UTAH ENERGY FACT SHEET

Energy Efficiency & Energy Consumption

August 2011

An Overview of Energy Efficiency

Energy efficiency means reducing the amount of energy that you need to perform a particular task. When you practice energy efficiency, you increase or maintain your level of service, but you decrease the energy used to provide that service through efficient technologies. Examples include ENERGY STAR appliances, compact fluorescent light bulbs, better insulation for buildings, more efficient windows, high efficiency air conditioning equipment, and vehicles with higher miles per gallon (mpg). Another distinct strategy is energy conservation, which means that you change your behavior or lifestyle to reduce energy use. Examples include carpooling, using mass transit, turning thermostats down in the winter and up in the summer, and other changes.

Improving energy efficiency is a "win-win" strategy — it saves money for consumers and businesses, reduces the need for costly and controversial new power plants, increases the reliability of the energy supply, cuts pollution and greenhouse gas emissions, and lowers energy imports. There is vast potential for improving the energy efficiency of homes, appliances, businesses, and vehicles throughout Utah.

Quick Facts:

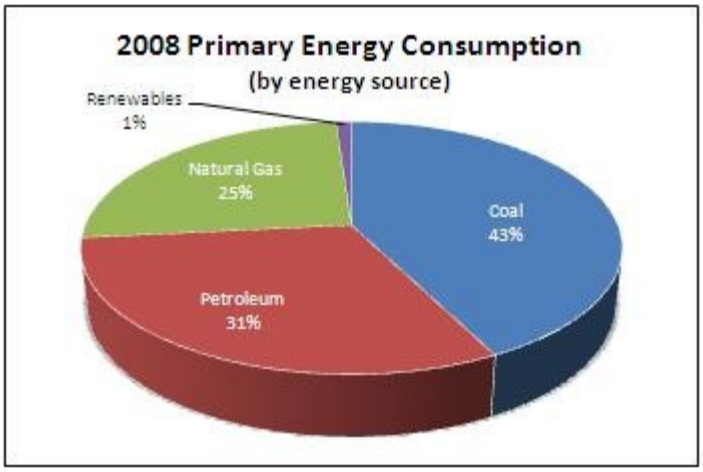
- Population, 2009: 2,784,572
- Population growth rate, 2000-2009: 2.48% per year
- Number of households, 2009: 831,563

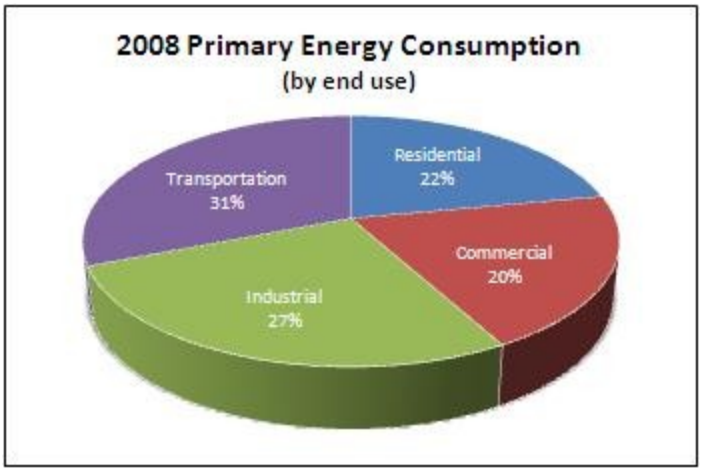
Primary Energy Consumption (2009)

- Primary energy consumption: 750 trillion Btu
- Growth rate, 2006-2009: -1.54% per year
- Primary energy consumption per capita: 271 million Btu
- Ranking, energy consumption per capita: 38
- Ranking, total energy consumption: 34

Energy Expenditures (2008)

- Total energy expenditures: $9.9 billion
- Ranking, energy expenditures: 35
- Energy expenditures per capita: $3,630
- Ranking, energy expenditures per capita: 50





2008 Net Exports: 15.2%
Renewables include hydropower, wood, solar, geothermal and waste materials.

Primary energy use includes the losses in electricity generation and distribution.
Rankings are position among US states plus DC (1 is highest, 51 is lowest).

