



ENERGY STAR®
Electric Vehicle Supply Equipment
Draft 2 Specification and Final Draft Test
Method Webinar

September 15, 2016

ENERGY STAR Products Labeling Program



Webinar Details

- Webinar slides and related materials will be available on the EVSE Product Development Web page:
 - www.energystar.gov/NewSpecs
 - *Follow link to “Version 1.0 is in Development” under “Electric Vehicle Supply Equipment”*
- Audio provided via teleconference:
 - Call in:** +1 (877) 423-6338 (U.S.)
+1 (571) 281-2578 (International)
 - Code:** **773-366 #**
 - Phone lines will remain open during discussion
 - Please mute line unless speaking
 - Press *6 to mute and *6 to un-mute your line



Webinar Agenda

- Introductions and Recap of ENERGY STAR specification development process
- Test Method
- Specification
 - Definitions
 - Data analysis and certification criteria
 - Connected functionality
- Third Party Certification
- Marketing Efforts



Introductions

Time	Topic
1:00–1:10	Introductions and Specification Development Recap
1:10–1:30	Test Method Feedback and Updates
1:30–2:15	Specification Feedback and Updates
2:15–3:00	Open Discussion
3:00–3:10	Third Party Certification
3:10–3:20	Marketing Efforts
3:20–3:30	Timeline



Introductions

Verena Radulovic

U.S. Environmental Protection Agency

Matt Malinowski

ICF International

Emmy Phelan

ICF International

Doug Frazee

ICF International

Bruce Nordman

Lawrence Berkeley National Laboratory

Alan Meier

Lawrence Berkeley National Laboratory

Barney Carlson

Idaho National Laboratory

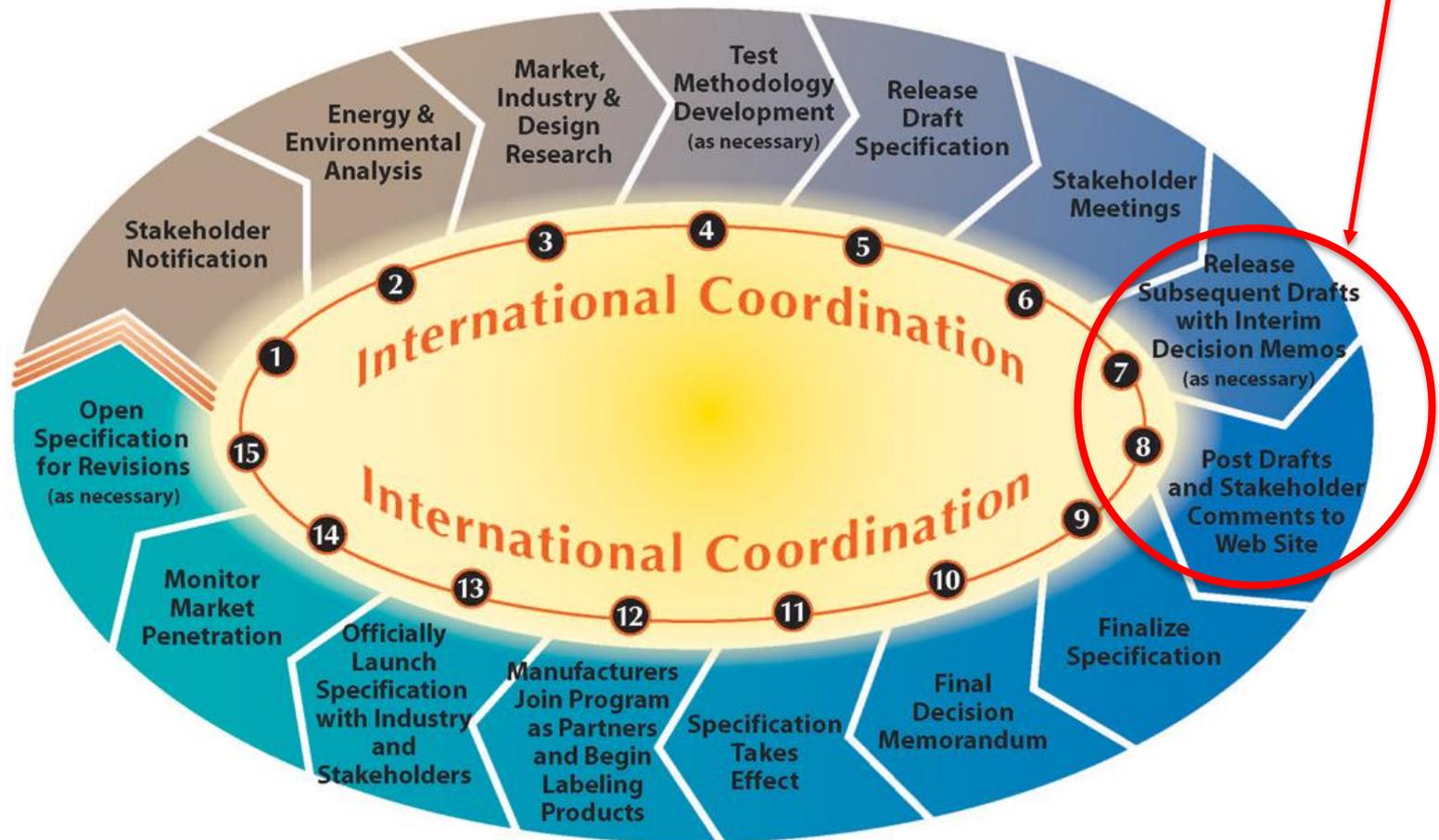
Ted Bohn

Argonne National Laboratory

Recap of certification program

Specification Development Cycle

We are here





Timeline to this point

Event	Date
<i>Scoping Report Published</i>	<i>September 2013</i>
<i>EVSE Specification Development Launch and Draft 1 Test Method Published</i>	<i>June 19, 2015</i>
<i>Draft 2 Test Method Published</i>	<i>October 6, 2015</i>
<i>Draft 1 Specification and Draft 3 Test Method Published</i>	<i>March 1, 2016</i>
Draft 2 Specification and Final Draft Test Method Published	August 26, 2016
Draft 2 Specification and Final Draft Test Method Webinar	September 15, 2016



Test Method Feedback and Updates

Time	Topic
1:00–1:10	Introductions and Specification Development Recap
1:10–1:30	Test Method Feedback and Updates
1:30–2:15	Specification Feedback and Updates
2:15–3:00	Open Discussion
3:00–3:10	Third Party Certification
3:10–3:20	Marketing Efforts
3:20–3:30	Timeline



Test Procedures – Automatic Power Down (APD)

- The Draft 1 EVSE spec and Draft 3 Test Method included APD criteria and testing, respectively
 - Several stakeholders had concerns regarding the feasibility of APD in EVSE while the vehicle is connected to the charging equipment.
 - While the vehicle is plugged in, it has control over the EVSE and the unit would not be able to power down.

Test Procedures – Automatic Power Down (APD)

In the latest draft, EPA proposed:

- Removal of APD requirements
- A 2 minute delay before testing the maximum Partial On Mode power to allow the UUT to transition to a lower power state.

EPA believes that an EVSE is capable of powering down any unnecessary features within 2 minutes.

266 **5.3 Partial On Mode (State B) and Idle Mode (State C) Testing**

267 A) Testing shall be conducted for two operational states of the J1772 interface (State B and State C)

268 B) Conduct the UUT preparation procedure in Section 5.1

269 C) Ensure any demand-response functionality or timer is disabled.

270 1) If demand-response functionality or timer cannot be disabled and a demand-response or timer
271 function occurs during a test, the results from the test shall be replaced with results from a
272 substitute test.

273 D) Conduct the following procedure to measure the UUT power consumption:

278 2) State B: Plug in the UUT output connection to J1772 vehicle inlet on the VEM and verify S1 is
279 open. Wait 2 minutes and then measure and record



Test Procedures – Off Mode Testing

EPA has specified that the UUT should be unplugged from the VEM in order to conduct the Off Mode testing as the majority of models do not appear to have a manual switch.

