

# Washington Business

SPRING 2012  
NEWS WITH A COMPETITIVE EDGE

## CELEBRATING ENVIRONMENTAL EXCELLENCE 26

*This spring marks 20 years since the start of AWB's Environmental Excellence Awards. Inside, more about the award's origins and highlights of this year's winning companies.*

### Business Backgrounder

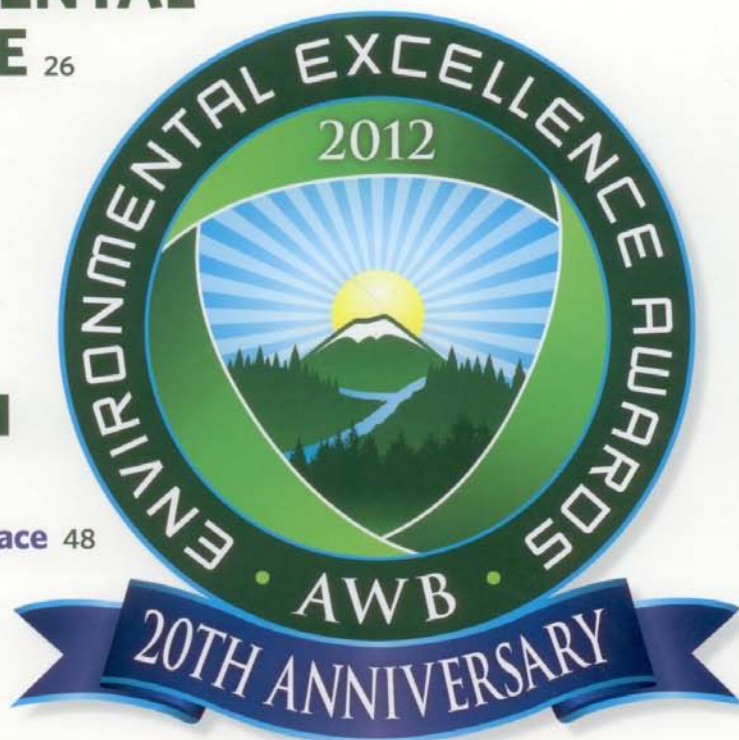
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## A Powerful Workforce

Washington's state community colleges – with the support of business and labor – have come together to train the electrical workers of tomorrow.

DANIEL C. BRUNELL

The electrical industry is facing a massive challenge in recruiting and training new workers. With this in mind, business, labor, non-profits and the state's community colleges are working together to get the next generation of electrical technicians trained on the electrical grids of tomorrow.

For residents of Western Washington, most winter snow storms usually involve short bursts of cold temperatures and brief but beautiful dustings of snow.

Most, but not all.

In January, Western Washington was slammed with an unusually bad winter storm, bringing more than two feet of snow to some major urban areas, with a twist of ice and high winds. The storm left more than 250,000 people without power, some for several days. Fortunately, hundreds of electrical crews from Washington state and around the nation rallied to action and within a week, power was restored.

That's the good news coming out of this year's storm. The bad news?

Power customers may not be so lucky next time if something isn't done to train the next generation of utility and energy sector workers.

### THE NEED FOR WORKERS

The energy industry – like most industrial sectors – faces a daunting challenge in finding skilled workers. With thousands of baby boomers set to retire soon, this problem could become a crisis almost overnight.

"Forty percent of our field workforce is eligible to retire within the next five years," said Troy Nutter, manager of operational training for Puget Sound Energy. Because of this, Puget Sound Energy's workforce is increasingly being polarized between the employees who are about ready to retire and the employees who are entering the industry.

"We are concerned that all the skills and experience that our baby-boomer employees have will not be completely translated to our newer employees," added Nutter.

Developing the next generation of energy workers is vitally important to the entire industry. In addition to a two-year degree, most workers must work as an apprentice under the guidance of an experienced journeyman or go on to other job-specific training. This is a concern to the



Students enrolled in the Pacific Northwest Center of Excellence for Clean Energy get hands-on, on-site training with industry experts and companies.

International Brotherhood of Electrical Workers (IBEW) Local 77, whose 7,000 members are involved with everything from power generation to maintaining the power lines that come into your home.

"We are working to get our 30- to 50-year-old members ready so they can handle training apprentices," said Bob Guenther of IBEW Local 77. Guenther coordinates the union's workforce training efforts for the state.

The IBEW is working closely with the industry to address the shortage of skilled workers. Like private sector companies and utilities, the union faces a similar employment challenge: A growing number of members are facing retirement, and are unable to tutor new apprentices.

