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Energy EFFICIENCY



April 2003 Volume 7, Issue 2

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The News

BPA Launches Residential Loan Program

- BPA, in cooperation with First Mutual Bank of Bellevue, Washington, has developed a Residential Loan Program to provide long-term support for residential conservation investments. Targeting windows, heat pumps, and other residential conservation measures, the loan program is implemented through participating electric utilities and vendors they work with who have been qualified through First Mutual Bank's "Vendor Sales Program". Vendors working under this program will offer the loans only in the service territories of participating utilities. BPA and First Mutual Bank have a "Residential Loan Kit", which provides the information utilities need to get the loan program started in their area. Although not online at this time, look for the loan kit on the Energy Efficiency website in the coming weeks at:

http://www.bpa.gov/Energy/N/projects/residential_loan/.

For more information, contact your Energy Efficiency Representative or send an e-mail to: [Loan](#).

PNGC Circuit Rider Program

- Pacific Northwest Generating Cooperative (PNGC) conducted a survey a couple of years ago to determine what their 15 member utilities were doing in terms of conservation and to assess their needs in that area. The primary need identified was for a qualified individual or team to look for energy efficiency opportunities at industrial, commercial, and irrigation facilities in members' service territories.

<http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/CircuitRider2.p>

Skamania Super Good Cents Rebate

- Debbie and Dean Bates were the first Skamania County recipients of Skamania County PUD's Super Good Cents rebate. SGC certified manufactured homes constructed after August 2001 are eligible for the rebate.

<http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/Skamania.pdf>

Milton-Freewater Residents Enjoy a Warm Home

- The residents of the Good Samaritan Home in Milton-Freewater, Oregon, are enjoying a warm home this winter thanks to a weatherization project, some help from the Oregon Office of Energy's Business Energy Tax Credit Program, and the Bonneville Power Administration's Conservation Augmentation (ConAug) program.

<http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/MilFree.htm>

Naselle Youth Center

- The Naselle Youth Center's (Naselle, Washington) electric bills were astronomical. They needed to do something about the excessive costs, and converting to natural gas wasn't an option. This is where Quantum Engineering (Seattle), Pacific County PUD No. 2 (Raymond, Washington), and the Bonneville Power Administration came into the picture.

Complete Story:

<http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/Naselle.htm>

Project Photos:

http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/Images/NAS_a

City of Richland and Conservation Augmentation

- When the Bonneville Power Administration offered regional utilities the opportunity to submit Conservation Augmentation (ConAug) proposals to deliver conservation, the City of Richland looked "in-house" first.

<http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/richlandled.htm>

Alliance Energy Star Partners

- The ENERGY STAR® Home Product Program is funded by the Northwest Energy Efficiency Alliance. The Program has made available two articles that promote the benefits of ENERGY STAR qualified products to utility partners. The articles are general in scope and focus on directing consumers towards

purchasing ENERGY STAR products. The articles are ready for placement in bill stuffers, newsletters or local publications. If you need a different format, please contact Susie Hoar directly at 503-595-4483 or shoar@peci.org.

http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/Short_Article.g
and

<http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/LongArticle.pd>

Also available are the most recent ENERGY STAR Qualified Model Lists for appliances and Utility Purchase Incentive Lists for appliances, electronics and windows.

http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/O_lists.xls

http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/U_Incent.xls

PTCS™ Certification is Good Policy

- BPA has responded strategically in an efficient and market-based approach to duct sealing called PTCS™ certification. This certification ensures someone is trained and certified to install a service or product to a rigorous standard and is authorized to use a brand name to ensure the customer of quality. Watch for an article and case study on PTCS in the July issue of the EE Newsletter.

<http://www.bpa.gov/Energy/N/reports/newsletter/ENewsletter/PTCS.htm>

Micro-Station V8

- By the end of April, BPA's technical staff will have loaded Micro-Station V8 on their systems across the region. This will allow BPA's engineering staff to open almost any electronic attachment of schematic drawings, blue prints., etc., such as AutoCAD files. Previously, in many cases BPA staff had to send files out of the office to be printed. Now staff will be able to open the files immediately.

