

Aligning the Stars for Efficiency: Emerging Federal Efforts

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Topics

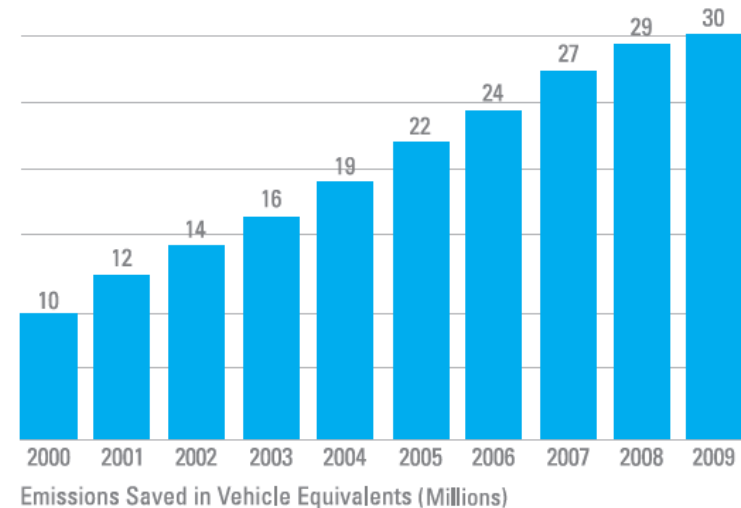
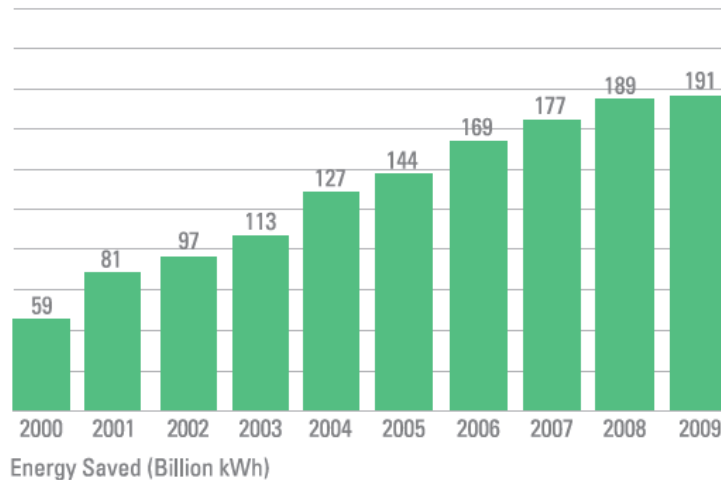


- ENERGY STAR
 - Top Tier
 - Products
 - Homes
 - Commercial and Industrial

2009 Accomplishments



- Americans with the help of ENERGY STAR prevented 46 million metric tons of GHG emissions— equivalent to 31 million vehicles and saved \$17 billion on energy bills
- Over 80% consumer awareness
- More than 17,000 partners
- Nearly 3 billion qualified products sold since 2000
- Over 1 million new homes are ENERGY STAR qualified
- Tens of thousands buildings benchmarked and thousands upgraded



Every federal dollar spent means:



- Reductions in greenhouse gas emissions of 1.0 metric ton of carbon equivalent.
- Savings for partners and consumers of more than \$75 on their energy bills.
- Private sector investment of more than \$15.
- A net savings of more than \$60.





