



ENERGY STAR® Commercial Coffee Brewers

Draft 1 Version 1.0 Stakeholder Meeting

November 4, 2015

Gaylord National Resort and Convention Center
Washington, D.C.



Today's Agenda

- Introductions
- About ENERGY STAR
- Overview of the specification development process
- Activities to date
- Draft 1 Proposal
 - Definitions
 - Scope
 - Performance Criteria
- General discussion & Questions
- Next steps
- Adjourn



Introductions

Kirsten Hesla

U.S. Environmental Protection Agency

Adam Spitz

ICF International

Tom Schultz

ICF International

to protect the environment
and fight climate change.



ENERGY STAR has over

- **16,000 partners**
- **50,000 product model listings**
- **More than 320 million units shipped in the U.S. in 2014**

For more than **20 years**, EPA's ENERGY STAR program has identified the most energy efficient **products**, **buildings**, **plants**, and **new homes** – all based on the latest government-backed standards and a rigorous third-party certification process.



ENERGY STAR Program Overview



ENERGY STAR® is the simple choice for energy efficiency. For more than 20 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment.

Americans purchased more than 320 million products that earned the ENERGY STAR in 2014 across **more than 70 product categories** for a cumulative total exceeding 5.2 billion products since 1993!

ENERGY STAR. The simple choice for energy efficiency.



Today,
this little blue label
does all the hard work
of certifying outstanding
energy efficiency in:

70

**Product
Categories**



16,000

businesses and public sector organizations partner with **ENERGY STAR**



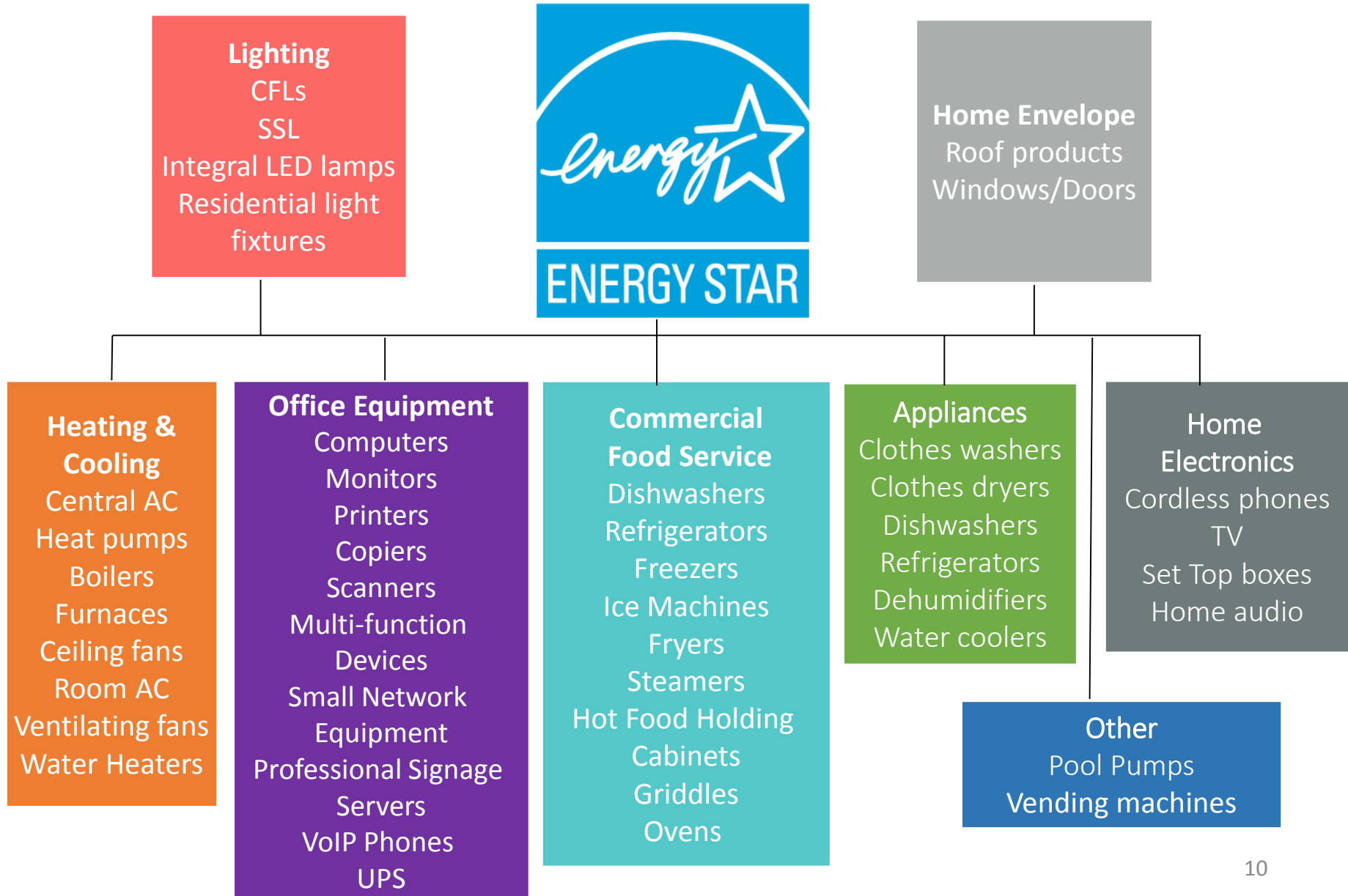
ENERGY STAR. The simple choice for energy efficiency.



