ENERGY STAR® Displays Stakeholder Webinar: Draft 2 Version 5.0 Specification

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Overview

- Welcome
- Introductions
- Agenda review
- Discussion of Draft 2 Version 5.0 Specification
- Timeline and next steps

Today's Agenda

12:00 p.m.	Welcome & Introductions
12:10 p.m.	Review of agenda
12:15 p.m.	Review of topics addressed in Draft 2
2:15 p.m.	Timeline and next steps
2:30 p.m.	Meeting adjourned

Draft 2 Key Changes

- Prescribed luminance levels
- Sleep requirements and levels
- On Mode requirements
- Automatic Brightness Control
- Lab accreditation
- Environmental impacts

Draft 2 Displays Summary

On Mode Requirements:

Product	On Power Requirement (W)
< 30 “, <= 1.1 MP	P = 0.05 * A + 6 * MP + 3
< 30 “, > 1.1 MP	P = 0.05 * A + 9 * MP + 3
>=30 “	P = 0.12 * A + 35 * MP + 4

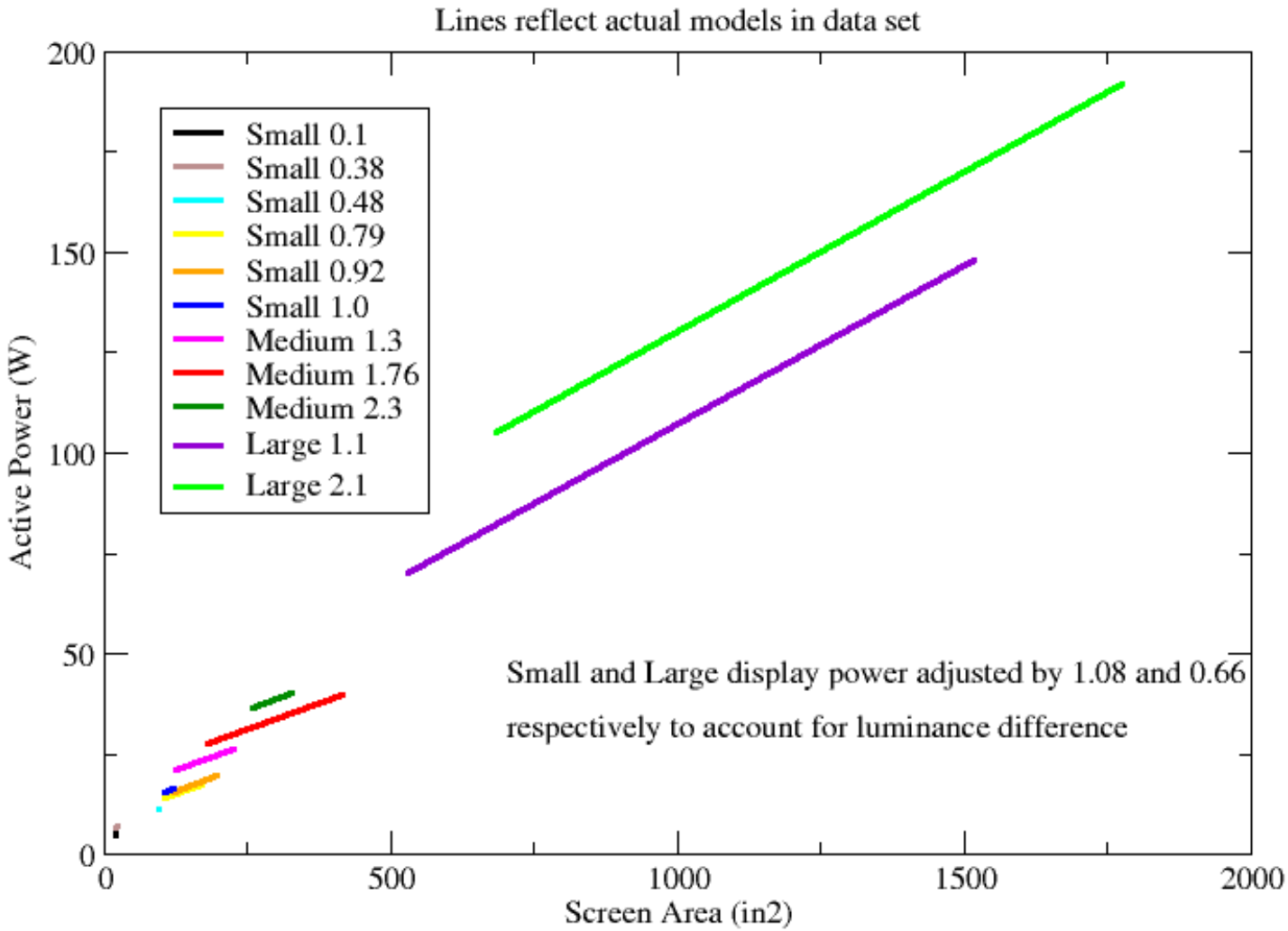
Sleep & Off Mode Requirements (Tier 1):

