

## DOCKETED

<b>Docket Number:</b>	15-IEPR-05
<b>Project Title:</b>	Energy Efficiency
<b>TN #:</b>	205063
<b>Document Title:</b>	Energy Star - Addressing Plug Load
<b>Description:</b>	Presentation for Katharine Kaplan with Energy Star
<b>Filer:</b>	Laura Laurent
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	6/18/2015 9:22:47 AM
<b>Docketed Date:</b>	6/18/2015



# ENERGY STAR

## Addressing Plug Load



# 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.

In 2014, Americans , with the help of ENERGY STAR, **prevented 300 million metric tons of GHG** emissions.

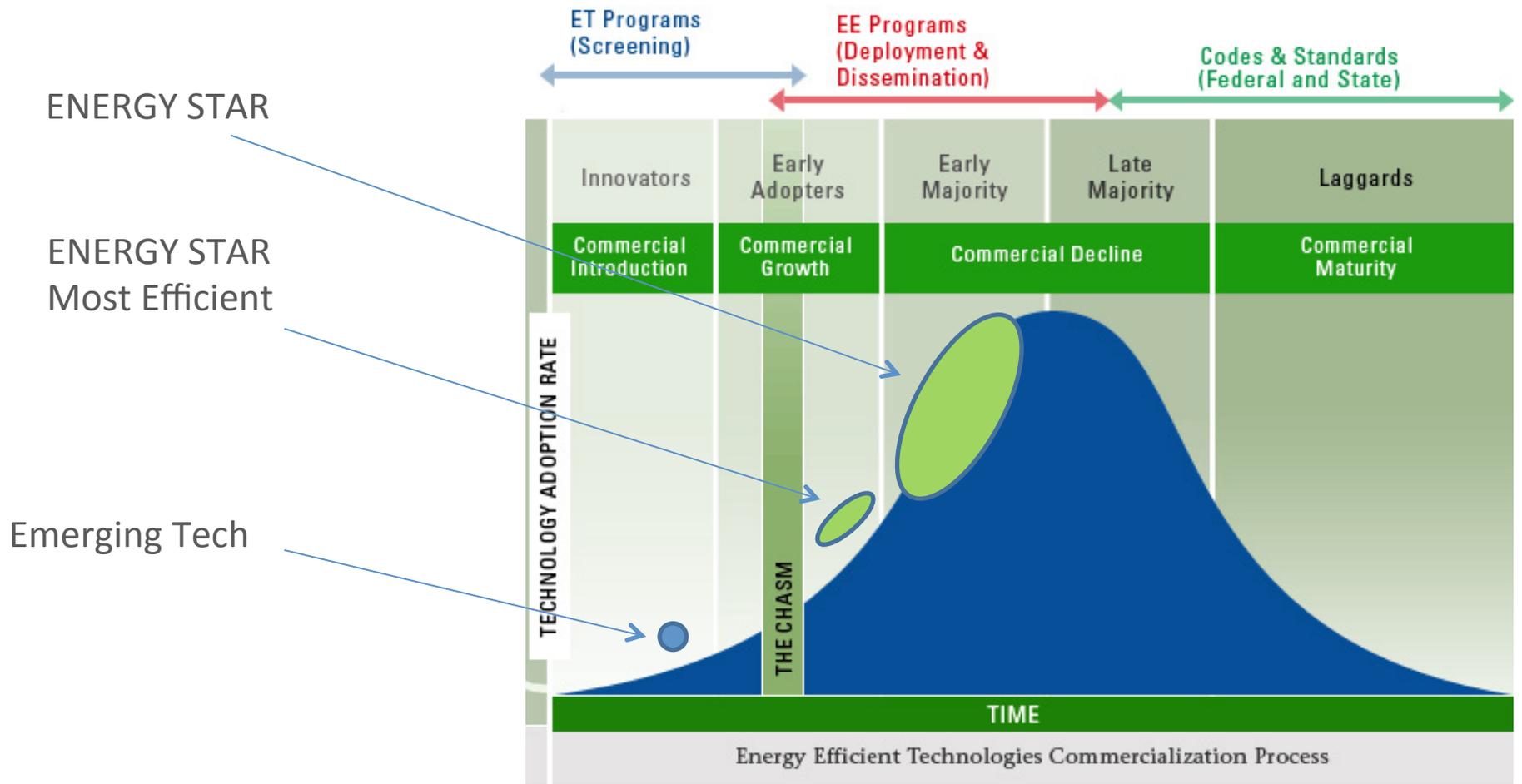


# Multi-Pronged Approach to Addressing Plug Load

- ENERGY STAR Specification Revisions
- ENERGY STAR Most Efficient
- Emerging Tech Award
- Retail Products Platform
- Campaigns-behavior change



