

Energy EFFICIENCY

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Have
SAW
Will
Travel

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Richland Celebrates Public Power Week

Richland Energy Services celebrates Public Power week every year. This year Public Power week is October 3-9. Energy Services starts the celebration week by setting up a display of pictures of the employees serving the residents of Richland.

Customers will also enjoy cookies and coffee while paying their utility bill at City Hall. An in-house video will be aired on the local Richland channel showing Richland customers some safe and reliable shots of their "Hometown Utility" employees. RES also celebrates by providing classroom safety

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Energizing the Northwest Symposium a Success

The *Energizing the Northwest Today and Tomorrow* Symposium sponsored by BPA was a success if judged by the number of individuals who attended to learn about energy efficiency and transmission adequacy.



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Inn Incorporates Energy Efficiency into Construction

Tom Denlea, owner of the Best Western Grapevine Inn in Sunnyside, Washington, knows the value of investing in energy efficiency prior to building a facility. Denlea worked with Bruce Etzel of Benton REA and BPA Energy Efficiency engineer Tom Osborn to plan what energy efficient measures to incorporate into the inn design prior to construction. It may cost more upfront but most measures pay



appliance, but most measures pay for themselves in a relatively short period of time.

Those measures include:

- Double glazed, gas filled, energy efficient windows
- Extra insulation in exterior walls
- Fluorescent lighting, both compact lamps and tubes
- Smart thermostats in each guest room
- Motion and infrared sensors to adjust the HVAC system to a more efficient level when guests are not present
- Lightweight concrete layer in the inn's ceiling

Bruce Etzel, Benton REA (left) and Tom Denlea in front of the newly constructed, energy efficient Best Western Grapevine Inn. Inset: smart thermometer.

The inn opened its doors to guests in September.

This energy efficiency project was done under BPA's Conservation and Renewables Discount Program. Benton REA set aside \$27,000 in funding for the project.

-- Bruce Etzel (509) 786-2913



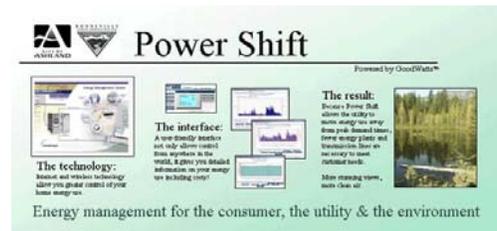
Not Just Shakespeare in Ashland this Summer; The Power Shift

Pilot projects are always interesting, especially when they are not only testing technology but also consumer's willingness to adopt that technology. The pilot project the City of Ashland and BPA have been working on this summer is no exception.

First, a primer for those new to the project . . . BPA and the City of Ashland have partnered to test a new system to reduce power use during peak times. The pilot project in Ashland is among a few pilot projects being tested in 2004 and is chartered by the Non-Wires Solutions initiative. With support from BPA, the City has been installing innovative demand side management equipment in 100 homes and several businesses in the City's service territory. During the 2-year test period, the City will use its existing hybrid fiber-coax broadband network to communicate with this equipment to monitor and, when appropriate, reduce electric demand of selected appliances within customers' homes.

The idea of reducing energy use is not new to the region; however, the idea to use demand reduction to relieve transmission pressure is just beginning to gain widespread acceptance.

Ashland's demographics are ideal for this kind of pilot. BPA approached the City with an idea for a pilot project. Primarily because of the influx of tourists during the summer theater season, Ashland's summer peak for electric consumption



Click on the Power Shift graphic above to view a larger version.

Energy Efficiency at Sea-Tac Airport

Seattle-Tacoma International Airport has been aggressively implementing energy efficiency projects to lower the overall cost of operating the airport. Projects implemented since 2001 now save the airport about \$1.8 million per year in operating

[*Click here for more .*](#)

was growing faster than the winter peak. Could BPA use the City's cable network to communicate with appliances in consumers' homes to reduce peaks in the summer? The City agreed, and the Power Shift began.

