

Mark Michalski, Associate Project Manager
Sarah Araldi
New York State Energy Research and Development Authority
Albany, NY

ENERGY STAR

Description:

The U.S. Department of Energy (DOE) and the U. S. Environmental Protection Agency (EPA) created the Federal ENERGY STAR[®] program in 1992 in order to promote energy-efficient products and practices. DOE and EPA have partnered with over 15,000 private- and public-sector associations to develop the best, most energy-efficient management practices and implementation strategies in order to save both energy and money. By increasing energy-efficiency, the program reduces energy-usage and the greenhouse gas emissions that result when obtained from non-renewable sources. In the United States, with the help of ENERGY STAR,[®] Americans saved enough energy in 2008 alone to avoid greenhouse gas emissions equivalent to those from 29 million cars , while saving \$19 billion on their utility bills.¹

This program sets forth strict energy-efficiency and quality standards on products for both the residential and commercial sectors—producing a rating system by which consumers can compare products and, thus, make educated decisions based on their efficacy. The program offers consumers a dependable label of energy-efficiency and performance on over sixty product categories, with thousands of models, as well as home and building assessment tools. The goal of the ENERGY STAR[®] program is to offer consumers energy-efficient choices and savings on greenhouse gas emissions without sacrificing features, style, or comfort, as well as provide consumers with the technical tools and management guidance to best utilize the qualified technologies.

In the residential sector, ENERGY STAR[®] ratings are given for household products, new home construction, and existing home retrofitting. Implementation of these rating qualifications can save the average family as much as one-third of their annual energy costs and greenhouse gas emissions.¹ In the business sector, a multi-faceted approach to implementing an energy management strategy is used, including measuring energy performance, setting business goals, tracking savings, and rewarding improvements. Thus far, through the ENERGY STAR[®] public/private partnerships, over 96,000 buildings in businesses throughout the United States have benefited from energy-efficiency applications.¹

Reference:

¹ U. S. Environmental Protection Agency, "About Energy Star," *Energy Star*:
http://www.energystar.gov/index.cfm?c=about.ab_index.

Benefits:

For older adults, individuals with disabilities, families, and children:

- *Reduced home expenses:* ENERGY STAR® qualified improvements reduce energy-usage without sacrificing convenience in the living environment, making homeownership and rentals more affordable for families. In addition, increased affordability:
 - Is a critical factor in supporting the ability older people and people with disabilities to successfully age-in-place in their own homes and apartments.
 - Supports the efforts of New York State's substantial number of caregivers of older adults and younger-aged individuals with disabilities by reducing the financial aid many family members contribute for those they provide care for.
- *Healthier living environment:* Reduced energy-usage reduces emissions of greenhouse gases—creating healthier living environments for all residents. Children have the added benefit of inheriting a cleaner, more sustainable environment in the future.

For the community:

- ENERGY STAR® program qualifications exist for every aspect of living and for all walks of life—from residential homes, to public, industrial, and commercial applications.
 - *Public and commercial budgets:* The reduced energy bills resulting from implementation of ENERGY STAR® qualifications in public and commercial buildings saves the community money and helps support the business environment.
 - *Livable communities:* Reduced greenhouse gas emissions results in a less-polluted, healthier ecosystem in which to live—which is an important component of a livable community.
 - *Geographic area:* The benefits of ENERGY STAR® qualifications are applicable to rural, suburban, and urban dwellers and geographic areas.

Impediments or barriers to development or implementation:

- *Consumer cost:* In general, the testing, research, and quality-assurance procedures associated with obtaining ENERGY STAR® qualification result in a cost increase when compared to products, practices, and applications that are produced with no energy-efficiency-use or quality standards. However, as the use of ENERGY STAR® has continued to increase, the price differential between ENERGY STAR® and non-ENERGY STAR® products continues to diminish. Nevertheless, currently, this cost differential for some products is significant enough for some consumers to opt to purchase a less expensive, more inefficient product—this is often true for those who could benefit most from products that use less energy and reduce annual energy bills, including:
 - Lower-income households, typically in rural and urban settings;
 - Smaller/independently owned retailers and manufacturers, who struggle with the higher initial purchase price and adoption of such technology, even though it will save them money in the long run.

Resource—examples:

- "Success stories," *ENERGY STAR for Affordable Housing: More Energy Efficient, Livable, Sustainable Communities*, U. S. Environmental Protection Agency and U. S. Department of Energy:
http://www.energystar.gov/index.cfm?c=affordable_housing.affordable_housing
- U. S. cities with the most *Energy Star* certified commercial buildings and manufacturing plants—by facility type, city, and state—U. S. Environmental Protection Agency, U. S. Department of Energy, Washington, DC.:
http://www.energystar.gov/index.cfm?fuseaction=labeled_buildings.locator
 - (3-14-2011), "EPA Announces U.S. Cities with the Most Energy Star Certified Buildings—Third annual list shows dramatic growth, savings of energy efficient buildings," Press Release by U. S. Environmental Protection Agency, U. S. Department of Energy. For further information: Stacy Kika, kika.stacy@epa.gov, (202) 564-0906, (202) 564-4355.
<http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/db40ab7277269d15852578530052c495!OpenDocument>
- Several homes receiving the Federal government's *Energy Star for Homes Leadership in Housing Award*: Hathmore Technologies, LLC, 14220 East 42nd Street, Independence, MO 64055, (816) 224-5550, green@hathmore.com.
<http://yosemite.epa.gov/opa/admpress.nsf/0/6AF501EC6D02C7BF852575A1006BEEC4>.
- Paul and Rabia Nagin's 6,800 square foot home (built for about \$150/sq. ft.) in Skyview Acres, an intentional community, in Pomona, Rockland County, New York, 35 miles north of New York City—called "the third most energy-efficient home in New York state, according to Energy Star, achieving nearly zero net carbon emissions":
<http://www.naturalhomeandgarden.com/article.aspx?id=8684>.

Resource—written and web:

- *Energy Star*—U. S. Environmental Protection Agency, U. S. Department of Energy, Washington, DC: <http://www.energystar.gov/>.
 - "Frequently Asked Questions," *Energy Star*:
<http://energystar.supportportal.com/ics/support/default.asp?deptID=23018>.
 - "*The Energy Star for Buildings and Manufacturing Plants*," Energy Star certification for commercial buildings and manufacturing plants:
http://www.energystar.gov/index.cfm?c=business.bus_bldgs.
- U. S. Environmental Protection Agency, *New York State Energy Research and Development Authority (NYSERDA)*, Albany, New York—received the "ENERGY STAR Award for Sustained Excellence":
http://www.energystar.gov/index.cfm?fuseaction=pt_awards.showAwardDetails&esa_id=587.

- New York State Energy Research and Development Authority (NYSERDA):
New York Energy \$martSM: <http://www.getenergysmart.org/>.
To locate ENERGY STAR Builders:
<http://www.getenergysmart.org/Resources/FindPartner.aspx?t=1>.
To locate ENERGY STAR Retailers:
<http://www.getenergysmart.org/Resources/FindPartner.aspx?t=2>.

Resource—technical assistance contact names:

- New York State Energy Research and Development Authority
17 Columbia Circle
Albany, New York 12203-6399
1-866-NYSERDA or (518) 862-1090