



member
SIPC

Small Cities Support Network

Looking for a place where your small city can share successful projects and learn from others? Then be sure to attend the quarterly meeting in your region. Share, learn and grow with input from your peers and special guests. These events not only help you invest in the future of your small city, they provide LDC with insight into current regional needs and help us better address the needs of small cities.

For more information, contact Nancy Allen, Small Cities Support Network Coordinator, at nallen@orcities.org or (503) 264-4326. ■

Schedule of Quarterly Meetings

Time: 11:00 a.m. to 1:00 p.m.

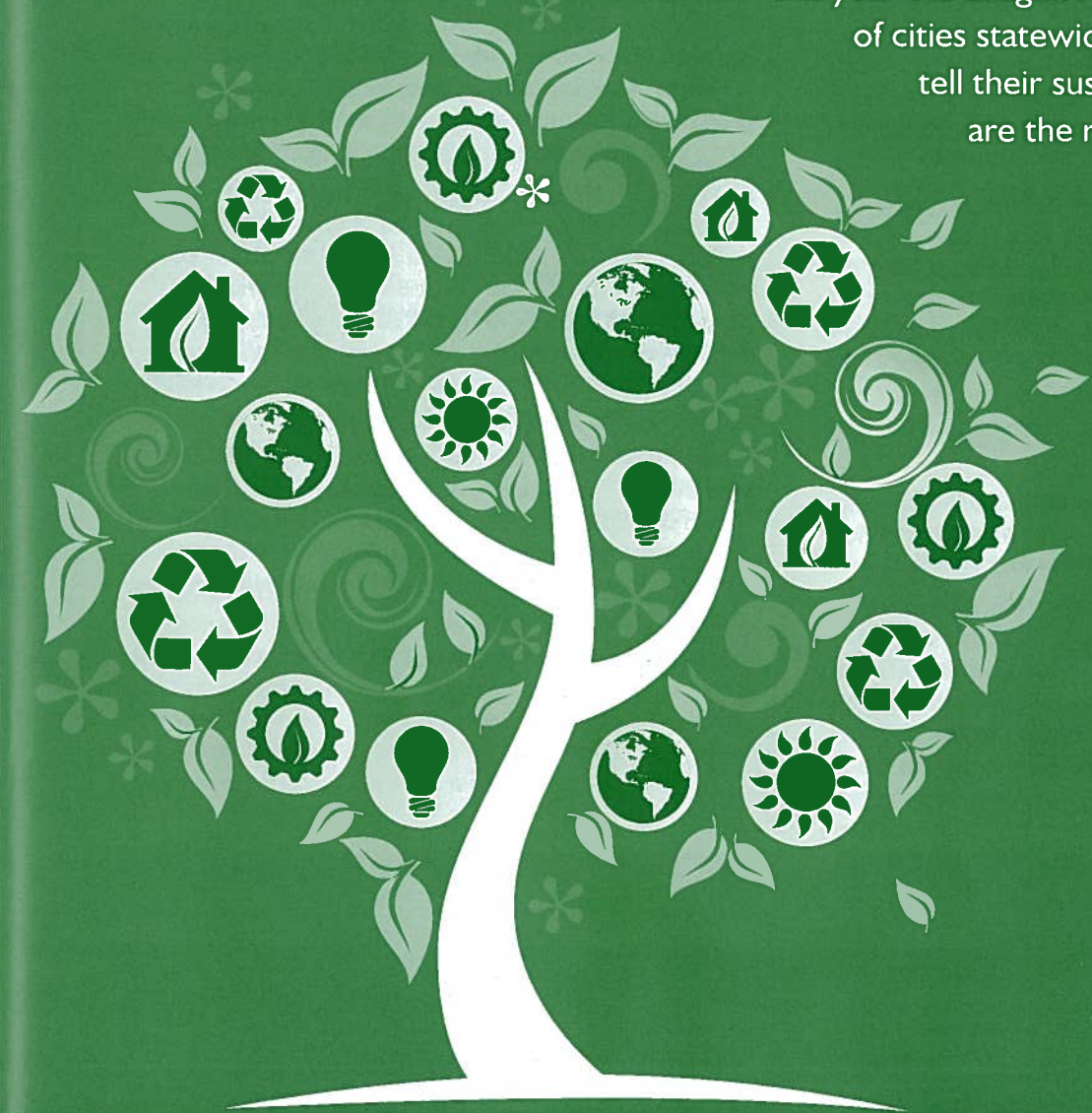
- Region 1: August 5 – Garfield
- Region 2: September 16 – Mt. Angel
- Region 3: August 18 – Harrisburg
- Region 4: August 20 – Bend
- Region 5: September 7 – Hillsboro
- Region 6: September 20 – Madras
- Region 7: TBD – Irwin
- Region 8: TBD – John Day

For the latest meeting details, please visit www.orcities.org/mallcities.

16 Cities 16 Approaches to sustainability

For the past few years, cities nationwide have made a concerted effort to be sustainable, or to “Go Green,” as the popular phrase would have it. As you’ll see in the pages that follow, cities in Oregon are doing their part, ranging from the simple but effective changes made in small towns like Echo and Union, to the comprehensive effort of a mid-sized coastal city like Lincoln City, to the investment in a full-time sustainability manager in Hillsboro, one of the largest cities in the state. In 2008,

Local Focus profiled the “green” efforts of a few cities; this year the League reached out to dozens of cities statewide and asked them to tell their sustainability story. Here are the results that came back...





LINCOLN CITY Truly a "Green Community"

City leaders plan to set up other stations at the community center at the north end of town, and the cultural center in the city's central section.

Mayor Lori Hollingsworth summed up what the charging stations meant to the city: "Global warming is starting to change the world we live in, and the Oregon coast is uniquely vulnerable to the effects. Local governments can and should take aggressive actions. Lincoln City has been able to do its part on progressive green issues because of some open-minded councilors, community support and smart, energetic staff."

A Broad Commitment to Sustainability

The greening of Lincoln City doesn't end with the charging stations. There's the newly remodeled library that opened earlier this year, certified under the LEED Silver Standard project, which means it meets sustainability criteria.

There's the city's green travel program, Sea Star, which encourages lodging, restaurants and travel-related retail shops to commit to green practices. Other additions to the city's eco-friendly list include a green purchasing policy at city hall, herbicide- and pesticide-free city parks, and plans to install solar panels in the community center. And if that weren't enough, the city has even gone so far as to take over brush cutting on U.S. 101 to avoid the chemicals ODOT sprays.

"We're just doing our part for global warming," Hollingsworth says. "I think every person and every community should do that. Cities should take care of their community, but they also have to look at their place on the planet and how do we do what we can to live sustainably on the planet."

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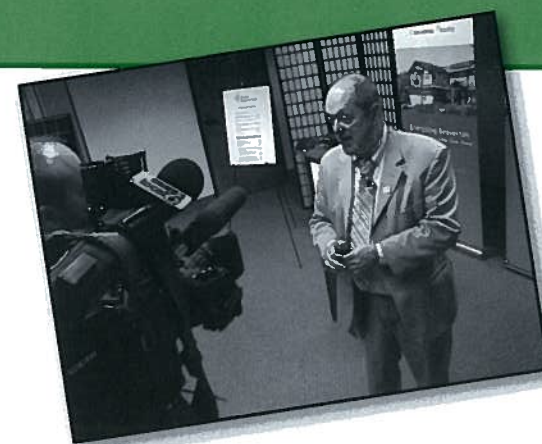
Back in January, more than 50 people showed up in Lincoln City to celebrate the unveiling of the first electric car charging stations on the Oregon coast. Not bad for an event in a public parking lot on a gray Monday in January. More importantly, though, it was a proud day indeed for this central coast city (pop. 7,930), and one that's become common as it continues to go green.