The City of Ashland electric utility department has 10,000 electric customers, of which 9,000 are residential. The City is home to 5,000 university students 9 months a year. It is also home to thousands of theatergoers throughout the year. Three theaters sell approximately 350,000 tickets a year. The City also installed a hybrid fiber-coax cable network, Ashland Fiber Network (AFN) and now has 3,100 cable television

[Click here for more . . .](#)

Distribution System Efficiency Improvements

Distribution System Efficiency improvements are approved utility system conservation measures under the C&RD program. DSEI measures are applied to high voltage equipment and include the following measures: reconductoring power lines, transformer replacements, system voltage upgrades, phase and load balancing, conservation voltage reduction and de-energizing seasonally unloaded transformers.

[Click here for more . . .](#)



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News from Around the Region

Richland Public Power Week, continued from front page

demonstrations and giving out pencils and other useful items to the community.

The Energy Services employees are proud to recognize Public Power week to honor public power and those responsible for making public power communities.

-- Dawn Senger

Right: Richland Energy Services crew foreman Rick Jaime and journeyman lineman Brett Buckner set a new pole.



Distribution System, continued from front page

DSEI conservation measures contributed significant energy savings during the electricity crisis of 2001.

DSEI measures are some of the few energy conservation measures that help utilities reduce loads, and yet not result in revenue losses. Two online calculators, Transformer De-energizing and Utility System Transformer Upgrades, provide downloadable spreadsheets used to calculate savings and credits on the C&RD Reporting Software:
<http://www.rtf.nwppc.org/>.

Last spring, Nelly Leap, Energy Efficiency



Above: EE Electrical Engineer Nelly

Electrical Engineer, trained on high and medium voltage equipment including power transformers, autotransformers; current transformers, potential transformers, voltage regulators, and load-tap changers. Leap received hands-on experience on transformer magnetization (hysteresis loops), eddy current losses and testing transformer insulation.

-- Nelly Leap (503) 230-5761

Symposium, continued from front page

Comments from symposium attendees - Sept 28-29, 2004

"This is a great event," claimed **Diane Ferington from the Energy Trust of Oregon** as she left the Energy Efficiency Programs and Policy session, which she called "engaging."

Jim Kempton, Idaho Representative on the Northwest Power and Conservation Council said, "This is an excellent program. We released the Power Plan last Friday and this event is a good transition."

Charles Leighter, Lane Electric Coop, Inc. Director noted, "The accommodations and food are great! So many speakers are good, they could each use more time."

Kevin Howerton, Senior Key Accounts Rep from Grays Harbor PUD, won the drawing for LED holiday lights and an umbrella then noted, "This is the first time I ever won a prize that I can actually use!"

Graham Parker, Senior Research Engineer from the Pacific Northwest National Lab, smiled as he observed, "I really like the diversity -- topics range from generation to transmission to energy efficiency. And, the best people in their fields are here as speakers. They are nationally-known experts."

Tim Stout, Director for National Grid USA, commented, "I was impressed with

Leap and high voltage equipment at Ross complex. Below: Darryl Fujita, Transmission Business Line Power System Electrician and stand-alone current transformer with a transfer ratio of 2,000 to 5 amps for instrumentation and switching operations.



Sea-Tac, continued from front page

expense. Those cost savings helps keep down the price of airline ticket prices. The airport is also realizing many other benefits in addition to cost savings.

After September 11, airport passenger security system requirements changed dramatically, requiring the installation of many large baggage scanning security machines at the airport. The existing electrical infrastructure could not handle the large increase in load in the main passenger terminal building. Transformers and other electrical systems infrastructure ran at maximum peak around the clock prior to installing this new equipment. Fans were used on the equipment to keep it cool. The electrical system also did not allow for any new loads in the main passenger terminal building. But federal mandates required the installation of almost 30 of the new baggage-screening machines.

New Technology

Ashland, continued from front page

and 3,400 cable modem customers. The City competes with Charter, a local cable company and the local telephone utility for high-speed data connections. The City has been a BPA full-requirements customer since 1981. As a utility, Ashland has always been aggressive and successful at achieving energy efficiency goals, including adding renewables to their power mix. Ashland has installed 30 Kws of solar energy.

