



ENERGY STAR Program

Appliances and Products

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Outline



- ✧ **ENERGY STAR Program Overview**
- ✧ **Description of Relevant ENERGY STAR Qualified Product Categories**
- ✧ **Savings and Paybacks of ENERGY STAR Qualified Products**

ENERGY STAR Program Overview



- ✧ **ENERGY STAR is a voluntary labeling program sponsored by the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA).**
- ✧ **The ENERGY STAR label helps businesses and consumers easily identify highly efficient products, homes, and buildings that save energy and money, while protecting the environment.**

ENERGY STAR Program Overview



- ✘ **Computers and monitors were the first labeled products.**
- ✘ **To date, over 40 product categories, as well as New Homes and Commercial and Industrial Buildings, are included within the ENERGY STAR program including Home Appliances, Windows, Lighting. Heating and Cooling Products, and Home Electronics**

ENERGY STAR Program Overview



The established ENERGY STAR network is comprised of:

- ✘ **Federal Government (US DOE and EPA)**
- ✘ **Utilities**
- ✘ **State and local governments**
- ✘ **Regional efficiency program sponsors**
- ✘ **Product manufacturers**
- ✘ **Retailers and Distributors**

ENERGY STAR Collaboration



ENERGY STAR encourages collaboration and information sharing between these organization types to showcase national, regional, or local successes through:

- ✧ **ENERGY STAR Campaigns**
- ✧ **ENERGY STAR Partner Meetings**
- ✧ **ENERGY STAR Web site**

Appliances



- **ENERGY STAR appliances are clothes washers, dishwashers, refrigerators, room air conditioners and dehumidifiers.**
- **Clothes dryers are not included: The clothes washer criteria includes dryer energy savings and energy efficient dryers are not technologically feasible at this time.**

Clothes Washers



- **ENERGY STAR** qualified washers typically use **50% less energy** and **40% less water** than conventional clothes washers.
- Most **ENERGY STAR** qualified clothes washers have no central agitator, resulting in a larger capacity and less wear and tear on clothes.



Clothes Washers



- **On January 1, 2007 the criteria will change to include only highly efficient models and also to require water efficiency.**



Dishwashers



- **Most ENERGY STAR dishwashers have soil sensors, allowing the dishwasher to adjust energy consumption based on the soil load of the dishes.**
- **The criteria changes on January 1, 2007, increasing energy savings to 41% over non-qualified products.**



Refrigerators



- **ENERGY STAR refrigerators are a minimum of 15% more efficient than the Federal standard.**
- **The greatest savings are found when comparing new models to models produced before 1993.**
- **ENERGY STAR also includes freezers (a minimum of 10% more efficient) and compact refrigerators (a minimum of 20% more efficient).**



Room Air Conditioners



- **ENERGY STAR qualified Room Air Conditioners are at least 10% more efficient than the minimum Federal standard.**
- **All categories of Room ACs are included in the ENERGY STAR program including window units, through the wall units, and units with a heat-pump or reverse cycle.**



HVAC



- **The ENERGY STAR program category for Heating and Cooling includes:**
 - **Central Air Conditioners**
 - **Room Air Conditioners**
 - **Boilers**
 - **Furnaces**
 - **Heat Pumps**
- **ENERGY STAR qualified HVAC equipment is between 10 and 25% more efficient than standard units, depending on the product category.**