Today,
this little blue label
does all the hard work
of certifying outstanding
energy efficiency in:

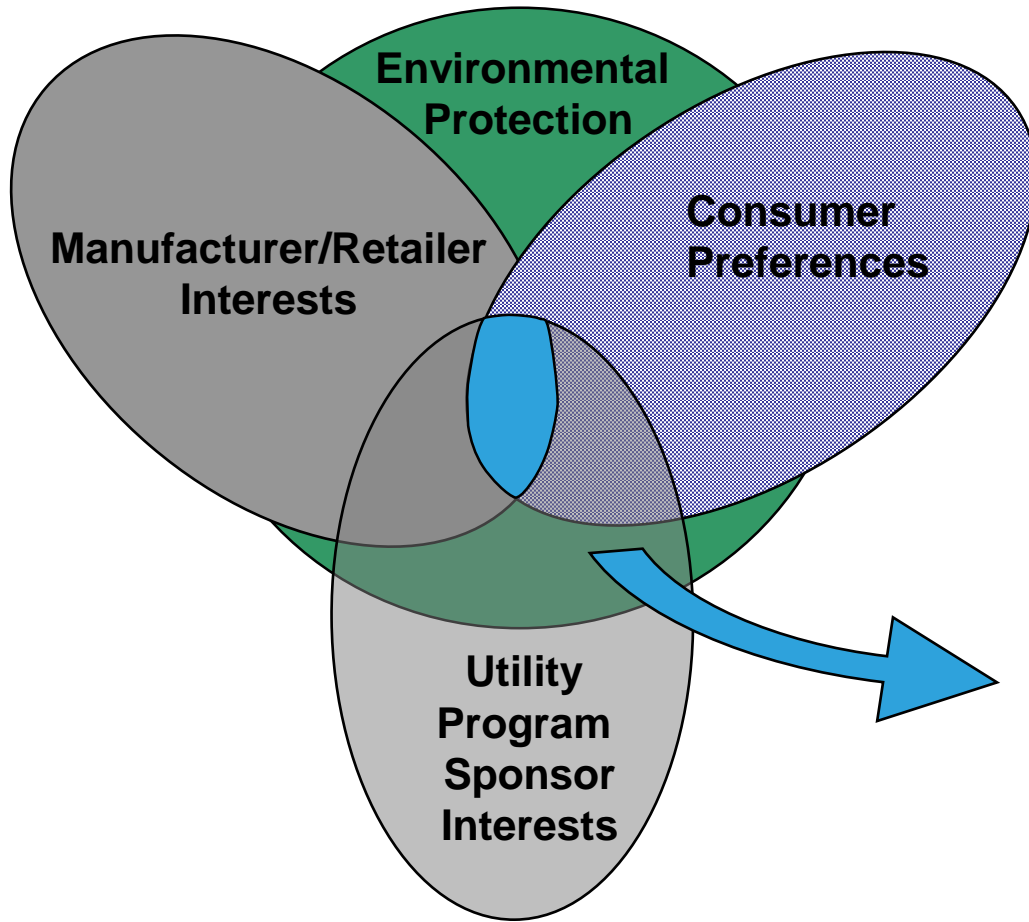
**NEW
HOMES
Across the Nation**







How it works:

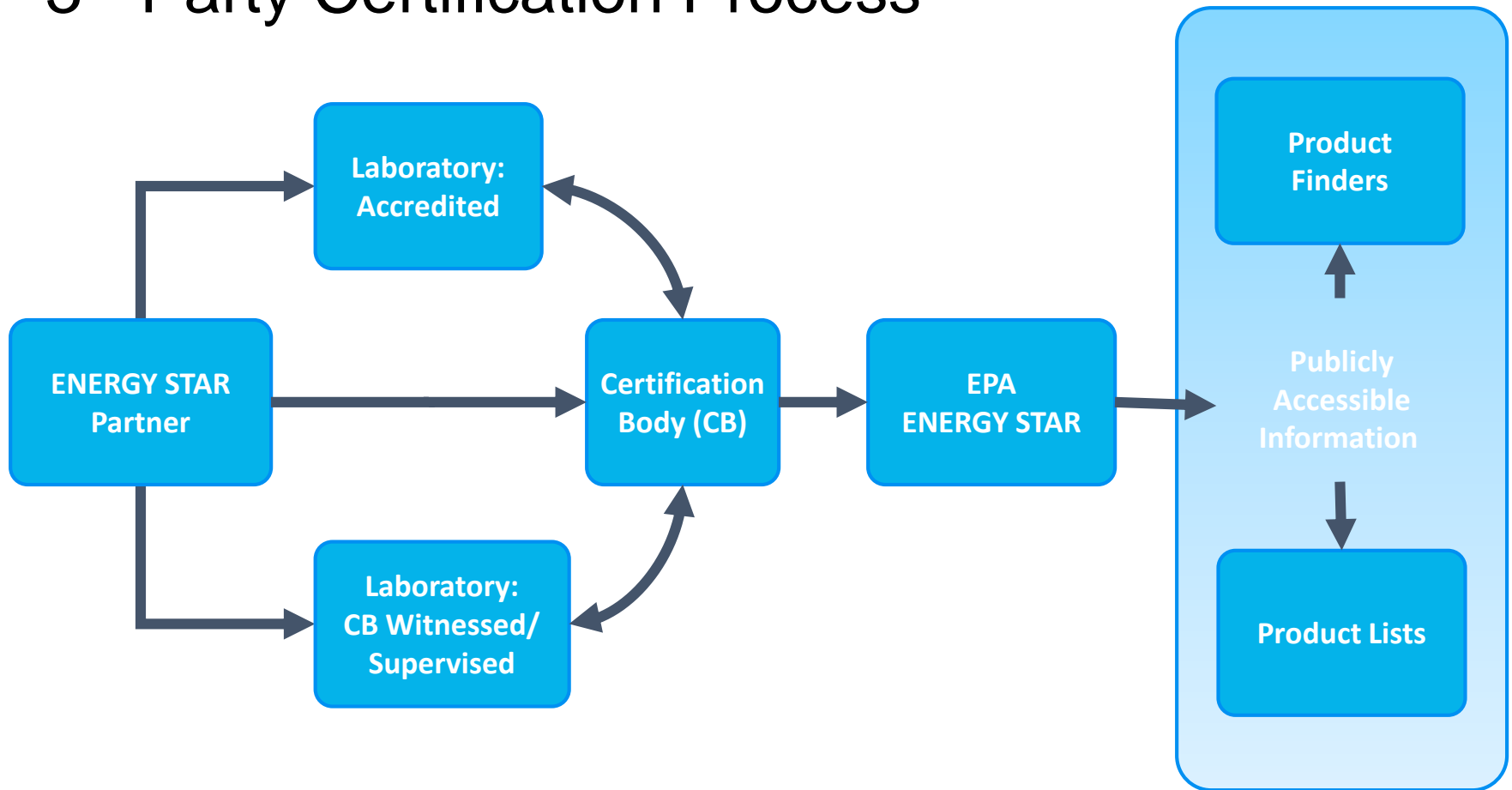


- Cost-effective
- No Sacrifice in Performance
- Government backed

Consumer is Key

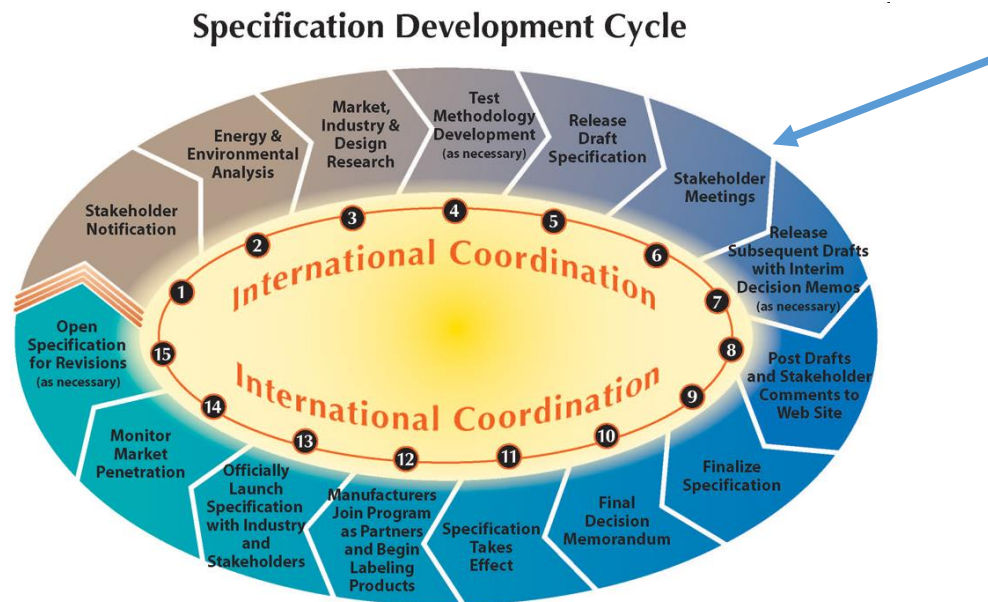


ENERGY STAR Products 3rd Party Certification Process



Activities to Date

- Official Version 1.0 Launch: March 10, 2014
- Stakeholder Meeting: May 19, 2014
- Framework Document Release: August 4, 2014
- Draft 1 Release: October 30, 2015, 2015
- Draft 1 Stakeholder Meeting: November 4, 2015





Overview of Draft 1



Type II Brewer Classifications (Volume)

Small Batch Type II: Brew volume capacity with a range of 24oz. – 128oz.

Medium Batch Type II: Brew volume capacity with a range of >128oz. – 256oz.

Large Batch Type II: Brew volume capacity of >256oz. – 384oz.



