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ENERGY STAR® is a U.S. Environmental Protection Agency program helping businesses and individuals fight global warming through superior energy efficiency.

2011 Fast Facts: ENERGY STAR Commercial Building Design

Buildings, Energy, and Architects

- Commercial buildings account for 18% of the nation's energy use and nearly 18% of our greenhouse gas emissions. These same buildings cost their owners more than \$100 billion annually in energy costs.
- On average, 30% of the energy used in commercial buildings is wasted. These are the buildings where we work, shop, play, and learn every day.
- By 2035, 75 percent of all buildings will be either new or renovated, so **architecture firms are uniquely positioned** at the front lines to improve building efficiency, reduce carbon emissions, and help the fight against climate change.
- To date 15 design projects have become ENERGY STAR certified buildings, once they were built and operating for more than 12 months.

What is Designed to Earn the ENERGY STAR?

The Designed to Earn the ENERGY STAR certification identifies projects that achieve EPA criteria for superior energy efficiency. These projects are intended to save energy and reduce greenhouse gas emissions well into the future. When built, they are expected to operate in the top 25 percent of similar buildings and earn the ENERGY STAR.

The 2011 ENERGY STAR Challenge: Architects

- 37 architecture firms took the Challenge between June 2010 and April 2011, and qualified 79 projects, representing 6.5 million square feet.
- 12 of those projects are projected to reduce their fossil fuel consumption by 50% or more, meeting the AIA 2030 Commitment goal.
- The 2011 Challenge projects are estimated to prevent 46,000 metric tons of CO₂ every year and save more than \$7 million in annual energy costs.
- **Cumulative Savings:** To date, 146 different architecture firms have submitted 332 projects that achieved the distinction of Designed to Earn the ENERGY STAR. They are estimated to prevent 279,000 metric tons of CO₂ per year, once built.

How to Achieve Designed to Earn the ENERGY STAR

- Eligible design projects must achieve a score of 75 or better on a scale of 1 to 100 in Target Finder—EPA's online energy performance scale that compares estimated energy use of projects to the energy use of similar existing buildings.
- The Architect of Record submits design projects to EPA, along with a commitment letter from the owner.

- Buildings that are already generating utility bills are **not** eligible for Designed to Earn the ENERGY STAR, but their owners are encouraged to apply for the ENERGY STAR certification when the operating building scores 75 or better in Portfolio Manager.

Target Finder

- EPA's online Target Finder tool helps design teams set aggressive, realistic energy targets and then receive a score for the project's estimated energy use.
- The energy use intensity (EUI) generated by Target Finder reflects the distribution of energy performance in commercial buildings and is derived from the U.S. Department of Energy's 2003 Commercial Building Energy Consumption Survey (CBECS).

Building Types Eligible for an ENERGY STAR Energy Performance Score

- | | |
|-------------------------------|--|
| • Bank/Financial Institutions | • Offices |
| • Courthouses | • Retail Stores |
| • Data Centers | • Residence Halls/Dormitories |
| • Hospitals | • Senior Care Facilities |
| • Hotels | • Supermarkets/Grocery Stores |
| • Houses of Worship | • Warehouses (refrigerated/non-refrigerated) |
| • K-12 Schools | |
| • Medical Offices | |

Overview of ENERGY STAR 2010 Achievements

- The ENERGY STAR certification is the national symbol for energy efficiency recognized by more than 80 percent of the American public.
- ENERGY STAR is well known as a certification on lighting, home appliances, electronics, and other products that meet strict EPA guidelines for superior energy efficiency. The ENERGY STAR also identifies the nation's top performing homes and buildings, as well as design projects for future buildings.
- Americans, with the help of ENERGY STAR, prevented 170 million metric tons of carbon dioxide equivalent (CO₂-e) in 2010 alone—equivalent to the annual emissions from 33 million vehicles—and saved about \$18 billion on their utility bills.