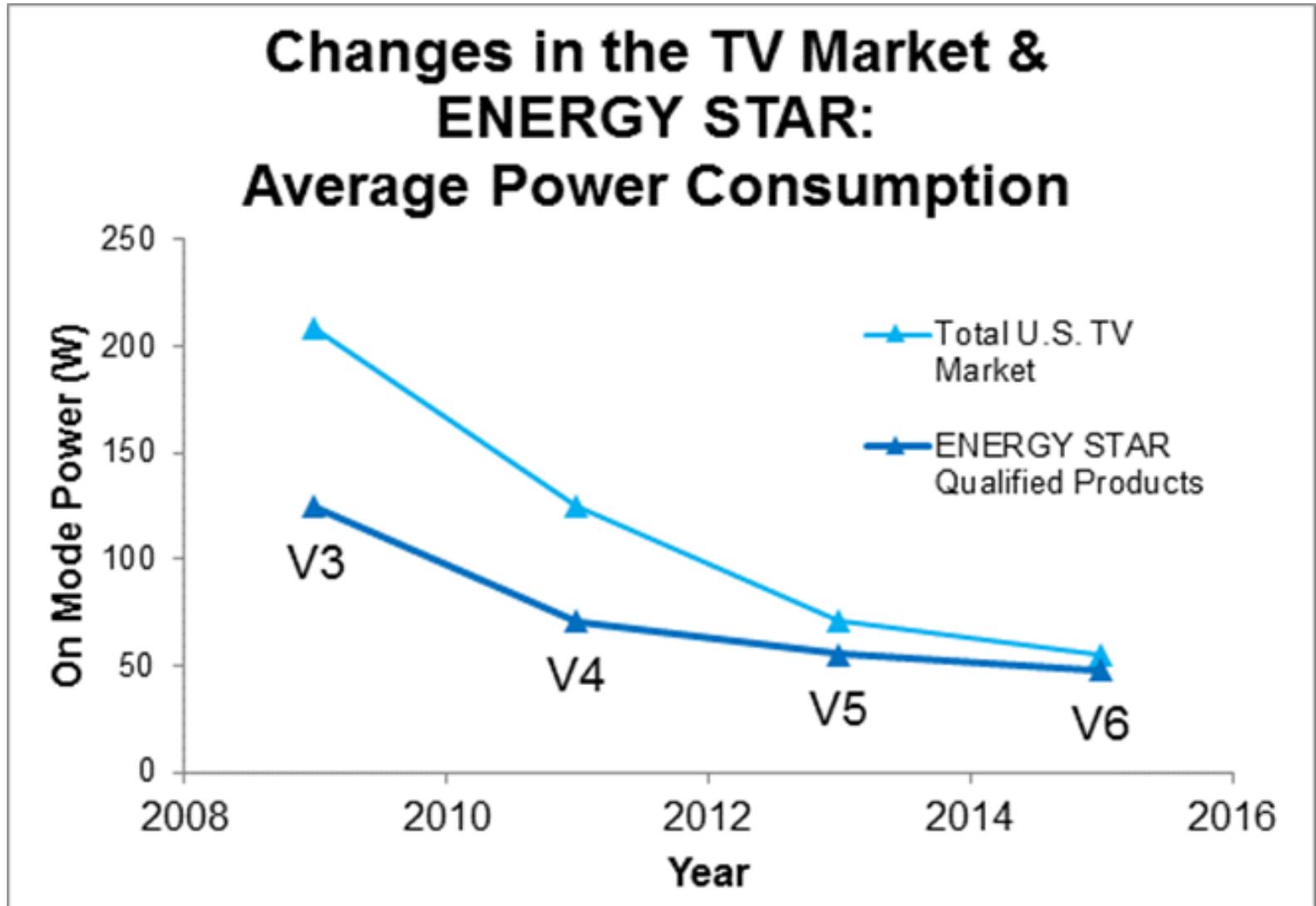
# How Our Strategies for Driving Efficiency in Products Fit Together