Product Type	Sleep (W)	Off (W)
< 30 “, <= 1.1 MP	2	1
< 30 “, > 1.1 MP	2	1
>=30 “	4	2

Sleep & Off Mode Requirements (Tier 2) = 1 W (All)

*All product must meet sleep requirement. 50% of DPFs in EPA dataset have a Sleep Mode.

Draft 2 Displays Results



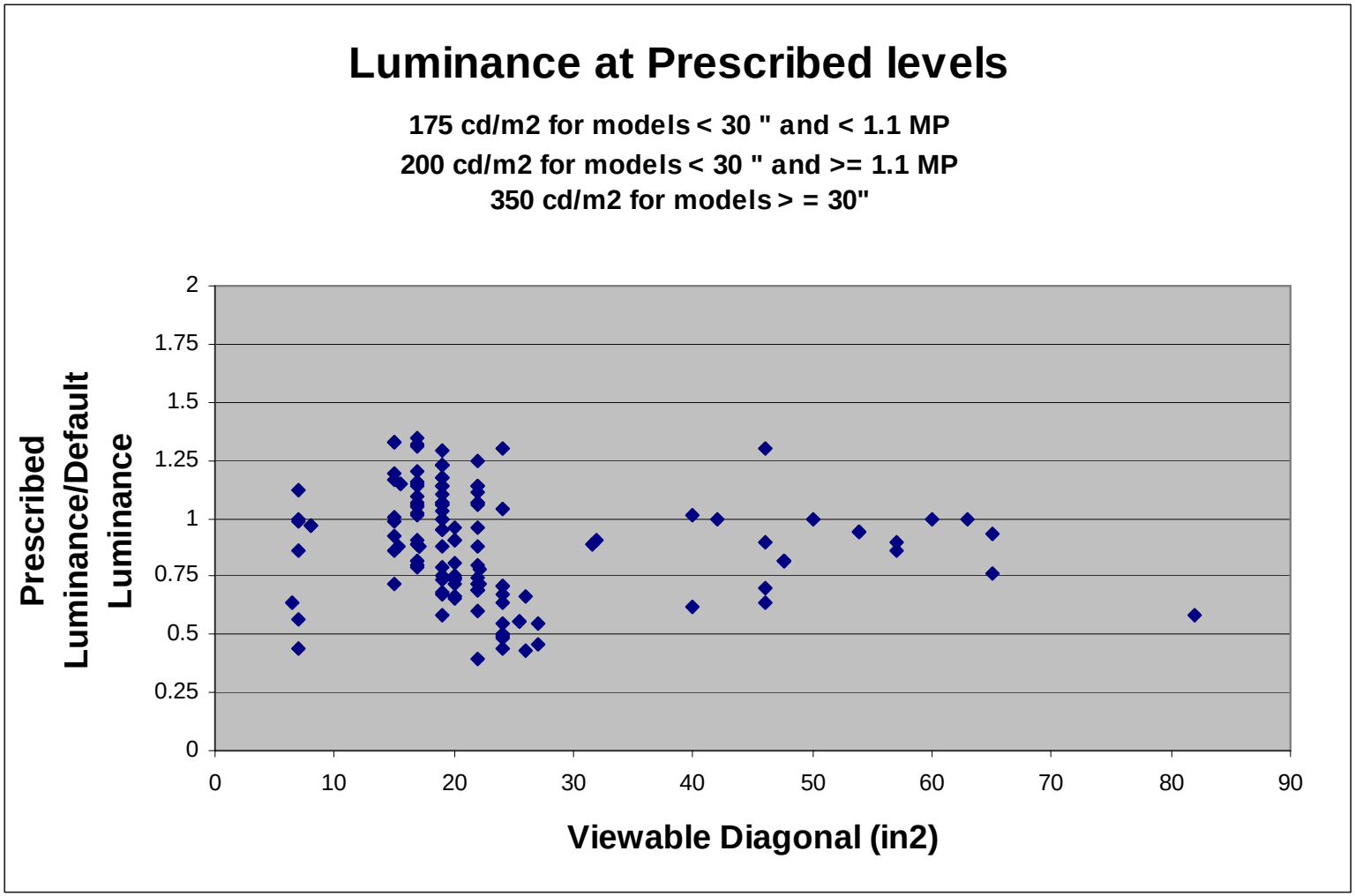
Draft 2 Displays Qualifying Rates

Product	Count (n)	Pass On Mode (n)	% Pass On Mode	Pass All Modes (n)	% Pass All Modes
Digital Frames	9	2	22	1	11
15 & 16” Monitor	12	4	33	4	33
17 and 19” Monitor	48	10	21	10	21
> 19” Monitor	49	12	24	12	24
Professional Displays	23	7	30	6	26
All	141	35	25	33	23

Draft 2 Displays Expected Savings

- Average per unit energy reduction: ~18%
- Average per unit energy savings:
  - 11 kWh/yr for < 30 inch screens
  - 486 kWh/yr for >= 30 inch screens
- Average lifetime energy savings:
  - 43 kWh/yr for < 30 inch screens
  - 1,947 kWh/yr for >= 30 inch screens

Draft 2 Luminance Settings



Draft 2 Luminance (continued)

- Based on dataset, 175 and 200 cd/m2 levels are representative.
- Based on dataset, 350 cd/m2 is representative of LCD professional displays.
- Plasma Professional Displays (PDPs) have lower luminance levels. Current lack of data limits ability to set a luminance level that accommodates PDPs.

Draft 2 Luminance (continued)

- Discussion
  - Using set luminance levels instead of measuring power at default luminance
  - Linking luminance settings to screen area
  - The specific luminance settings

Draft 2 Testing: Key Issues

- Analog vs. Digital Interfaces
- Display vs. TV Test Procedure
- Automatic Brightness Control

Draft 2 Testing: Key Issues (continued)

- Discussion
  - Impact of digital signal generator on power consumption
  - Testing displays with TV [IEC] test procedure to gather data
  - ABC: Lux levels and time in mode comments

Lab Accreditation - Purpose

- Preserve self-certification - Increased criticism of self-certification and pressure to ensure accuracy of test information.
- Ensure quality of testing data – Put requirements in place that ensure quality to all interested stakeholders.
- Address data quality issue across all ENERGY STAR products.
  - Quality of test data for ENERGY STAR products is not an issue specific to displays, but is of current importance and relevance.
  - Program integrity is important to the ENERGY STAR brand. Testing through accredited labs and quality certification programs lends more credibility to the ENERGY STAR self-certification process.

Lab Accreditation – Short term

Suggested language change

Partners are required to perform tests and self-certify those product models that meet the ENERGY STAR guidelines. In order to conduct testing, in support of qualification for ENERGY STAR, the display must be tested in a facility that has quality control procedures for monitoring the validity of tests and calibrations. ENERGY STAR recommends conducting these tests in a facility that follows the general requirements for the competence of testing and calibration laboratories as described in the International Standard ISO/IEC 17025.