Further compounding this problem is the capital investment that both public and private utilities have to put into training new workers.

"The capital investment that the Bonneville Power Administration puts into training a new

### AT A GLANCE

Utilities and other electric companies are facing a massive problem as almost half of their workforce is set to retire in the next five years.

To train the next generation of electrical workers, Washington state established the Pacific Northwest Center of Excellence for Clean Energy in 2005.

The center supports training at partner colleges for a wide variety of needs in the industry and has — on average statewide — 800 students enrolled annually.

electrical worker is equivalent to what the U.S. military puts into a cadet at West Point or Annapolis," said Guenther. "Training workers to be a part of this industry is a massive investment that requires time and a good base of knowledge to build upon."

#### CONSOLIDATING INTO AN "EXCELLENCE" IDEA

With this problem in mind business, utilities, labor and the Washington state community college system are working together to train the future generation of energy workers. Started by Centralia College in 2003 as a program to train workers for the nearby TransAlta coal-fired plant, the program has grown and morphed into the Pacific Northwest Center of Excellence for Clean Energy.

Working as a central hub for all the state's energy electrical training initiatives, the Center of Excellence for Clean Energy coordinates the energy programs

at 20 of the state's community colleges. Together, these programs have roughly 800 students enrolled at one time. The center does not set curriculum for each school. Instead, the center coordinates the efforts of all colleges to make sure they meet industry needs and standards. Some schools even specialize in a specific area of the industry.

For example, Spokane Community College — in partnership with Avista — operates an electrical line maintenance training program. Edmonds Community College and Cascadia Community College jointly operate an energy efficiency program. Shoreline Community College operates the solar power program and Walla Walla Community College operates the wind energy program.

"It is a really exciting time to be a part of the industry," said Barbara Hins-Turner, director of the Pacific Northwest Center of Excellence for Clean Energy. "The students that are graduating our programs are not only ready to maintain the power grid of today but also the smart grid of tomorrow."

#### SMARTER THAN YOUR AVERAGE GRID

The Center of Excellence for Clean Energy model has proven so successful that it has expanded beyond the borders of the state. The center now provides strategic coordination for the industry's training efforts in five northwest states — Washington, Oregon, Idaho, Montana and Utah — with roughly half of the three-year, \$12 million budget coming from a U.S. Department of Energy grant.

In addition, these federal funds are also aimed at another area for the center — smart grid technology.

Smart grid is a concept that digitally enables electrical grids to gather, distribute and act on information about suppliers and consumers. The applications and advantages of this technology are limitless. It can do everything from telling you how much it would cost to do a load of laundry to automatically cutting off power to non-essential consumer products in order to prevent blackouts during a heat wave.

The Pacific Northwest is a prime area to test and train workers for smart grid technology. The region's power sources are diverse and home to Pacific Northwest National Laboratory — one of the nation's leading research facilities for smart grid technologies. In addition to training energy workers in smart grid technological areas, the center is studying various ways to educate workers, consumers, and businesses about how to use smart grid technology.

This means the workers that the center is producing are not only highly-trained in an industry that has a high-demand but also trained for the future needs of this industry. "Between all of different programs, about 85 percent of our graduates are being placed into jobs," said Hins-Turner. "These graduates with their associates' degree start with an average wage of \$25 an hour."

In a time of 8.3 percent unemployment, that's welcome news — for workers and energy customers alike. **WB**

Centers of Excellence  
www.coewa.com

IBEW Local 77  
www.ibew77.com

Pacific Northwest Center of Excellence for Clean Energy  
www.cleanenergyexcellence.org

Puget Sound Energy  
www.pse.com

#### ADDITIONAL INFORMATION

- Washington State Centers of Excellence are flagship institutions that build and sustain Washington's competitive advantage through statewide leadership.
- Each center focuses on a targeted industry that drives the state's economy and is built upon a reputation for fast, flexible, quality education and training programs. A targeted industry is identified as one that is strategic to the economic growth of a region or state.
- Centers are guided by industry representatives to lead collaborative and coordinated statewide education and training efforts to build a competitive workforce in a global economy.

#### WASHINGTON STATE HAS 10 CENTERS OF EXCELLENCE:

- Aerospace & Advanced Materials Manufacturing
- Agriculture
- Allied Health
- Careers in Education
- Construction
- Clean Energy
- Homeland Security
- Information and Computing Technology
- International Trade, Transportation and Logistics
- Marine Manufacturing and Technology

Source: Washington State Centers of Excellence