Mention of the switch was retained in the test method in error and EPA is considering striking paragraph A):

254 **5.2 Off Mode (State A) Testing**

255 ~~A)~~ Off Mode testing shall be conducted only for products that have a manual off switch that disables
256 secondary functions.

257 B) Conduct the UUT preparation procedure in Section 5.1

258 C) Verify the UUT output connector is unplugged from VEM.

EPA appreciates stakeholder feedback on this clarification.



Test Procedures – Remaining Minor Changes

- EPA has switched testing order with Idle Mode (State C) testing prior to Partial On (State B) testing
 - This will ensure that any transition to a lower power state will be captured (within the two minute delay) in the measured power for Partial On (State B)
- EPA altered the definitions of the EVSE modes to provide clarity and additional alignment with the SAE standards (discussed later)



Draft 1 Specification

Time	Topic
1:00–1:10	Introductions and Specification Development Recap
1:10–1:30	Test Method Feedback and Updates
1:30–2:15	Specification Feedback and Updates
2:15–3:00	Open Discussion
3:00–3:10	Third Party Certification
3:10–3:20	Marketing Efforts
3:20–3:30	Timeline



Definitions – Modal versus SAE Interface

- A stakeholder requested that EPA:
 - Clarify the definitions of states A, B, C, and D by having a direct cross-reference to the current version of J1772
 - Harmonize operating mode definitions with the SAE International Standard J2894/2



Definitions – Modal versus SAE Interface

- The SAE J1772 standard only relates to the interface between the EVSE and EV
- The SAE J2894/2 standard contains modal definitions that are out of scope of the ENERGY STAR specification because they cover the entire EVSE/EV system, taking into account EV onboard charging efficiency
- As a result, EPA kept EVSE-specific modal definitions and added a cross-reference to SAE J1772 interface state definitions

Definitions – Modal versus SAE Interface

Table 1: Operational Modes and Power States

Operational Modes	Most closely related Interface State as Defined in SAE J1772	Further Description
Off Mode	State A	Off Mode is associated with State A, or where the vehicle is not connected to the EV. The EVSE is connected to external power and is providing only tertiary functions.
On Mode		
Operation Mode	State C	Operation Mode is associated with State C, where the EVSE is providing the primary function, or providing current to a connected load.
Idle Mode	State C	Idle Mode is associated with State C, where the vehicle is connected and ready to accept energy and the EVSE is capable of promptly providing current to the EV but is not doing so.
Partial On Mode	State B	Partial On Mode is associated with State B where the vehicle is connected but is not ready to accept energy. Sub-state B1 is where the EVSE is not ready to supply energy and sub-state B2 is where the EVSE is ready to supply energy.



Definitions – Tertiary Function

- A stakeholder recommended that EPA remove area lighting from the tertiary function definition to prevent confusion with ambient lighting.

EPA has eliminated the mention of area lighting in this definition due to confusion with ambient lighting in the secondary function definition.



Partner Commitments - Electronic Labeling

5.1. The ENERGY STAR mark must be clearly displayed:

5.1.1. And permanently affixed to the front of the product or on/next to the machine nameplate;

Option for electronic labeling: In instances where an electronic display is present, manufacturers have the option of displaying an electronic label in place of a physical label in a corner of the display, at system start-up, between marketing segments, or at the beginning of a transaction, as long it meets the following requirements:

- The ENERGY STAR mark in cyan, black, or white (as described in the ENERGY STAR Brand Book available at www.energystar.gov/logouse).

The electronic mark must display for a minimum of 5 seconds;

- The ENERGY STAR mark must be at least 10% of the screen by area, may not be smaller than 76 pixels x 78 pixels, and must be legible.

EPA will consider alternative proposals regarding approach, duration, or size for electronic labeling on a case-by-case basis.

EPA appreciates stakeholder feedback on the feasibility of the proposed electronic labelling options.



Safety Consideration – NRTL Certification

- Two stakeholders requested that EPA require NRTL certification for any EVSE to be eligible for ENERGY STAR.
 - Noting that without NRTL certification EVSE could sacrifice product safety considerations for efficiency gains

To offset any incentive product manufacturers may have to forgo safety standards in the interest of saving energy, EPA proposes that ESVE manufacturers report which safety standards are met so this information can be shared with potential purchasers on the ENERGY STAR product finder.



Safety Consideration – NRTL Certification

- Example of Product Finder for Televisions

Find and Compare Products

Languages: English | Français

Access to ENERGY STAR API, Data Set or Excel File



Find product models that have earned the ENERGY STAR and compare features, savings and more to optimize your purchase.

- 1 Select a product category of interest to you.
- 2 Get details on specific qualifying models.
- 3 Make informed purchasing decisions.

ENERGY STAR Certified

Televisions

Visit the [Televisions](#) page for usage tips and buying guidelines.

CHANGE
product category

Note: some products may be special order only or available only to the commercial market.

Filter Your Results

filter by keyword

Brand Name

- APEX (2)
- Avera (3)
- BAUHN (1)
- ClearTunes (3)
- CURTIS (3)
- ELEMENT (32)
- Emeroon (5)

Show more

Size (in.)

- Less than 35 (183)
- 35-50 (319)
- Greater than 50 (215)

708 Records Found

Sort by:

Annual Energy Consumption (kWh)

ClearTunes - CT-1514N	<input type="checkbox"/> Compare
15.55 Incheo 720p Annual Energy Consumption (kWh): 20.7 (kWh/yr)	
ClearTunes - CT-1315N	<input type="checkbox"/> Compare
13.25 Incheo 720p Annual Energy Consumption (kWh): 21.3 (kWh/yr)	
ClearTunes - CT-1390N	<input type="checkbox"/> Compare
15.55 Incheo 1080p Annual Energy Consumption (kWh): 22.6 (kWh/yr)	
ELEMENT - ELEFS191	<input type="checkbox"/> Compare
18.46 Incheo 720p Annual Energy Consumption (kWh): 25.4 (kWh/yr)	



Automatic Brightness Control (ABC)

- A stakeholder recommended the following updates to the ABC ambient lighting conditions:
 - Using a higher-output lamp to represent outdoor daylight conditions
 - Requiring a measurement at maximum and minimum luminance settings as well as a test at 65% of the maximum luminance
 - Providing clarification on how ABC testing will be used to determine compliance



Automatic Brightness Control (ABC)

EPA believes that:

- the 65% of maximum brightness test will be a significant test burden, and
- installers are most likely to keep the default settings

EPA has proposed criteria that enables the energy benefits of ABC to be captured during testing

- 3.2.1 Measured Partial On Mode power ($P_{\text{PARTIAL_ON}}$) shall be less than or equal to the Maximum Partial On Mode Power Requirement ($P_{\text{PARTIAL_ON_MAX}}$), as calculated per Equation 1.
- i. If a product's Idle Mode meets the Partial On Mode power requirements, the product does not need to meet the separate Partial On Mode requirements.
 - ii. For products with ABC enabled by default, the average Partial On Mode power in high and low illuminance conditions shall be used in place of $P_{\text{PARTIAL_ON}}$, above.



Data Analysis - Methodology

- A stakeholder noted that data provided by a third party may not represent accurate information and should just be collected from the manufacturer.

- The goal of the ENERGY STAR EVSE Test Method is to provide a repeatable and representative test procedure that will provide substantiated measured results that can be compared across products and can be used in any certified test lab.
- In addition, EPA welcomes data from manufacturers but had to add its own test data to result in a robust analysis.



Data Analysis - Methodology

- The Draft 1 data analysis included 20 models from 10 different manufacturers.
- In response, stakeholders relayed that the dataset was not robust enough to set requirements for Partial On and Idle Modes and could unfairly disadvantage some manufacturers.

In response, EPA acquired and tested an additional set of models to create a larger dataset (representing approximately half of the current EVSE market), which includes products from 13 manufacturers.