## 2015 current and planned activities

- Another busy year for spec development
  - 19 revisions underway or intended
  - 11 new product in development
  - 5 reviews for potential to revise
  - 11 scoped products

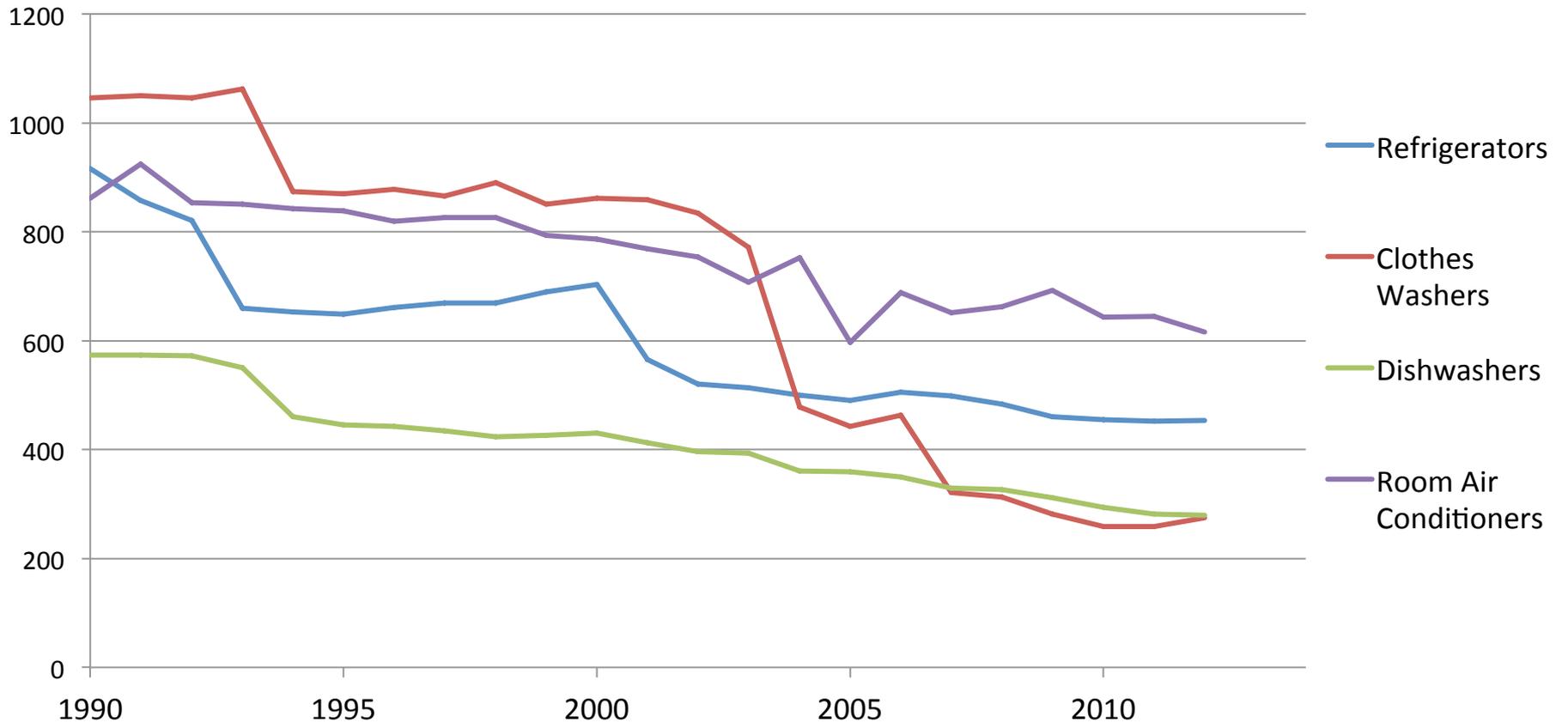




# Efficiency Gains

Energy Use per Year  
(kWh/yr)

*U.S. Shipment Weighted, Average Annual Energy Use, 1990-2012*



## ENERGY STAR Most Efficient

- An extension of the **trusted** ENERGY STAR brand.
- Recognizing the **most efficient** products among those that qualify for the ENERGY STAR in a given year.
- Represents **the “best of the best”** in energy efficient products.