Lincoln City first won national recognition for its sustainable practices in 2007 when it earned the EPA designation of "Green Power Community," a first on the Oregon coast. It did so by getting five percent of homes and businesses to sign up for Pacific Power's Blue Sky Program, which purchases renewable energy.

2010 has seen two more "green" firsts for Lincoln City: two of six planned ChargePoint Networked Charging Stations are up and running; and becoming the state's first city to earn NW Natural's "Smart Energy City." To do so, city leaders persuaded five percent of natural gas users to agree to pay extra a month—\$6 for residential customers; \$10 for businesses—to support a carbon offset program that turns methane into bio-gas and which may ultimately bring bio-gas to the region.

The charging stations feature cell phone interfaces with Coulomb Network that allows customers with Internet access to locate the units and determine their availability.

While some hybrid vehicles are battery electric types that charge while in operation, other hybrids, called plug-ins, and pure electric vehicles require recharging after a limited distance, typically 80 to 100 miles. Folks who own such vehicles must know they have access to charging stations before considering any destination.



BEAVERTON

Reducing the City's Carbon Footprint One Step at a Time

Home Weatherization Loans

Eligible homeowners may apply for low-interest loans of up to \$10,000 for enhancements and renovations such as insulation and duct sealing, heating and hot water heaters, door and windows, and solar power.

Street Light Conversion and Green Construction Practices

Green isn't just healthy for the environment, it's good for the city budget as well. By replacing 363 street lights with light emitting diodes (LED), Beaverton expects to achieve a 50 percent energy savings. Beaverton's Public Works Department is committed to exploring sustainable construction options using pervious materials for sidewalks, as well as putting in place curb cuts and vegetative drainage swales.

Energy and Fuel Efficiency

In addition to numerous energy saving efforts such as timer switches and automatic water faucets, the city recently upgraded many of its HVAC units, motors and chillers. Plus, much of the city's fleet runs on alternative fuels such as E10, E85 and B20.

Recycling

With a citywide recycling day and mandatory business and multi-family complex recycling programs already in place, Beaverton is also exploring a food waste recycling program.

Going Paperless

Beaverton's municipal court, archives, planning applications, room reservations and many other applications have gone digital to reduce paper use and physical storage needs. Last year, the building department switched to electronic field inspection notepads to electronically route permit information and inspection requests, eliminating 30,000 to 80,000 paper and permit inspection documents annually.

While Beaverton is on the road to reducing their carbon footprint, the city knows there is much more that can be done to lessen their impact on the environment and to save money for taxpayers. Watch for updates on Sustainable Beaverton progress online by visiting www.BeavertonOregon.gov/green.

Submitted by Amy Miner, Public Information, Office of the Mayor

City leaders and staff are putting their enthusiasm for sustainable practices to work for their community. Jason commutes more than 12 miles to work each day on his bicycle, while Christy has used solar to power her home for more than 20 years. Meanwhile, Leigh installed a 1,400-gallon rainwater harvesting cistern in her backyard, and Mayor Denny Doyle (pictured above) serves on the National League of Cities Energy, Environment and Natural Resources steering committee. He also recently purchased a hybrid car.

Last year, Mayor Doyle appointed Beaverton's first sustainability coordinator to focus city efforts and create a targeted action plan for reducing the city's carbon footprint. Already one of the first green power communities in the country, and boasting a robust residential and business recycling program, it was time to take the next step toward a more sustainable Beaverton. To form the basis of the plan, a baseline inventory of greenhouse gas emissions for the city is nearing completion. In the meantime, the following sustainable initiatives are underway:


Solar Beaverton

A pilot residential solar program, launched in May and led by the city, is expected to bring renewable energy to 50 Beaverton homes this year using a bulk purchase model, state and federal tax incentives. Based on the success of the program, the city anticipates rolling out a solar program citywide next year.

Electric Vehicle Charging Stations

Oregon is one of the first states in the country to receive federal grants for electric vehicle charging stations. With the first charging station in place this summer, by the end of the year Beaverton expects to have nearly 40 charging stations available for their environmentally minded consumers as electric cars come into the marketplace.

PORT ORFORD Green Projects for Clean Water

 With an active commercial fishing fleet, nearby salmon streams that attract sport fishers from afar, and a village-like setting right by the sea, Port Orford makes its living through clean water. It's no surprise then that the city has recently completed three green projects designed to protect and improve local water quality.

Most visible is a lush and vibrant bioswale located at the Port Orford Visitor Center, which overlooks the town beach. Filled with native wetland plants, the swale collects and filters runoff from a large parking lot, and fills a formerly empty low-spot with an attractive garden. An interpretive sign will teach travelers how the bioswale works to keep near-shore waters clean. The demonstration project was built by local citizens participating in the Ford Family Foundation Leadership Institute, in partnership with the city and the South Coast Watershed Council, and aided by grant funding from The Ford Family Foundation, Oregon Environmental Council, and the Oregon Watershed Enhancement Board.

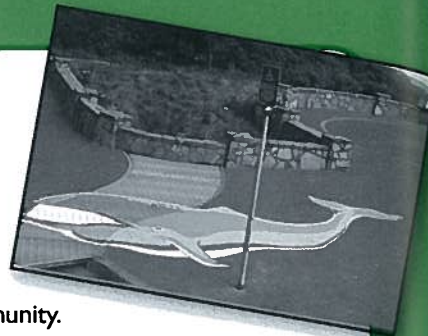
Right nearby, a bright blue whale mural painted on the pavement playfully reminds visitors that parking lot runoff—and


any pollutants it contains—flows to the sea. Portland marketing firm BPN, Inc. donated the mural and worked closely with the city's parks commission to develop a design acceptable to the community.

The bioswale and whale mural were inspired in part by another local effort to improve water quality. Last year, the Port Orford Ocean Resources Team (POORT) spearheaded a collaborative effort with the city and its planning commission to develop a new stormwater ordinance. Creating a model process for municipal rulemaking, POORT conducted extensive outreach, including several public presentations to community groups and targeted conversations with development interests, to explain the reasons for the new ordinance. Ultimately, the new law was adopted with broad public support.

"All three projects work together to enhance the sustainability of our community," says Port Orford Mayor Jim Auburn. "The ordinance requires best practices while the bioswale offers a local, on-the-ground example. And the colorful whale reminds everyone why all these efforts are important to protect our environment."

Submitted by Ann Vileisis, President, Kalmiopsis Audubon Society



 The gadget is seven inches square, and its on-screen display features icons that respond to the touch of a finger.

The home energy management system (HEMS) console is coming to Hermiston after the city unveiled a plan this summer to test the cutting-edge technology in several Hermiston homes.

The HEMS offers homeowners an unprecedented look into the minutia of their energy use, at home and from afar with their cell phones or laptops. People can see, in real time, how much energy their home is using—even individual appliances—and adjust their thermostat or appliances accordingly. The HEMS dashboard can tell a user exactly how much money they saved in a day by raising or lowering your temperature by a few degrees.

The hope is that, once people become aware of their energy use, they will conserve more.

The city is investing \$100,000 in the project, with the possibility of investing more if the HEMS truly helps the city utility, Hermiston Energy Services, save electricity.

HERMISTON Home Energy Management

Not only will the HEMS enable electricity customers to more closely monitor their use, it will also allow utilities to communicate directly with customers. If, for example, a shortage of electricity threatens in the summertime, utilities can send a message to customers through their HEMS dashboard that asks them to slightly raise their thermostats. If enough customers heed the call, brownouts can be avoided.


The U.S. Department of Energy recently conducted a similar "smart grid" project (see related article on page 28) in the state of Washington and found that when consumers were aware of the impact of their actions, average peak loads dropped by as much as 15 percent. The consumers who participated in the project saved an average of 10 percent on their electricity bills.

Even a five percent reduction in peak demand in the United States could save \$3 billion per year.