Meetings and Events

- **April 14-15:** Powering Forward Northwest Energy Conference. Featured Speakers: Kyle E. McSlarrow, U.S. Deputy Secretary of Energy; Stephen Wright, Administrator of Bonneville Power Administration; and Washington & Idaho Federal Legislators.
<http://www.spokanechamber.org/sub.aspx?id=2428>
- **April 23:** "Sustainability and the Bottom Line\$" Conference (Designed to help businesses profit from sustainability), Clackamas Co. Bank Sunset Room, 38935 Proctor Blvd.,

Sandy, Oregon, 1:00 to 8:00 p.m.

- **April 27:** Earth Day at the Portland, Oregon, Zoo
<http://www.bpa.gov/corporate/kc/earthaware/earth%5Fday%5Fexpo.html>
- **May 1:** Powerful Business: Managing Energy in the NW Economy, Renton, Washington
http://www.cityofseattle.net/light/Conserve/cv6_el.htm
- **May 6-8:** Net Energy Homes Conference:
<http://capps.wsu.edu/netenergy/><http://capps.wsu.edu/netenergy/>
- WA State Energy Code & Ventilation Code Workshop, 8:30 AM - 4:30 PM. For location and registration information, call (509) 335-2811.
May 12: Olympia, Washington
May 14: Vancouver, Washington
May 20: Spokane, Washington
June 18: Everett, Washington

Other Links

- Would you like to borrow one of Energy Efficiency's **traveling exhibits**? Go to the website for more information: <http://www.bpa.gov/Energy/N/education/Exhibits/> (Exhibits available to Northwest utilities)
- **Earth Day Tips.** In keeping with the Earth Day 2003 theme, "Water for Life," the Alliance to Save Energy offers consumers ways to save water and cut home energy bills - including the energy needed to bring water to homes and to heat water - and for reducing pollution and increasing electricity reliability during the heat of summer:
http://www.ase.org/media/newsrel/earth_day_2003.htm#tips
- Environmental Protection Agency **Earth Day information**
<http://www.epa.gov/gbwebdev/ged/earthday/info.htm>
- With BPA's help, seniors at Oregon State University designed, installed and are operating a **portable solar-powered water pump system** that provides fresh water for cattle and keeps Soap Creek clean.
<http://enr.oregonstate.edu/~lokito/ECE441/Main.html>

Submit Articles/Photos to the EE Newsletter

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The PNGC Circuit Rider Program

PNGC Power conducted a survey a couple of years ago to determine what their 15 member utilities were doing in terms of conservation and to assess their needs in that area. The primary need identified was for a qualified individual or team to look for energy efficiency opportunities at industrial, commercial, and irrigation facilities in members' service territories.

PNGC members are spread across the region and their needs vary. Some have no industrial load, while others have a lot. According to Eugene Rosolie, PNGC Power's Conservation Administrator, "The challenge was to create an efficient operation that would meet a diverse set of needs. Individually, many of these utilities would have a difficult time finding resources to fund an energy audit program, which was the impetus for developing the Circuit Rider program." Because Allied Utilities had a wide range of knowledge on energy efficiency issues they were retained to perform the audits.

The Circuit Rider program began for PNGC Power members in April 2002, and the first audit was conducted that June. The Circuit Rider and utility staff visit a customer's facility. The Circuit Rider conducts an audit, which is followed with a written report to the customer and PNGC Power, estimating potential savings and recommending which energy efficiency measures to implement. There's some cost sharing among the members, and the arrangement brings fixed hours in a contract to Allied. All of which saves money for PNGC Power members.

The program can be changed to adapt to the needs of the utilities. For example, a number of PNGC Power members are interested in implementing energy efficiency measures on the utility side, and they don't have the resources to determine what the savings are, how to best use the Conservation & Renewables Discount credit, and what measures are possible. A perfect place for the Circuit Rider!