- Tested in accordance with the Draft 3 Test Method
- Removed several models which no longer appeared to be on the market



Data Analysis - Methodology

- 25 models included in dataset
 - All analyzed for Partial On Mode power consumption
 - 20 analyzed for Idle Mode power consumption
- Revised proposal allows a 32% pass rate
 - Base allowance raised to **2.6** Watts to better reflect the top performing products
 - **7** manufacturers represented in the 32% pass rate.

ENERGY STAR® Electric Vehicle Supply Equipment Version 1.0 Draft 2 Specification Data

Enclosed are the ENERGY STAR EVSE data obtained from stakeholders and tested by EPA. In response to stakeholder feedback that the Draft 1 dataset did not provide an adequate number of models to propose requirements for Partial On and Idle Modes, EPA tested an additional 11 models to create an expanded dataset representing a larger share of the current EVSE market. These data served as the foundation for the proposed performance levels in the Draft 2 Version 1.0 ENERGY STAR Specification for EVSE published on August 26, 2016. Products from 5 manufacturers meet EPA's proposed criteria in Draft 2.



Efficiency Criteria – Network Connected Products

- To determine allowances for network connected products:
 - EPA reviewed the electronics catalog DigiKey for Ethernet, cellular, and Wi-Fi modules akin to those used in EVSE
 - Compared the power draw of these models and noted that:
 - Wi-Fi and Ethernet modules draw less than 1 W
 - Cellular modules draw close to 2 W
 - Other network-connected ENERGY STAR products have similar power draw in the equivalent modes



Efficiency Criteria – Network Connected Products

- EPA understands that many currently available network connected EVSE are not optimized to reflect the greatest potential energy efficiencies
 - Encouraging a market shift to improve energy savings by setting stringent, yet viable allowances

Efficiency Criteria – Partial On Mode

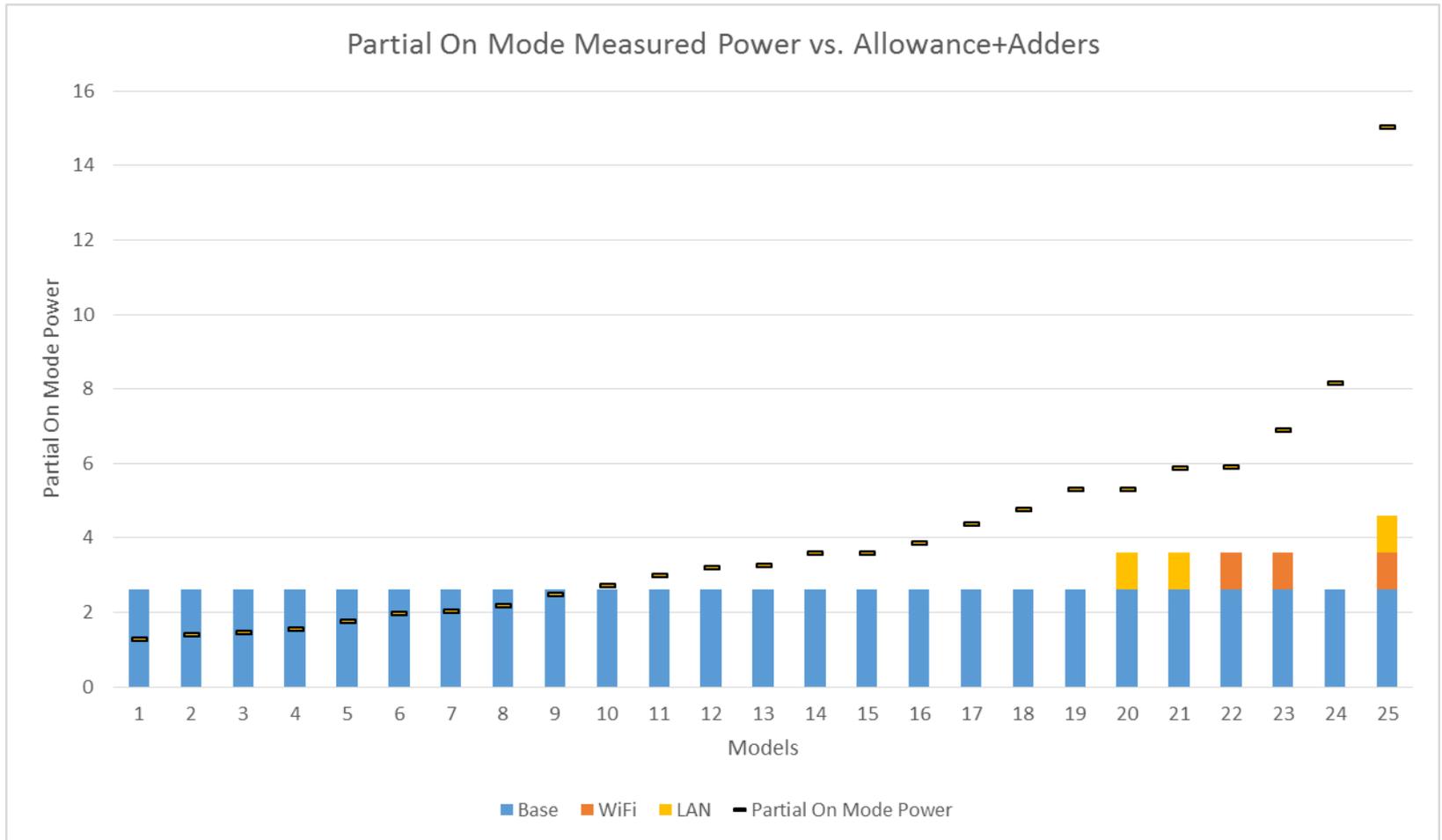
- Increased base allowance from 2.2 W to 2.6 W.
- Removed occupancy sensor adder as it is uncommon
- Kept Wi-Fi and Ethernet allowance at 1 W
- Increased cellular allowance from 1 W to 2 W

Table 2: Partial On Mode Power Allowances

Product Function	Partial On Mode Power Allowance (watts)
Base Allowance for All Products ($P_{\text{PARTIAL_ON_BASE}}$)	2.6
In-use Wi-Fi or Ethernet Interface with Wake Capability ($P_{\text{WAKE_i}}$)	1.0
In-use Cellular with Wake Capability ($P_{\text{WAKE_i}}$)	2.0
Other In-use LAN (Local Area Network) Interface with Wake Capability ($P_{\text{WAKE_i}}$)	1.0



Efficiency Criteria – Partial On Mode





Efficiency Criteria – Idle Mode

- EPA is proposing the same requirements for the base allowance and adds for network connected products as in Partial On Mode.
- In addition, EPA continues to propose the in-use display requirements:
 - Though none of the products in the dataset contain in-use displays, EPA has received stakeholder input that models intended for public, outdoor use contain or will contain displays

Table 3: Idle State Power Allowances

Product Function	Idle State Power Allowance (watts, rounded to the nearest 0.1 W for reporting)
Base (P_{IDLE_BASE})	2.6
In-use Wi-Fi or Ethernet Interface with Wake Capability (P_{IDLE_i})	1.0
In-use Cellular with Wake Capability (P_{IDLE_i})	2.0
In-use LAN (Local Area Network) Interface with Wake Capability (P_{IDLE_i})	1.0
In-use Display (P_{IDLE_i})	$(4.0 \times 10^{-5} \times \ell \times A) + 119 \times \tanh(0.0008 \times [A - 200.0] + 0.11) + 6.0$ <p>Where:</p> <ul style="list-style-type: none"> A is the Screen Area in square inches; ℓ is the Maximum Measured Luminance of the Display in candelas per square meter, as measured in Section 6.2 of the ENERGY STAR Test Method for Determining Display Energy (Rev. Sep-2015); \tanh is the hyperbolic tangent function; and The result shall be rounded to the nearest tenth of a watt for reporting.

