



Pacific Northwest Center of Excellence for Clean Energy (PNCECE)
Smart Grid Workforce Development Project
September 2013

Background

The Pacific Northwest Center of Excellence for Clean Energy (PNCECE), headquartered at Centralia College in Washington State is a nationally recognized model providing strategic coordination for the energy industry's skilled workforce in the Pacific Northwest. Washington's Centers of Excellence are community colleges designated by the State Board for Community and Technical Colleges as statewide leaders in specialized workforce education and training for industries that help the state's economy grow.

PNCECE's partnership includes: consumer-owned and investor-owned utilities; a federal power-marketing administration (the Bonneville Power Administration); organized labor; a national laboratory (Pacific Northwest National Laboratory); and numerous community colleges and universities located in the Pacific Northwest region represented by Washington, Oregon, Idaho, Montana and Utah.

Through a \$5 million grant, leveraged to \$12 million awarded in 2010 by the U.S. Department of Energy, the Washington State model was replicated to serve the five partner states in the Pacific Northwest and establish energy training satellites to identify Smart Grid training needs across select supply and demand-side energy occupations. The grant application was endorsed by four Governors, 11 U.S. Legislators representing Washington, Oregon and Idaho, and the Northwest Energy Efficiency Taskforce (NEET) Executive Board members representing the Pacific Northwest states.

NEET consists of a regional executive committee of 28 senior-level representatives from utilities, state government, electric customers, public interest advocates, energy efficiency companies and energy industry specialists. NEET's 2009 Energy Workforce report charged the Center of Excellence at Centralia College with leading a coordinated, strategic approach to clean energy workforce development for the region in which the Center would work with regional partners to: 1) define energy efficiency jobs, 2) establish skill standards and identify job classifications for use regionally, and 3) create a regional clearinghouse for energy efficiency job openings.

Smart Grid Project Comes to an End

- July 31, 2013 marked the end of Centralia's three-year, \$5 million (Leveraged to \$12 million) Smart Grid Workforce Development project funded by the U.S. Department of Energy.
- Project deliverables have been wrapped up in WA, OR, ID, MT and UT leaving only the administrative paperwork to be completed by the final close-out date—October 29, 2013.
- Cost Share/Match (Resource and financial contributions from industry, labor and education) exceeded the goal by \$500,000. (Pledge \$7.3 million; Actual \$7.8 million)

Notable highlights include:

- **Job Creation and New Hires**

The job placement target for the project was 234 workers. As of July 31, 2013, **339** individuals (144.9%) have found employment with organizations across the western United States (*in occupations such as, ground crew, substation operator apprentice, plant operator trainee, boiler operator and hydro utility worker at an average starting wage of \$15-24 per hour.*)

- **Training Targets**

The project has exceeded the target of 1,215 individuals slated for training under the grant. Beginning August 2010, through July 31, 2013, **6,051** individuals received Smart Grid related training. (*This includes pre-apprenticeship, apprenticeship and incumbent worker courses, as well as, high school students participating in hands-on learning sessions and high school STEM teachers receiving in-service training.*)

- **Regional Energy Industry Labor Market Study**

Washington State University conducted a new regional labor market study that expanded 2008 data gathered from 2 states to the 5 state region and from 12 employers that employ 3,349 workers across five occupational groups to 16 employers with employment across all 9 occupations researched of 8,956. Research revises employer forecasts for new employment, replacement of retirees, and strategies for filling key skill gaps.

- **Web Portal**

The PNCECE website and training portal was developed and has been populated with clean energy research, skill standards, and career information, including career videos, a job board and an interactive Career Lattice to attract job seekers, educators/trainers, apprentices, and pre-apprentices.

<http://cleanenergyexcellence.org>

- **Career Lattice**

WSU Energy Program developed occupational skill profiles that formed the foundation for an energy Career Lattice. The Career Lattice provides a roadmap for colleges that are designing programs in the energy field, for employers in the energy field to create training for incumbent workers, and for individual job seekers who are making plans to enter a career in energy. An interactive version of the Career Lattice can be found at <http://cleanenergyexcellence.org/occupations/>

- **Customer Service Representative Skill Standards**

Deployment of smart technologies by utilities across the region gave rise to the Smart Grid Education Taskforce discussion around how Customer Service Representatives (CSRs) now require a level of technical expertise not previously needed in the profession. WSU Energy program was contracted to convene a focus group of CSRs, which resulted in the development of core documents that served as the foundation for the final Utility Customer Service Representative Skill Standards documents.

<http://cleanenergyexcellence.org/skill-panel/energy-industry/>

- **Smart Grid Curriculum**

(50 courses with over 300 modules) developed and are being uploaded to an open-source Dept of Energy National Training and Education Resource (NTER) PNCECE branded site.

- **Regional University Collaboration**

PNCECE has created a network of state universities to support training and sharing of information about smart grid technologies across the region. An anchor university has been identified in each state that has experience with their local industry workforce needs, is able to share “best practices” at a regional level and has expertise relative to the Smart Grid. University collaborative includes:

WA- Washington State University Energy Program, OR- Portland State University, ID-Idaho State University Energy Systems Technology Center, MT- Montana State University, UT- Utah Valley University