Members who thought they wouldn't need the service have used it after hearing about its success. Changes are made in their service territories that would not have been made absent the Circuit Rider. The Circuit Rider also is able to deal with a number of other energy issues that have surfaced since the program began. PNGC Power is developing a program



Following an audit of the elementary school facility, from the left, Gary Grayson (Circuit Rider with PNGC Power), Max Wall (Maintenance, Mackay Public Schools, customer of Lost River Electric Cooperative, Mackay, Idaho) and Mike Manns (Circuit Rider with PNGC Power) discuss the efficiency value of replacing 1.5 inch diameter T-12 fluorescent lamps with 1 inch diameter T-8's with electronic ballasts. These replacements have short payback periods. (Photo provided by PNGC Power)

using the Circuit Rider to train members on how to do audits and analyses on their own.

Circuit Rider Success Stories

PNGC Power member Douglas Electric Cooperative, Roseburg, Oregon, had a number of complaints about high bills from small commercial customers, primarily churches and schools. The Circuit Rider program gave Douglas access to the expertise to conduct audits and to explain to customers why they have high bills and what solutions are available. Douglas Electric customers have expressed their gratitude and satisfaction with the Circuit Rider service.

In another case, a developer came into the office of Salmon River Electric Cooperative, Challis, Idaho, with plans for a new assisted living center, asking for suggestions on ways to ~~save energy~~. The Circuit Rider looked at the blueprints, made suggestions, and worked with the developers. The construction project is now part of the Northwest Energy Efficiency Alliance's BetterBricks program, an outcome that probably would not have happened without the Circuit Rider program.

Other types of business have received audits including restaurants and large and small manufacturing operations.

Umatilla Electric Cooperative, Hermiston, Oregon, serves a number of large food processors. "We've gone out there and been able to help go through some of their operations," said PNGC Power's Rosolie. "We worked with Potlatch Corp, which grows hybrid poplars on 17,000 acres in the area, and were able to help improve their irrigation system."

Circuit Rider Program to Continue

The Circuit Rider program has been successful on a number of levels:

- Personalized visits to utility customer locations to identify potential energy efficiency and conservation measures;
- Improved customer relations;
- Ability to respond to customer energy efficiency issues; and
- Finding other uses that the program can be put to.

This is a program that has brought value to the members of PNGC Power and their customers.

(From an interview with PNGC Power's Conservation Administrator Eugene Rosolie and Kathi Vanderzanden, Communications and Marketing Manager.)

Contact Eugene Rosalie at 503-288-1234 for more information about the Circuit Rider program.



Who is PNGC Power?

Click the icon to learn more.

PNGC Power, based in Portland, Oregon, is a wholesale electric power cooperative, owned by 15 retail electric cooperative members with service territories in six western states. PNGC Power creates value for its member systems by providing sophisticated power management, technical innovation, and cutting edge customer services and products. PNGC Power is a not-for-profit company.

Allied Utility Network, with offices in Boise, Idaho, and headquartered in Atlanta, Georgia, is a full service consulting, marketing and implementation firm that assists energy companies with the design, development, delivery and management of a wide array of programs for all customer classes. They also have offices in Ohio, New Jersey, Louisiana and Minnesota.

Skamania Couple Receives Super Good Cents Rebate

Debbie and Dean Bates were the first Skamania County recipients of a Super Good Cents rebate offered through Skamania County PUD. SGC certified manufactured homes constructed after August 2001 are eligible for the rebate.

"The program rewards those who conserve power during peak winter usage," said Bob Wittenberg, Manager of Skamania County PUD. ". . . encouraging conservation cuts down the peak and reduces everybody's rates." This is especially effective in the winter when demand is up.

The rebate program is offered through the PUD's participation in Bonneville Power Administration's Conservation & Renewables Discount Program.



From left: Chris Iobst, auditor and energy efficiency expert, and Bob Wittenberg, manager, of Skamania PUD present a \$1,100 Super Good Cents rebate check to Debbie and Dean Bates.