Source: Hermiston Herald

BANDON New Center is Eco-Friendly



 Bandon residents and visitors now have a "new" and "green" place to congregate in the city park. Remodeling work on the senior center, community dining room and kitchen, and meeting rooms at "the Barn – Bandon's Conference and Community Center" has been completed, and the facility in city park is now in full operation. The \$1.4 million project, which included relocating the senior center within the complex, building a new kitchen, remodeling the old design into four conference rooms with movable partitions and a complete exterior renovation, was funded by grants from a variety of private foundations, donations from individuals and businesses, and urban renewal.


Project planners, the architect, the contractor and the city all participated in making the project as green as feasible in terms of its environmental profile. After removing all asbestos, as much of the existing structure as possible was recycled, including re-using previously installed energy efficient windows, doors and lighting fixtures. The interior paint is low in volatile organic compounds, and the carpeting is made of recycled and recyclable materials. "Green" materials were used for the roofing shingles and the materials on the folding partitions meet LEED standards. Instead of vinyl flooring in the senior center and dining room, the contractor installed linoleum, which requires fewer harmful chemicals in its processing.

In addition to its construction, the ongoing operation and maintenance of the facility is undertaken in as "green" a manner as possible. All of the cleaning supplies and paper products are biodegradable, and the city council committed to buying 100 percent "green power" to run the facility. Bandon operates its own municipal electric utility, and was able to purchase wind power from Bonneville Power Administration (BPA) in an amount equal to the Barn's entire electric load. The city also plans to install a solar water heating system on the roof, and is in the process of landscaping the front of the building using low water use, low maintenance native plants.

In addition to the ongoing use of the Barn's facilities by senior citizens, and several community organizations and meals programs, an increasing number of events, meetings, small conventions, reunions, weddings, training sessions and parties are being scheduled each month. It is hoped that the improved facilities will eventually draw enough outside business to make the center self-sustaining and increase its value as an economic development tool. Out-of-town visitors who use the facility stay at local motels, eat in local restaurants and shop in local stores. The fee schedule provides a discount for users who book a minimum number of room-nights at local motels, since this generates more transient occupancy tax receipts, which is a major source for the city's general fund. Allowing various governmental and regional agencies to use the facility at discounted rates also saves money for the city, as it allows local officials, city employees and citizens to attend these events without the associated travel time and expense.

Submitted by Matt Winkel, City Manager

McMINNVILLE For the Future

 It began with a public meeting on community values in 2008, where the community's voice was heard: "sustainability is important." Since then, McMinnville (pop. 32,760, Yamhill County) has been making concerted efforts to increase its sustainability. Located within the heart of wine country, McMinnville leaders are dedicated to meeting its community responsibilities in a socially, economically and environmentally conscious manner.

Focusing on "city" rather than community initiatives, McMinnville's sustainability efforts have included: a greenhouse gas emissions audit (for benchmark purposes); a plan to reduce greenhouse gas emissions (with many action items already checked off); training for local officials and city management; and, most recently, an action plan for increasing sustainability within the city's various departments. In 2009, the McMinnville City Council adopted a sustainability resolution as a formal statement of their support. With this direction, the city is working to:

- Promote clean air and water;
- Protect natural resources;
- Reduce solid and hazardous waste;
- Reduce use of toxic substances;
- Reduce consumption of energy, water and natural resources;
- Reduce emissions of greenhouse gasses and other pollutants;
- Uphold a positive and personal growth-promoting work environment; and
- Meet these aims in a fiscally responsible manner.

Examples of actions taken in the name of sustainability include: an LED streetlight pilot project; a park recycling pilot project; installation of additional bike racks at city facilities; building energy audits; various HVAC and lighting upgrades; city-wide recycling; and staff training through monthly newsletters. McMinnville's sustainability efforts are guided by an interdepartmental committee that meets monthly and reports to the city manager.

Due to the nature of their work, different departments have unique opportunities to support the city's sustainability goals and some have more opportunities than others. To highlight this, McMinnville's Wastewater Services division



has long embraced efforts to reduce energy consumption and to find low-impact solutions to challenging, yet common, problems. A few notable examples of their efforts include:

- Heating the primary administration building with recovered heat from treated effluent;
- Reusing high quality treated water for irrigation and other facility needs, minimizing the use of drinking water;
- Recycling nutrients from wastewater into biosolids for agricultural application;
- Using a biofilter-odor-scrubber (wood chips) to reduce offensive and corrosive odors that arise from the treatment process in an environmentally friendly way. The scrubbing action is provided by naturally occurring bacteria, discontinuing the need for strong chemicals required by traditional odor scrubbers;
- Working with the Association of Clean Water Agencies (ACWA) sustainability energy project to develop a comprehensive wastewater sustainable energy training program; and
- Using the Energy Star portfolio manager to develop a benchmark for energy use allowing Wastewater Services to track progress with sustainability efforts.


All of these actions clearly demonstrate a case of turning lemons into lemonade!

McMinnville is very proud of the efforts its various departments are taking to protect its economic, social and environmental resources and is working closely with the local environmental group, Cool Mac, which provided the original impetus for the city's efforts. More information on McMinnville's sustainability work is available on their website at www.ci.mcminnville.or.us.

Submitted by Lucy Falcy, Associate Planner



Environmental Sensitivity in a Challenging Economy

 Two years ago (*Local Focus*, July 2008), we reported on how one small city creates an "Environmentally Sensitive Community." A lot has happened since then and it seems fitting that we should communicate our successes and our need-to-strive-more acknowledgements to our colleagues around the state.

One of our achievements has been to actually define what it means to be "environmentally sensitive." Here in Banks, we define it as: "an acknowledgement that the global, national, state, regional and local physical environment, and ecosystem, matters; and all actions taken by the Banks city government will be contemplated in some appropriate and proactive form as a decision is being made."

Such sensitivity is not actually sustainability, as some might think at first. It is, of course, related but it is a more proactive approach to the amalgamation of necessity and factual reality in this day and age. While we here in Banks are committed to sustainability, that is a potentially expensive approach that we cannot afford right now. So we do the next best thing. We ask ourselves at each step in a project or program if we are being sensitive to the environment and minimizing the impact. And we continue to weave necessity with reality for the effective and efficient use of citizen-provided funding.

Since our 2008 report, Banks has joined the Washington County "Partners for a Sustainable Washington County Community (PSWCC)," a consortium of civic-minded communities that coordinate individual sustainability efforts synergistically. As a result of our membership in the PSWCC we have now completed an energy audit (free) from the Energy Trust of Oregon, and have embarked on a remodel of the 50-plus year-old city hall to make it more

energy efficient. We have also begun an educational outreach program to residents and businesses regarding energy efficiency and water conservation. The Partners consortium is also assisting the city in creating an energy efficiency plan, using interns from a local university in Forest Grove. The university is desirous of enhancing their environmental sustainability program and sees this cooperative effort as fruitful for all parties.

We continue to work vigorously on increasing the participation rate in state-mandated recycling and are making great progress with our recovery rate. The Banks Chamber of Commerce has created a "Green Team," and city representatives participate with fellow businesses to encourage recycling. The team has recently created the "Business Green" program to recognize businesses that actively participate in recycling. The Business Green program is similar to the Washington County Recycle At Work program and is more localized in nature, in order to adjust to the small businesses that are in Banks.

As part of the city water conservation program, Banks has embarked on an ambitious customer education program, providing information in our water bills, as well as other proactive communication with water users. We recently completed a water conservation coloring contest that saw very good turnout and educated the younger citizens about water conservation. "This was a really good event and we were quite excited with the entries we received," said Banks Mayor John Kinsky. "It was obvious that our youngsters now know better what it means to use and conserve water." We are now preparing for an even larger effort next year in conjunction with National Water Week in May 2011.

