



ENERGY STAR[®] Draft 1 Griddle Specification Discussion

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ENERGY STAR Labeled Products
Program

What is ENERGY STAR?



- ENERGY STAR is a national, government-backed symbol of energy efficiency, making it easy for customers to identify high-quality, energy-efficient products
- ENERGY STAR is a voluntary program managed by U.S EPA and U.S. DOE
- ENERGY STAR represents the top energy performers in the marketplace
 - Differentiator, not a green seal of approval

ENERGY STAR Product Labeling



Objectives

- To reduce greenhouse gas emissions, caused by the inefficient use of energy
- To make it easy for businesses and consumers to identify and purchase products with enhanced energy efficiency that offer savings on utility bills while maintaining performance, features, and comfort

Growth of ENERGY STAR



- First ENERGY STAR qualified products in 1992
 - Computers and monitors

Today

- More than **50 product categories**
- Over **2,000 manufacturers** labeling more than 40,000 product models
- Over **1,000 retail partners**
- More than **550 utility partners** promoting ENERGY STAR
- Over **2.5 billion ENERGY STAR products** sold to date

Brand Awareness and Success



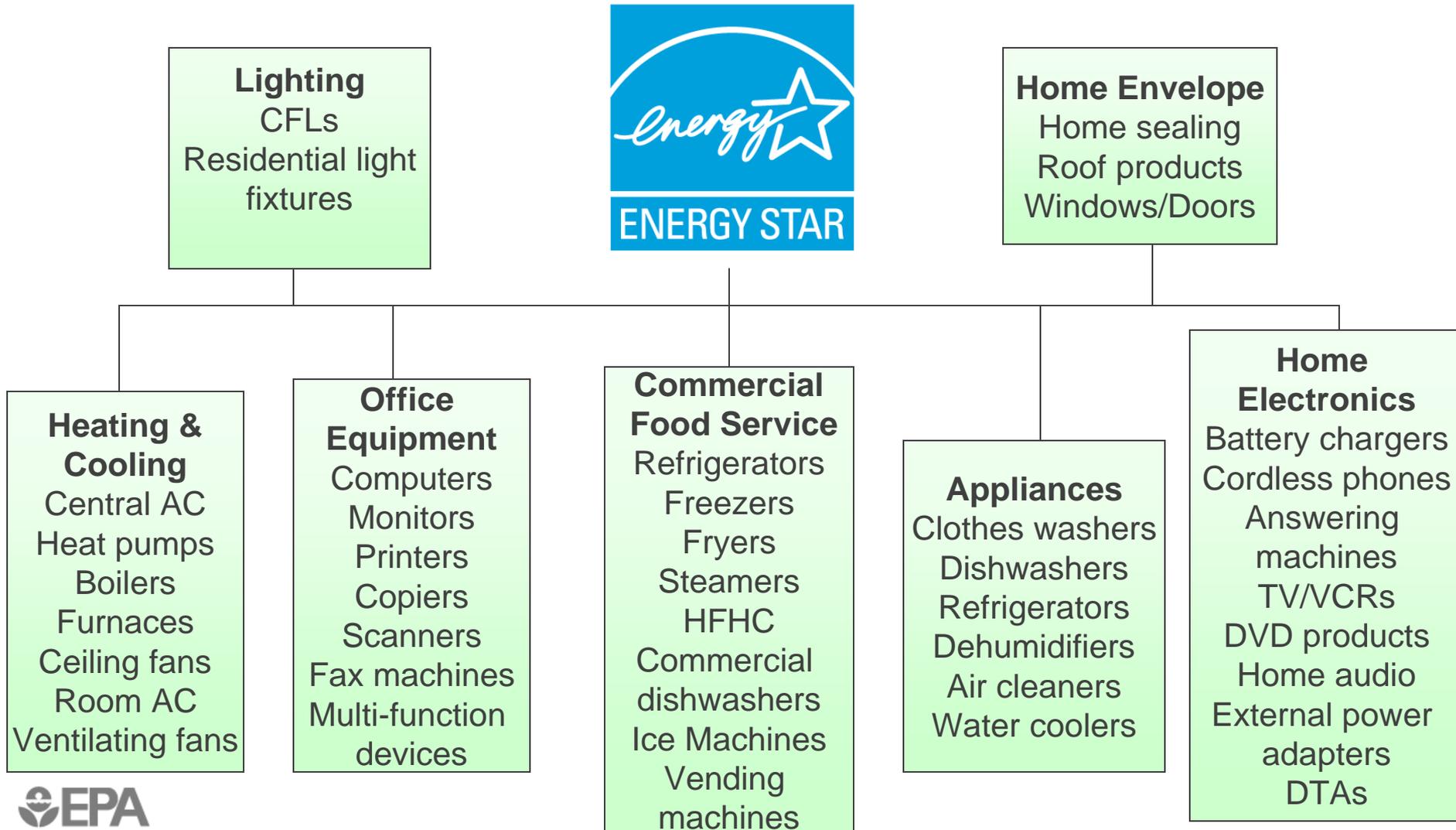
- ENERGY STAR awareness now more than 70% amongst U.S. consumers
 - Rising to nearly 80% in areas with strong utility programs
- In 2007 alone, Americans, with the help of ENERGY STAR:
 - Saved consumers about **\$16 billion** on their energy bills
 - Prevented **40 million metric tons** of greenhouse gas emissions equivalent to the annual emissions of **27 million vehicles**