Windows, Doors & Skylights



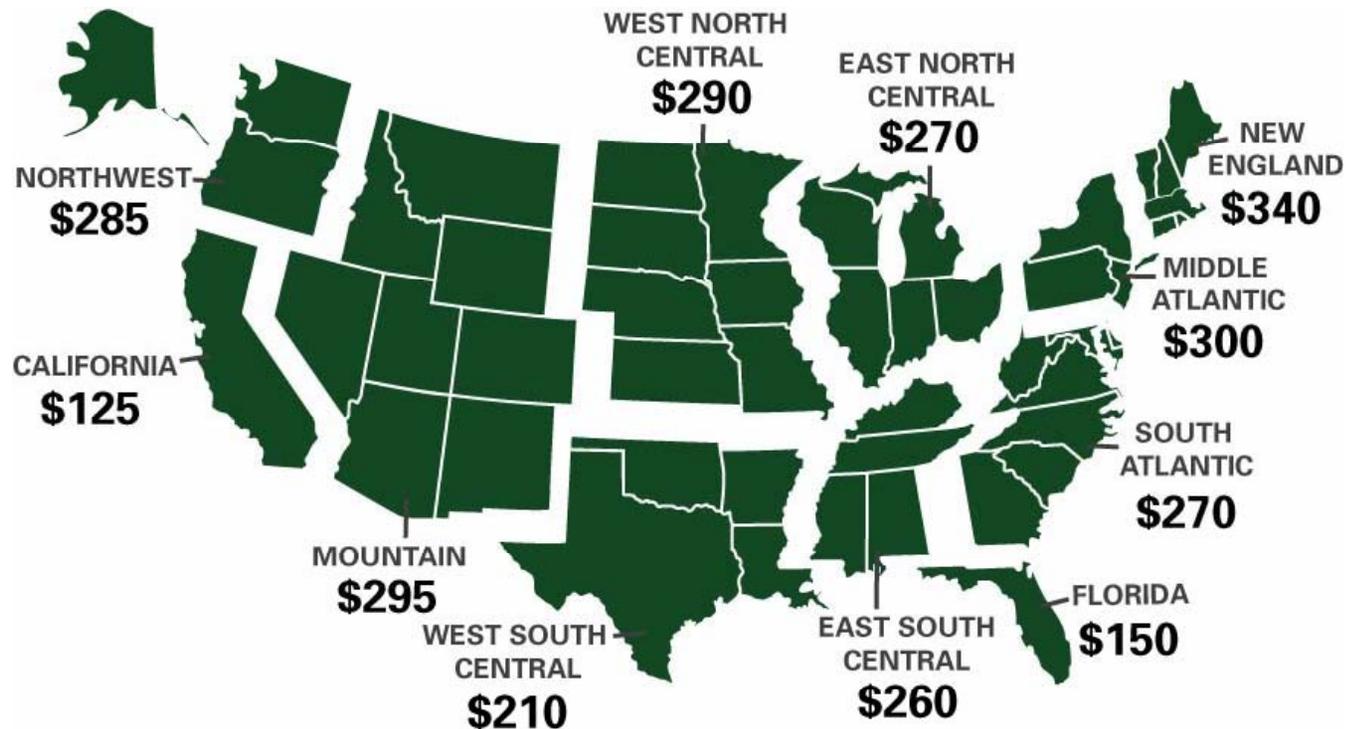
- **ENERGY STAR Qualified products meet established requirements for:**
 - **U-factor**
 - **Solar Heat Gain Coefficient (SHGC)**
- **Installing ENERGY STAR qualified windows, doors, and skylights:**
 - **Reduces heating and cooling loads**
 - **Improves interior comfort**



Windows, Doors & Skylights



- Replacing single pane windows with ENERGY STAR saves an average of \$125 - \$340 nationally.



Compact Fluorescent Lamps (CFLs)



- **ENERGY STAR Qualified CFLs:**
 - Use less than 1/3 as much energy to produce the same amount of light as incandescent bulbs.
 - Last more than seven years - nearly eight times longer than the average incandescent light bulb.



Replacing a 60-watt incandescent light bulb with an equivalent ENERGY STAR light bulb saves an average of nearly \$40 in electricity costs over the lifetime of the bulb.

ENERGY STAR Product Savings and Payback Periods



ENERGY STAR Product	Percent Better than Non-Qualified	Savings per Year	Price Premium	Payback Period
Clothes Washers	50%	\$50	\$300	4-6 years
Dishwashers	25%	\$15	\$0	0 years
Refrigerators	15%	\$6	\$30-\$50	2-6 years
Room ACs	10%	\$7	\$30-\$50	5 years
Central AC	N/A	N/A	N/A	Criteria revised
Dehumidifiers	10-20%	\$20	\$0	0 years
CFLs	75%	\$5	\$5	1 year
Windows	10-20%	\$125-\$340	5-15%	3 years or more

Questions?



If you have questions or want more information about the ENERGY STAR program, please type me at:

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