Type III Brewer Classification (Volume)

Type III: An urn or satellite commercial coffee brewer and has a standard brew volume of < 384 fluid ounces or greater per brew event. These products may contain more than one dispense station for simultaneous or sequential dispensing into more than one holding reservoir.

- Does this definition adequately classify high capacity brewers?

*Note: Type III Brewers are currently outside the scope, seeking clarification on the definition



Definitions

Product Family: Individual models offered within a product line based on the same engineering design, including brew capacity and number of warming plates, as applicable. Acceptable differences within a product family for purposes of certification include aesthetic additions that do not impact coffee brewer energy consumption while in operation or during any idle situation. The addition of energy save mode options does not preclude products from a product family if all other design elements remain constant.



Definitions cont.

Energy Save Mode: An optional low power mode that is designed by the manufacturer to be different from and use less energy than ready-to-brew state. This is an optional idle energy rate used for reporting purposes only.

Average Tank Temperature: The average temperature of the water held in the reservoir tank during ready-to-brew idle and energy save mode conditions.

- These proposed definitions derived from the ASTM F2990-12 standard test method.



Scope: Proposed Draft 1 V1.0

Included Products

- Type II Batch Brewers (Certified to UL 197, *Standard for Commercial Electric Cooking Equipment*)

Excluded Products

- Type I Single Cup Brewers
- Type III Brewers
- Bean-to-Cup Brewers
- Liquid Coffee Dispensers
- Powdered Coffee Dispenser
- Espresso Machines
- Satellite Brewers
- Urn Brewers

*Note: EPA intends to expand the scope of covered products once test methods and/or sufficient data is available



Test Requirements

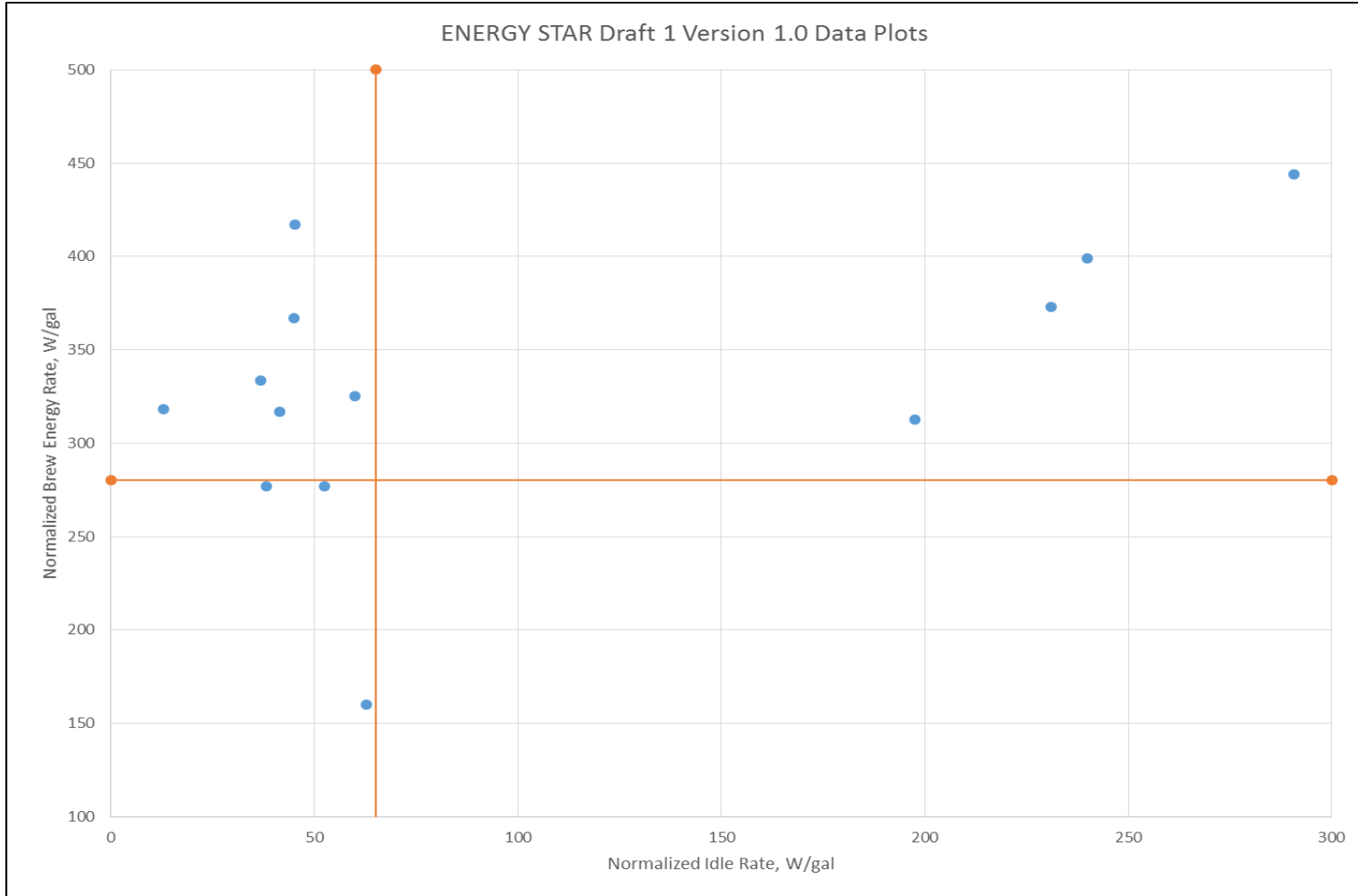
- American Society for Testing and Materials (ASTM) F-2990-12, *Standard Test Method for Commercial Coffee Brewers*
 - Ready-to-Brew Idle Energy Rate, W
 - Heavy-Use Brew Energy Rate, W