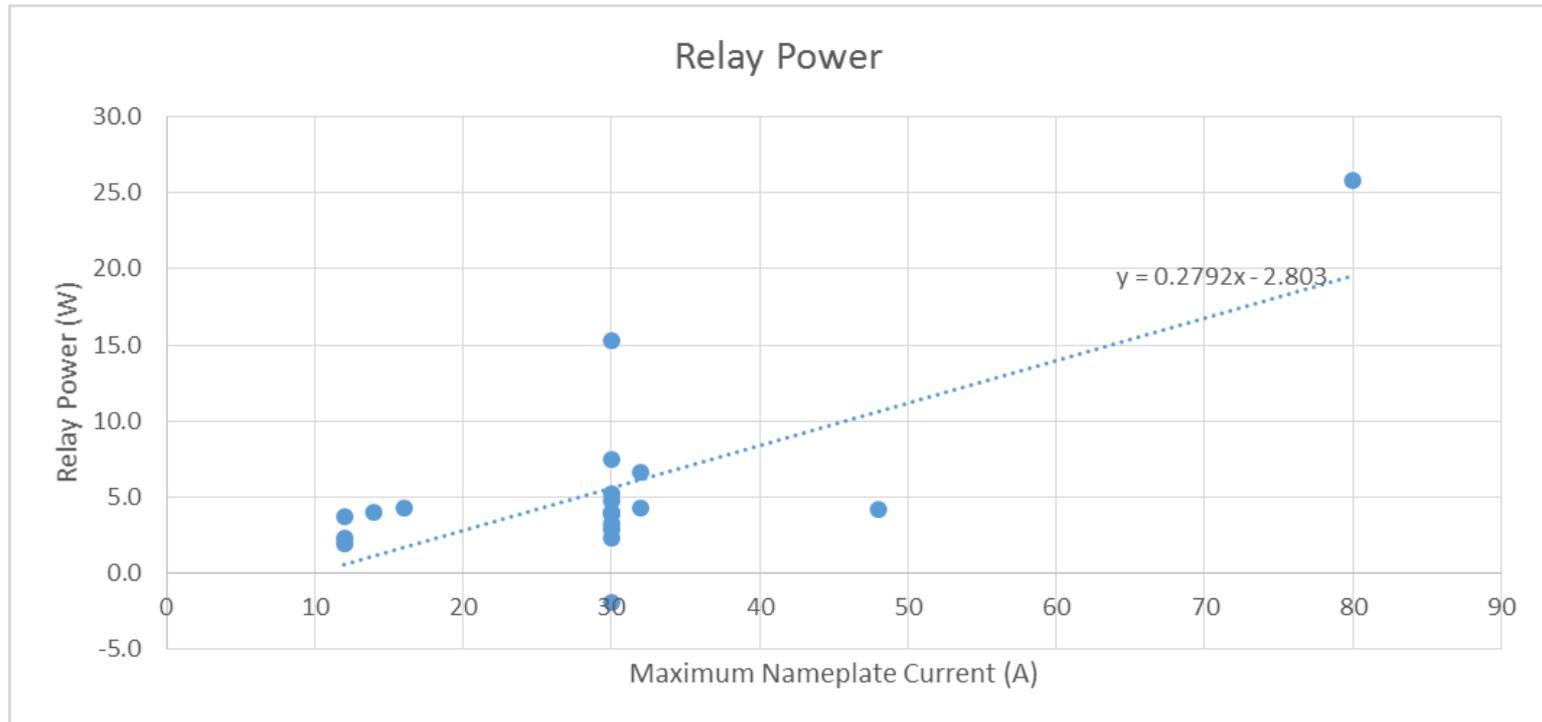


Efficiency Criteria – Relay Power

- A stakeholder suggested that EPA not have a requirement for relay power because there are safety requirements they need to meet. The relay needs to be sized correctly for safety concerns.

EPA proposed to retain the $0.25 * \text{Max Current}$, based on the demonstrated relay power consumption of the models in the dataset. Thus, products with a need for greater relay power will continue to receive an allowance proportional to their maximum current capability.

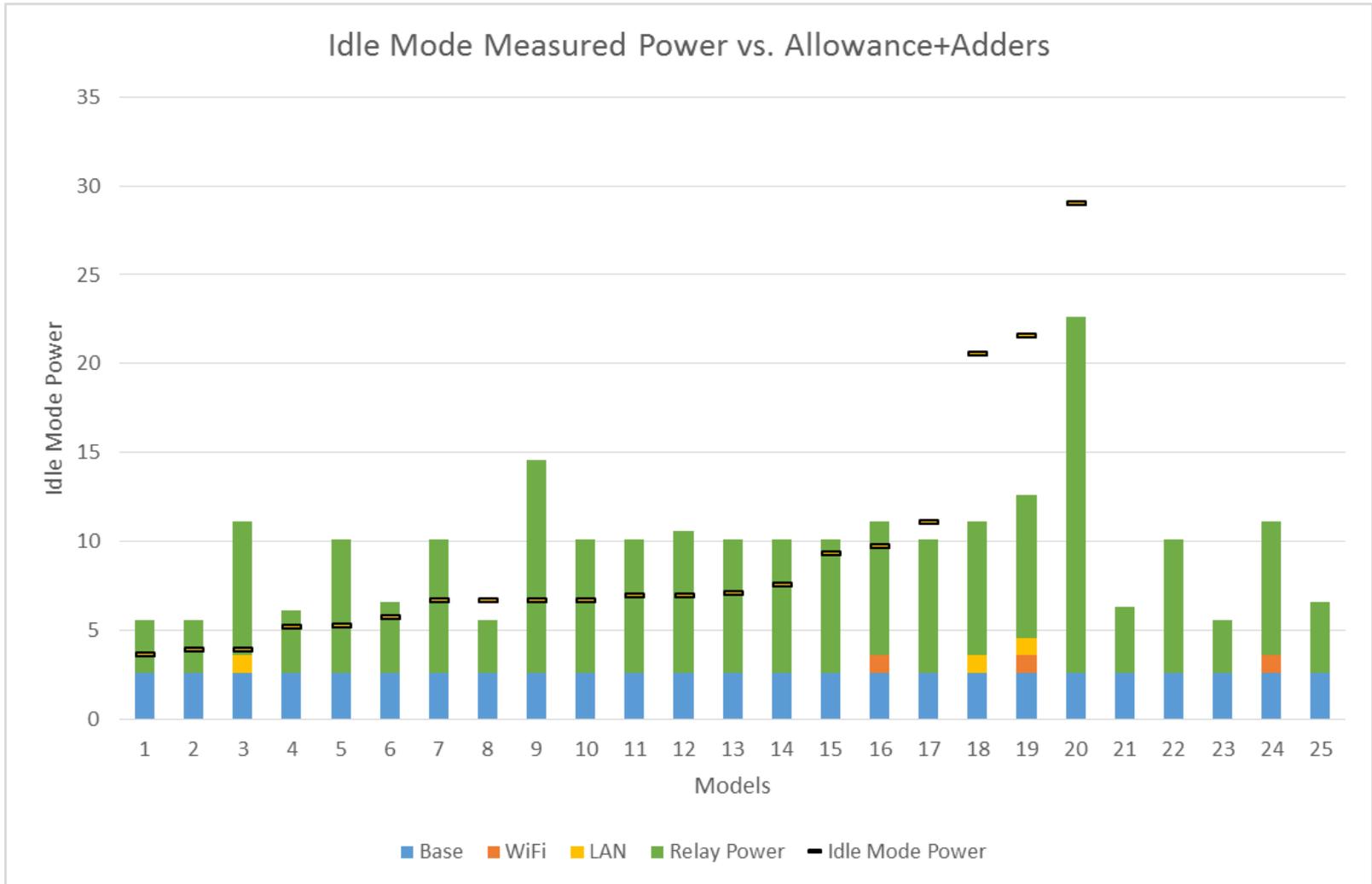
Efficiency Criteria – Relay Power



EPA would appreciate stakeholder feedback on the above relationship between relay power and nameplate current. For 30A units, for instance, what is responsible for this wide variance in relay power?