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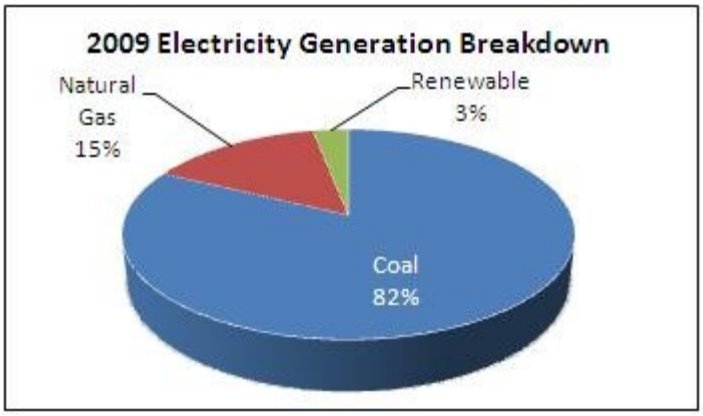
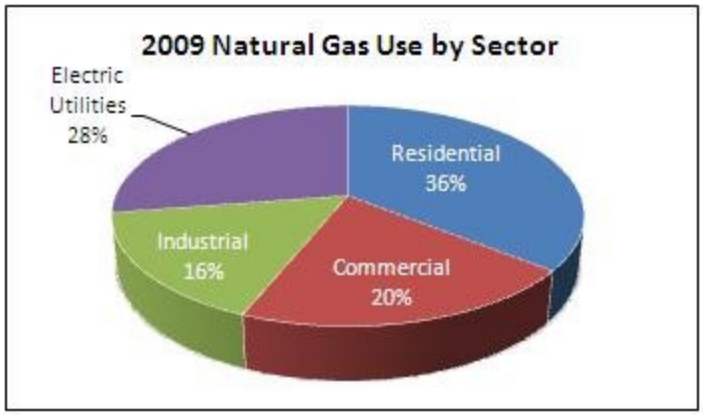
Electricity Use (2009)

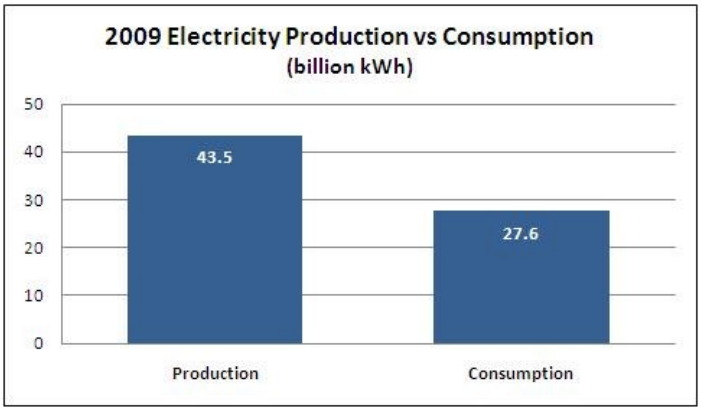
- Total retail sales: 27.6 billion kWh
- Ranking, total retail sales: 37
- Consumption growth rate, 2007-2009: -0.24% per year
- Electricity use per capita: 9,912 kWh
- Residential electricity use per household: 10,492 kWh
- Average retail price, all sectors: 6.77 cents/kWh
- Ranking, average electricity price: 45

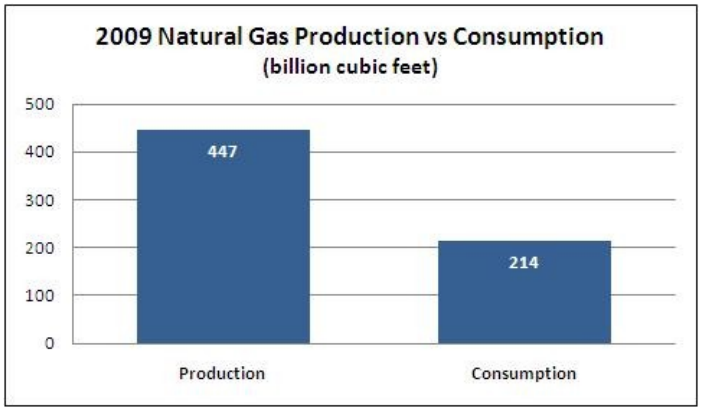
Natural Gas Use (2009)

