



**Pacific Northwest Center of Excellence for Clean Energy (PNCECE)**  
**Advisory Board Meeting Minutes**  
**Nov. 8, 2013 @ Centralia College**  
**9:30 am – 11:55 am**

**Attendees:**

Randy Bachtell, New Market Skills Center  
Herman Caldezillas, Washington Business Week  
Rulon Crawford, Centralia College  
Nancy Estergard, Grays Harbor College  
Judy Guenther, Summit Scholarship Auction Coordinator  
Alan Hardcastle, WSU Energy Extension  
Dick Larman, Lewis County Economic Development Council  
Tom Lindmark, Portland General Electric  
Pat McCarty, Tacoma Power  
ML Norton, Centralia City Light  
Shana Peschek, Construction Center of Excellence  
Kairie Pierce, Washington State Labor Council  
Pete Stoeckler, Centralia City Light  
Durelle Sullivan, Centralia College  
Jim Walton, Centralia College

**PNCECE:** Monica Brummer; Barbara Hins-Turner; Andreas Keodara

**Teleconference:** Clayton Gibson, Columbia Basin College; Mike Hanson, Avista Utilities; Troy Nutter, Puget Sound Energy

9:30 – 9:40: **Call to Order**, Pat McCarty, Chair; Tacoma Power

- Introductions
  - Welcome!

9:40 – 9:45: **In memory of our friend, John Loyle**

- *(A PowerPoint picture slideshow dedicated to John Loyle was played while attendees shared their memories of him.)*

9:45 – 9:55: **DoE Wrap-up**, Barbara Hins-Turner

- B. Hins-Turner reports that the Smart Grid Project comes to an end.
  - The cost share and match exceeded the grant's goal by \$500,000 (\$7.3 million pledged with \$7.8 million as the actual figure).
  - The job placement target of 234 was exceeded, as 339 individuals have found employment within the energy industry across the United States (as of July 31, 2013).
  - The training target of 1,215 was exceeded, as 6,051 individuals received smart grid training. Individuals included pre-apprentices, apprentices, incumbent workers, high school students, and higher school STEM teachers.
  - Washington State University (WSU) – Energy Extension conducted a new regional labor market study that forecasts new employment,

replacement of retirees, and strategies for filling key skill gaps in the energy industry. WSU also developed occupation skill profiles for an energy “Career Lattice” as well as the Customer Service Representative Skill Standards document, both available at PNCECE’s website, <http://cleanenergyexcellence.org/>.

- Over 300 modules embedded in 50 courses have been developed and are being uploaded under PNCECE at the Department of Energy’s open-source website, NTER (National Training and Education Resource).

9:55 – 10:10: **Labor Market Study**, Alan Hardcastle, PhD, WSU Energy Program

- A. Hardcastle reports that the labor market study is important to discuss the national, regional, and local impacts of the energy industry, especially in terms of the economy and workforce efforts.
- Sixteen employers with 9,000 workers in total covering nine occupational groups across the five-state Pacific Northwest region participated in this study.
  - Comparison of employment for a subset of 12 employers between 2008 and 2013 study periods shows that overall employment grew by nearly 18 percent; however, this number is made up of a 10 percent decrease in technical occupations and an 18 percent increase in electrician employment.
- The uncertain economy has caused many experienced employees to delay their retirements. Nearly 17 percent of the current technical and professional workers are expected to retire in the next five years.
- When the time comes, many job openings (mostly line worker and electrician positions) may remain vacant due to budget constraints, a lack of qualified applications and/or job restructuring.
- Across all industries, including energy, 20 percent of employees are ages 55 years or older and 37% is under 35 years of age. Focusing in on the energy industry – the statistic is reversed and more employees are older than younger: 30 percent are ages 55 or older and about 20 percent are under 35 years of age.
- Industry must address the many challenges in their current and future workforce by collaborating with all the stakeholders such as education providers, utilities companies, and incumbent workers, among others.
  - This includes industry being able to adapt to the culture and work ethic of the next generation of young workers, building a pipeline with K-12 STEM educations, work closer with higher education, and leverage the expertise of near-retirees by giving them incentives to train new workers.

10:10 – 10:25: **Careers In Energy Week**, Kairie Pierce, WSLC; and Monica Brummer

- M. Brummer and K. Pierce reported that the third-year collaboration between PNCECE/WSLC for Careers in Energy Week (CIEW), a national event focused on public awareness about energy careers, was most successful despite a lack of funding sources compared to previous years.

- The collaboration led the coordination of 27 events across the state that reached over 1,500 people, exposing them to careers in energy, exceeding last year's numbers of 19 events that reached more than 900 people.
  - Of the >1,500 people reached, about 50% were community members, 30% were students (6<sup>th</sup> grade to college seniors), and the rest were made up of teachers, counselors, as well as veterans.
- This year, the events included signed proclamations, tours of energy facilities, job shadows, college/career fairs, and open houses, among others.
- C. Gibson also reported on Columbia Basin College's CIEW event, which brought together industry, higher education and K-12 representatives to talk about clean energy in terms of workforce demand economic development in their region. B. Hins-Turner was one of the presenters during this event.
- In all, PNCECE/WSLC partnered with utilities, education providers and other stakeholder organizations: Avista Utilities, Centralia City Light/TRiO, Columbia Basin College, Eastern Washington University, Gonzaga University, Girl Scouts of Eastern Washington/Northern Idaho, Mobius Science Center, Spokane Area Workforce Development Council, Community Colleges of Spokane, Spokane Veteran's Taskforce, Tacoma Power, and TransAlta.
- Following this report, members of the Advisory Board Committee expressed their satisfaction of this effort, most notably in the context that it complements some of the future workforce challenges discussed in A. Hardcastle's research and reporting of the Labor Market Study.