Top Tier

Top Tier: Goal and Challenges



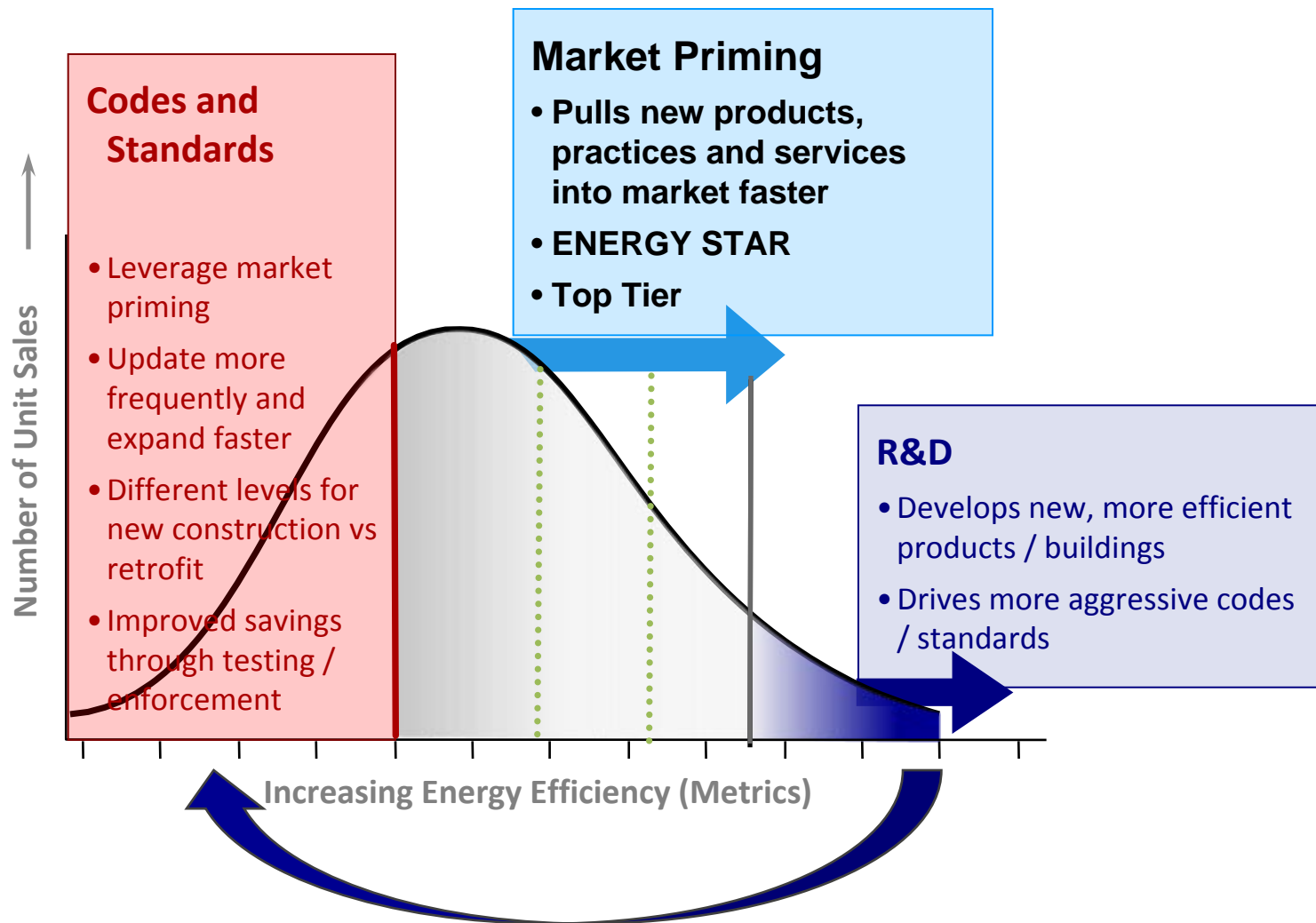
Goal

Drive more energy efficient products into the market more quickly.

Challenge

Determine the best strategy for identifying the top, few, most energy efficient products for early adopters without confusing consumers or harming the ENERGY STAR brand.

Top Tier Strategy: Speed Technology Innovation and Energy Savings



Target Audience and Value proposition



- **Target Audience**

- Equally likely to be male or female, ages 35–64
- A majority are homeowners
- Have already adopted green behaviors/habits (vs. the general population)
- Environment is an important concern
- **Early adopters**

- **Value proposition**

- The right thing to do for the environment; doing the most you can
- Buying the most efficient product available
- Being an early adopter; trendsetter
- Not always about saving money

Many considerations were applied in designing a Top Tier



- Criteria?
- Products?
- Frequency of Updates?
- Delivery channels
 - Online
 - In store

Needs to be Useful Tool for

- Consumers
- Manufacturers
- Program Administrators
- Retailers

To Date



- Spring 2010: Market data and consumer information collected
- Spring/Summer 2010:
 - Consumer feedback (focus groups, interviews)
 - Program Design options
- Proposal to Stakeholders-- Fall 2010