As can be readily seen, it doesn't take much for a small town to think big. The city of Banks is a citizen of the world, but is also a practical participant in the environmental aspects of ecology. "Think globally, act locally" is alive and well in little ole Banks.



ST. HELENS CNG Vehicle Program

The launch of the city's Compressed Natural Gas (CNG) Vehicle Pilot Program included the installation of a CNG filling station (\$34k) and the conversion of three city vehicles (\$16k) to run on CNG. The program has three goals:

1. **Cost Savings** – Even at today's lower gasoline prices, natural gas, at a cost of \$1.50 per gallon equivalent, is still approximately 40 percent less than the cost of a gallon of gas;
2. **Green Technology** – Natural gas powered vehicles produce 97 percent fewer emissions than gasoline powered vehicles. The CNG Pilot Project helps the city lead by example in the effort to limit greenhouse gases and reduce the city's "carbon footprint"; and
3. **Sustainability** – Natural gas is found in abundance in North America and is much less affected by international markets and foreign governments than the world's oil supply. As a result, the price of natural gas tends to be much lower and more stable than gasoline.

Work began in July of 2008 and took approximately one year. Application was made for tax credits available from the Oregon Department of Energy for the installation of a CNG filling station.

The three converted vehicles were those in the city fleet that used the highest amounts of fuel, according to Public Works Director Dale Goodman. And more conversions are on the way.

"Our plan is to wait until the next vehicles are at least three years old," Goodman said. "If they are newer than three years, then converting impacts their warranty," Goodman said.

Goodman says the filling station, which has the capacity to fuel 8-10 vehicles, represents the biggest cost savings for the city.

"We can realize \$5,000 in savings per vehicle," he said.

Operation and maintenance for the filling station is limited to a simple compression module replacement after 4,000 hours of operation.



VALE

New Lighting in City Library

The city is installing new lights at the city library, replacing old fluorescent bulbs with low mercury lamps that are TCLP compliant. The new lamps are more energy efficient, provide a whiter light, and have

less glare and a longer use life. The new lamps have been installed over the reading and computer areas for less eye strain. TCLP stands for "toxicity characteristic leaching procedure."

PENDLETON Solarize Pendleton

Solarize Pendleton is the third solar initiative spearheaded by the city of Pendleton since 2007. The installation of a 100 kW system at the city's water filtration plant, and a 200 kW system at the wastewater treatment plant, set the stage for the community-wide Solarize Pendleton program in 2010.

Through research and discussions with area citizens, the city discovered two major hurdles that were preventing residents from going solar: the logistical and financial barriers. The city assigned Lee Jorgensen, a participant in the Resource Assistance for Rural Environments (RARE) program, to study various renewable energy programs, incentive models and technologies related to solar, and develop a program that would simplify the process of going solar for area residents.

After a water bill insert describing the community solar initiative sparked interest from hundreds of residents, the city decided to move ahead with the program and issued a request for proposals to select a partnering solar contractor. Earlier this year, LiveLight Energy of Beaverton was selected as lead contractor after a review of more than 15 proposals. In partnership with local electrical and roofing outfits, LiveLight Energy assembled the local installation teams.



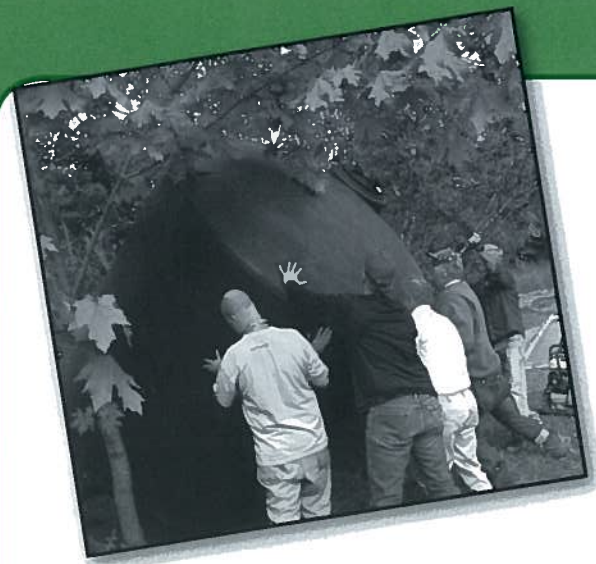
Next, the city partnered with Solar Oregon and the Energy Trust of Oregon to conduct free educational workshops for residents about the basics of going solar. More than 250 residents attended these workshops and signed up for free solar and energy efficiency assessments from the Energy Trust and LiveLight Energy. This high level of participation resulted in better pricing for all, as LiveLight Energy agreed to a tiered pricing system. The more homeowners installing solar through Solarize Pendleton, the lower the price for everyone.

To help further overcome the financial barrier of going solar, the city launched an innovative loan program. The city borrowed from its Sewer Bond Stabilization Fund to offer 50 zero interest loans at \$9,000 each to homeowners participating in Solarize Pendleton. Repayment of the loans is designed to coincide with the homeowner's receipt of their state and federal tax credits. Annual payments of \$4,500 the first year and \$1,500 the following three years allow residents to simply redirect their solar tax credits to the city as their loan payment. More than 90 applications were received for the loans, so the city held a lottery drawing during the Pendleton Farmer's Market on Main Street to select those who would receive them.

A standard 2.3kW installation through the program will cost a homeowner approximately \$14,000. Between the city loan, Energy Trust of Oregon rebate, and state and federal tax credits, homeowners are looking at out of pocket costs of less than \$2,000 with a payback of under five years. All installations are expected to be complete by October of 2010, with 60 homeowners committed to installing solar systems and a total of almost 150 kW.

Prepared by Larry Lehman, City Manager, and Lee Jorgensen, RARE Student, Solarize Pendleton Manager





Collaborative Sustainability

The City of Eugene is pursuing several significant sustainability initiatives. The Eugene City Council has directed that all city operations and city-owned facilities be carbon neutral by 2020. Staff across the organization contributed ideas to a “think tank,” and a team identified strategies with the greatest potential to make a difference. The eight-member city council also asked for a community climate and energy action plan to reduce community-wide fossil fuel consumption by 50 percent by 2030, set carbon emission goals, suggest effective emission reduction strategies, and identify ways in which the community can adapt to a changing climate. Over a 15-month period, hundreds of community members have participated in discussions on buildings and energy use, food and agriculture, waste and consumption, health and social services, urban natural resources, and land use and transportation.

Eugene also has undertaken a scoping and resource plan for development of a food security plan. Food security has been defined as a strong, sustainable, local and regional food system that ensures access to affordable, nutritious and culturally appropriate fresh food for all people at all times. Action items underway include a food market analysis; improved coordination of urban agriculture and home-steading activities to increase home and neighborhood scale resiliency and sufficiency; and a gap analysis of local food security assessments. A proposal to modify urban zoning standards for “micro-livestock,” specifically small goats and chickens, also is on the table.

Eugene’s Sustainability Commission recommended that the city develop and implement a triple bottom line (TBL) tool for city council policy decisions. The notion was that this tool could be used to assess policy-level decisions made by the council, including new items proposed in the annual or supplemental budgets. City staff created several TBL “screens,” including an online tool currently available for

internal use. Staff asked members of the Sustainability, Human Rights and Planning commissions to help develop the tools, which have been applied in various ways: reviewing recommendations in a mixed-use zone area; evaluating potential FY11 budget reductions and fee increases for recreation; and conducting an examination of Neighborhood Matching Grants.

The triple bottom line framework addresses social equity, environmental health and economic impacts.

Social Equity

How might a proposal or action affect the ability to meet basic human needs? How could it influence cultural expression, community relationships, effective government, safety and personal security needs, and neighborhood and stakeholder commitment and stewardship? Are there potential inequities for specific groups of people, and how are those addressed? Have all voices been heard?

Environmental Health

How could a proposal or action affect environmental health and our ability to effectively address climate uncertainties? Does it prevent pollution? What are the possible impacts for air, soil and water? How might it affect how our community looks?

