



Newsletter

Environmental Connection

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Sponsored by the Utah Department of Environmental Quality

Donna Kemp Spangler, Editor

Building Green Gaining Momentum

Denver, Colo. – Building green could put you in the black.

*Environmental Protection Agency
Region 8 building in Denver, Colorado*



Green building, which includes everything from conserving energy to improving indoor air quality, is now more affordable than ever because more developers are embracing it, said Rick Fedrizzi, president, CEO and founding chairman of the U.S. Green Building Council (USGBC), a national, non-profit organization whose members represent architecture and engineering firms, contractors, manufacturers and building owners.

“There is a wave of people who want to be connected to green building,” he told a group of environmental leaders at the U.S. Environmental Protection Agency’s Innovation Action Council meeting held in Region 8’s recently-built green building. “USGBC is leading the field in rapid growth, with over 1,100 new members, including General Electric, British Petroleum Solar, Marriot and McDonalds, with 346 registered projects and 63 million square feet currently in the hopper for LEED (Leadership in Energy and Environmental Design) certification.”

It makes sense to build green, he added. In general, green buildings emit 40 percent less carbon dioxide, use 70 percent less electricity, 40 percent less energy to heat and cool; cut storm water

runoff; hold up better over time; are healthier and more comfortable for occupants; and use recycled materials and recycle construction waste.

Those are many reasons EPA Region 8 decided to go green.

“Our collaboration with the General Services Administration and the architects, builders and engineers who worked on this project has led to a high-performance structure that offers considerable benefits in terms of reduced pollution and resource conservation,” writes Robert E. Roberts, administrator for Region 8, in a brochure on Region 8’s building at 1595 Wynkoop in Denver. “It is a building that well-represents EPA’s mission, and the public we serve.”

Solar Panels on the roof of the Environmental Protection Agency Region 8 building in Denver, Colorado



Region 8’s office building for instance, features many green elements: Large windows provide for natural light in 85 percent of the floor space. Solar panels, mounted on the south corner of the building, take advantage of peak sun. Interior shades, exterior vertical fins and atrium sails control daylight while taking advantage of the solar heat gain and low glare. The purchase of wind energy offsets the building’s electrical use. High-efficiency and waterless plumbing fixtures achieve nearly 50 percent water savings. The heating and cooling system uses an under-floor air distribution system that delivers heated or cooled air to individual offices and a 20,000 square-foot modular roof features potted plants that soak up storm water pollution and minimize heat effects and absorb carbon dioxide.

To put it in perspective: The building’s energy consumption equates to a mere 20 car coal trains a year – much less than the average building.

The materials used in constructing the building’s frame, interior surfaces and workspaces included corn-based fabrics, wheatboard, sustainably managed wood, and recycled glass, plastics and steel. Large amounts of waste – including steel, concrete, bricks, glass and wood – were recycled throughout demolition and construction activities.

In Utah, the number of LEED certified buildings is growing. Last year, Gov. Jon Huntsman used the setting of the Health Science Center at the University of Utah’s green building to announce his plan to increase energy efficiency by 20 percent by 2015. Many other green buildings can be found throughout the state.

For a list of them visit: <https://www.usgbc.org/ShowFile.aspx?DocumentID=2314> (opens in a new window).

*Green Roof atop the new
Environmental Protection Agency
Region 8 building in Denver, Colorado*



In addition, the Division of Facilities Construction and Management adopted new building construction performance standards that are comparable to LEED certification.

At the Utah Department of Environmental Quality (DEQ), a number of retrofit projects have been undertaken to help make its buildings more energy efficient, such as replacing incandescent light bulbs with compact fluorescent lights (CFLs).

“We have done some significant improvements to DEQ buildings 1 and 2, including upgrading HVAC system (heating, ventilation and air conditioning) with a more efficient one. The roofs of both buildings have been replaced with energy efficient materials that are more heat absorbent,” said Daryl Cramer, general services manager for DEQ. “And the air-conditioning units in the buildings have been replaced with a more efficient cooling system.”