Solicited Comments on Program Design



Establish a performance level for recognition

- Case-by-case review of performance data and technology developments for each category
- Superior efficiency; latest in technological achievement
- Very small initial set of qualifying models (but enough product availability to support efficiency programs and retailer efforts)

Proposed product categories



- Clothes Washers
- Dishwashers
- Refrigerators
- TVs
- Central Air Conditioners
- Heating Equipment

Point of purchase signage



**Most Efficient
2011**
www.energystar.gov

Next steps



- Share recognition criteria for each specific products with stakeholders
- Finalize criteria
- Coordinate with retailers (conf call)
- Announce program



ENERGY STAR Qualified Products Update

Enhanced Qualification and Verification



- Third Party Certification of ENERGY STAR products effective January 1, 2011
- Before a product can be labeled with the ENERGY STAR, performance must be certified by an EPA-recognized third-party based on testing in an EPA-recognized lab
- ENERGY STAR manufacturers must participate in verification testing programs run by the Certification Bodies (CBs).
- EPA offering technical assistance to CBs to ensure a smooth transition for certifying products
- As hoped, market response in terms of labs and certifiers stepping up to provide the necessary services has been tremendous. EPA has recognized
 - 21 Accreditation Bodies
 - >130 Labs
 - 15 CBs

More Frequent Product Specification Revisions



- **25 total specification updates underway in 2011**
 - growing market share
 - new federal standards
 - new efficiency opportunities
 - opportunity to expand coverage
- **21 expected to be completed in 2011**
 - **Electronics/IT:** Computers, Displays, Imaging, Servers, TVs, Chargers
 - **Appliances:** Dishwasher, Refrig, Room AC, Dehum, Water Heaters
 - **HVAC:** Furnaces, Boilers
 - **Lighting:** Lamps
 - **CFS:** Icemakers, Dishwashers, Fryers, Ovens

2011 New Product Efforts



- **Uninterruptible Power Supplies (UPS): Home to Data Center**
 - Large potential savings
 - Expect to complete summer 2011
- **Data Center Storage**
 - Fast growing segment of IT market
 - Expect to complete fall 2011
- **Small Network Equipment**
 - Large potential savings
 - Expect to complete summer 2011
- **Outdoor Luminaires**
 - Expand SSL coverage to parking lots, roadways, & other technologies
 - Completion data TBD
- **Climate Controls**
 - Focus on usability, comfort, communications
 - Expect to complete Summer 2011

2011 Scoping Plans (Market Research)



Product Category	Product
Appliances	Clothes Dryers
	Counter top appliances
	Ranges
Home Electronics	Home Data Storage
	Home Security Systems
	Projectors
Other Home Misc.	Garage Door Opener with light kit
Lighting	Lighting Controls
Data Centers	Data Center Telecom Networking
	Cooling
HVAC	Home Energy Monitors and Controls
	Gas-fired Heat Pumps
CFS	Comm. Clothes Washers
	Comm. Exhaust Fans
Medical Equipment	Hospital Imaging



Homes

ENERGY STAR Homes V3.0



New Homes

- New specification (Version 3.0)
 - Phased in starting April 1. Fully enforced Jan 1, 2012.
 - **V3** requires three comprehensive inspections (thermal enclosure, water, HVAC), along with more rigorous quality assurance.
 - Consumer Benefits: more effective insulation; improved thermal, humidity, sound control, & air filtration; less risk of moisture and mold problems.
- Taking steps to improve quality assurance
 - Working with RESNET to adopt V3 checklists and enhance HERS Provider Q/A
- Expanding to multi-family high rise
 - Launching soon

ENERGY STAR Homes



ENERGY STAR Concept Home (future Version 4.0?)