Economic Prosperity

How would an action or proposal affect the local economy and what are its costs to the community, now and over the long term? How does the proposal or action support responsible stewardship of public resources?

Eugene Oregon enjoys a long history of innovation, vision, and commitment to sustainability. As a result of our business practices and diverse service and policy initiatives, Eugene has been named the #1 Green City in the United States by National Geographic’s Green Guide for its accomplishments in the areas of renewable energy, livability and public green space. Like other communities, the city of Eugene faces significant and complex challenges and is increasingly using a “triple bottom line” framework in examining policies, practices and services.

Submitted by Keli Osborn, Division Manager, City Manager’s Office



As a small city of 715, the green efforts in Echo are simpler than those of Oregon’s larger cities.

“We have not developed a plan,” said City Administrator Diane Berry. “It’s more down-to-earth, simple efforts to wisely use resources.”

In the absence of a plan, the list of ongoing sustainability efforts in this small city is impressive.

Using Land Wisely

According to Berry, one thing that makes Echo “very green” is land use planning, dating from the late 1970s.

At that time, two large areas zoned as Permanent Open Space (POS), which limits development, were set aside to create greenbelts. One greenbelt is the 100-year flood plain, which is made up of native riparian areas and pastures. The other is located between two irrigation canals. This area leaves the native sagebrush steppe protected except for seeps with riparian areas in canyon bottoms. Between these greenbelts, nearly one-half of the incorporated limits of Echo remain “green.”

Echo has been Oregon’s smallest Tree City USA since 1989. Hundreds of trees have been planted within the community, and the city has developed an arboretum and planted trees on the golf course.

Recycling

Echo has supported recycling for years. The city has recycling bins for glass, tin, aluminum, newspaper and cardboard that are available for use by residents 24 hours a day and are located behind the post office for easy access. In addition, city newsletters provide information on composting.

Echo Council President Jeanne Hampton, a fifth-grade teacher, has been a recycling advocate for years. Her students haul recyclables to the bins behind the post office in a little green wagon, and the funds they earn are used for various projects around town or at school. In 2006 they received a Waste Reduction Awareness Program Rising Star Award.



Environmental Effort in a Small City

Street Projects

The city does not have any storm water systems, but does have a plan for handling stormwater in all new developments in tree rows or swales. On Thielsen Street, the stormwater was handled by installing a raised curb with cuts that allow water to drain across the sidewalk to the tree row. On Gerone Street the water is collected and piped to a retention pond. Instead of covering the 7,000-square-foot retention pond with grass, the city left the bottom open and created a “rain garden” with bulbs, perennials and shrubs.

Light Bulbs/HVAC

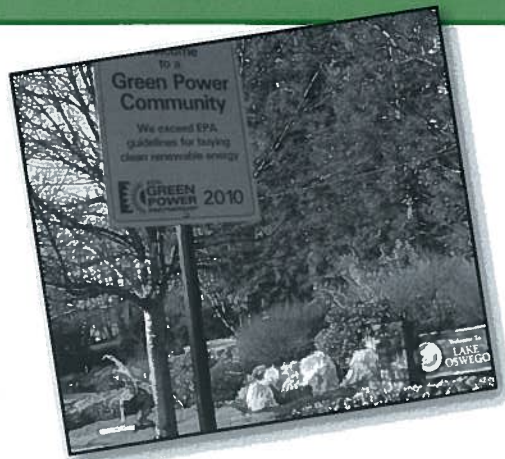
Light fixtures in city hall and other city-owned buildings now have spiral fluorescent bulbs, which not only save on electricity, but also last much longer than incandescent bulbs, saving money on bulb purchases and labor to replace bulbs. Even the decorative street lights have spiral fluorescent bulbs. The HVAC system is set to 78 degrees after city hall and the library close at night and on weekends, and under 65 in the winter.

Drip Irrigation/Xeriscape


Trees throughout the city receive drip irrigation, which insures more efficient irrigation and less water waste. Drip systems along the golf course and Smith Drive use battery operated controllers. Plantings are limited and use of rocks and boulders abounds. In many of the new “gardens” no plants are used, but Xeriscapes, using pieces of farm equipment, river rock and boulders, make the areas attractive.



Editor’s Note: This article was adapted from the city’s entry for the America in Bloom Program for Environmental Effort. Echo has participated in the AIB program since 2006 and won its population category in 2009.



LAKE OSWEGO Community Sustainability Outreach

 Outreach and education are key components of moving a community toward sustainability. Led by the Sustainability Advisory Board, a citizen advisory body appointed by the city council, Lake Oswego conducted an outreach program highlighting the link between water consumption and energy use, providing resources for citizens to reduce their climate impact through energy and water conservation and purchase of renewable energy. The program included two major campaigns: Sustainability Action Month and the Green Power Community Challenge.

During May 2009, the city's first annual Sustainability Action Month, 21 community education events were held throughout the community, drawing more than 500 people. At the events, attendees were encouraged to sign up for free home energy reviews and water conservation audits, taking the first step toward understanding their energy and water consumption and identifying changes to increase efficiency.


Following Sustainability Action Month, the city conducted an EPA Green Power Community Challenge. Kicked off with a mayoral proclamation, the goal of the two-month-long challenge was to increase the number of renewable energy customers in the community by 300. Working with Portland General Electric (PGE), the Challenge was promoted through the city's monthly newsletter, local press and web site, with outreach conducted door-to-door and at the farmers market. Lake Oswego citizens responded favorably to the challenge, resulting in 356 new sign-ups for renewable power, and an increase in the community's collective green power participation rate to more than nine percent, representing almost 35 million kWh of renewable power over a year.

Understanding the connection between water treatment and delivery and energy, the city has made energy efficiency retrofits at the Water Treatment Plant (WTP) and has purchased renewable power for the WTP since 2005. Prior to starting the Green Power Challenge, Lake Oswego was recognized by the EPA as a Green Power Partner for the purchase of 195,534 kWh per month of renewable power, about one-half the average annual electricity used at the WTP. In 2008, the results of a greenhouse gas emissions inventory for city operations showed that the electricity used at the WTP accounted for more than half of the electricity used by the city to provide services for Lake Oswego residents. A clear next step was to educate Lake Oswego citizens about the connection between water and energy use and provide them with resources and opportunities to reduce energy and water consumption and increase the percentage of energy used to renewable energy.

The city's program helped to develop a greater understanding among community members about the interrelated aspects of resource consumption and how conservation of resources can help meet multiple objectives and reduce overall emissions. By educating Lake Oswego citizens and providing them with tools and resources to make changes in their water and energy consumption and how they purchase power, this program has helped to build a constituency for working toward a more sustainable community, improving overall quality of life. Additionally, through water and energy conservation measures, community members are seeing a direct economic return.

Submitted by Susan Millhauser, Sustainability Coordinator

UNION Keeping the Golf Course Green

 "When they give you lemons, you make lemonade!"

That's the approach this city used in transforming an unsightly garbage/transfer site into the beautiful Buffalo Peak Golf Course, a unique 18-hole link style course, solving an important challenge to environmental protection.

In the early 1990s, the city was told by the Oregon Department of Environmental Quality that its license to discharge into Catherine Creek would not be renewed. The wastewater effluent contained an overabundance of nutrients harmful to fish and crops, especially in the summer when flow was low and water temperature was high. Engineering studies determined that land application of wastewater effluent would be the most effective alternative to discharging into the stream. The citizens overwhelmingly approved revenue bonds for wastewater improvements and application of effluent to a golf course.

Union is cradled by the mountains at the south end of the Grande Ronde Valley in Eastern Oregon. The golf course begins on the north slope, curving around to the south and then traversing down to the valley floor. The upper holes traverse foothills and ravines, while lower holes encounter water features functioning as irrigation storage. The course provides stunning vistas of the Grande Ronde Valley from the slopes of Buffalo Peak, which provides its name.