Milton-Freewater Customer Enjoys a Warm Home

The residents of the Good Samaritan Home in Milton-Freewater, Oregon, are enjoying a warm home this winter thanks to a weatherization project, some help from the Oregon Office of Energy's Business Energy Tax Credit Program, and the Bonneville Power Administration's Conservation Augmentation (ConAug) program.

Prior to the weatherization project, "The thermostat was always set on 74 degrees, yet the home wasn't warm enough and the furnace ran all the time," said Pat Brooks, owner. Brooks was puzzled why the 1,815 square-foot facility, a 1985 doublewide manufactured home with an addition, was so cold. She had replaced the furnace and spent \$3,000 on thermo-pane windows. Still, the ladies were complaining of the cold. Brooks said. "Our residents are 104, 87, 83 and two are 91. I needed to keep these ladies warm and I couldn't do it. It was a losing battle." She also saw her utility bills steadily increasing.

Pat Didion, who's in charge of Energy Conservation Programs and Energy Audits at Milton-Freewater City Light & Power (http://www.mfcity.com/electric_department.htm), recommended an energy audit of the facility. The audit showed that heat was lost because of settling and subsequent leaks in the "marriage seams" where the double-wide manufactured home joined, inadequate insulation in the floor and attic, and leaky ducts. Industry experts estimate that two-thirds of the ducts in the United States are leaky enough to justify sealing or repair.

Portions of the weatherization work, primarily insulation, qualified for BPA's ConAug incentive (http://www.bpa.gov/Energy/N/projects/conserv_e_augmentation/index.shtml).

Didion also told Brooks about the Business Energy Tax Credit Program managed by the Oregon Office of Energy. Once Brooks had bids for the weatherization work and a completed application approved, she proceeded with the work and qualified for a tax credit worth 35 percent of the eligible project costs. "It was great," Brooks said. "The project cost \$2,810 and I got a tax credit for \$983. We now keep the thermostat at 70 degrees and everyone is comfortable."

More information on the Business Energy Tax Credit Program can be found at <http://www.energy.state.or.us/bus/tax/taxcdt.htm> or by calling 1-800-221-8035 (statewide) or (503) 378-4040 in Salem.

Conserving People and Energy

The Naselle Youth Center is a home for juvenile offenders in the State of Washington. There are about 150 youth detained in the Center. The Washington State Department of Social & Health Services (DSHS) runs the Center, which is the last stop for the youth before a full lock down prison, complete with guards and razor wire-topped fences. The youth work on fire crews during the summer, develop construction skills, learn culinary arts, small engine repair, and other skills. The staff, from the administrator, to the counselors, to the plant maintenance staff, all work with the youth on their studies, helping them to learn new skills, whether in the small automotive shop, or the kitchen. Some build houses for Habitat for Humanity in the surrounding community of Naselle. The Center is all about giving the youth a second chance.

The Center's electric bills were astronomical. They needed to do something about the excessive costs, and converting to natural gas wasn't an option. This is where Quantum Engineering (Seattle),

Jim Dolan, the conservation manager at Pacific, along with the Center and BPA staff, were diligent in conducting all the required exercises necessary to monitor the installation of a heating and ventilation system throughout the entire campus. The system is controlled through an Energy Management System. The EMS, through remote sensors, turns off lights in unoccupied rooms, turns down the temperature at night when the youth are asleep, then turns it back up in the morning when they begin their daily schooling, training, and chores.

As part of the EMS, the electric furnaces were equipped with new heat pumps that will warm the lodges, sleeping areas, commissary, and chapel. The lighting in certain facilities is more energy efficient through the installation of T-8 electronic ballast lighting.

The project will save approximately 426,000 kilowatt-hours of energy per year. Through a Conservation Augmentation contract with BPA, Pacific has contributed a portion of the cost of the project. The dollar savings from reduced electric bills will pay for the entire cost of the project within 7 years.

Pacific County PUD No. 2 (Raymond, Washington), and the Bonneville Power Administration came into the picture. Quantum conducted an energy audit at the Center and found many improvements that could be made to the campus energy system.