- Will include WaterSense and IndoorAir Plus requirements
- Will test Renewable Energy (RE) Ready as optional feature
- Working with DOE to align ES “Concept Home” and Builder Challenge

Home Performance

- Initiating program sponsor quality assurance reviews
- In light of Recovery Thru Retrofit, working with DOE on possible program enhancements such as:
 - Clarifying the definition of HPwES
 - Establish a minimum credential for participating contractors
 - Formalizing best practices from existing programs



Commercial and Industrial

Overview of Commercial and Industrial Work

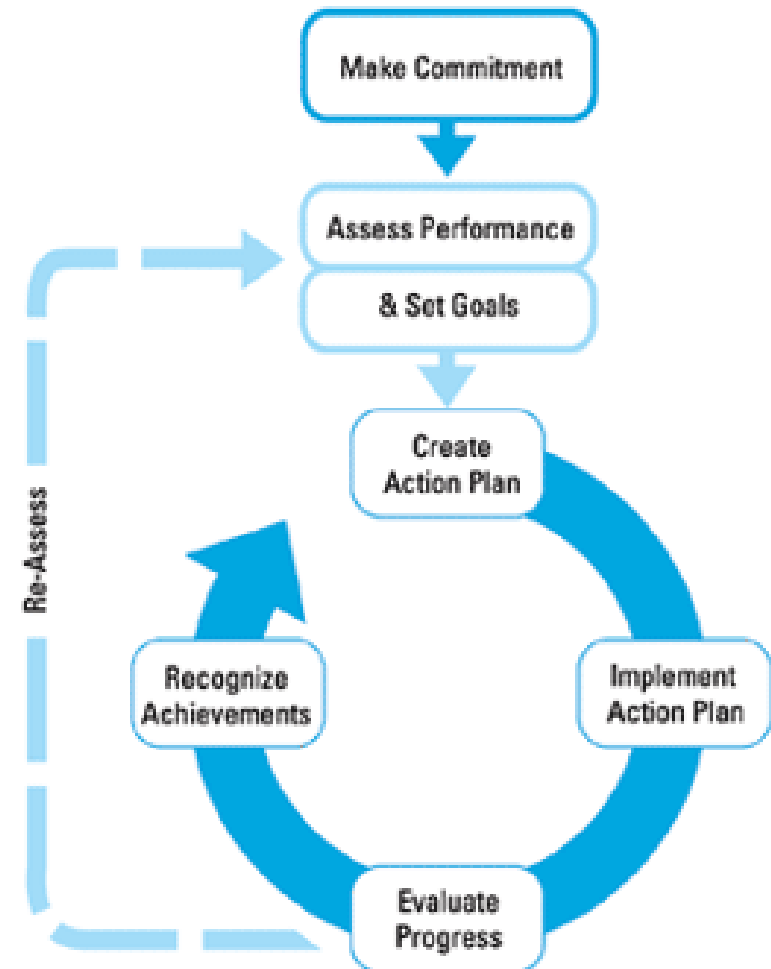


- Key Sectors
 - Commercial
 - New construction
 - Existing building improvement
 - Industrial
 - 18 Focus sectors
- Key Market Interventions
 - Organization-wide strategic energy management
 - Standardized measurement of whole building energy use
 - Recognition through ENERGY STAR brand
 - Technical assistance across commercial / industrial
 - Program models for EE Program Administrator

Energy Management Strategy Catalyzes Energy Savings in C&I Sectors



- Offers proven management strategy – linked to actionable assistance tools
 - Based on work with thousands of partners
- Connects energy use to the board room and environmental responsibility
- Provides key tools to assist organizations in every step of the process
 - Benchmarking and goal setting
 - Continuous improvement across portfolios
 - Efficient product procurement where appropriate
- Allows energy efficiency to be valued and integrated into key market transactions



ENERGY STAR Commercial Buildings: 2010 Accomplishments



- ENERGY STAR activity rates increased ~40% from 2009-2010.
- **Building benchmarking with Portfolio Manager**
 - More than 175,000 buildings; nearly 20 billion sq feet;
 - ~25% of commercial floor space
- **Top Performance: ENERGY STAR building labeling**
 - ~ 13,000 buildings earned ENERGY STAR
 - 35% less energy than average; ~1,000 buildings 50% better
 - 6,000 buildings labeled in 2010;
 - More than 260 buildings “Designed to Earn the ENERGY STAR”
- **Building improvements**
 - 7,000 service and product provider client buildings improved by 10% or more
 - 140 organizations recognized for portfolio-wide improvement/performance
 - First 50% portfolio-wide improvement
 - 60% of organizations achieved multiple milestones, demonstrating continued improvement
- **National Building Competition (14 Buildings. One Year)**
 - Winner saved 36% energy; top 4 saved about 30%
 - 5 buildings earned ENERGY STAR; One building 50% better than average