Watering of the course combines effluent, Catherine Creek water and well water from Union's municipal system. Catherine Creek and a city supplement, as needed, provide the irrigation for the freshwater side. The southwest end of the course is irrigated with effluent from the five-million-gallon reservoir/pond feature resplendent with an attractive water spray. About one-third of the water needed for the course in an average year comes from effluent and it covers about 75 acres.

Union's "green" solution to recycle wastewater and disposing of it onto a golf course has been an environmentally-friendly, attractive alternative, while creating an economic asset to the community. At the course, a full-time equivalent of seven positions was achieved, as well as swelling up during the summer season. The local hotel, service businesses and restaurants have felt the ripple effect of the course. Players from across the U.S. and some foreign nations have golfed here and the city sees regular visitors from throughout the Northwest.

Union County was an extremely helpful partner in development of the plan and now owns and manages the course. Other partners, via grants, loans, work equipment and labor, were U.S. Rural Development, federal and state economic development departments, the U.S. Forest Service, the Northeast Oregon Alliance, the Northwest Oregon Economic Development District and engineers from Anderson Perry & Associates, whose combined enthusiasm was "catching" and needed many volunteers to the finishing stages.





HILLSBORO Planning for a Sustainable Hometown Future

As the fifth-largest city in Oregon, Hillsboro city leaders have made sustainability a top priority, recognizing that preserving hometown livability depends on economic, social and environmental health. In its first 10 years, the successful Hillsboro 2020 Vision Plan has seen implementation of more than 80 percent of its nearly 150 actions, including development of a new civic center and Tom Hughes Plaza community gathering place in 2005, at the time just the second LEED Gold certified municipal building in the U.S. In addition, Hillsboro's newly-adopted Strategic Plan supports this imperative with the following sustainability goal: "assess city operations to identify issues and opportunities and implement enhanced sustainable practices" as well as "track community sustainability efforts and support expansion of sustainable practices."

Early Commitment

Since 1996, several actions by the city have underscored its historical commitment to reducing costs, wastes and resources, including: reducing energy use through installation of high efficiency LED traffic signal bulbs in 1996; procurement of a substantial alternative fuel vehicle fleet in 2000; development of a water reuse facility for our parks maintenance operations in 2006; a commitment to reducing greenhouse gas emissions as a signatory to the U.S. Conference of Mayors Climate Protection Agreement in 2007; and deployment of a 99 kW solar array in 2008.

Planning for Sustainability

City leaders have recognized the need for a formal sustainability program that establishes a baseline of operations, defines long-term goals and establishes a strong cross-departmental sustainability planning effort to ensure coordination of efforts among the various city functions and stakeholders. This led to the hiring of the city's first sustainability project manager in 2008.

A first step in this planning process was to collect data to establish baselines of key operational areas. Also, a Sustainability Steering Committee comprised of city and departmental leadership was established to oversee the development of sustainability principles, goals and focus areas.

The steering committee identified four initial focus areas: policy, construction and maintenance practices, purchasing and energy. Nearly 50 city staff were convened in working groups to refine the sustainability goals and to develop projects to move the city toward those goals.

In fall of 2010, a draft Sustainability Plan containing all of these elements as well as methods to measure progress will be presented to the Hillsboro City Council. The plan will provide the guiding framework for implementation of sustainability across the city departments into the future.

Continuing to Implement:

At the same time, the city continues to move forward on critical sustainability projects and programs, including:

- February 2010 completion of its first local government operations greenhouse gas inventory, providing an important baseline for emissions reducing actions;
- Development of a Climate Action Plan;
- Green building program – continuing to incorporate sustainability into every new building the city develops in order to reduce energy use, exposure to toxic materials, and overall resource use and environmental impacts:
 - o Main library incorporates many of the LEED standards in its design and construction;
 - o Inter-modal Transit Facility (ITF), adjacent to the light rail line in downtown Hillsboro constructed with locally and regionally sourced materials, has recycled 97.5 percent of all construction waste to date, will include a roof-mounted solar array to produce nearly all of the daytime energy needs of the facility, and will include a secured bicycle parking facility with shower rooms and changing areas; and

(continued on next page)

OREGON CITY Sustainable City Hall Building



The city has received notification that its City Hall has been awarded LEED® Silver certification established by the U.S. Green Building Council and verified by the Green Building Certification Institute (GBCI). LEED is the nation's preeminent program for the design, construction and operation of high performance green buildings. Oregon City purchased and renovated the former McLean Clinic building, and dedicated it as its new City Hall in December 2009.

"As Oregon City's first city-owned building to earn this coveted 'green' designation, our city hall now serves as an example of energy efficient construction and is certainly healthier for our employees," said Oregon City Mayor Alice Norris. "It is cost-effective and enables us to serve our citizens more efficiently."

The City Hall project achieved LEED certification for energy use, lighting, water and material use as well as incorporating a variety of other sustainable strategies. By using less energy and water, LEED certified buildings save money for families, businesses and taxpayers; reduce greenhouse gas emission; and contribute to a healthier environment for residents, workers and the larger community.

LEED certification highlights for the project include:

- 25 percent lighting power reduction, purchasing "green" power;
- Bicycle parking, showers and changing rooms;
- 20 percent recycled content on new construction materials;
- Diverting 75 percent of construction waste from the landfill;
- 75 percent occupants access to natural light;
- Low VOC paints and adhesives in construction;
- Implementing a building maintenance program utilizing "green" cleaning standards and supplies;
- Non-smoking policy on entire city hall property;
- Preferred parking for hybrid/carpool drivers; and
- Low impact design parking lot, including bio-swales to reduce run-off and impact in storm sewer system.

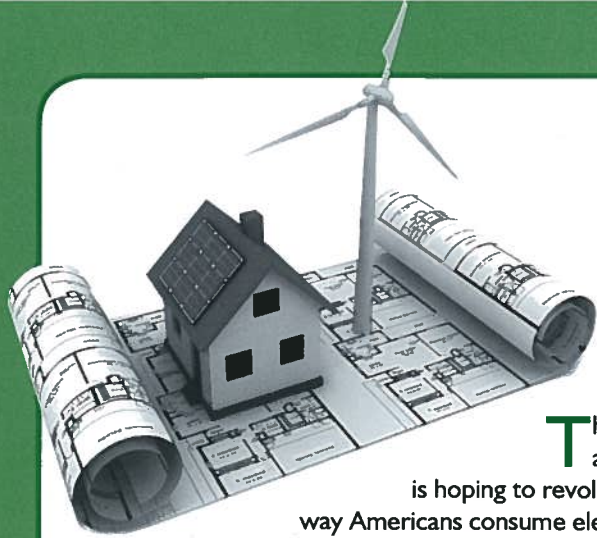
Submitted by: Teri Bankhead, assistant to the city manager

HILLSBORO (continued)

- o Two new fire stations have been designed to achieve LEED certification. When completed, will use 30 percent less water and 25 percent less energy than conventional buildings, and solar panels will generate as much as 18 percent of each station's energy needs.
- Recognition as an EPA Green Power Community;
- In partnership with its local utility, PGE, the city recently completed its Green Power Challenge to increase the

purchase of renewable power. This more than doubled goal with 731 new sign-ups, including 51 new businesses; and

- February 2010 recognition by the Columbia-Willamette Clean Cities Coalition with the Government Fleet of 2009 Award for a commitment to alternative fuel vehicles. The city has installed three electric vehicle charging stations in our downtown area, including the state's first Level II station, and will install 13 additional units in the new ITF building.



THE SMART GRID

Coming to a City Near You

By Chris Fick, LOC Research Analyst

The Obama administration is hoping to revolutionize the way Americans consume electricity and thousands of residents throughout Oregon are going to be at the forefront of this ambitious plan.