(Submitted by Lloyd Meyer)

Energy Services and Public Works Team Up To Save

When the Bonneville Power Administration offered regional utilities the opportunity to submit Conservation Augmentation (ConAug) proposals to deliver conservation, the City of Richland (Washington) looked "in-house" first. With the possibility of saving 432,904 kWh annually, the City replaced 745 incandescent traffic and pedestrian lamps with light emitting diode (LED) modules.

An additional benefit of the LEDs is the reduced maintenance cost. "We found that the life of the LED's is significantly longer than the incandescent lamps. Our crews were replacing the incandescent lamps every 18 months. We expect the LED's to last 5-7 years," said Traffic Engineer Mark Noga.



Dawn Senger, Energy Specialist, said that should be a **GREEN LIGHT** for smiles all around. "This has been a win-win project for everyone involved. BPA has captured a significant amount of conservation, and the City of Richland is paying less in energy and labor costs, which directly benefits all Richland citizens."

(Submitted by Dawn Senger)

Look for the ENERGY STAR® label.

Switch to ENERGY STAR® qualified products today, and save tomorrow.

It's about savings. Saving money, saving energy, and saving our environment for future generations. The ENERGY STAR label was created to help consumers identify the most energy efficient products on the market. Americans spend an average of \$1,300 on their utility bills each year. By using ENERGY STAR qualified products, a typical household can save up to 30 percent annually on utility bills without sacrificing product features, quality or personal comfort.

Consider the cost-saving advantages of switching to ENERGY STAR qualified products:

- Save up to \$73 per year on your utility bill and use up to 50 percent less water per load with an ENERGY STAR qualified clothes washer.
- Replace a 10 year-old refrigerator with a new ENERGY STAR qualified refrigerator and use half the electricity and save up to \$30 annually .

- Reduce your household's energy costs by 15 percent by installing ENERGY STAR qualified windows.
- ENERGY STAR qualified compact fluorescent lights require 75 percent less energy than a standard incandescent bulb and will save you up to \$30 in energy costs over the life of the bulb .

It's easy to see how the savings add up when you replace an older conventional home product with an ENERGY STAR qualified product. Choose ENERGY STAR today and start saving for tomorrow.

ENERGY STAR was introduced by the U.S. Environmental Protection Agency (EPA) and the Department of Energy in 1992 as a voluntary labeling program designed to identify and promote energy-efficient products. For more information about ENERGY STAR and a complete list of ENERGY STAR qualified products, retailers and manufacturers, and energy savings information, please call 1-888-373-2283 or log onto: www.energystar.gov.



Look for the ENERGY STAR[®] label.

It's about savings. Saving money, saving energy, and saving our environment for future generations. The ENERGY STAR label was created to help consumers identify the most energy efficient products on the market. Americans spend an average of \$1,300 on their utility bills each year. By using ENERGY STAR qualified products, a typical household can save up to 30 percent annually on utility bills without sacrificing product features, quality or personal comfort.

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- **Reduce your household's energy costs by 15 percent by installing ENERGY STAR qualified windows.**
- **An ENERGY STAR qualified dishwasher is 25 percent more efficient than minimum federal standards.**

- **ENERGY STAR qualified compact fluorescent lights require 75 percent less energy than a standard incandescent bulb and will save you up to \$30 in energy costs over the life of the bulb.**

It's easy to see how the savings add up when you replace an older, conventional home product with an ENERGY



STAR qualified product. You don't have to be an engineer or energy expert to make product comparisons;

the ENERGY STAR label guarantees your energy savings will be maximized, putting extra dollars in your pocket every month.

Since its introduction by the U.S. Environmental Protection Agency in 1992, more than 630 million products with the ENERGY STAR label have been purchased and billions of dollars saved. By using ENERGY STAR qualified products, you not only use less energy and spend less money, but you protect the environment by decreasing air pollution and conserving water.

A wide selection of ENERGY STAR qualified products can be found at locally owned



and operated independent retailers, as well as major national home appliance retailers. To find an ENERGY STAR retail partner near you, or learn more about ENERGY STAR, go to www.energystar.gov or call 1-888-373-2283.