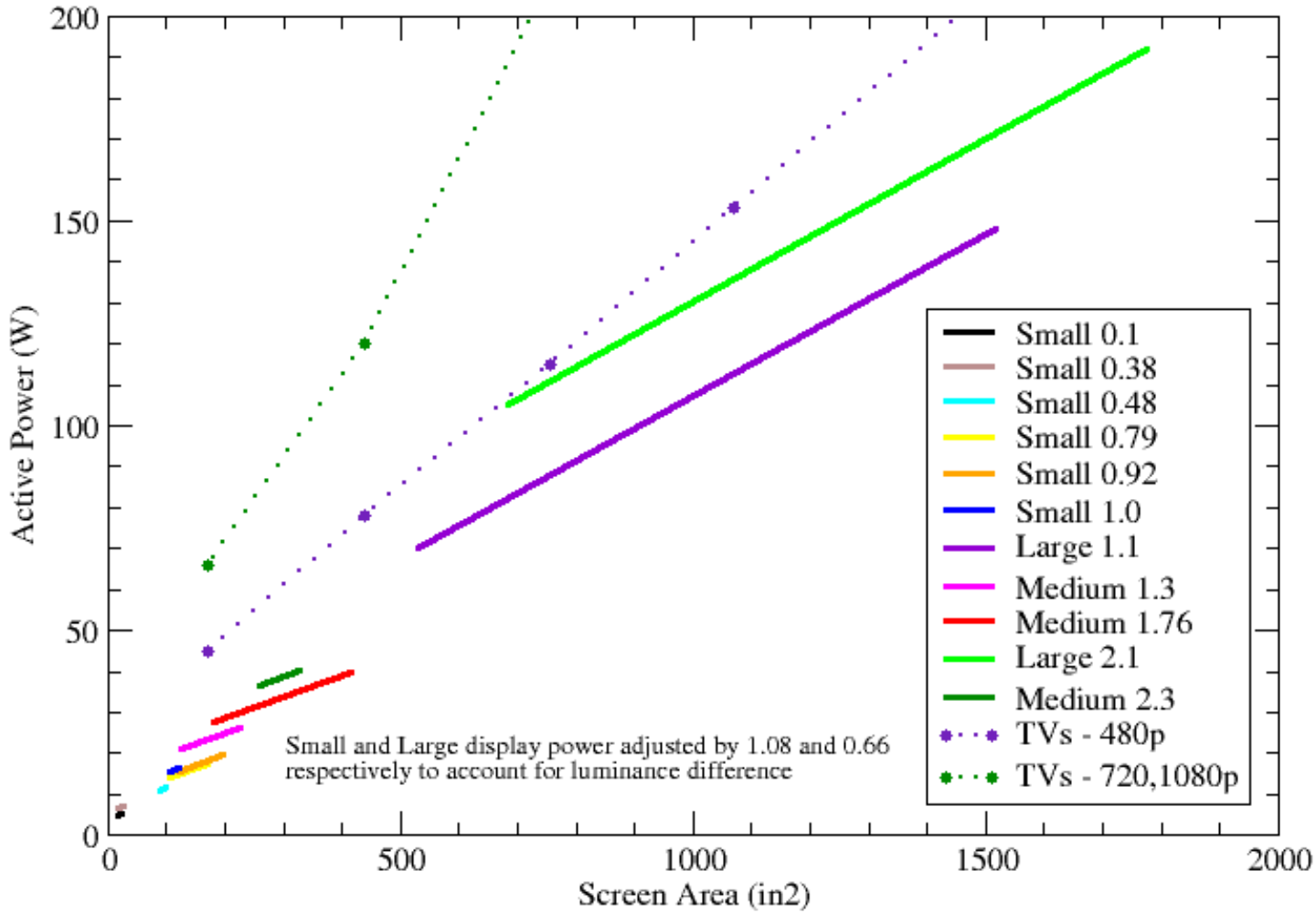
Lab Accreditation – Longer term

- Continue to explore the feasibility of requiring accreditations for facilities/laboratories that conduct testing to ensure the quality of test results.
- Finish development of verification testing requirements for computers and discuss how these requirements will be transferred to other IT and electronics products.

TV and Display Convergence

- Harmonize definitions
- Test procedure harmonization (where applicable)
- Adder approach to functionality and power
- GOAL: Harmonize specification requirements

TV and Display Convergence (continued)



TV and Display Convergence (continued)

- Discussion
  - Important to obtain test data for certain products using IEC test procedure
  - Future product features
  - Harmonizing testing and definitions
  - Comparing the specifications

Broader Environmental Objectives

- Context:
  - ENERY STAR qualified products deliver energy savings and GHG reductions plus meet consumer expectations re: product performance and features.
  - Increasingly, consumers want products that are environmentally friendly across the life cycle.
  - EPA/OAR proposed a requirement to capture F-gases used during LCD manufacturing, reducing GHG emissions by nearly 0.36 MMTC (nearly 3 billion pounds of CO_2).
- EPA/OAR Goal: Explore ways ENERGY STAR program can address life cycle energy use and other environmental characteristics to meet expectations.
- Pilot Concept: Test possible path forward via near term display/computer pilot.