Last October, the U.S. Department of Energy announced that nearly \$30 million from the American Recovery and Reinvestment Act, also known as the stimulus bill, would be awarded to two Oregon utilities implementing smart grid technology: Central Lincoln People's Utility District, which provides electricity to residents of Depoe Bay, Newport, Waldport, Reedsport and Florence; and PNGC Power, a Portland-based electric generation and transmission cooperative. The grant will leverage close to \$30 million in additional private funding from both utilities.

The idea of the smart grid is to make the nation's largely outdated electrical grid "greener," producing both environmental benefits and consumer savings. Cities will be at the forefront of this revolution, and Oregon's cities could be particularly well suited to benefit. Below is a primer on the smart grid: why it's needed, what it is, why Oregon cities could benefit and what local leaders need to know to determine whether to embrace this emerging technology.

Why It's Needed

A Department of Energy report noted that if Thomas Edison, one of the inventors of the electrical grid, and Alexander Graham Bell, inventor of the telephone, were brought back to life over 75 years after their respective deaths, Bell would not recognize the revolution that's taken place in communications technology. Today, smart phones, satellite communications, cell towers and text messaging far surpass his initial invention. Thomas Edison, on the other hand, would largely be comfortable with the electrical grid's current status, since relatively little has changed in the way electricity is produced, delivered and consumed.

And that's unfortunate.

According to the Department of Energy, electrical outages throughout the country are estimated to cost the U.S. an average of \$150 billion annually in lost economic productivity, or \$500 per American. These costs could increase

as our economy grows more reliant on digital technology, which relies on steady and reliable electricity. During the 1990s, 10 percent of electricity was consumed by digital technology like laptop computers; by 2015, experts say, that figure will reach 60 percent.

Amazingly, many utilities have little to no information about outages, and rely on consumers calling them to inform them of any disruptions.

That's because today's electrical grid does not employ many of the now-affordable information technology systems that would enable utilities to quickly pinpoint and respond to outages, better assess demand and implement dynamic pricing, which could empower consumers of electricity to buy and reduce the need for additional generation sources.

But things may be changing. The \$30 million Oregon utilities received is just a fraction of the \$3.4 billion the Obama administration handed out to move our grid from antiquated to smart. Experts hope that this seed money will result in consumer demand for the smart grid's many components.

Defining the Smart Grid

The smart grid is not a single technology, but rather many technologies working together to produce an electrical delivery system that employs digital tools to inform producers and consumers about usage, while also increasing reliability, efficiency and competition.

For most consumers, the primary point of interaction with the smart grid will be the smart meter, which will provide consumers with updated information about electricity usage and costs, enabling them to modify behaviors and/or program other smart appliances according to electricity prices. These meters would likely tie into a business or household's Internet connection, and provide consumers and utility companies with detailed information on usage.

Smart appliances, like water heaters or dishwashers, would then be synced to run only when electricity prices are below a certain point. Consumers, for example, would load their dishwasher in the evening, but the machine would be programmed to function after prices have fallen below a certain point.

Updated transmission lines are another key component of the smart grid. State-of-the-art transmission lines could reduce electricity lost during transmission and enable electricity to be rerouted around troubled spots to eliminate outages. Advanced metering would provide utilities with real-time data about demand. Electrical storage systems, probably the least developed element of the smart grid, would enable utilities to bring additional stored electricity online during peak periods. Normally, bringing peak generators online is a costly endeavor for utility companies, and one that is passed on to consumers. Storage systems would also enable utilities to better use renewable sources of energy, such as wind and solar, which are not always producing electricity when it is needed most.

The plug-in hybrid electric vehicles coming onto the market would be a critical component of the smart grid. Not only would consumers want to charge their vehicles when prices are low, but the batteries of these vehicles could also function as electric storage devices for utilities. Some experts describe these vehicles as the "killer app," which could push the smart grid into the mainstream, similar to the way e-mail helped launch the spread of the Internet.

The Oregon Advantage

Oregon has four advantages when looking at smart grid deployment: hydropower, wind power, existing transmission lines and an amenable public.

More than two-thirds of electricity consumed in Oregon is produced by hydropower, which, compared to other sources, is able to cheaply store generation capabilities (water) until a time when demand is high. The state also has a rapidly growing renewable energy sector, particularly in wind generation. Conveniently, much of this wind generation is located near hydropower facilities, negating the need for additional (and often costly and contentious) transmission corridors to population centers.

Lastly, Oregonians will likely be open to the smart grid. They are environmentally mindful (the state has the fourth highest rate of hybrid vehicle registrations) and wired to the Internet (eighth highest rate of Internet access), a critical component of the smart grid.

Local Leadership

While the full adoption of the smart grid could cost as much as \$2 trillion, local leaders are in a position to hasten its adoption and ensure their city residents truly benefit.

In Oregon, 12 cities own and operate their own utilities. These cities should encourage their utilities to invest in smart meters, monitoring devices and smart appliances, and experiment with dynamic pricing.

Oregon is also home to 19 cooperatives and six people's utility districts. In total, more than a quarter of the state's electricity is distributed by not-for-profit, locally controlled utilities. This may make cooperation on smart grid technology easier for local officials, and open the door to

additional federal funding opportunities.

Oregon cities should consider partnering with their local utilities to pilot demonstration projects in municipal buildings or with neighborhoods and businesses. For many businesses, the information provided by the smart grid, such as usage data and dynamic pricing, plus the grid's ability to ensure electricity, could be a major enticement

for adoption, relocation or expansion considerations.

Throughout any negotiations, however, local leaders should make sure that consumers will be in a position to save money. They should demand that any utility savings be shared with consumers, that surcharges or rate increases be prohibited until after utility costs have been incurred, and that consumers have access to electricity prices and household usage data if dynamic pricing is implemented.

Since the smart grid does not guarantee all consumers will save money on their electric bills—they must modify their behaviors somewhat—it will also fall on local officials to educate the public, particularly low income and those less tech-savvy, about the new technology.

Yet the promise of the smart grid is considerable. Pacific Northwest National Laboratory estimates that the smart grid would save consumers between \$46 and \$117 billion over the next 20 years.

Realizing the smart grid's potential, however, will require astute leadership and informed citizens. Oregon's local leaders are hopefully up for the challenge.

In Oregon, 12 cities own and operate their own utilities. These cities should encourage their utilities to invest in smart meters, monitoring devices and smart appliances, and experiment with dynamic pricing.



KEEPING GREEN BUILDING from becoming RISKY BUILDING

How can “going green” be risky? Isn’t it always a good idea to save money and build energy-efficient and sustainable structures? Yes, but there are also risks and costs that cities should be aware of. A recent presentation at the National League of Cities RISC Trustees Conference explored this in a session titled “The Risks of Building Green” by Richard Scott of Liberty Building Forensics Group.

Building “green” sure seems like a great idea, and in many respects it is. Saving money on heating or cooling, reducing reliance on fossil fuels, increased comfort of the inhabitants and good global citizenship are all good reasons, among others. But while it is a noble goal it can also be a somewhat risky endeavor. Leadership in Energy and Environmental Design (LEED) certification is seen as the “gold standard” for designing energy efficient buildings, but the simple fact is that LEED doesn’t take into account all of the issues that may occur because of the energy efficiencies.

Much of the technology and methods of building promoted by LEED are new, and many have not received lengthy testing. Many of the very techniques and materials that ensure LEED certification can also lead to severe problems with mold and moisture, especially in damper climates. After all, LEED certification is a national one—and doesn’t take into account the regional weather differences.