ENERGY STAR Qualified Products



- ENERGY STAR qualified products must meet strict energy efficiency guidelines
 - Guidelines usually include efficiency *and* quality requirements
 - Industry accepted test procedure used to consistently measure and compare efficiencies
- Manufacturers sign partnership agreements with EPA/DOE and then submit products for qualification
 - If qualified, the products can be labeled with the ENERGY STAR mark

50+ Product Categories Are Covered by ENERGY STAR in the US



Guiding Principles for Specification Development



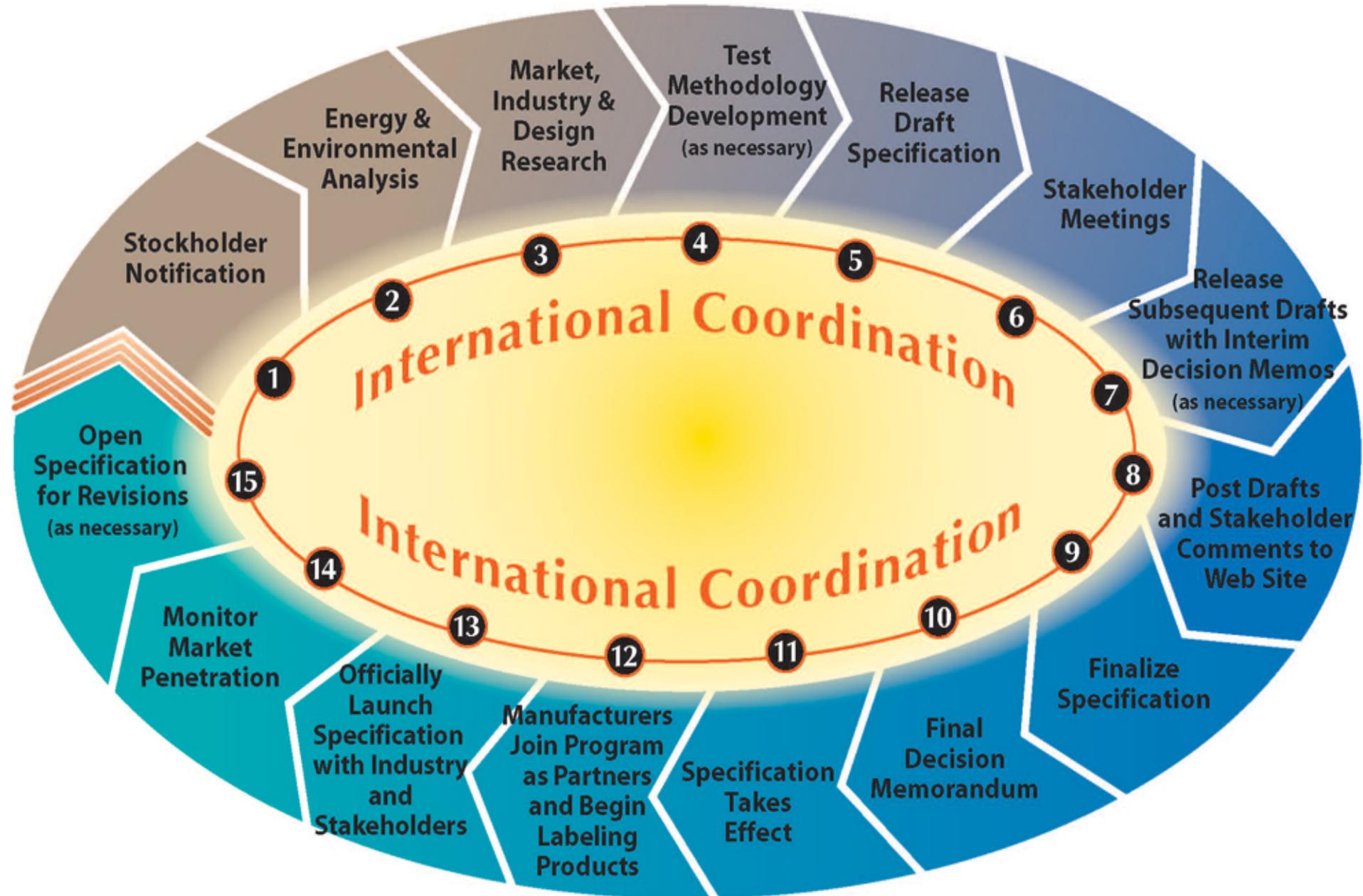
- Cost-effective efficiency
 - Maximum 5 years ROI
- Performance maintained or enhanced
- Significant energy savings & carbon emissions reduction potential
 - Per unit and/or on a national basis
- Efficiency is achievable with several technologies
 - Focus on finished product performance
 - Technology neutral requirements