But DEQ isn’t stopping there. A “Green Team,” made up of DEQ employees, has formed to look at ways the Department can be more energy efficient, enhance indoor and outdoor air quality and increase recycling. (see related story)

“The Green Team has come up with some wonderful ideas and we have moved forward with an energy audit to look where we can improve in-house,” said Leah Ann Lamb, director of the Office of Planning and Public Affairs.

EPA Region 8 Presents top Awards to Miller, Maulding, Cache County and Don Ostler

Salt Lake City – Robbie Roberts, administrator for Environmental Protection Agency’s (EPA) Region 8 office in Denver, presented two Department of Environmental Quality (DEQ) employees with outstanding achievement awards at a mid-year meeting here with DEQ directors.

Brad Maulding, a manager of the Hazardous Waste Facilities section in the Division of Solid and Hazardous Waste is a recipient of the Environmental Achievement Award for his work in the clean up of 90,812 tons of contaminated soils from a former explosive manufacturing facility, the Ensign Bickford Company located at the mouth of Spanish Fork Canyon in southeastern Utah County.

Theron Miller, a scientist with the Division of Water Quality, is a recipient of the “Friend of EPA Award” for his work on Farmington Bay in understanding the impact of nutrients to the wetlands and the Great Salt Lake.

In addition, Edward Redd of the Bear River Health Department received the Environmental Achievement Award on behalf of the Cache Valley Air Quality Task Force for efforts to improve the air quality in Cache County.

Don Ostler, former director of the Division of Water Quality, is the recipient of the Outstanding Career Achievement Award for his years of service to improve water quality in the state.



EPA Award Recepients from L to R:
Don Ostler, Brad Maulding, EPA Region 8 Administrator Robbie Roberts,
Theron Miller, Edward Redd (Bear River Health Dept.)

Green Light Given to Green Team Initiatives

Rick Sprott, executive director of the Department of Environmental Quality (DEQ), along with the blessing of Division Directors, has given a green light to the “Green Team” for its list of recommendations on recycling, energy efficiency and clean air initiatives.

For starters, recycling has expanded. Five of Salt Lake City’s blue 96-gallon plastic recycling bins have been placed at each of DEQ buildings 1 and 2 as part of a pilot project that encourages employees to recycle more than just paper.

“By going with the city’s program we can expand what we collect at DEQ to almost everything, except glass, and it would be in one container and cost about the same as our recycling system now,” said Sonja Wallace, recycling coordinator for DEQ who co-chairs the “Green Team,” a group of employees charged with developing a plan to enhance recycling, energy efficiency and improve the quality of Utah’s air in order to set a model for other government agencies to follow.

The Green Team, headed by Support Services Director Steve Higley and Office of Planning and Public Affairs Director Leah Ann Lamb, solicited input from employees on ways to make DEQ greener. The Team then presented its recommendations to DEQ’s senior management at a Quality Council meeting held June 4. Presented were the following recommendations:



Recycling Bins at Department of Environmental Quality building #2



Recycling:

For two months, recycling bins are placed at DEQ's buildings 1 and 2 to determine whether to expand it to the Cannon Health Building where the Divisions of Water Quality and Solid and Hazardous Waste are located.

DEQ will purchase recycled paper products to support recycling markets.

Energy Efficiency:

An energy audit was conducted on June 6 in DEQ buildings 1 and 2. More recommendations may follow as a result of the audit.

DEQ will purchase 100 percent of DEQ's electricity through Rocky Mountain Power's Blue Sky program. Energy credits under the Blue Sky Initiative buy renewable energy sources rather than the traditional coal-burning.

"It would cost about \$14,000 a year, about a 14 percent increase a year," said Glade Sowards, a Green Team member and energy coordinator for DEQ. "But it would off-set carbon emissions as much as keeping 25 to 30 cars off the road each year."