Some of the possible unintended consequences or costs of going green have been known to include:

- Building materials selected to achieve LEED status have been known to experience substantial rainwater penetration;
- Tight air controls feed the growth of mold in wall cavities;
- Energy saving products and insulating materials seal so tightly that water leaks are not seen until significant damage has occurred;
- Vegetative roofs have many known claims for water damage, as well as fires from fuel cells and roof-top brush fires;
- Poor indoor air quality—both from mold and water damage but also from fertilizer and pollen from vegetative building surfaces;

- The higher cost of building materials can lead to associated higher cost of property insurance premiums;
- An LEED certified building that is damaged must go through the entire process again to be re-certified, including engineering and consulting costs as well as permit and application fees; and
- Recycling debris is required for LEED certification but is often more costly than a landfill.

To avoid wasting money and to keep some of these issues from occurring, experts recommend focusing on some fairly straightforward steps early in the planning process.

Select a design and build team that is willing to incorporate other best practices—waterproofing, humidity control, moisture and mold avoidance—along with the LEED certification standards. Work with them to develop a green risk management plan that might include the following:

- Project green goals—definable and measurable for all stakeholders, including evaluation of success
- Roles, responsibilities and liabilities
- Any unique contract, legal or insurance issues
- Response plan to potential problems
- Warranties, guarantees, standards

More information: As always, contact your CIS Risk Management Consultant for specific questions, but here are some additional resources:

- www.libertybuilding.com
- www.greenbuildinglawupdate.com
- www.enr.com
- www.usgbc.com
- www.greenglobes.com
- www.thegbi.com

Efficiency and Solar Drive Savings and Sustainability

Across Oregon, cities large and small are investing in efficiency and solar power to trim operating costs and support sustainability goals. In a time of shrinking resources, it makes more sense than ever. Energy efficiency improvements reduce operating expenses immediately and many pay for themselves in five years or less. Investments in efficiency and renewable energy systems like solar water heating and solar electric also help reduce greenhouse gas emissions and support local jobs.

Since 2002, Energy Trust of Oregon has provided cash incentives and technical assistance to help cities invest in energy efficiency and renewable energy projects in new and existing facilities. Resources from the American Recovery and Reinvestment Act, plus grants from other sources, are supporting new projects as well.

Coos Bay

After its energy-efficient new Visitor Information Center opens this summer, the city of Coos Bay expects to save over \$7,705 a year in energy costs. The 3,600-square-foot facility is equipped with high-efficiency lighting, plus a 15.6 kilowatt solar electric system that covers the south side of the roof. Energy Trust incentives estimated at \$4,358 will help offset the cost of the efficient equipment. The solar system received a \$26,953 incentive. Pacific Power contributed a \$47,429 grant to support the solar system and a solar display in the center’s lobby.

In June, the Coos Bay fire department moved into a new fire station and has applied for Leadership in Energy and Environmental Design (LEED) certification. The 20,200 square-foot facility includes a wide range of energy-efficient features, a solar water heating system and an electric vehicle charging station. Although the facility is more than twice as large as the old fire station, utility costs are expected to remain the same. Energy Trust incentives estimated at \$4,570 helped make the energy-efficient features and solar hot water heating system pencil out.

Hillsboro

Supporting environmentally friendly construction—including energy efficiency and renewable energy—is one of the priorities of the Hillsboro 2020 Vision and Action Plan. Since the plan was adopted in 2000, the city has completed 10 projects incorporating efficiency and solar energy, earning Energy Trust incentives totaling \$501,760.

The civic center, which earned LEED gold certification, features high-efficiency HVAC and lighting systems, high-performance exterior glass and a 3,300-watt solar electric system. The solar system was funded with help from a \$6,300 Energy Trust incentive and grants from Portland General Electric and Bonneville Environmental Foundation. The facility recently earned an ENERGY STAR® rating.

Hillsboro is currently building and upgrading several fire stations, and all incorporate energy-efficient features such as high-efficiency HVAC systems. The projects also include measurement and verification and enhanced commissioning to ensure that energy savings are realized and maintained. A new parking structure, due to be completed in December of 2010, has been designed to use 80 percent less electricity than a typical structure designed to meet current lighting code. In addition, Hillsboro plans to use Energy Efficiency and Community Block Grants (EECBG) from the U.S. Department of Energy to fund a range of projects, including solar arrays on city buildings.

Salem

Since 2004, Energy Trust has provided \$171,978 in incentives to help the city of Salem invest in energy-efficiency improvements in new and existing facilities, including a senior center, fire stations and mixed-use projects. With support from EECBG funds, the city has started or is planning a range of new energy-efficiency projects and is exploring others.

Resources for cities

Besides providing cash incentives, Energy Trust offers technical assistance to help cities identify cost-effective energy-efficiency and renewable energy projects. From offices to fire stations, water and wastewater treatment facilities to aquatic centers, cities are investing in energy projects in their communities. Funds are also available to cover a portion of the cost of applying for federal, state or other grants to study or develop renewable energy projects.

For more information about Energy Trust resources for cities, call Edgar Wales at (503) 445-2954 or e-mail edgar.wales@energytrust.org.

Building Codes Division Works to 'Mainstream Green'

Through its Green Buildings team, the Oregon Building Codes Division (BCD) is striving to make "green" building practices business as usual across the state. This big picture goal is driven by national and state policies aimed at reducing carbon emissions and moving toward energy independence. Reducing energy consumption by increasing energy efficiency is integral to achieving these objectives, and Oregon continues to be a leader on this front with an aggressive pursuit of innovative and progressive energy policies.

Championed by Governor Ted Kulongoski, the Legislature in 2009 passed Senate Bill 79, which established an ambitious path to continually increase the energy efficiency of buildings. SB 79 directed BCD to implement the following policy objectives:

- 15-25 percent increase in the energy efficiency of commercial construction and 10-15 percent increase in the energy efficiency in residential construction by 2012;
- Develop a voluntary Reach Code; and
- Net-zero energy consumption by 2030.

Oregon is well on its way to achieving these legislative objectives. On July 1, the 2010 Oregon Energy Efficiency Specialty Code (OEESC) took effect, which will result in a 15 percent reduction in energy use in new commercial construction two years ahead of schedule. BCD just completed free training on the 2010 OEESC for nearly 500 local building officials, inspectors, contractors, architects and engineers. Development of the 2011 Oregon Residential Specialty Code (ORSC) is also underway, targeting a 10-15 percent reduction in energy use in residential construction.

Additionally, BCD is currently developing the Reach Code, which will be a voluntary code that allows builders to use new construction methods and technologies to achieve greater energy efficiency than provided by the state's mandatory codes. The code will be based on the International Green Construction Code (IGCC). With the Reach Code, Oregon will be one of the first states in the nation to take the approach of implementing and incentivizing a comprehensive "green" building code. BCD is working toward an April 1, 2011 effective date for the Reach Code.

Beyond the policy directives from SB 79, BCD's "Green Team" is pursuing a number of other green initiatives, including the development of the nation's first statewide solar

code to standardize installation and simplify the permitting process for photovoltaic systems. It is anticipated that the new solar code will go into effect on October 1 of this year.

BCD is also taking steps to promote efficient water use. The division is participating in the Oregon Department of Environmental Quality's (DEQ) efforts to develop rules for gray water outdoor irrigation use. In addition, BCD has a statewide alternative method (SAM) to the state plumbing code using gray water for flushing toilets. The SAM allows manufactured, "off-the-shelf" gray water (gray water is waste water from washing machines, showers, bath tubs and bathroom sinks) systems for flushing toilets to be installed in both residential and commercial structures. There is also a SAM on rainwater harvesting as a way to augment municipal water supplies. Approved by BCD in 2008, the SAM sets out construction standards for rainwater harvesting systems for both potable and non-potable uses in homes and commercial buildings. Consumer guides, called Oregon Smart Guides, are available for both rainwater harvesting and gray water reuse at <http://bcd.oregon.gov/programs/green.html>.

Contact: Andrea Fogue, Legislative & Green Building Services Manager, (503) 378-4150 or andrea.j.fogue@state.or.us



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