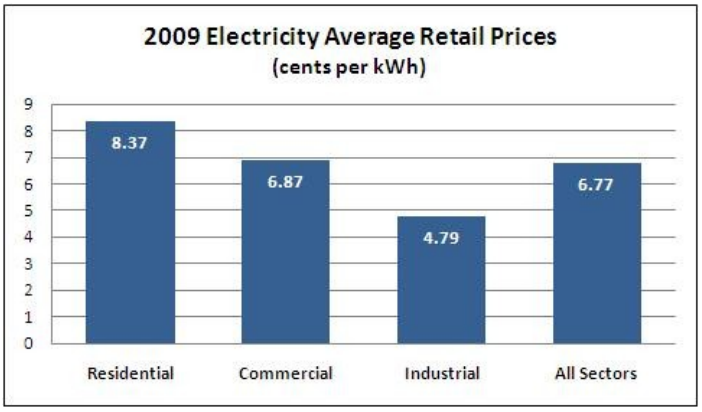
- Total consumption: 214.2 Bcf
- Ranking, total consumption: 33
- Consumption growth rate, 2007-2009: -0.84% per year
- Natural gas use per capita: 76,924 cf
- Residential natural gas use (per residential consumer): 92,220 cf

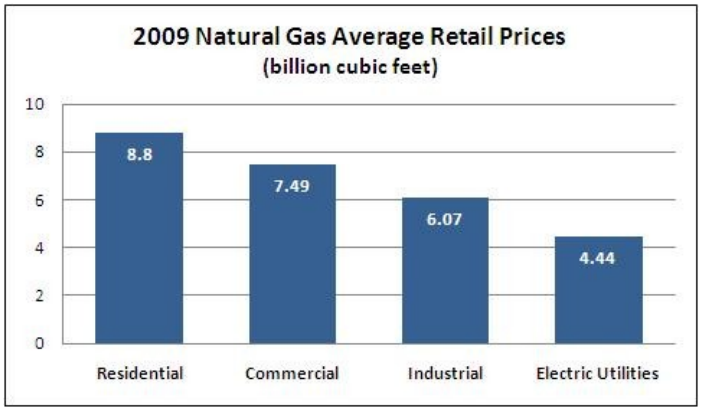












Sources: *U. S. Energy Information Administration (www.eia.doe.gov) and U. S. Census Bureau (www.census.gov)*

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Status of Energy Efficiency in Utah

State Energy Efficiency Goals

Energy efficiency is a high priority resource for Utah. Former Governor Jon Huntsman issued Executive Order 2006-004, which established a goal of increasing energy efficiency in the state of Utah by 20% by year 2015. The goal applies to all forms of energy use in the state, including electricity, natural gas, gasoline, and other petroleum products. It is intended to make Utah one of the nation's most energy-efficient states. More recently, Governor Herbert has endorsed a statewide energy conservation effort as part of his Strategic Energy Plan (www.utah.gov/governor/docs/10year-strategic-energy.pdf). In order to help the state examine the options for achieving this goal, the Governor's office commissioned a report entitled "*Utah Energy Efficiency Strategy: Policy Options*," which was produced by SWEEP and Utah Clean Energy (UCE) in October 2007.

- Read the report at: http://swenergy.org/publications/documents/UT_Energy_Efficiency_Strategy.pdf.

Electricity Demand-Side Management

Rocky Mountain Power (RMP), the main electric utility in Utah, offers a wide range of demand-side management programs to its customers. The program include financial incentives and technical assistance. Total spending on electric utility energy efficiency programs in 2011 is estimated at $50 million, or 3.2% of utility revenues.