2011 C&I Strategy

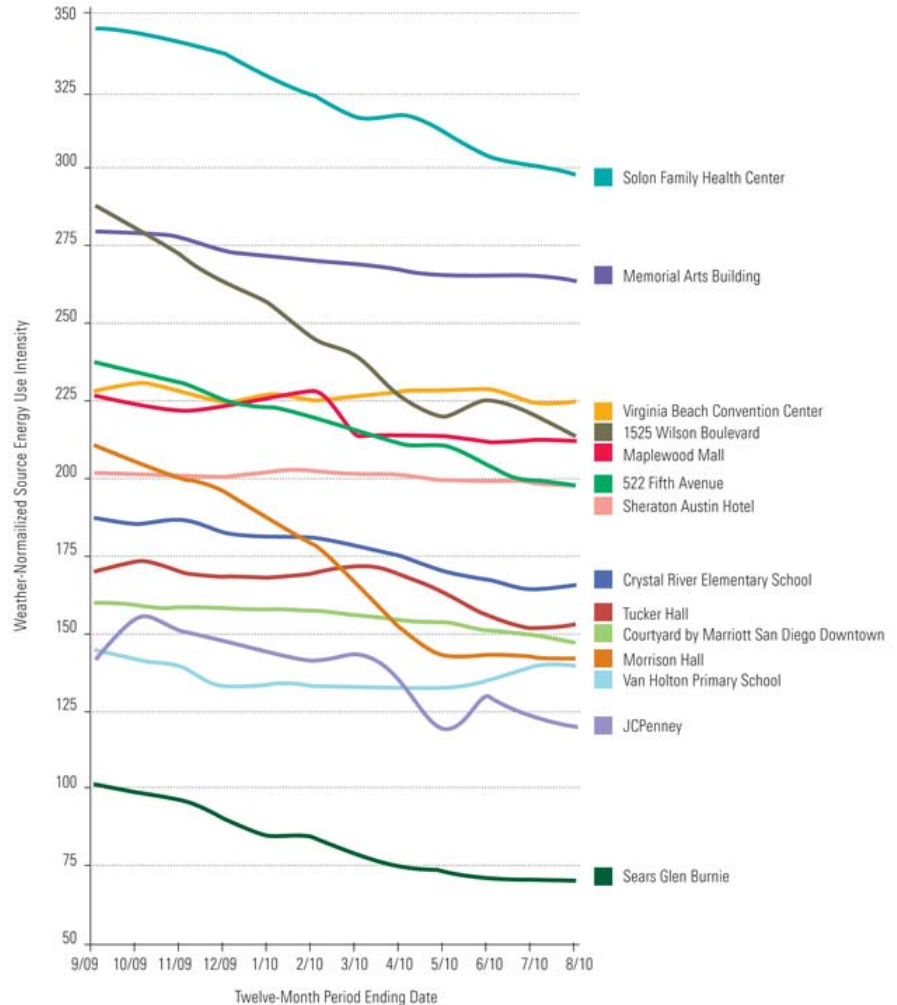


- **State and Local Government support**
 - Voluntary campaigns and competitions
 - Energy disclosure mandates using Portfolio Manager
 - ARRA reporting and implementation
 - EISA requirement for GSA leasing in ENERGY STAR labeled buildings
- **New Sector Priorities:**
 - Senior care - Rating available Spring 2011
 - Multifamily – working with Fannie Mae
 - Dairy, Concrete – New Industrial Focuses
- **Building Performance with ENERGY STAR**
 - Conclude pilot

National Building Competition: Season 1



- Together, in one year, the 14 competitors saved:
 - 44 million kBtu
 - Nearly 5,000 metric tons of greenhouse gas emissions
 - More than \$950,000



Season 2: National Building Competition



- Utilities and service providers as “trainers”
- ENERGY STAR Challenge for industrial facilities
- Call for contestants went out this week, applications due Feb 25





Thank You