

e2 Business Program: Offices

Energy Efficiency

Office buildings account for 23 percent of all commercial energy consumption. Over 50 percent of this energy is used for space heating and lighting alone. Another 16 percent is dedicated to office equipment.

Improvement in technology has drastically improved the efficiency of newer appliances and offers a great opportunity to reduce annual energy bills.

"Sustainability and reducing our carbon footprint is a major part of CH2M HILL's culture. Our employees are proud to be part of an organization that places a high regard on environmental sustainability"

- Jim Schwing

CH2M Hill Vice President

✓ *Space Heating*

Furnaces have seen efficiency improve from 50 percent to over 95 percent with the newest models, this means that almost all the energy consumed will be used to heat your business.

✓ *Lighting*

New lighting fixtures have seen similar improvements in efficiency. Some compact fluorescent lamp (CFL) bulbs use up to 75 percent less electricity to produce the same amount of light as a standard incandescent bulb and last up to 10 times longer. Light-emitting diodes (LED) use at least 75 percent less electricity and last up to 50 times longer than an incandescent bulb.

• *Office Equipment*

Liquid crystal display (LCD) monitors use 1/3 the energy of conventional cathode ray tube (CRT) monitors.

In addition to equipment upgrades, changes in operation and employee habits can result in drastic reductions in energy consumption.

• *Heating and Air Conditioning*

Set the thermostat to no higher than 68° in Winter and no lower than 72° in Summer. Each degree for heating and cooling adds 4-5 percent in energy costs.

• *Lighting*

Turning off lights when areas are not in use can have a significant impact on lighting costs.

• *Office Equipment*

Setting office equipment to "sleep" or shutdown when not in use can save electricity.



Rebate Options

Rebates are available for these equipment upgrades.

For more information visit:

www.rockymountainpower.net or
www.thermwise.com

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Water Efficiency

Domestic water usage and landscaping make up the large majority of water use in offices.

- Installing low-volume faucets or low-volume aerators can save up to 1 gallon of water per minute of use.
- Installing low-volume toilets and urinals can save up to 5 gallons of water per use.
- Check for and repair leaks to the plumbing system on a regular basis. A leaky toilet can waste up to 50 gallons of water per day!
- Landscaping better suited to our climate including native grasses and drought resistant plants can drastically reduce the water necessary for maintenance and the monthly water bill.



Waste Reduction and Diversion

Paper products represent a huge majority of the office waste stream. These materials are inexpensive and have become widely disposable. However, reverting to reusable office supplies where possible and instituting responsible and thoughtful use practices where not, can result in significant savings and reduction in the waste stream.

- A 2008 initiative to reduce employee paper use within **CH2MHILL**'s offices reduced paper purchasing by \$35,600 from the previous year and saved the company \$296,000 when adjusted for business growth.

Any Office can benefit from energy, water and waste efficiency measures. The e2 Business program has experience working with many different office-based businesses and will provide you with the guidance and assistance necessary to make your office more environmentally and economically sustainable.

Current e2 Business Office-Based Businesses:

*Baker & Associates • CH2MHill • Canyons Structural Consulting • Catalyst Magazine
Colvin Engineering Associates • Environmental Performance Group • Envision Utah • Hobbs & Olsen
IBI Group • Infinite Scale Design Group • KRCL • ReDirect Guide • Salt Lick Publishing
Service First Realty Group • Thacker + Co. • Tomax • Utah Clean Energy • Utah Urban Homes
Wasatch Sustainability Consulting • Windermere Real Estate • Wold Creative Group*

e2 Business Program: CH2MHILL



CH2MHILL

CH2MHILL's Sustainability Practices

215 South State Street
Salt Lake City, Utah
www.ch2m.com

CH2MHILL Companies, Ltd. is a global leader in full-service engineering, construction, and operations for federal, industrial, private, and municipal clients all over the world. They have maintained an office in Salt Lake City for 30 years.

CH2MHILL's commitment to the community begins from within. These same employees volunteer their time and money to serve as board members, advisors, coaches, and mentors to local schools, governments, and businesses.

CH2MHILL takes its role in the global economy seriously. In December 2003, it signed on to the United Nations Global Compact, has been a lead sponsor of the Water Environment Federation's World Water Monitoring Day™ and maintained an enduring partnership with the following organizations:

Engineers without Borders-USA

World Business Council for Sustainable Development

The Pew Center on Global Climate Change

The World Resources Institute

CH2MHILL's environmental performance is managed, monitored, and improved through a formal Environmental Management System (EMS) that follows ISO 14001 guidelines. Through its EMS, CH2MHILL works to reduce its environmental footprint by increasing the energy efficiency and green attributes of the facilities we occupy, by promoting green business travel and commuting practices, and by working with vendors to supply environmentally and socially preferable products.

For more than a decade, our network of over 30 Green Teams throughout North America, including Salt Lake City, has been finding sustainable solutions to a variety of office issues—from recycling glass and composting food waste to turning off lights and organizing lunchtime speakers on a variety of sustainability topics.

A 2008 initiative to reduce employee paper usage resulted in an overall reduction in per-person paper usage by 21% and the following savings:

- 38 tons of wood
- 640 million BTUs of energy
- 98,498 pounds of CO2 equivalent
- 313,711 gallons of wastewater
- 36,701 pounds of solid waste
- **\$35,600**

When adjusted for projected increase due to business growth, the savings are even greater:

- 567 tons of wood
- 6,025 million BTUs of energy
- 908,112 pounds of CO2 equivalent
- 2,978,267 gallons of wastewater
- 352,647 pounds of solid waste
- **\$296,000**

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CH2M Hill Vice President



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