

Energy Efficiency in Utah A Least Cost Resource

Efficiency costs less than constructing new power plants.

Utah's 10-Year Strategic Energy Plan, by Governor Herbert, identifies energy efficiency as a resource.

State Policy

"...will pursue energy conservation, energy efficiency, and environmental quality."

-State Energy Policy (63M-4-301)

"... work together to recognize energy efficiency as a priority resource and to promote and encourage all available cost-effective energy efficiency and conservation."

-House Joint Resolution (H.J.R. 9, 2009)

"... sets forth a goal to increase energy efficiency by 20% by 2015...."

-Executive Order (2006-0004)

Utah ranked 12th in the U.S. for leadership in energy efficiency according to American Council for an Energy Efficient Economy (2010).

Energy Efficiency Strategies



Buildings consume more energy than any other end use.

- Utah promotes compliance with adopted state energy efficiency code and voluntary high performance programs.
- Efficiency measures can be incorporated in new construction or retrofits.
- Commissioning ensures that building systems function properly.
- Rating systems describe how well a building performs, similar to miles-per-gallon of the building as a whole.



Actions include the ways people interact with buildings.

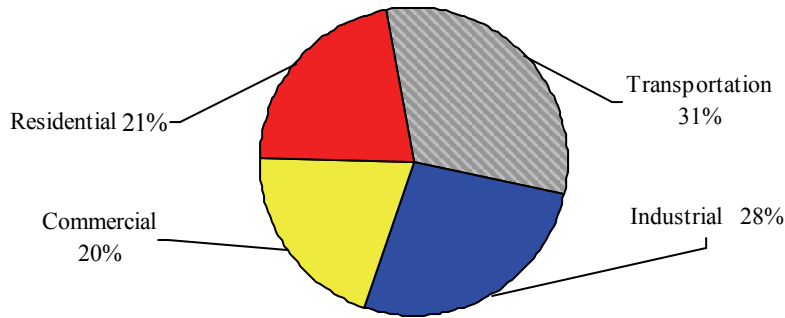
- Energy management includes monitoring utility bills, setting operating schedules, and controlling temperature set points.
- Energy audits can identify cost-effective energy efficiency measures.
- Behavioral conservation programs focus on individual users and cut down unnecessary energy waste.
- The same behavioral strategies can be used at home, work, or school.



Economic Drivers contribute motivation and capability to achieve energy efficiency.

- Utah's regulated utilities have robust incentives and engineering services, which target cost effective measures.
- The state offers zero interest finance for efficiency measures in schools and public buildings.
- The higher education system conducts research to drive technical innovation and training to develop workforce skill.
- Continuing education supports best practices in the design and building communities.

Utah Energy End Use



Source: Energy Information Administration – State Energy Data System

ENERGY STAR Awards 2011

- Utah Building Energy Efficiency Strategies – Promotion Excellence
- Questar Gas Company – Program Delivery Partner of the Year
- Salt Lake City School District – Top Performer, 10 Percent Portfolio Improvement

Initiatives

(Transportation addressed in a separate fact sheet.)

Residential

- Rocky Mtn Power, Wattsmart, 2010
 - ◊ 233,405 incentives, \$23,598,752
 - ◊ Saving an annual electricity use of 27,900 average Utah homes
- Questar Gas Co., Thermwise, 2009
 - ◊ 143,368 incentives, \$44,965,100
 - ◊ Saving an annual natural gas use of 13,330 average Utah homes
- 124 ENERGY STAR home builders
 - ◊ 3,544 qualified homes in 2010
 - ◊ 59% of new home construction
- Utah Home Performance
 - ◊ 88 qualified contractors
 - ◊ 1,100 ENERGY STAR retrofits
 - ◊ Average savings 29% per home
- Olene Walker Housing Loan Fund
 - ◊ 3,757 low income units since October 2006
 - ◊ Low average monthly utility bills
 - \$91 for three bedroom homes
 - \$42 for 1 bedroom apartments
 - \$21 for studio apartments
- Weatherization Assistance Program
 - ◊ Statewide for owners and renters
 - ◊ 4,004 homes during 2010-2011
 - ◊ Homes average 33% savings, or approximately \$285 per year

Commercial

- Rocky Mtn Power, Wattsmart, 2010
 - ◊ 779 incentives, \$8,526,473
 - ◊ Saving an annual electricity use of 16,400 average Utah homes
- Questar Gas Co., Thermwise, 2009
 - ◊ 766 incentives, \$799,700
 - ◊ Saving an annual natural gas use of 395 average Utah homes
- Utah has 192 ENERGY STAR labeled commercial buildings, 127 of which are K-12 schools
- Leadership in Energy and Environmental Design (LEED)
 - ◊ 79 certified buildings in Utah
 - ◊ 950 Credentialed Professionals
- Division of Facilities Construction and Management leads by example
 - ◊ Building Baseline tracks utilities at major state facilities
 - ◊ High Performance Building Standard targets LEED Silver,
 - ◊ Prequalified vendors for utility bill auditing services and energy savings performance contracting
 - ◊ FY 2008 through FY 2010
 - \$962,000 of expenditures netted
 - \$802,709 utility engineering service
 - \$2,508,704 utility incentives
 - \$10,006,977 cost savings over 5 yrs

Industrial

- Rocky Mtn Power, Wattsmart, 2010
 - ◊ 196 incentives, \$5,872,745
 - ◊ Saving an annual electricity use of 17,800 average Utah homes
- Manufacturing Extension Partnership
 - ◊ Ranked #1 in the U.S. for 2011
 - ◊ Identifies value propositions up and down stream of production
 - ◊ Green Enterprise Development program with GOED and SLCC
- Utah Industrial Energy Efficiency Program
 - ◊ Voluntary partner commitments of energy savings goals
 - ◊ Provides training opportunities, outreach network, and recognition for meeting goals
 - ◊ Has saved more than 143,000 average Utah homes annual natural gas use and 2,950 average Utah homes annual electricity use
- Intermountain Clean Energy Application Center
 - ◊ Recycled Energy consists of:
 - Combined Heat and Power,
 - Waste Heat Recovery, and
 - District Energy
 - ◊ Providing site assessment, feasibility study, and technical and financial analysis