

# Fast Facts on Energy Use



## Facts About Energy Use in Commercial and Industrial Facilities

- > Combined number of commercial buildings (4.8 million) and industrial facilities (350,000) in the United States: **over 5 million**<sup>1</sup>
- > Combined annual energy costs for U.S. commercial buildings (\$107.9 billion) and industrial facilities (\$94.4 billion): **\$202.3 billion**<sup>2</sup>
- > Portion of energy in buildings used inefficiently or unnecessarily: **30 percent**<sup>3</sup>
- > Combined percentage of U.S. greenhouse gas emissions generated by commercial buildings (17 percent) and industrial facilities (28 percent): **45 percent**<sup>4</sup>
- > Percentage of energy use reduction targeted by the ENERGY STAR Challenge: **10 percent**<sup>5</sup>
- > Amount of money that would be saved if the energy efficiency of commercial and industrial buildings improved by 10 percent: **\$20 billion**<sup>6</sup>
- > Amount of greenhouse gas emissions that would be reduced if the energy efficiency of commercial and industrial buildings improved by 10 percent: **equal to about 30 million vehicles**<sup>7</sup>
- > Number of registered automobiles in Illinois, New York, Ohio, and Texas combined: **about 30 million**<sup>8</sup>

## Global Energy Facts

- > The approximate energy released in the burning of a wood match: **1 Btu**<sup>9</sup>
- > Total energy used in the U.S. each year: **99.89 quadrillion Btu**<sup>10</sup>
- > Portion of U.S. annual energy use created by the combustion of fossil fuels: **86 percent**<sup>11</sup>
- > Amount of global carbon dioxide (CO<sub>2</sub>) released into the atmosphere in 2005: **6,000 million metric tons**<sup>12</sup>
- > U.S. contribution of global greenhouse gas emissions: **about 20 percent**<sup>13</sup>
- > U.S. population relative to the world: **5 percent**<sup>14</sup>
- > Amount of greenhouse gas emissions that have increased between 1970 and 2004: **70 percent**<sup>15</sup>
- > Period of time in which 11 of the 12 warmest years on record have occurred: **1995 to 2006**<sup>16</sup>

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## Sources:

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- 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](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](http://www.eia.doe.gov/emeu/mecs/mecs2002/data02/excel/table7.9_02.xls)>.
- 3 U.S. Environmental Protection Agency, ENERGY STAR program. "Useful Facts and Figures." No date referenced. 1 June 2007 <[http://www.energystar.gov/index.cfm?c=energy\\_awareness.bus\\_energy\\_use](http://www.energystar.gov/index.cfm?c=energy_awareness.bus_energy_use)>.
- 4 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>>.
- 5 U.S. Environmental Protection Agency, ENERGY STAR program. "The ENERGY STAR Challenge: Build a Better World 10% At a Time." No date referenced. 1 June 2007 <[http://www.energystar.gov/index.cfm?c=challenge.bus\\_challenge](http://www.energystar.gov/index.cfm?c=challenge.bus_challenge)>.
- 6 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](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](http://www.eia.doe.gov/emeu/mecs/mecs2002/data02/excel/table7.9_02.xls)>.
- 7 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 CO<sub>2</sub> = 1024.98 mmt Industrial - Electricity Related Only CO<sub>2</sub> = 679.7 mmt Total CO<sub>2</sub> = 1704.68 mmt Using US Climate Technology Cooperation Gateway Greenhouse Gas Equivalencies Calculator (CPPD Approved Source/Calculator) 1704.68 Million Metric Tons CO<sub>2</sub> = 304,951,699 vehicles; 10% reduction for Challenge = approximately 30 million vehicles (Source: EPA).
- 8 U.S. Department of Transportation Federal Highway Administration. "State Motor-Vehicle Registrations - 2005." October 2006. 1 June 2007 <<http://www.fhwa.dot.gov/policy/ohim/hs05/hm/mv1.htm>>. Illinois, New York, Ohio, and Texas add up to 29,951,758 registered vehicles.
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- 11 Ibid. Total consumption is 99.89 Quadrillion Btu, Fossil Fuel Consumption is 85.96 Quadrillion Btu. Percent from fossil fuel is 85.96/99.89 = 86%
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