With a goal of 100 consumers and three to five commercial businesses for the test, everyone got busy! Working together, BPA and the City chose Invensys' GoodWattstm technology. The technology communicates both wirelessly and through a broadband connection. A wireless communication box, called a gateway, is connected to the Internet via a cable modem. The gateway communicates wirelessly to the homeowner's whole-house meter, thermostat and a control module connected to the electric hot water heater. The homeowner can view, schedule and directly control their thermostat from the Internet. They can view their whole-house meter and the consumption of their electric hot water heater.

Once a homeowner has the equipment in their house they love it, but how does a utility get through the front door? A homeowner can have many objections to participating in a pilot like this one. Some of the more strong objections are the

Do you have an article on new technology, or would you like for the EE Newsletter team to write an article about a particiular technology?

Send your ideas to [Newsletter](#), or call (503) 230-5861



Don't run out and buy a bottle, but . . .

Researchers at the University of Toledo, Ohio, researchers have discovered a unique use for red wine.

Red wine has an electrical charge of its own, and can be used to counteract "bad spots" on solar panels and increase the energy efficiency of the panel. For more information, click [here](#).

information learned by talking to the consumers was key in developing a direct mail piece. Consumers were aware of the project, had heard about it two or three times, but often had questions or just hadn't been motivated to participate in the pilot.

Ashland is a community that has been very successful in energy conservation. Their consumers are very environmentally aware, and that was the element that appealed to people who has signed up for the pilot so

more strong objections are the hassle factor. It takes between two and two and a half hours to install the equipment. Then, there is learning how to navigate the interface with the system. And, in a day of privacy protection the notion of "big brother" is another obstacle to overcome with consumers. To compensate for some of these objections, the City offered a \$100 annual rebate on consumers' electric bills if they participated in the pilot.

In Ashland, the first marketing step was a press release. BPA VP of Energy Efficiency, Mike Weedall, was in Ashland and was interviewed by the local media. The resulting front-page story netted 25 signups in the first 2 days. The team was encouraged and believed recruiting customers to sign up would continue to be easy. That was not, however, the case. The city placed some ads in the local paper letting consumers know about the pilot, with no results. A follow up article in the local newspaper did not bring in customers like the first one did. Even with TV coverage of the commercial projects, signups continued to be stalled.

The City ran an article about the pilot in the newsletter that accompanies all 10,000 utility bills. This encouraged only a handful of people to sign-up. A few weeks later the City used the fourth in a series of full-page ads called "meet our business" to spotlight the pilot.

To gain better understanding of the citizens and with hopes of signing up some new customers, BPA and City personnel attended the local growers market. A few people signed up at the growers market, but the

people who has signed up for the pilot so far. They knew that if enough consumers participated and demand could be shifted away from the peaks, new transmission could be delayed or avoided. They were also proud to be testing this idea for the region. It was a small and important contribution to the big picture.

The direct mail piece captured these ideas and was sent to 2,000 of the 3,100 cable subscribers. Being an AFN customer was a requirement for participating in this pilot. This letter hit its mark. Over the next 72 hours, nearly 50 customers signed up, and more have continued to sign up. The letter prompted over 100 people to volunteer for the pilot.

While the direct mail piece was the most successful action in the marketing efforts, the previous attempt truly paved the way. Because consumers were familiar with the program and had some understanding of how it worked, the personal letter from the utility manager was the motivation they needed to act.

Over the next 2 years, BPA and the City of Ashland will continue to learn about the benefits of the program for the consumer, utility and region. The goal is to learn how often consumers override the curtailment, do they find value in being able to control their energy use via the Internet, what kind of effect does the utility see from curtailed houses, and can this technology be applied to other parts of the Northwest as an alternative to building transmission?