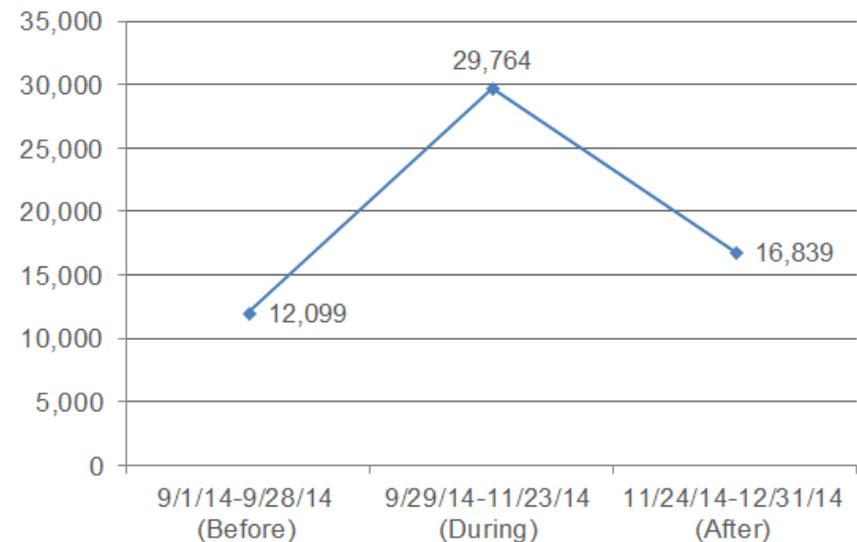
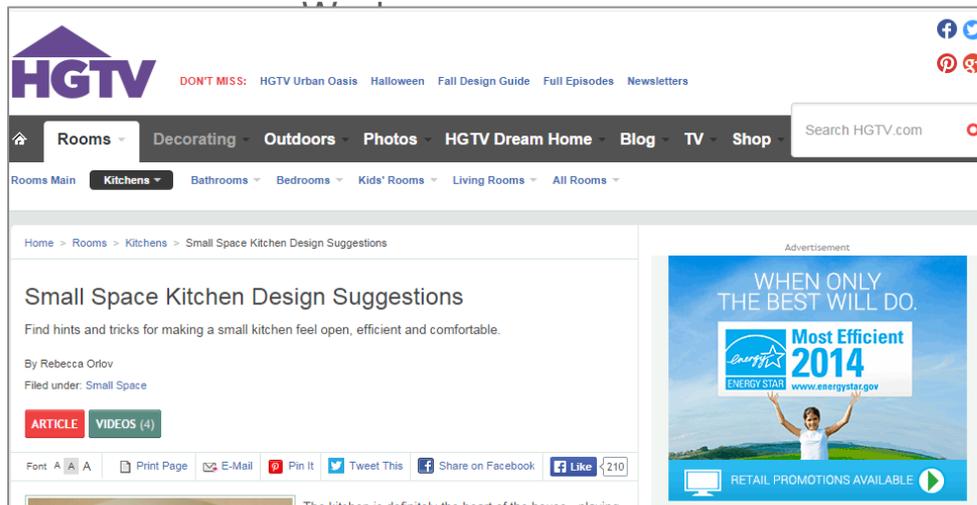


See: [www.energystar.gov/moste efficient](http://www.energystar.gov/moste efficient)



# ENERGY STAR Most Efficient 2014 Marketing Promotion Results

- **Promo Period:** September 29 – November 23, 2014
- **Utility Partners and Regions:** PG&E, SMUD and NYSERDA
- **Marketing Channels:**
  - Banners on OwnerIQ Network, live-read on Total Traffic Radio Network
    - CTR of 0.05% in CA and above average of 0.07% in NY
  - Energystar.gov/mosteefficient landing page
    - Boost from 12,099 to 29,764 page views during and maintaining a higher level of views post
    - Top 3 viewed pages from the landing page: Most Efficient Fridges & Freezers, Most Efficient Central Air Conditioners and Air Source Heat Pumps, and Most Efficient Clothes





## ENERGY STAR Most Efficient: Continues to Grow

- In 2014, 12 energy efficiency program sponsors serving **37 million customers** featured ENERGY STAR Most Efficient 2014.
- Efficiency program sponsor participation has tripled since the beginning of the designation in 2011 and doubled since 2012.
- Nearly a quarter of the households surveyed, recognized both the ENERGY STAR and ENERGY STAR Most Efficient.\*
  - **56% of these households** agreed with the statement that **“All other things equal, I would buy a product because it is designated as ENERGY STAR Most Efficient.”**
  - These households are very likely to:
    - Associate ENERGY STAR with environmental and social benefits.
    - Shop where they can find the ENERGY STAR label.
    - Perceive ENERGY STAR products to have superior performance.
    - Willing to pay more money for a product that saves the most energy.



