions might eliminate the need for an external product. Also, they could represent new innovations.*
 - Defined “Special Functions”
 - Special functions are related to the operation of the television set.
 - They would include special sound processing, power saving features, etc
 - Additional functions to be “in the position adjusted by the manufacturer for shipment to the end user.”

- Clause 11 (cont.):
 - “Standard mode”
 - Defined as “recommended by the manufacturer for normal home use.”
 - Video format
 - Frame rate “should match the frame rate most commonly used in the region.”
 - HD source should be used with HD-capable inputs
 - Additional functions to be turned Off
 - *Note that these functions might eliminate the need for an external product. Also, they could represent new innovations.*
 - Defined core measurement and power saving measurements normatively
 - 11.6.1 $P_{o_broadcast}$ (W)
 - 11.6.2 $P_{a1_broadcast}$ (W) = $P_{o_broadcast}$ (W) – $P_{abc_broadcast}$ (W)
 - 11.6.3 $P_{a2_broadcast}$ (W) = $P_{o_broadcast}$ (W) – $P_{other_broadcast}$ (W)

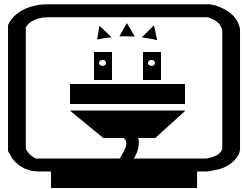


- Team to complete meter accuracy definition
- Team to deliver formal responses and request CDV (5 month vote) in early November



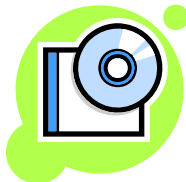
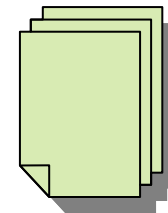
- Project leader to work with IEC regarding how to publish the video discs
- Project leader to continue to support EPA's specification development effort





- The IEC TV Power Project is standardizing average on-mode TV power measurement

- Formal publication in August, 2008



- Video availability is the biggest unknown and the next top priority

- Team has worked hard to achieve broad support using a consensus model