Governor Jon Huntsman announced on June 1 that 100 percent of the electricity at the Governor's mansion will be through Rocky Mountain Power's Blue Sky program. He plans to use the energy savings to off-set costs to pay to replace the majority of the light fixtures in the mansion with compact fluorescent bulbs.

Cleaner Air:

All DEQ motorpool vehicles, under the normal rotation schedule, will be replaced with hybrid electric vehicles.

"It would support the Governor's energy goals and reduce DEQ's carbon footprint," said Sonja Heuscher, a Green Team member who works in the Division of Environmental Response and Remediation.

DEQ will reduce the number of vehicle miles driven by employees through a number of options, including encouraging employees to reduce the number of miles driven by telecommuting, flexible

schedules and carpooling. Also once at work, encourage employees to use video conferencing, walking to lunch and coordinating inspection schedules.

New Leadership at DEQ: Sprott Takes Helm; Heying Heads Air

The Utah Senate on June 20 confirmed Rick Sprott as executive director of the Utah Department of Environmental Quality's (DEQ), third executive director since the agency was created in 1991. Sprott, a retired Air Force Lieutenant Colonel and former director of the Division of Air Quality, says he will stay the course charted by his predecessor.



*Rick Sprott
Executive Director
Utah Department
of Environmental Quality*

“The outstanding staff at DEQ is a credit to Dianne Nielson's leadership. I expect to continue the path forward that she established by emphasizing leadership through partnerships, strong science and efficient management,” Sprott said.

He takes over for Nielson, who served 14 years as DEQ executive director before being tapped by Governor Jon Huntsman to become his energy advisor earlier this spring. Upon his appointment, Sprott appointed Cheryl Heying as his replacement as director of Air Quality.

Nielson, one of the state's most respected administrators, is expected to continue to work closely with DEQ staff on energy related issues, which helped eased the transition.

“Dianne leaves a legacy that is hard to match,” said Bill Sinclair, deputy director of DEQ. “I am however, excited to have the opportunity to work with Rick. His knowledge of air quality issues and his leadership ability will help us move forward in partnerships critical to solving environmental issues facing Utah.”

Although Nielson and Sprott share the same vision, the difference is in their personalities.

Whereas Nielson is known for her understated manner, Sprott is known for his folksy style who aspires to own a Harley someday – perhaps a hybrid.

“He is a well grounded, down-to-earth kind of guy,” said Steve Higley, director of Support Services, who occasionally engages Sprott in a competitive game of golf.

A Missouri native, Sprott began his career in Utah 13 years ago, starting out as a permit writer for the Division of Air Quality (DAQ) and quickly rose to manager of the Planning Branch before becoming the director of Air Quality in December 2000.

While director of Air Quality, Sprott implemented an integrated data system, greatly expanded public outreach and increased community-based health actions. He oversaw several major regulatory efforts, including mercury emissions and health standards. Most recently, he helped establish a new air quality task force charged with developing organizational and funding strategies to help the state meet new tougher air quality rules established by the U.S. Environmental Protection Agency (EPA). Sprott also has worked on energy issues as part of the Governor's Blue Ribbon Advisory Council on Climate Change and will continue to work with Nielson who will chair that council.

"Rick has a great ability to see the big picture, and yet he's very comfortable rolling up his sleeves and working through the details if necessary, said Glade Sowards, energy program coordinator for DAQ. "He has a very natural ability of getting to the heart of complex issues and making those understandable to the public."

Ernest Wessman, chairman of the Air Quality Board, praises the appointments of Sprott and Heying.

"In my years working with Rick, I've come to appreciate his ability to find solutions by working with the regulated community, as well as other groups, to find ways to improve the air quality in the state of Utah," Wessman said.

Wessman also credits Heying for her work in developing a groundbreaking mercury rule aimed at reducing industrial mercury emissions in the air. "I have found her to be an extremely professional and capable person who enlists the input of many points of view to protect the environment in Utah," he said. "The mercury rule is an example of that."