Display/Computer Pilot Approaches

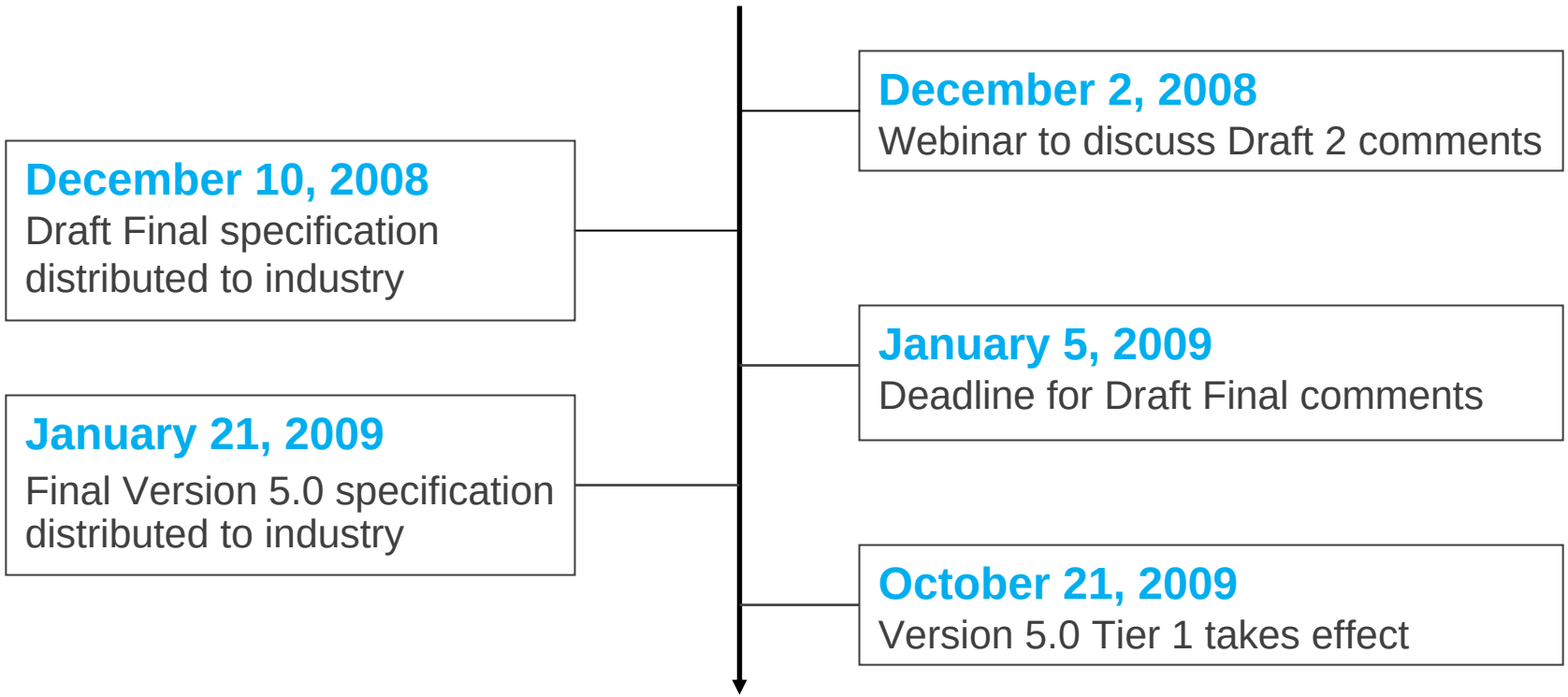
- Incorporate additional requirements to reduce embodied energy and address other environmental issues (e.g., F gases-analysis to be distributed with meeting materials, toxins) into ENERGY STAR specifications.
- Highlight or recognize ENERGY STAR qualified products that deliver added environmental benefits such as reduced embodied energy/toxins.
  - Highlight on qualified product list/website
  - Recognize with differentiated product designation (i.e., a label)

Next Steps

- Participate in 3-5 discussions regarding structure, requirements, and recognition beginning in early December and continuing through the first quarter of 2009.
- Stakeholders are very much encouraged to help shape pilot.
- EPA/OAR is aiming to launch a pilot no later than April 2009.
- Contact: Katharine Kaplan, kaplan.katharine@epa.gov, (202) 343-9120.

Wrap-up

Proposed Timeline for Version 5.0 Specification Completion



Outstanding questions?

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Thank you