Efficiency Criteria – Idle Mode





Connected Functionality (CF)

- A stakeholder recommended that EPA delay development of Connected/DR criteria, leaving a placeholder in Section 6 “Consideration for Future Revisions”
- In particular, cloud-based DR will require further thought

In the Draft 2 spec, EPA has clarified that:

- Qualification to CF is optional; products certified to this criteria will be identified as connected on the ENERGY STAR Product Finder.
- EPA has proposed high-level CF criteria to help ensure interoperability and consumer benefits, while allowing broad implementation flexibility, as DR programs develop.
- While EVSE that enable open-standards interconnection only in the cloud continue to be permitted, EPA has retained the informative note that recommends that EVSE support “Direct, on-premises, open-standards based interconnection for grid communications”



Connected Functionality (CF)

- In addition, EPA has proposed:

- Recognition that the use of Open Charge Point Protocol (OCCP) is sufficient to comply with open standards criterion
- Criteria that requires EVSE with optional CF support consumer DR override-ability, while not explicitly mandating consumers be empowered to override “any DR signal”
 - this change was driven by verbal feedback that compliance with the prior criteria could exclude brand owners from participating in utility DR programs that include non-override-able DR events (e.g., Grid Emergency events)



Open Discussion

Time	Topic
1:00–1:10	Introductions and Specification Development Recap
1:10–1:30	Test Method Feedback and Updates
1:30–2:15	Specification Feedback and Updates
2:15–3:00	Open Discussion
3:00–3:10	Third Party Certification
3:10–3:20	Marketing Efforts
3:20–3:30	Timeline



Discussion Topic – Commercial versus Residential

- EPA has received verbal feedback that EPA should consider differing requirements for commercial versus residential units
- For example, a stakeholder noted that a commercial unit will need to have the display on during Off Mode and Partial On Modes in contrast to residential

EPA appreciates stakeholder feedback whether there are other features that may need allowances in the different modes. EPA would prefer to differentiate products by feature rather than market sector.



Discussion Topic – Testing Multiple Ports

- A stakeholder noted that units with multiple ports may have differing topologies:
 - Some units with multiple ports are basically two electrically separate units in one enclosure
 - Others are more integrated, with central housekeeping that has one power supply, network connectivity module, and display, but two contactors and outputs (requires less than double the power)

EPA appreciates stakeholder feedback on:

- If there are other topologies than those listed above and the prevalence of those types
- How EPA should test these units along with stakeholder suggestions on how to incorporate them into the requirements



Discussion Topic – Off Mode

- One stakeholder mentioned that EPA should consider the potential for Off Mode energy savings if criteria were developed for this mode as well
- EPA included a test for Off Mode power in the Test Method and has some results that can be seen to the right
 - Some models have higher power draw in Off Mode than in Partial On Mode

EPA appreciates stakeholder feedback on:

- Why this is the case?
- Should EPA consider adding requirements for Off Mode?

Off Mode Input Power (W)	Partial On Mode Power (W)	Idle Mode Power (W)
4.144	5.9	9.8
6.54	5.9	4.0
6.49	5.3	20.6
5.31	5.3	9.4
4.88	4.8	7.1
4.251	4.4	7.6
3.79	3.9	6.7
3.598	3.6	11.1
1.93	2.0	6.7
1.73	1.8	7.0
1.62	1.6	5.8
1.21	1.5	5.4
1.41	1.4	3.7
1.274	1.3	5.3

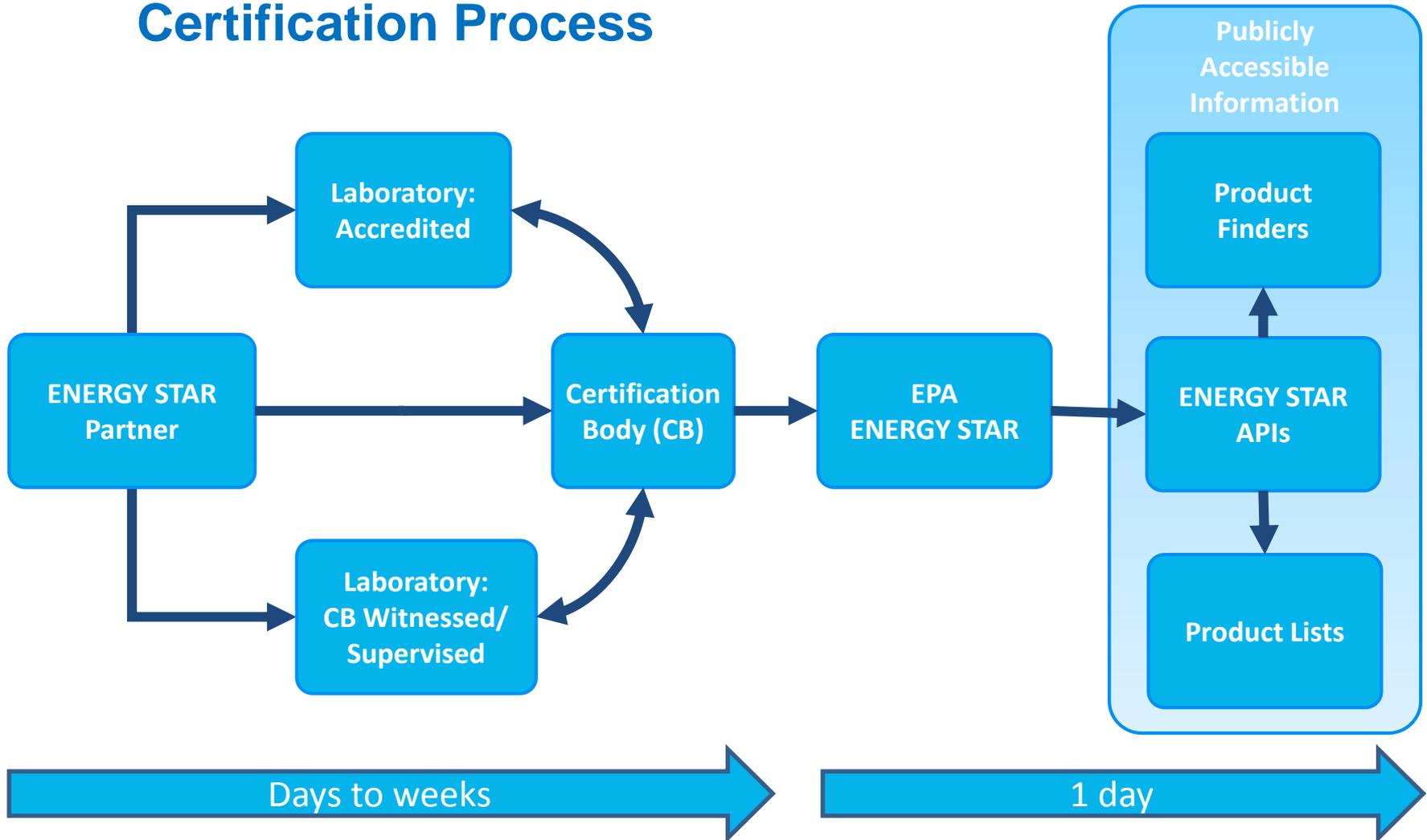


Third Party Certification

Time	Topic
1:00–1:10	Introductions and Specification Development Recap
1:10–1:30	Test Method Feedback and Updates
1:30–2:15	Specification Feedback and Updates
2:15–3:00	Open Discussion
3:00–3:10	Third Party Certification
3:10–3:20	Marketing Efforts
3:20–3:30	Timeline



Certification Process



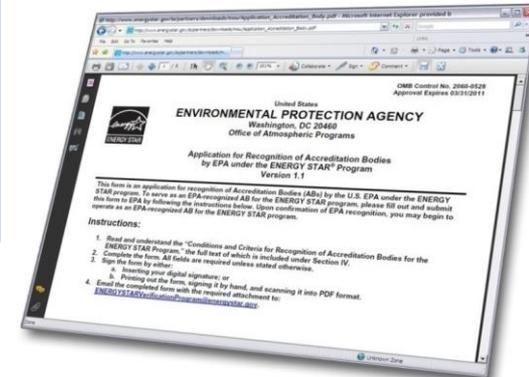


International Standards and EPA Recognition

EPA accepts and reviews applications for recognition on an ongoing basis

All ABs, CBs, and labs require EPA recognition

INTERNATIONAL STANDARD	ISO/IEC 17011	INTERNATIONAL STANDARD	ISO/IEC 17025
	First edition 2004-09-01 Corrected version 2005-02-15		Second edition 2005-05-15
Conformity assessment requirements for accrediting conformity bodies	INTERNATIONAL STANDARD	ISO/IEC 17065	Requirements for the competence of calibration laboratories
	First edition 2012-06-15		
	Conformity assessment — Requirements for bodies certifying products, processes and services		
	<i>Évaluation de la conformité — Exigences pour les organismes certifiant les produits, les procédés et les services</i>		





How can a manufacturer's lab gain EPA recognition?