# Emerging Technology Award

- An extension of the trusted ENERGY STAR brand
- Recognizes innovative technologies that:
  - Significantly reduce greenhouse gas emissions
  - Do not yet meet ENERGY STAR principles
  - Face significant barriers to U.S. market entry or acceptance
- Given annually to products that meet rigorous performance criteria

**ENERGY STAR 2015**  
Emerging Technology Award



## Award Selection Criteria

- Criteria for selecting award categories:
  - Commercially available, but not widely adopted
  - Offered by more than one supplier
  - Demonstrated performance through testing
  - GHG reductions at competitive costs
  - Environmentally acceptable
  - Supported by capable partners, adequately financed
  - Well-matched to EPA/ENERGY STAR competencies and roles

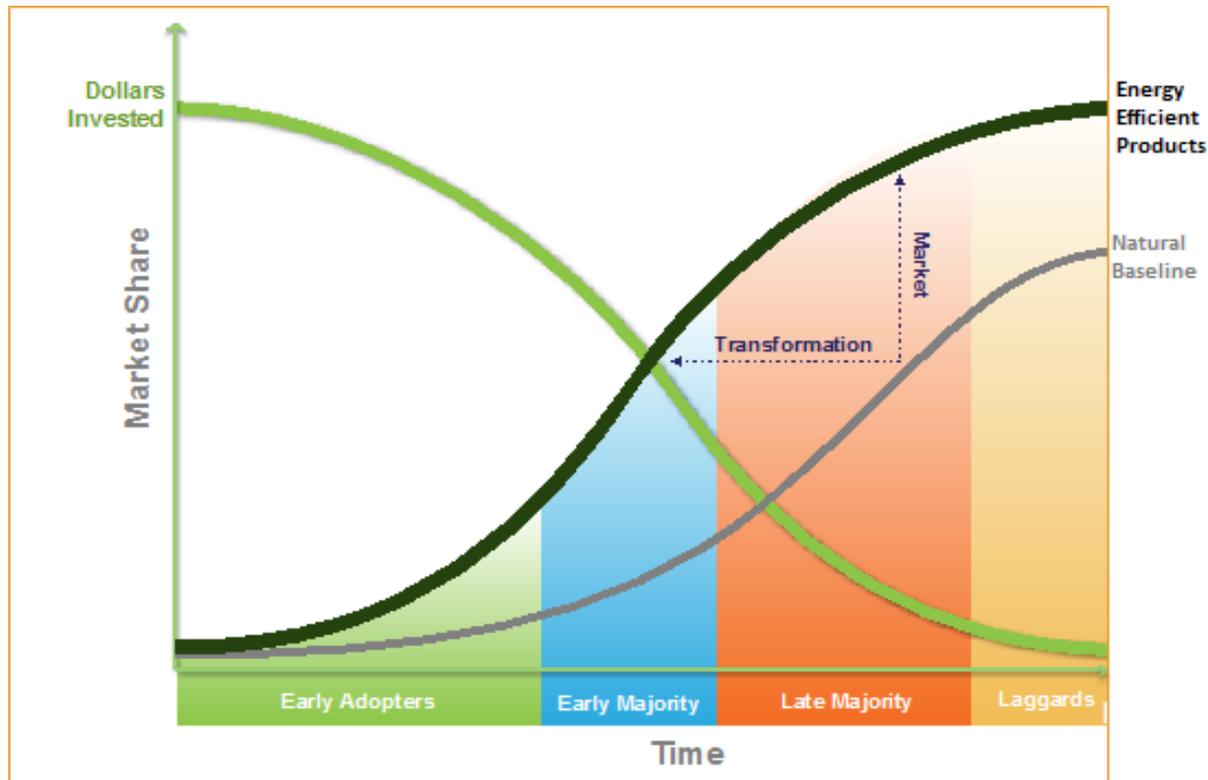


## Emerging Technology Award Categories

- 2013: Micro-Combined Heat and Power
- 2014: Advanced Clothes Dryers
- 2015: Demand Control Kitchen Ventilation
- Currently collecting nominations for 2016

