

Did You Know?



Use this summary of key points and information about ENERGY STAR®, the Challenge, and commercial and industrial buildings to help make your Challenge communications more informative.

What Is ENERGY STAR?

- > ENERGY STAR is best known as a label for products, such as appliances, that meet strict energy efficiency guidelines set by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). But the ENERGY STAR also identifies superior energy performance for America's commercial and industrial buildings.
- > Whether a school, hospital, small business, or large corporation, ENERGY STAR can help reduce energy use, save money, and help protect the environment.

The ENERGY STAR Challenge

- > Whether you're associated with a small school or a large corporation, a local government or a national association, a community hospital or a hotel group, a manufacturing plant or a retailer — you can be part of the ENERGY STAR Challenge and help improve the efficiency of America's commercial and industrial buildings by 10 percent or more.
- > EPA estimates that if the energy efficiency of commercial and industrial buildings improved by 10 percent, Americans would save about \$20 billion and reduce greenhouse gas emissions equal to the emissions from almost 30 million vehicles.¹
- > Challenge participants and their members are encouraged to:
 - Measure and track energy use.
 - Develop a plan for energy improvements.
 - Make energy efficiency upgrades.
 - Help spread the energy efficiency word to others.

Buildings, Energy, and Greenhouse Gas Emissions

- > The energy used in homes and commercial buildings is often generated by burning fossil fuels, which emit greenhouse gases that contribute to climate change.
- > Making more efficient use of energy is the best starting point for addressing climate change, particularly because there is the potential for immediate financial payoff along with long-term environmental benefits.
- > The buildings in which we work, shop, play, and educate our children use about \$200 billion worth of electricity and natural gas each year.²
- > Commercial and industrial buildings in the U.S. contribute 45 percent of our national emissions of greenhouse gases.³
- > Over the next 25 years, greenhouse gas emissions from buildings are projected to grow faster than any other sector, with emissions from commercial buildings leading the way — a projected 1.8 percent a year through 2030.⁴

¹ Energy Information Administration. "2003 CBECS Detailed Tables. Table C4A. Expenditures for Sum of Major Fuels for All Buildings, 2003." December 2006. 1 June 2007 <http://www.eia.doe.gov/emeu/cbeecs/cbeecs2003/detailed_tables_2003/2003set14/2003html/c4a.html>. Energy Information Administration. "2002 Energy Consumption by Manufacturers -- Data Tables. Table 7.9 Expenditures for Purchased Energy Sources, 2002." 2002. 1 June 2007 <http://www.eia.doe.gov/emeu/mecs/mecs2002/data02/excel/table7.9_02.xls>. Inventory of U.S. Greenhouse Gas and Sinks: 1990-2005. "USEPA #430-R-07-002, Table 2-16: U.S. Greenhouse Gas Emissions by Economic Sector and Gas with Electricity-Related Emissions." April 2007. 14 June 2007 <<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>>. From Table 2-16 US Greenhouse Gas Emissions by Economic Sector (CPPD Approved Source) Commercial Total CO₂ = 1024.98 mmt Industrial - Electricity Related Only CO₂ = 679.7 mmt Total CO₂ = 1704.68 mmt Using US Climate Technology Cooperation Gateway Greenhouse Gas Equivalencies Calculator (CPPD Approved Source/Calculator) 1704.68 Million Metric Tons CO₂ = 304,951,699 vehicles; 10% reduction for Challenge = approximately 30 million vehicles (Source: EPA).

² Energy Information Administration. "2003 CBECS Detailed Tables. Table C4A. Expenditures for Sum of Major Fuels for All Buildings, 2003." December 2006. 1 June 2007 <http://www.eia.doe.gov/emeu/cbeecs/cbeecs2003/detailed_tables_2003/2003set14/2003html/c4a.html>.

³ Inventory of U.S. Greenhouse Gas and Sinks: 1990-2005. "USEPA #430-R-07-002, Table 2-16: U.S. Greenhouse Gas Emissions by Economic Sector and Gas with Electricity-Related Emissions." April 2007. 14 June 2007 <<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>>.

⁴ U.S. Green Building Council.

ENERGY STAR® is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency.



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Did You Know?



Buildings, Energy, and Greenhouse Gas Emissions (cont'd)

- > By reducing greenhouse gas emissions through improved energy efficiency, businesses save money, improve productivity, protect the environment, and increase the nation's energy security.
- > Many of us are taking steps to improve energy efficiency at home, but may not realize that there are opportunities to save at work as well. By making energy-efficient choices at work, Americans can help businesses reduce energy use and save money while preventing climate change.

Energy Efficiency Is Smart Business

- > Today, leading companies realize that energy efficiency is not just about smart business or the first step to being green. Instead, they realize that it can have a high return-on-investment and is necessary in order to remain competitive.
- > Businesses and organizations that are leaders in energy efficiency use about 30 percent less energy than their competitors.
- > Over the last 30 years, energy efficiency has reduced our country's energy use by 47 percent and is our greatest energy "resource."⁵
- > Businesses across the economy are saving energy and experiencing remarkable financial results with the help of ENERGY STAR:
 - ENERGY STAR buildings' utility bills are over 50 cents per square foot less than average buildings', and over \$2 less per square foot.
 - On average, ENERGY STAR buildings use 35 percent less energy than average buildings.
 - Full-service hotels that improve energy efficiency by 10 percent see savings equal to an increased average daily rate of \$1.35.
 - By reducing energy costs by just 5 percent, for-profit hospitals can increase earnings by one penny per share.
- > ENERGY STAR offers a clear performance advantage:
 - Nearly 30 percent of Fortune 500 companies are ENERGY STAR partners.
 - As of the end of 2006, more than 3,200 buildings across the country had earned the ENERGY STAR.
 - ENERGY STAR office properties gross higher rents and higher occupancy rates than their non-ENERGY STAR counterparts.⁶

Green Isn't Green Without Energy Efficiency

- > Although a building can have a wide variety of environmentally friendly features, a building is not truly green unless it is energy efficient.
- > Energy efficiency is the single largest way for a building to reduce its "carbon footprint."
- > For assurance that a building is both energy efficient and environmentally sustainable, look for the ENERGY STAR and green building certification together.

ENERGY STAR Is the Solution

- > ENERGY STAR provides the tools and resources to help businesses and organizations identify areas for improving energy efficiency and develop a strategic energy management plan. ENERGY STAR offers:
 - A national performance rating system for buildings to benchmark and track energy performance.
 - Guidance for designing energy-efficient buildings.
 - Advice for developing effective organizational energy management programs.
 - Case studies and best practices from leading public and private-sector organizations.
 - Calculators to estimate returns on energy efficiency investments.
 - Materials to communicate with employees, stakeholders, the media, and other interested parties about energy improvements and benefits to the bottom line and the environment.

⁵ Alliance to Save Energy.

⁶ CoStar Evaluation 2007.

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