- If your lab is accredited to ISO/IEC 17025:
 - Inquire with your accreditor about adding the ENERGY STAR transformers test procedure to your scope of accreditation.
 - With an acceptable scope of accreditation, EPA will review lab applications within one week.
- If your lab is not accredited to ISO/IEC 17025:
 - Contact an EPA-recognized certification body about enrolling in their witnessed or supervised test lab (W/SMTL) program.
 - The CB will conduct its own assessment of your lab to the requirements of 17025 and may ask to witness the test procedure conducted at your facility.
 - Upon meeting the CB's requirements for its W/SMTL program, the CB will submit your lab's information to EPA directly. EPA will review the information and offer recognition within one week.



ENERGY STAR Recognized Bodies for Certification

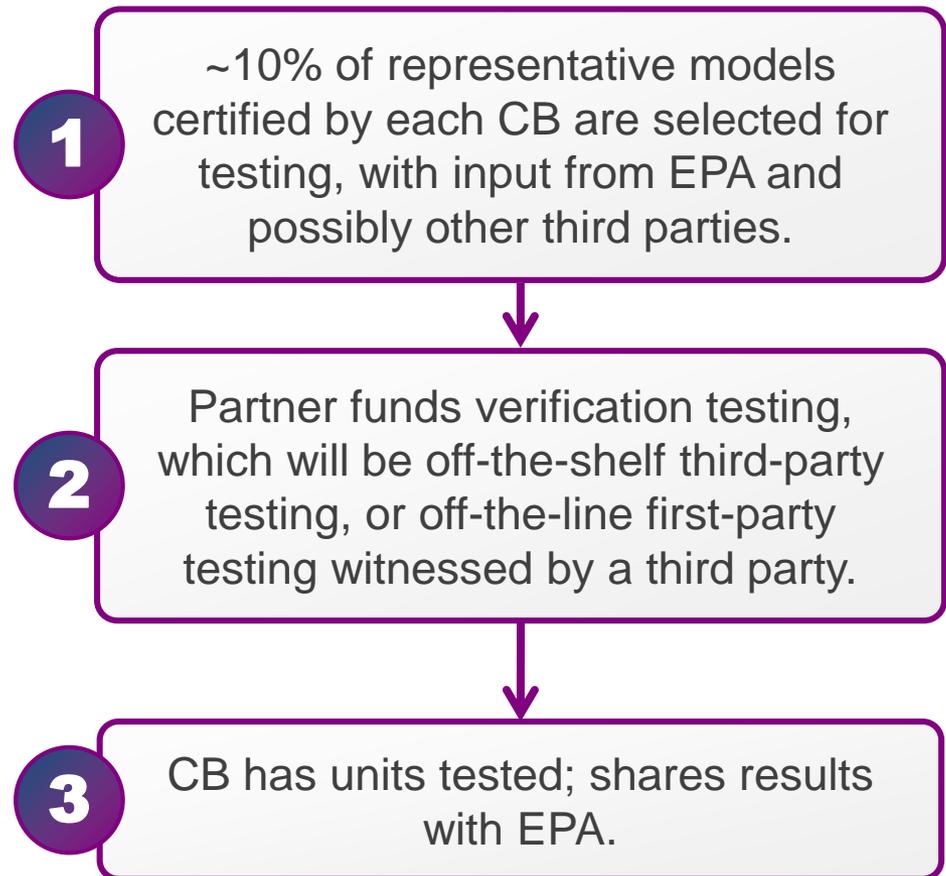
<i>Recognized Organizations</i>	
<i>Type</i>	<i>Total</i>
Accreditation Bodies	25
Certification Bodies	25
Laboratories (Accredited and W/SMTLs)	620
Accredited	292
SMTL	216
WMTL	112

<i>Laboratories by Location</i>				
<i>Country</i>	<i>Accredited Laboratories</i>	<i>SMTLs</i>	<i>WMTLs</i>	<i>Totals</i>
Australia	1	0	0	1
Austria	0	1	0	1
Brazil	2	0	0	2
Canada	12	12	7	31
China	80	41	24	145
Denmark	0	0	1	1
Germany	8	4	4	16
Guatemala	1	0	1	2
Hong Kong	3	0	0	3
India	1	0	0	1
Italy	3	1	2	6
Japan	16	14	5	35
Malaysia	2	2	0	4
Mexico	0	9	1	10
Netherlands	2	1	1	4
New Zealand	0	2	0	2
Singapore	2	0	0	2
South Korea	17	13	4	34
Spain	2	0	0	2
Sweden	1	1	0	2
Taiwan	40	3	14	57
Turkey	0	4	0	4
United Kingdom	3	2	0	5
United States	96	106	48	250
Totals	292	216	112	620



Verification Testing

Ensure models meet ENERGY STAR requirements post-certification



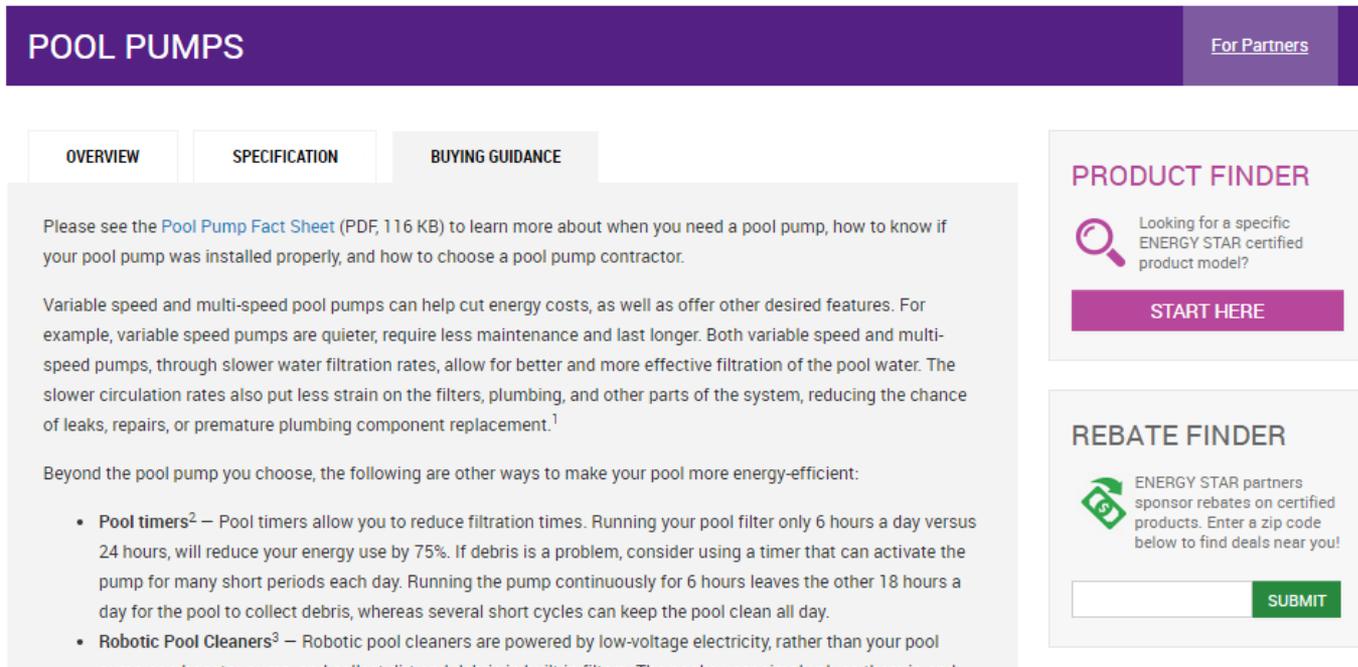


Marketing Efforts

Time	Topic
1:00–1:10	Introductions and Specification Development Recap
1:10–1:30	Test Method Feedback and Updates
1:30–2:15	Specification Feedback and Updates
2:15–3:00	Open Discussion
3:00–3:10	Third Party Certification
3:10–3:20	Marketing Efforts
3:20–3:30	Timeline