- Info about RMP's residential programs: http://www.rockymountainpower.net/res/sem.html.
- Info about RMP's business programs: http://www.rockymountainpower.net/bus/se.html.

Natural Gas Demand-Side Management

The gas utility in Utah, Questar Gas, began implementing efficiency programs in 2007, offering a wide variety of programs to residential and commercial customers. As of 2010, Questar spent about $36 million on these programs.

- Info about Questar's DSM programs: http://www.thermwise.com/utindex.html#.

Status of Building Energy Codes

Utah has adopted the 2009 International Energy Conservation Code (IECC) for all new commercial buildings statewide and the 2006 IECC for all new residential buildings. The U.S. DOE estimates that by adopting the 2009 IECC for new homes, homeowners would dave $219-265 per year on energy costs.

- For more information, visit http://www.energycodes.gov/states/.

Guide on Energy Efficiency for Businesses

SWEEP and etc Group of Salt Lake City have developed a web-based information resource that will assist Utah businesses in reducing their use of energy and lowering their energy bills. Targeted to business and facility owners and managers, the *Energy Efficiency Guide for Utah Businesses* points out opportunities for Utah businesses to improve the energy efficiency of their buildings and operations, and helps businesses obtain assistance in identifying and implementing energy efficiency projects.

- For more information, visit: http://www.utahefficiencyguide.com.

State Energy Efficiency Scorecard

The American Council for an Energy-Efficient Economy (ACEEE) has ranked states based upon scores in six categories of energy efficiency commitment and policy support as of 2010. The categories include: 1) utility and public benefits of energy efficiency programs; 2) combined heat and power (CHP); 3) building energy codes; 4) transportation policies; 5) appliance and equipment efficiency standards; and 6) state government initiatives. In this national ranking, Utah was tied for 12th among all states with a score of 24.5 out of a possible 50 points.

Electricity Conservation Potential and Impacts in Utah*

Savings potential in 2020:	31%
Avoided new power capacity:	2,600 MW
Net dollar savings (2003-2020):	$2.9 B
Net increases in jobs by 2020:	6,300
Water savings by 2020:	7B gallons/year

*Based on the High Efficiency Scenario in SWEEP's study *The New Mother Lode: The Potential for More Efficient Electricity Use in the Southwest.*

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Residential Energy Consumption Survey (2009)

The Energy Information Administration (EIA) has recently published housing characteristics data from the 2009 Residential Energy Consumption Survey. Residential energy consumption data will be published and included in this fact sheet when it becomes available. The EIA presents only aggregated data for Idaho, Montana, Utah and Wyoming; therefore these numbers represent the average for those four states.

Housing Characteristics:

The table below indicates the fraction of households that report having, using or practicing the following equipment and/or behaviors in their homes:

Poor insulation:	15%
Home is too drafty during the winter some or most of the time:	40%
Single pane glass in windows:	15%
Energy-efficient light bulbs:	60%
Two or more refrigerators:	35%
ENERGY STAR refrigerator:	35%
ENERGY STAR dishwasher:	25%
ENERGY STAR clothes washer:	40%
Keep some or all portable tools and appliances chargers always plugged in:	30%
Three or more televisions:	45%
Turn off computers when not in use:	45%
Keep some or all cell phone and other electronic device chargers always plugged in:	50%
Electric resistance heating as a main heating source:	20%
Have and use a programmable thermostat:	35%
Central air conditioning:	55%
Evaporative cooling:	15%
Use ceiling fans quite a bit or all summer:	40%
Electric resistance water heating:	30%
Insulation blanket on main water heater:	10%

Source: *U. S. Energy Information Administration, 2009 Residential Energy Consumption Survey: Preliminary Housing Characteristics Tables.*

More Information on Energy Efficiency

- American Council for an Energy-Efficient Economy (ACEEE) www.aceee.org
- Alliance to Save Energy www.ase.org
- Consortium for Energy Efficiency www.cee.org
- ENERGY STAR® Products www.energystar.gov
- Southwest Energy Efficiency Project www.swenergy.org
- U.S. DOE's Energy Efficiency & Renewable Energy Programs www.eere.energy.gov