-- Dick Wanderscheid (541) 488-6002

-- Jenny Roehm (BPA) (503) 230-7319

People

Make Mine Scrambled



Labor Day at Dad's: Energy Efficiency employee Terry Oliver visited his father over the Labor Day weekend. "One of my Dad's chickens has decided that his bed is the place for laying eggs. When it's egg time, she's very insistent, and will find any means into the house – front door, back door, garage or window. She makes her way down the hall to his bedroom, flies onto the bed and nestles down."

Conservation Specialist/Softball Team Manager

Pat Didion (back row, left, in photo below) is the Conservation Building Specialist at the City of Milton-Freewater (Oregon), but he's also a top-notch manager of the Milton-Freewater Junior Little League softball team on which his daughter, Kelsie, plays shortstop.

The team won the District 3 tournament and the Oregon state

championship for 13- to 14-year olds in July, and went on to the Western Region Division 1 girls fast pitch playoffs in Billings, Montana, where they finished in third place.

The girls played 53 games against teams from all over the Northwest and finished the season 33-20.

"We're a pretty small town compared to cities we played against in both the state and divisional playoffs," Didion said, "and these girls never reached a point where they were overmatched. We were in every game we played. The smallest town we played was Lewiston, Idaho, which is about six times as large as the City of Milton-Freewater. This is one heck of a group of young ladies "





#1
 ~THE BEST TEAM IN OREGON~
 2004 DISTRICT 3 CHAMPIONS
 2004 OREGON STATE CHAMPIONS
 2004 3RD PLACE DIVISIONALS
 Bob Christian
 Kimberly Brown #32
 Amanda Arnsen #22
 Megan Kessler #30
 At Didion
 BARRY WEIS
 Bobbi #15
 Sam's #15
 Jordan Baker #14
 X SISIE #15
 Kathryn Jones #4
 elise flores #12
 Chelsea #16

of young ladies.

Didion has coached the girls' team for four years, and has coached other teams in softball, baseball, and soccer, over the past 20 years.

A Very Personal Triathlon



BPA Energy Efficiency Representative Rosalie Nourse swims, bikes, and runs her way to the finish line of a triathlon designed just for her.

Parents like to spur their children on to greater achievements, but that can also go the other way. Rosalie Nourse, Energy Efficiency Representative, Spokane, Washington, finished her first triathlon this summer, a year after her adult triathlete children convinced her she could do it.

Rosalie said, " When I started training for the quarter-mile swim, I was really worried because I am basically a non-swimmer. Private lessons made all the difference and I became fascinated with making efficient strokes."

Her event has a twist. An injury kept Rosalie from participating in the scheduled triathlon, so her family organized one just for her. Eight friends with a course map drove to various locations, jumped out of their cars and waved homemade signs, cheering her on. Once Rosalie passed by, they jumped into their cars and drove to another location. Rosalie never knew who would pop up next, or when or where. "I just remember that when I wasn't sure I'd make it, there was my buddy, Julie, waving her sign, encouraging me on. My booster club greeted me at the finish line with a jeweled tiara and the largest bouquet of flowers I've ever received."

--Rosalie Nourse/Jean Oates (509) 358-7463

BPA Engineers Tour Colorado Rockies

What do you get when you take two BPA Energy Efficiency engineers on road bikes, add 1,000 other riders, 400 miles, and a dozen mountain passes, some as high as 12,000 feet? Tour de Colorado, more commonly known as the Bicycle Tour of Colorado (BTC). Chris Milan and Jack Callahan cycled through Colorado's majestic Rocky Mountains for six adventure packed days in June, averaging 50 miles a day.

Support vehicles traveled ahead to the night's lodging location, usually high schools in rural Colorado towns. The cyclists rode in, rested, then set up their tents and camping gear on the football fields. Residents of the towns came to visit most evenings, bringing specialty desserts and local talent as entertainment.



Several BPA employees participated in a bicycle tour of the Rocky Mountains this summer. L-R: Doug Wittren, Joe Davis, Jack Callahn, Chris Milan, and George Green.

This was the 10th anniversary of the BTC. There's still plenty of time to sign up for next year and get in on the excitement. And, don't forget to start training.

-- Rosalie Nourse (509) 358-7463

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