ENERGY STAR Marketing Efforts

- Upon finalization of a new specification, EPA determines various strategies for educating consumers and promoting those products that are ENERGY STAR certified, some of these strategies include:
 - Developing a consumer page that offers an overview, details of the specification, and buying guidance for purchasers



The screenshot shows a web page for "POOL PUMPS" with a navigation bar and three main content sections. The navigation bar includes "POOL PUMPS" and a "For Partners" link. Below the navigation bar are three tabs: "OVERVIEW", "SPECIFICATION", and "BUYING GUIDANCE". The "OVERVIEW" tab is active and contains the following text:

Please see the [Pool Pump Fact Sheet](#) (PDF, 116 KB) to learn more about when you need a pool pump, how to know if your pool pump was installed properly, and how to choose a pool pump contractor.

Variable speed and multi-speed pool pumps can help cut energy costs, as well as offer other desired features. For example, variable speed pumps are quieter, require less maintenance and last longer. Both variable speed and multi-speed pumps, through slower water filtration rates, allow for better and more effective filtration of the pool water. The slower circulation rates also put less strain on the filters, plumbing, and other parts of the system, reducing the chance of leaks, repairs, or premature plumbing component replacement.¹

Beyond the pool pump you choose, the following are other ways to make your pool more energy-efficient:

- **Pool timers²** – Pool timers allow you to reduce filtration times. Running your pool filter only 6 hours a day versus 24 hours, will reduce your energy use by 75%. If debris is a problem, consider using a timer that can activate the pump for many short periods each day. Running the pump continuously for 6 hours leaves the other 18 hours a day for the pool to collect debris, whereas several short cycles can keep the pool clean all day.
- **Robotic Pool Cleaners³** – Robotic pool cleaners are powered by low-voltage electricity, rather than your pool pump or booster pump, and collect dirt and debris in built-in filters. The pool owner simply plugs them in and

On the right side of the page, there are two interactive sections:

- PRODUCT FINDER**: A section with a magnifying glass icon and the text "Looking for a specific ENERGY STAR certified product model?" and a "START HERE" button.
- REBATE FINDER**: A section with a dollar sign icon and the text "ENERGY STAR partners sponsor rebates on certified products. Enter a zip code below to find deals near you!" and a "SUBMIT" button.

ENERGY STAR Marketing Efforts

TOOL	EXAMPLE																				
<div data-bbox="517 416 653 551" style="text-align: center;"> </div> <p data-bbox="227 575 575 601">ENERGY STAR Certification Mark</p> <div data-bbox="426 632 743 878" style="border: 1px solid black; padding: 5px;"> <p>What is ENERGY STAR®?</p> <p>ENERGY STAR qualified products and practices help you save money and reduce greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and U.S. Department of Energy.</p> </div> <p data-bbox="227 905 794 931">ENERGY STAR Certification Mark after mouse roll-over</p>	<div data-bbox="1097 416 1522 668"> <table border="1"> <thead> <tr> <th>PRODUCT CATEGORY</th> <th>ENERGY STAR QUALIFIED</th> </tr> </thead> <tbody> <tr> <td>TELEVISIONS</td> <td>ET-200144, ET-200207</td> </tr> <tr> <td>TOTAL MODELS</td> <td>ET-200144, ET-200207, ET-200208, ET-200209</td> </tr> <tr> <td>REGISTERED EPP</td> <td>ET-200144, ET-200149</td> </tr> <tr> <td>ENERGY STAR PARTNER</td> <td>ET-200144, ET-200149</td> </tr> </tbody> </table> <p>Before mouse roll-over</p> </div> <div data-bbox="1097 751 1522 1002"> <table border="1"> <thead> <tr> <th>PRODUCT CATEGORY</th> <th>ENERGY STAR QUALIFIED</th> </tr> </thead> <tbody> <tr> <td>TELEVISIONS</td> <td>ET-200144, ET-200207</td> </tr> <tr> <td>TOTAL MODELS</td> <td>ET-200144, ET-200207, ET-200208, ET-200209</td> </tr> <tr> <td>REGISTERED EPP</td> <td>ET-200144, ET-200149</td> </tr> <tr> <td>ENERGY STAR PARTNER</td> <td>ET-200144, ET-200149</td> </tr> </tbody> </table> <p>After mouse roll-over</p> </div>	PRODUCT CATEGORY	ENERGY STAR QUALIFIED	TELEVISIONS	ET-200144, ET-200207	TOTAL MODELS	ET-200144, ET-200207, ET-200208, ET-200209	REGISTERED EPP	ET-200144, ET-200149	ENERGY STAR PARTNER	ET-200144, ET-200149	PRODUCT CATEGORY	ENERGY STAR QUALIFIED	TELEVISIONS	ET-200144, ET-200207	TOTAL MODELS	ET-200144, ET-200207, ET-200208, ET-200209	REGISTERED EPP	ET-200144, ET-200149	ENERGY STAR PARTNER	ET-200144, ET-200149
PRODUCT CATEGORY	ENERGY STAR QUALIFIED																				
TELEVISIONS	ET-200144, ET-200207																				
TOTAL MODELS	ET-200144, ET-200207, ET-200208, ET-200209																				
REGISTERED EPP	ET-200144, ET-200149																				
ENERGY STAR PARTNER	ET-200144, ET-200149																				
PRODUCT CATEGORY	ENERGY STAR QUALIFIED																				
TELEVISIONS	ET-200144, ET-200207																				
TOTAL MODELS	ET-200144, ET-200207, ET-200208, ET-200209																				
REGISTERED EPP	ET-200144, ET-200149																				
ENERGY STAR PARTNER	ET-200144, ET-200149																				

- Manufacturers can use the ENERGY STAR Mark and ENERGY STAR Graphics (according to the guidelines) along with other web-based tools to promote their products as ENERGY STAR certified

ENERGY STAR Marketing Efforts

- Developing tools, publications, and promotional materials that will showcase the benefits of choosing an ENERGY STAR product. Manufacturers and retailers are encouraged to use these materials to market ENERGY STAR products



\$260 energy savings plus rebates available NOW

FLIP YOUR FRIDGE

REPLACE AND RECYCLE

Energy Star

ENERGY STAR

Cool for You. Cool for the Planet.

Visit energystar.gov/flipyourfridge



It's time to Flip Your Fridge! Replacing an old refrigerator with a new ENERGY STAR certified model will save energy, save money, and help protect the climate. Save \$260 in energy costs over the next five years. Save even more with a utility rebate. Double the environmental benefit by properly recycling your old fridge.

Visit energystar.gov/flipyourfridge for info on offers near you.



ENERGY STAR Marketing Efforts

The screenshot shows the ENERGY STAR website navigation menu with the following categories: Service providers, Program administrators, Tenants, Tools and Resources (highlighted), and Training. Below the menu are sub-categories: new construction, Industrial energy management, Small business, and Congregations. The main content area features a heading "Purchase energy-saving products" followed by a list of steps. The first step is "Step 1: Modify your Procurement Language". To the right, there is a callout box titled "Looking for more ways to save?" with two bullet points: "Find WaterSense certified products that will help you save energy by saving water." and "Want to go cutting edge? Check out innovative technologies that".