10:25 – 10:35: Break

10:35 – 11:20: **College Reports**

Centralia College, Rulon Crawford

- 1<sup>st</sup> Year Program
  - Thirty (30) new students joined the program this year.
  - Under a contract with Centralia College, R. Crawford has been filming his PPO lectures, an effort to eventually offer the Energy Technology program online. This may provide an opportunity for incumbent workers who are employed by utilities to fulfill any appropriate academic requirements to finish their outstanding degrees.
  - NERC (North American Electric Reliability Corporation) courses were a new offering last year and are on their way to be permanent offerings, included in Centralia College's course catalog, pending approval by the Instructional Council. This set of two courses prepares students to take the NERC certification test. The NERC certification tests system operators on their skills to make sure employers have a workforce that meets minimum qualifications. This certification is a great opportunity for students to have a competitive advantage over other candidates as they seek jobs in the energy industry.

Grays Harbor College, Mike Kelly/Nancy Estergard

- 1<sup>st</sup> Year Program
  - Five (5) students joined the program this year.

- Several students started the program mid-year last year, so they are enrolled in a mix of 1<sup>st</sup> and 2<sup>nd</sup> year courses.
- 2<sup>nd</sup> Year Program
  - Eleven (11) students continued on into the 2<sup>nd</sup> year of the program this year.
    - About half of these students are planning to enroll in the NERC courses. The top performing students will have their NERC certification exam fee covered by Grays Harbor College.
- Program Expansion
  - Raymond and Ilwaco campuses for Grays Harbor College have ITV technology; these campuses may offer the Energy Technology program, should there be enough interest.
  - Under a Department of Commerce Grant, Peninsula and Grays Harbor College are looking into added entrepreneurship courses as electives for their energy program.

New Market Skills Center, Randy Bachtell

- Twenty-six (26) students among program's two sessions.
- Program is being affected by common core standards, which is making it more difficult to maintain student retention.
  - The increased requirements from common core standards demand more from students, and discourage some to enroll or even complete the New Market program.
- Increased marketing efforts are being used to promote the program.

Construction CoE, Shana Peschek

- Construction CoE just submitted an NSF grant to add aerospace and marine to their construction math toolbox.
  - This could potentially be a useful tool for students are working on meeting the common core standards
- S. Peschek is now one of five national chairs for the United States Green Building Council's community green schools program, representing Washington state.
  - All Washington CTCs receive a free USGBC membership and students are able to receive free study materials as well as exams fee-waivers towards earning their Leadership in Energy and Environmental Design (LEED) General Associate (GA) credential.

Columbia Basin, Clayton Gibson (phone)

- Twenty (20) students each in the 1<sup>st</sup> year Nuclear Technology program as well as 20 in the 2<sup>nd</sup> year.
- The program is also seeing a decrease in enrollment in comparison to previous years.
- As a result in the high demand of requests, C. Gibson has been providing non-degree seeking students the opportunity to take specific courses from the Nuclear Technology program.

11:20 – 11:35: **KNOLL Outdoor Energy Lab**, M.L. Norton and Pete Stoeckler, Centralia City Light

- This project was designed by two previous Energy Technology students to serve as a learning exhibit for on-campus visitors and students.
- The solar panels on the Centralia College campus are configured with three facing the north and three facing south. This is aesthetically more pleasing and as an exhibit, is more visible to campus visitors.
  - It is noted that for the most efficient set-up and in reality, all panels should be facing south.
  - Each panel is capable of producing 175 watts.
- The wind turbine is capable of producing 125 watts in 30MPH winds. At 6.7MPH, it starts producing energy.
- Power line carrier sends outputs of solar panels and wind turbine to Centralia City Light.
  - 1.6 kilo-watt hour on average output per day in the month of October from solar panels; this figure can most likely be doubled if the three north-facing panels were turned south.
  - Half a kilowatt-hour was produced after Saturday, September 28's big windstorm – so something is not working correctly with the turbine.

11:35 – 11:45: **Energy Week**, Herman Calzadillas, Washington Business Week

- Business week is a program that gives students a university experience over the course of a week at one of four university campuses across the state. Teams of students (10-12) come up with a product or service as the focus of their “business” or company. At the end of the week, the teams pitch their business and seek investors into their company. This all-inclusive experience is 6-day program, students stay in university residence halls, participate in a high-level of academic rigor, gain leadership skills, and receive college elective credits, awarded by Edmonds Community College.
- Energy week is just of one of many pathways that Washington Business Week offers. Energy week consists on focusing on sustainability and how energy, economics and environment are interrelated and create career opportunities.
- Energy week is continually seeking volunteers to serve as energy experts to serve on panels as judges and “investors” in these students’ business projects.

11:45 – 11:55: **Director’s Report**, Barbara Hins-Turner

- Edmonds NSF
  - This grant was extended, no cost-funding, until July 2014.
- NSF Applications
  - B. Hins-Turner and M. Brummer worked with four (4) different community colleges on their NSF applications:
    - Columbia Basin College and Idaho State University
    - Bellingham Technical College and Western Washington University
    - Spokane Falls Community College
    - South Seattle Community College and Washington State University
- M. Brummer has taken on all marketing efforts for all ten (10) Centers of Excellence.
- Summit, Corp of Engineers

- The 9<sup>th</sup> Annual Summit is scheduled for June 18/19<sup>th</sup>, 2014.
- Corp of Engineers is interested in working with the Centers on the Summit and holding a session on earthquake preparedness in terms of energy and water.

*Meeting adjourned at 11:55AM for lunch*