Sprott admits his appointment to head DEQ came as a surprise to him. After all, he talked mostly about retiring soon. But he also didn't expect to have a career in the U.S. Air Force before working for the state of Utah. He joined the Air Force ROTC to avoid being drafted. After graduating with a bachelor's degree in chemistry from Grinnell College in 1968 and receiving his commission as a second Lieutenant in the Air Force he got one year of an educational delay by enrolling in graduate school at the University of New Hampshire.

"The U.S. Air Force finally caught up with me so I wound up spending 20 years when I only meant to do four," Sprott said. While in the Air Force he served in a variety of assignments related to aerospace maintenance and acquisition. After he retired, he enrolled at Duke University and received a master's degree in environmental management in 1994.

"I went to Duke to get a masters degree so I would be qualified to do something other than ramrod fighter jets on a fight line," he says.

Sprott is recognized nationally for his leadership in air quality issues. He is the newly elected president of the Air and Waste Management Association's Board of Directors for 2009 after serving on the Board since 2003.

Sprott is an avid outdoorsman who enjoys snowboarding, off-road vehicles, and hiking. Likewise, Heying is a hiker known for her steadfast commitment to environmental stewardship. The two make a good team, said Joe Thomas, manager of Air Quality's Mobile Source and Transportation Section. "Their work styles really compliment each other."



*Cheryl Heying
Director, Utah Division of Air Quality*

Sprott credits Heying for her ability to get things done. “Cheryl is a first class leader and brings incredible technical knowledge and people skills. She is recognized in the West and nationally for her abilities and the Division will shine under her leadership.”

Heying began her career at DEQ in 1988 with the Division of Solid and Hazardous Waste. She left Utah for Nevada for a few years while her husband, Eric Wood, completed his medical residency program in Reno, at which time she worked as an environmental consultant and environmental regulator for Nevada. She returned to Utah and for the last six years has been the manager of the Planning Branch for DAQ, overseeing the development of plans to comply with federal air quality regulations, including recent work to incorporate tougher new rules for fine particulate pollution.

She steps into the position without any illusions. “We are facing some tough air quality rules that ultimately will improve Utah’s air. Rick, as the DEQ executive director, understands that, which will make the process smoother as we continue to work with our stakeholders and Utah citizens to develop a plan that is acceptable to the state and the EPA.”

PowerForward Kickoff: Conserving Energy Paramount as State Grows

South Jordan – Utah’s growing population puts pressure on energy demands, which means everyone must do their part to conserve, Lieutenant Governor Gary Herbert said at the June 5 official start of the PowerForward electricity conservation campaign. This year’s kickoff was held inside a Rainey Homes Energy Star home in Kennecott Land’s Daybreak community.

“Our population is growing at a record pace,” Herbert said. “Everything we do should be to find ways to be more efficient in our energy. Utah is a leader in energy efficiency, with the Governor setting a goal of increasing energy efficiency by 20 percent by 2015 – five years earlier than the Western Governor’s Association goal.”

PowerForward is helping meet that goal, noted Rick Sprott, executive director of the Department of Environmental Quality (DEQ). “Last year we were getting 100 megawatts of power savings off the peak – that’s enough to power 50,000 homes and reduce pollution, too.”

Now in its seventh year, PowerForward is a public and private partnership sponsored by DEQ and Utah’s electric utilities. Its mission is to promote an ethic of energy conservation and efficient use of electricity in Utah homes, businesses, and state-owned buildings. Last spring, Governor Jon Huntsman signed an executive order directing all state employees to heed PowerForward e-mail alerts that signal the need to conserve electricity and require DEQ to prepare an annual report on each agency’s efforts to conserve.

PowerForward uses a color-coded alert system to alert consumers through e-mail messages, news media announcements and Web site postings about the need for energy conservation usually when the temperatures and market prices for electricity run high. Green means normal conservation. A yellow or red warning asks people to take extra measures to reduce power during the hours of peak use, between noon and 8 p.m.