- Outreach to key stakeholders and purchasers; for EVSE this includes utilities, state/local governments, and vehicle manufacturers
 - Work with these organizations to further promote products that are ENERGY STAR certified (e.g., to include in utility or state/local government purchasing programs)

ENERGY STAR Marketing Efforts

- Holding events, such as the Partner of the Year Awards to honor organizations that have made outstanding contributions to protecting the environment through energy efficiency.
- Holding promotions, such as the ENERGY STAR Day, where stakeholders have the chance to participate in ongoing ENERGY STAR marketing efforts using tools provided



Digital Media Kit: ENERGY STAR Day 2016

Participate in EPA's ENERGY STAR Day promotion by leveraging your digital media assets: Web site, social media - Facebook, Twitter, e-blasts, blogs, etc. Here's how:

Online:

Use easy to integrate [ENERGY STAR Day Web Buttons and Widgets](#) to drive traffic to the ENERGY STAR Day educational content and your program offerings. These web buttons/widgets are small applications with a link to the ENERGY STAR Day promotional page. If you are interested in having the promotional page open up a new tab or window so the user can check out the content and then return to your organization's web page, see below for directions.



ENERGY STAR Marketing Efforts

- And lastly, determining a venue for a ‘launch’ for marketing efforts, such as an industry event – after finalization of specification
- For more information on marketing tools and resources for ENERGY STAR partners, visit https://www.energystar.gov/products/marketing_materials

Stakeholders are encouraged to submit feedback on potential venues for a new program launch or for ideas on promising approaches for program marketing for EVSE. Marketing staff can contact Peter Banwell at Banwell.Peter@epa.gov or Emmy Phelan at Emmy.Phelan@icfi.com to share thoughts or with any questions.



October 25-27, 2016
New Orleans, Louisiana



2016 ENERGY STAR[®] PRODUCTS PARTNER MEETING

Appliances | Electronics | Lighting | Water Heaters



- ENERGY STAR periodically hosts meetings for partners and industry to gather to discuss new program initiatives, product specifications or other outreach activities.
- At the 2016 Partner Meeting EPA will be kicking off a session geared toward the builder community to discuss how to create EV-ready homes and buildings

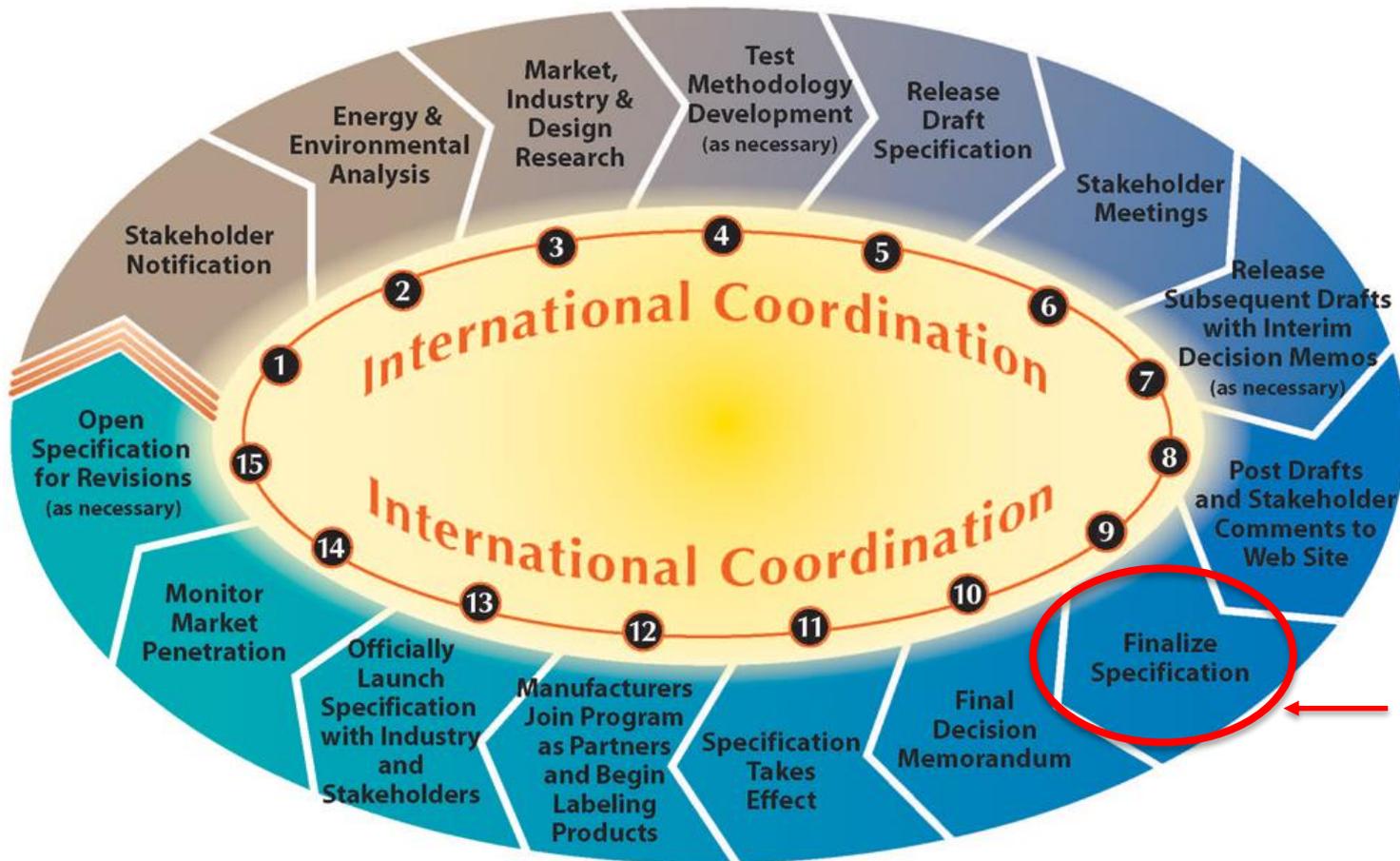


Timeline

Time	Topic
1:00–1:10	Introductions and Specification Development Recap
1:10–1:30	Test Method Feedback and Updates
1:30–2:15	Specification Feedback and Updates
2:15–3:00	Open Discussion
3:00–3:10	Third Party Certification
3:10–3:20	Marketing Efforts
3:20–3:30	Timeline

Next Steps: After Data Assembly and Stakeholder feedback

Specification Development Cycle



We are headed here



Next Steps

Event	Date
<i>Scoping Report Published</i>	<i>September 2013</i>
<i>EVSE Specification Development Launch and Draft 1 Test Method Published</i>	<i>June 19, 2015</i>
<i>Draft 2 Test Method Published</i>	<i>October 6, 2015</i>
<i>Draft 1 Specification and Draft 3 Test Method Published</i>	<i>March 1, 2016</i>
<i>Draft 2 Specification and Final Draft Test Method Published</i>	<i>August 26, 2016</i>
<i>Draft 2 Specification and Final Draft Test Method Webinar</i>	<i>September 15, 2016</i>
Comments Due	September 26, 2016
Final Specification Expected	December 2016



Comments

- Again, comments and data are due on **September 26, 2016**.
- Please send all comments to:

EVSE@energystar.gov

- Unless marked as confidential, all comments will be posted to the EVSE product development page at www.energystar.gov/products/spec/electric_vehicle_supply_equipment_pd
- Accessible through www.energystar.gov/NewSpecs and clicking on “Version 1.0 is in development” under “Electric Vehicle Supply Equipment”



Thank you!

To be added to EPA's stakeholder listserve to receive specification updates, please email:

EVSE@energystar.gov.

Verena Radulovic
Product Manager, ENERGY STAR
(202) 343-9845
Radulovic.Verena@epa.gov

www.energystar.gov/productdevelopment