Proposed Energy Efficiency Requirements

Energy Efficiency Requirements Type II Commercial Coffee Brewers	
Normalized Ready-to-Brew Idle Energy Rate	≤ 65 watts/gal
Normalized Heavy-Use Brew Energy Rate	≤ 280 watts/gal

*Establishing normalized levels allows EPA to set one performance level that accounts for differences in tank capacity and brew rates.



Ready-to-Brew Idle Energy Rate: 65W/gal

Heavy-Use-Brew Energy Rate: 280W/gal



Additional Reporting Requirements

- The pre-heat time and energy for all commercial coffee brewers shall be reported.
- The production capacity (gal/h) for all commercial coffee brewer heavy-use brew tests shall be reported.
- The average tank temperature operating in the ready-to brew idle mode shall be reported.



Energy Save Mode - Reporting

- Draft 1 does not currently include requirements related to energy save mode.
- Insufficient data on energy save mode
 - Very few data points from models with this feature
 - No specified tank temperature (or temperature drop) associated with energy save mode
- Test method does not specify temperature reduction.
- Does the average tank temperature operating in energy save mode need to be specified?



General Discussion & Questions?



Discussion Questions

- Are stakeholders willing to provide EPA with additional data? How can we work together to build a more robust dataset?
- What concerns do you have, if any, about this specification proposal?
- What concerns do you have, if any, about the potential for this specification to influence the market?
- What additional information, if any, should be collected and incorporated into this specification?
- Are there any additional reporting requirements that should be considered?



Specification Development Timeline: Target Dates

- Draft 1 Comments Due: November 30, 2015
- Draft 2: Mid-December 2015
- Draft 2 Comments Due: Mid-January 2016
- Final Draft: February 2016
- Final Draft Comments Due: March 2016
- Final: **Spring 2016**

Thank You!

Kirsten Hesla

U. S. Environmental
Protection Agency

(202) 564-2984

Hesla.Kirsten@epa.gov

Adam Spitz

ICF International

(916) 231-7685

Adam.Spitz@icfi.com