What that means, noted Carol Hunter, vice president of Rocky Mountain Power, is to shift your energy usage to early morning or late evening when the state's power grid is not under stress. "In Utah, because the energy usage is growing around 2 percent and the peak demand is growing at 5 percent, it is becoming more and more difficult to meet demand." She suggested washing dishes and doing laundry during the evening hours rather than the middle of the day or increasing the setting on the air conditioning thermostat up just a couple of degrees.

During last year's PowerForward campaign, which runs from June 1 to Sept. 15, 10 yellow alerts were declared for the Wasatch Front region. No red alerts have been issued since the program began. "Ideally, we won't have to declare any alerts this season but it all comes down to whether we have a hot summer," said Glade Sowards, energy program coordinator for DEQ.

Kennecott Land is making the commitment to energy efficiency by requiring its builders to build Energy Star homes at its Daybreak community in South Jordan. It also is a Rocky Mountain Power Blue Sky Visionary Partner, making the commitment to purchase 100 percent of its energy use in Blue Sky Renewable Energy.

"By changing how we use energy, individuals can make a big difference – not only on energy conservation and cost savings, but also in protecting the environment," said Peter McMahon, president of Kennecott Land.

For more information on ways to conserve and sign up for PowerForward alerts, visit www.powerforward.utah.gov (opens in a new window).

Utah Truck Stop Helps Truckers Spare the Air

Truckers taking a break off I-215 can now give the Salt Lake Valley air a breather from their idling diesel engines thanks to an anti-pollution device recently installed at Sapp Brothers Travel Center located at 1953 West California St.

The device is the creation of IdleAire Technologies Corp., based in Knoxville, Tenn. In late March, 51 spaces at Sapp Brothers were fitted with auxiliary power units that allow truck drivers to keep themselves warm, or cool, or entertained without idling their rigs while they rest. The project is a cooperative effort between IdleAire and the Utah Department of Transportation, which funded 80 percent of the project's installation cost.

"This is the kind of technology that is preferred by the Utah Division of Air Quality because it reduces air emissions," said Cheryl Heying, air quality director. "This technology will help reduce emissions year round and is especially important on our bad pollution days when we ask people to reduce their driving."

*IdleAire system installed at Petro Travel Center
- Knoxville, Tennessee*



Sapp Brothers began offering the service in May, the first in Utah to offer the IdleAire technology. “We wanted to be a leader in the field while saving drivers’ money and keeping the pollution down,” said Dave Segelke, sales manager.

Segelke said truckers typically burn about a gallon of diesel per hour at roughly \$2.90 a gallon. Shutting off the engines not only eliminates the noise and vibrations the idling engines create but also cuts down on diesel emissions.

“Just in the short time the site has been open, we have eliminated 260,326 pounds of diesel emissions and conserved over 10,700 gallons of diesel fuel,” said John Doty, spokesman of IdleAire.

Consider this: If each of the 51 spaces at Sapp Brothers is used just the minimum driver rest period of 10 hours each day, the system could eliminate over 4.3 million pounds of diesel emissions annually and conserve an estimated 186,000 gallons of fuel each year, according to IdleAire.

The IdleAire system provides the driver with a window adapter that plugs into the cab of the truck that allows the driver to shut off the engines and run the television, computer or air-conditioning or heating units, while taking a break. Truckers are federally required to take a minimum of 10 hours of rest for every 11 hours behind the wheel.

Currently, about 28 percent of the stalls at Sapp Brothers are being used. But it is gaining in popularity. “The big trucking companies use it more frequently, but the small owner-operators are getting more interested,” Segelke said.

“Once a driver uses it, he is hooked,” said Doty. “It changes their lifestyle. Not only does it shut the engines off and allow them to relax but also helps the environment in the Salt Lake Valley. It’s been very favorable.”

Doty said other facilities in Utah are considering the device. Currently there are 113 locations in the nation, with more under consideration.

For more information on the technology, visit IdleAire’s Website at www.idleaire.com (opens in a new window).