## What is the ENERGY STAR Retail Products Platform?

- Nationally coordinated grassroots midstream market transformation program
- Aligns energy efficiency programs with retailers' business models
- Triggers structural changes in the marketplace toward energy efficiency
- Pilots to launch in 2016 in CA, CT, DC, MD, NJ, NY and VT





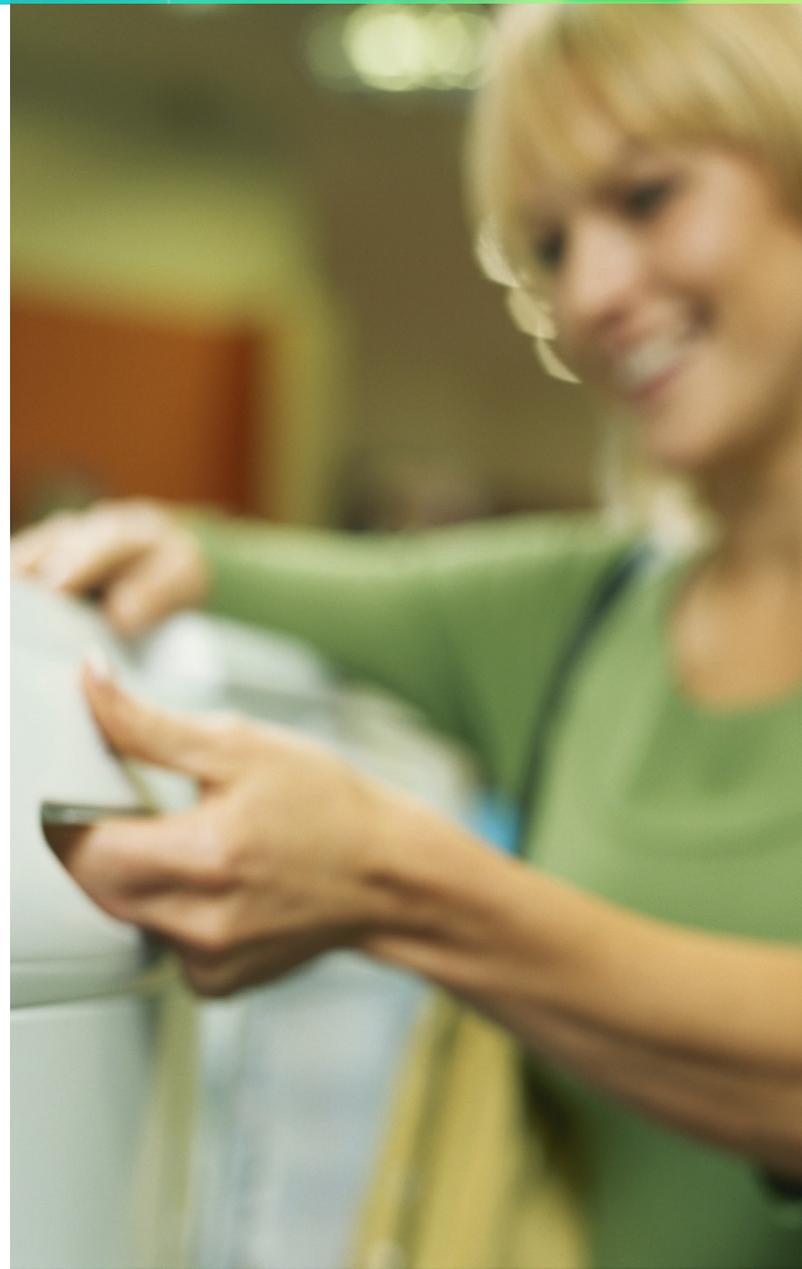
## 2015/6 Products

The pilot was designed to

- Test a mix of different products
- Prove the program concept, and
- Streamline implementation

The pilot is currently limited to the following products:

- **ENERGY STAR certified dryers**— new category
- **ENERGY STAR certified air cleaners**— small unit sales, high per unit energy savings
- **ENERGY STAR certified freezers**— difficult to administer cost effective downstream rebates
- **ENERGY STAR certified sound bars (+50%)**— high growth category, limited per unit savings
- **ENERGY STAR certified home theater systems**—high growth category, limited per unit savings
- **(for 2016) ENERGY STAR certified room air conditioners**—revised specification, positioned to influence stocking plans for 2016