Guiding Principles, *cont.*



- Product differentiation and testing are feasible
 - Available, industry accepted test procedure
 - Target top 25% in terms of energy efficiency
 - Several manufacturers and products represented
- Labeling can be effective in the market
 - Range of efficiency across models
 - Significant end user demand for greater efficiencies

Specification Development Cycle



Important Process Elements



- Consistency
- Transparency
- Inclusiveness
- Responsiveness
- Clarity



Draft 1 Specification Requirements

Part 1: Partner Commitments

Part 2: Eligibility Criteria

Partner Commitments



Standard Commitments:

- Annual submission of product information
- Clear display of the ENERGY STAR on products, on product packaging, in product literature, and on company Web site
- Annual submission of ENERGY STAR unit shipment data
- Regular updating of company contact info

Essential to continued growth and success of ENERGY STAR!

Annual Submission of Product Information



Goal: to ensure qualified product information provided on the Web site is current

- Qualifying products do not need to be retested if the specification has not changed
- Submit list of products that continue to qualify
- Report products that have been discontinued year round

Product Labeling



Goals:

- To make it easy for specifiers, purchasers, distributors, and/or others to identify energy-efficient models
- To ensure that participating manufacturers get recognition for their efforts
- To increase awareness of ENERGY STAR among consumers

Annual Shipment Data



Goal: to determine market penetration of ENERGY STAR; determine program success and if changes are needed

- Data may be provided by a third party or trade association on behalf of its members
- Data can be masked and/or aggregated

Eligibility Criteria: Griddle Types



- Single sided, double-sided griddles
- Thermostatically controlled units
- Manually controlled griddles excluded
 - No test procedure available for manual controlled
- Fry-top ranges excluded because griddle tops can be sold with ranges attached
 - Ranges not covered by ENERGY STAR

Test Procedures



- ASTM 1275, *Standard Test Method for Performance of Griddles*
- ASTM F1605, *Standard Test Method for Performance of Double-Sided Griddles*
- Measure cooking energy efficiency and idle rate

Proposed Performance Requirements



Table 1: Energy Efficiency Requirements for Single and Double Sided Commercial Gas Griddles

Cooking Energy Efficiency*	$\geq 38\%$
<i>Normalized Idle Energy Rate</i>	$\leq 2,600$ Btu/h per ft ²

Table 2: Energy Efficiency Requirements for Single and Double Sided Commercial Electric Griddles

Cooking Energy Efficiency*	$\geq 70\%$
<i>Normalized Idle Energy Rate</i>	≤ 320 watts/ft ²

Performance Requirements

cont.



- Formulae provided to normalize idle energy rate based on area square footage
- Double-sided griddles with electric top plate and gas bottom plate required to meet gas griddle requirements
 - Formula provided to determine normalized idle energy rate in Btu/h per ft².

Performance Data Analysis



- Data provided by PG&E's FSTC
- Gas Dataset
 - Draft 1 levels represent 24% of dataset (N=29)
 - 7 single-sided (no double-sided units)
 - 5 manufacturers (6 brands) represented
- Electric Dataset
 - Draft 1 levels represent 40% of dataset (N=9)
 - 2 single-sided units (28%) and 2 double-sided
 - 4 manufacturers represented

Potential Energy, Dollar, & Carbon Savings



- Gas
 - Unit energy savings: 15.4 MBtu/year
 - Dollars savings: \$177/year

- Electric
 - Unit energy savings: 2,985 kWh/year
 - Dollars savings: \$298/year

Simple Payback Analysis



- Collected prices for gas, thermostatic units
 - Catalogues, Web sites, mfg. submittals
 - 36” griddle width, similar griddle thickness
- Ave Standard Model Price: \$3,293*
- Ave High Efficiency Model Price: \$3,343*
- Energy Savings: \$177/year
- **Payback: <1 year**

Effective Date



- Specification will take effect shortly after finalization
 - Manufacturers join as partners, submit products for qualification, gain access to ENERGY STAR label
- Draft 1 proposal: **February 5, 2009**
 - Potential launch at NAFEM Show, Feb 5-7
 - If more time is needed, NAFEM could be used for stakeholder meeting

Next Steps



- Stakeholder comments due **October 17**
 - Submit comments to Rebecca Duff, ICF, at rduff@icfi.com
 - Comments to be posted to Web site within 1 week of comment deadline
- Draft 2 specification scheduled to be released early/mid November
- EPA will host subsequent stakeholder meetings, as needed

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