If everyone in the United States chose ENERGY STAR



qualified products over the next decade, the national annual energy bill would be

reduced by \$100 billion. The reduction of greenhouse gas emissions (carbon dioxide) would be equivalent to taking 14.5 million cars off the road for each of those 10 years. Now, isn't that a breath of fresh air?

Choose ENERGY STAR today and start saving for tomorrow.



PTCS™ Certification is Good Policy

March 2003

Acquisition Oversight Requirements

Conservation Augmentation (ConAug) was designed, not only as an acquisition program, but also as a rigorous acquisition program where verified savings replace market purchases. BPA has fiduciary responsibilities under the 1980 Power Act to exercise "effective oversight, inspection, audit and review" of acquisition programs. Traditionally BPA had enough staff to visit sites and test conformity to resource acquisition program specifications. Currently, BPA is not staffed to do this, nor do customers want to expand program overhead.

Performance Tested Comfort Systems™ Certification

For duct sealing, BPA has responded strategically in an efficient and market-based approach called PTCS™ certification. This certification ensures someone is trained and certified to install a service or product to a rigorous standard and is authorized to use a brand name to ensure the customer of quality. To ensure that the brand is meaningful, the organization that grants the authorization to the trained certifier needs to provide independent verification that the standards are being met in practice and also to have authority to revoke certification from those who abuse the label. As with the Super Good Cents label, third party inspectors can require improved work quality, contractor callbacks, or re-training. Manufacturers or service providers who do not abide by quality control standards can lose the ability to use the label.

Precedents for PTCS™

BPA regularly depends on using certifications in its specifications to be assured of the quality without actually performing testing.

For example:

- GRI and GAMA must certify water heating efficiency ratings.
- Products are required to have UL listing.
- ENERGY STAR® ratings are required for specific products.
- NFRC standards are needed for window ratings. (BPA helped establish and fund early NFRC standards efforts.)

The cost of supporting the label is included in the product cost. Certification approaches keep required quality assurance costs as low as possible.

In cases where certification is not possible, BPA has to do inspections. Crawling under buildings or in attics for insulation

measurements is expensive, intrusive, and time consuming. Labeling and certification are cheaper in the long run.

Value of PTCS™

PTCS™ certification is inexpensive and allows entities like utilities to take a role with their customers. Already, PTCS™ certification can be used to ensure the optimal operation of heat pumps through installation commissioning. With a stronger infrastructure, this is expected to grow. The Northwest Energy Efficiency Alliance's (Alliance) Small Commercial HVAC program will require HVAC technicians to be trained and equipped throughout the region to certify these systems. Soon, an ENERGY STAR® new-homes standard will be in place for the NW that will be fuel blind, and allow zoned resistance heat -- all based on PTCS™ certification of house air-tightness, heat pump installation commissioning, duct sealing, where appropriate (even for gas heated homes), and NFRC-rated windows. The value is in the certification allowing a prescriptive approach that utilities or others can be trained to provide -- a visual confirmation of the necessary certifications does the job. The present national alternative involves Home Energy Raters who must do custom computer runs on the thermal performance of every home several times and perform several inspections.

The Alliance and PTCS™

The Alliance developed and owns the PTCS™ trademark and works with the Regional Technical Forum (RTF) to update the specifications. The Alliance has partnered with Climate Crafters, Inc, to provide training, annual installer re-certification, and system certifications and labels on a market-based fee system for PTCS™. Climate Crafters is required to protect and enhance the PTCS™ label through remedial training, upgrading their specs to meet changes incorporated by the Alliance and RTF, and to provide quality assurance through random, spot inspections of certified systems. The Alliance is open to other entities providing the same services; however, Climate Crafters is currently the only entity with the agreement and infrastructure in place to provide the same training, certifying and independent third-party spot inspections. BPA should allow for that possibility in any Con Aug agreement, specifically calling for PTCS™ certification, not Climate Crafters certification.

(Submitted by Ken Keating)