## Better Installation Improves Efficiency and Consumer Comfort

- V 4.0 ESTAR Room Air Conditioner criteria effective Oct 26, 2015 include installation requirements:
  - Weather stripping/gasket materials that resist air and water infiltration and UV degradation
  - Materials are intended to seal all areas between the unit and window opening
  - For window units, side curtains must have minimum R1 insulation value
  - Products must ship with installation instructions. For through-the-wall units, this includes recommendations re: appropriately sized covers for the off-season
  - EPA is developing an installation focused FAQ, to provide additional clarification to manufacturers and CBs

## Refrigerators- Flip Your Fridge!

- Encourages Americans to “flip” their old, inefficient refrigerator, for an ENERGY STAR certified model.
- ENERGY STAR partners are promoting “Flip Your Fridge” in retail, highlighting their incentives and promotions to customers.
- **Earth Day kick-off** on the Ellen Degeneres Show.
- **Expecting to repeat in 2016**



Check out EPA resources at:

[https://www.energystar.gov/products/energy\\_star\\_flip\\_your\\_fridge\\_materials](https://www.energystar.gov/products/energy_star_flip_your_fridge_materials)



# SOAK IN THE SAVINGS

## CHOOSE AN ENERGY STAR® CERTIFIED ELECTRIC STORAGE WATER HEATER AND SAVE THOUSANDS OF DOLLARS

Electric storage water heaters that have earned the ENERGY STAR are independently certified to save energy, save you money, and help prevent climate change.



- ★ Use less than half the energy of a standard electric storage water heater
- ★ Can save a four-person household \$490 per year in energy bills

ENERGY STAR certified electric storage water heaters use a highly efficient heat pump – essentially a refrigerator run in reverse – to transfer heat from the surrounding air to the water. They are referred to as **heat pump water heaters (HPWHs)**.

### TAKE ADVANTAGE OF UTILITY INCENTIVES

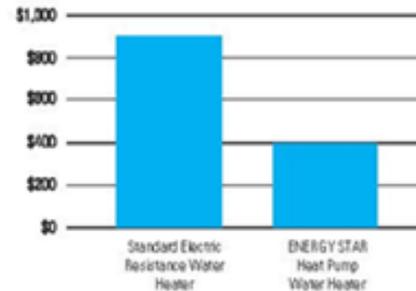
Many utilities offer incentives for purchasing an ENERGY STAR certified HPWH. The table below shows several examples from across the country. Go to [www.energystar.gov/subsite-finder](http://www.energystar.gov/subsite-finder) to determine your incentive.

State	Utility	Incentive
CA		\$500
GA		\$250
HI		\$200
MA		\$750
ME		\$300
NH		\$1,000
TX		\$500

### Don't Flood Your Basement!

If your water heater is over 10 years old, be proactive and replace it with an ENERGY STAR certified water heater BEFORE it fails.

### ANNUAL ENERGY COSTS FOR AN ELECTRIC STORAGE WATER HEATER (4-PERSON FAMILY)



### SAVE THOUSANDS OF DOLLARS

An ENERGY STAR certified HPWH can save a four-person family \$4,000 over its lifetime and will pay for its additional cost in less than two years.

### ENERGY STAR HPWH Savings Based on Household Size

Household Size	Annual Savings	Payback (Years)	Lifetime Savings
2	\$250	3.4	\$1,650
3	\$370	2.3	\$2,650
4	\$490	1.7	\$4,050
5	\$620	1.4	\$5,350
6	\$740	1.1	\$6,550

Assumes: Electricity Rate of 31¢/kWh; Incremental cost = \$850; 10-year lifespan; no incentives.

Visit [www.energystar.gov/products](http://www.energystar.gov/products) for more information.



## ENERGY STAR Water Heater Promotion Messaging

“There are more than 41 million water heaters nationwide that are at least 10 years old. If yours is 10 years or older, consider replacing it with a new ENERGY STAR certified water heater now, before it fails.”



# ENERGY STAR Water Heater Promotion

- National, **consumer-centric promotion** to increase sales of ENERGY STAR certified water heaters, **late August thru October 2015**
- Marketing/Outreach:
  - Online ads driving traffic to a dedicated ENERGY STAR water heater promotional page on [energystar.gov](http://energystar.gov)
  - Media pitches to both trade and consumer publications
  - ENERGY STAR consumer newsletter promoting water heaters and benefits to 500,000 subscribers
  - Social media (Facebook, Twitter)
- Participants: Retailers, Manufacturers, Contractors, Distributors, Utilities & Energy Efficiency Program Administrators



**Thank you for your Interest in**

