



## Pacific Northwest Center of Excellence for Clean Energy

### Education Taskforce Meeting

Seattle City Light South Service Center Auditorium  
3613 4<sup>th</sup> Ave South, Seattle, WA

**March 20, 2013 10 am – 3:30 pm**

#### Attending:

Ryan Fedie, Taskforce Chair, BPA  
Karen DeVenaro, Seattle City Light  
Diane Quincy, Avista  
Lauren Huckaba, Avista  
Brian Burrow, Spokane Area WDC  
Michael Wehling, PSE  
Dave Sorensen, WestCAMP, Utah  
Mark Fischer, WDVA/VetCorps  
Ahmad Bennett, VetCorps  
Brent Adams, student, VetCorps/Cascadia  
Melanie Kincaid, RETC  
Bob Topping, RETC  
Ryan Davis, RETC  
Barbara Hins-Turner, PNCECE  
Monica Brummer, PNCECE

Jamie Krause; PNCECE  
Corrinne Sande, Whatcom Community College  
Alison Pugh, Edmonds Community College  
Tom Barr, Edmonds Community College  
Gail Alexander; Cascadia College  
Candice Bluechel, NUTEC  
Brad Harris, Seattle City Light  
Jennifer Dunn, (Intern) RETC  
Lawrence Beaty, ISU/ESTEC, Idaho  
Alan Hardcastle, WSU Energy Program  
Kevin Schneider, PNNL  
Jeff Hammarlund, PSU, Oregon  
Jonathan Matteo, Seattle City Light  
Caitlyn Jekel, Washington State Labor Council

#### **Call to Order & Welcome,**

Ryan Fedie, Taskforce Chair, BPA called the meeting to order at 10:15 a.m. Karen DeVenaro welcomed the group to Seattle City Light. Ryan called for introductions of attendees that were new to the Education Taskforce and guests. Following a review of the agenda a motion was made to approve the meeting agenda with reversing Monica Brummer and Bob Toppings presentations.

The Chair called for a motion to adopt the Education Taskforce minutes from December 7, 2012. Motion was made and unanimously carried. Minutes were adopted as submitted.

#### **National Training & Education Resource, (NTER): Module Development Update**

Ryan Davis gave a history of the NTER platform and progression for the development of the customized RETC/PNCECE NTER Node. Bob Topping demonstrated Module 6 of the Train the Trainer Course on NTER. Modules will be uploaded in a voiceover PowerPoint format using Dragon and Camtasia. Full media courses, such as those being developed by Avista, are pending upload as the node is developed. We have developed 300 modules that are in the process of being uploaded. Bob noted for those developing curriculum, if a course is hours long, break the course into 20 minute modules—10 - 15 slides max. Details were presented on how to access and share modules.

Diane Quincy: If anyone can update a course, how do we preserve the integrity of the original course? Bob T: Permissions and levels of security can be set at a variety of levels to preserve the original course materials. Only registered instructors can access the curriculum side of the Node. RETC is the global administrator for the curriculum library. Alan H: How do you avoid duplication of material? Bob T: From a student perspective there may be duplication if they are

looking for a course to take. From a formal education perspective, an instructor can choose what content to include in the course modules. Ryan D: On the instructor side its much like a play-bin. On the student side, an instructors guidance would be important for sequencing of classes. NTER can host webinars. Curriculum can be synchronized into webinar format.

Bob offered to assist in uploading course content for consortium partners. Next steps include uploading the large media based modules that Avista is developing. When we get that up and running we'll learn more on how to tackle the larger projects (substation). Bob is willing to work with anyone and do let him know if you're experiencing problems preparing modules for NTER. Barbara suggested we hold a webinar to demonstrate the modules..

Diane mentioned that CEWD is offering an onramp curriculum titled Energy Industry Fundamentals that is offered through NTER. This may be a good introductory course before Smart Grid content.

Barbara thanked Ryan and Bob for all of their work to make the NTER node a reality.

### **PNCECE Website Review**

Monica Brummer reviewed the PNCECE website and highlighted the latest products. She demonstrated the:

- Energy Industry Educational Programs site. This is the web version of the Educational Matrix compiled by Edmonds Community College.
- Job Board (by state). The RETC did the original development work. Utilities with a threshold of 50 FTEs were included.
- Smart Grid Resource Library, compiled and managed by WestCAMP, Utah. This library provides documents on the evolution of smart grid technology with more than 1000 documents available for research, project development and curriculum design.
- Registration for the Energy and Construction Summit is open on the web and accessible to all. <http://cleanenergyexcellence.org/registration-open-for-8th-annual-summit/>

Jeff suggested linking to the National Smart Grid Resource Center in North Carolina funded through DOE.

Alison: Is there a process for updating the educational program and job sites? If the updates are made and links do not change there is no issue. If links change. . . they break on our site. A footnote of the change would assist us in keeping the PNCECE website updated.

Barbara talked to the group about the work that has been completed by so many individual partners that is now coming together in the website.

### **Smart Grid Train the Trainer Workshop Review**

Jeff H. announced that he recently met with congressional staffers in DC. There is a chance of continued funding if there is collaboration between at least 3 states. A number of Senators are encouraging the group to apply for continued funding. Senators Merkley (OR), Wyden (OR) and Murray (WA) are all supportive. Jeff asked if participants on the Education Taskforce could

write a few talking points that could be aggregated to present to congressional members and potential funders as an outreach piece for sustainability.

Jeff also announced PSU's spring professional development course - *Making the Smart Grid Work in the Real World*. This course is designed as a professional development opportunity for utilities. The course is offered via distance learning.

Jeff gave an update on the Smart Grid Train the Trainer Workshop. He talked about the genesis of the workshop at the partner meeting in September 2012 at Pend Oreille PUD. The input from industry drove the outline and content for the workshop. Jeff summarized course content. Edmonds Community College hosted the first Train the Trainer workshop on February 22. Jeff reviewed the evaluations, lessons learned and suggestions for improvement. He asked that Avista help at the next workshop on April 26 at the Jack Stewart Training Center, Spokane by providing examples of smart meters. Train the Trainer workshops are scheduled for Salt Lake City, UT, May 7; and June 19 at the Educators Institute, 8th Annual Energy and Construction Best Practices Conference (June 20). Bob talked about the Grab n Go box that will be handed out to educators at the June 19 workshop. The June 19 session will include new materials, teaching aides and guides for how to use the NTER system. He noted that the Utah session will be recorded and added to the PNCECE NTER node as a training aide.

Tom Barr noted that he and his colleague debriefed the Edmonds session and discussed how to pedagogically integrate the information into their existing program content. That is the next step for the college. He stated that the workshop is content rich and provides extensive food for thought for an instructor. Bob T. shared that the Grab n Go box (developed by PNCECE smart grid partner Montana State University) will have guides on the development of learning outcomes designed around Context, Content and Culture. Corinne Sande (Whatcom CC) said that there was something of interest for a diverse audience. Brad Harris added that the content and different perspectives was excellent. Glossary of Terms will be helpful. The Grab n Go box will be a great tool.

### **8<sup>th</sup> Annual Energy and Construction Summit**

Barbara shared the progress of the Summit Planning Committee and highlighted the partnership with the CoE for Construction. She announced the confirmed speakers and panel participants. The crab feed and auction was promoted. Volunteers to help with cooking the crab are welcomed—thank you Mark Fischer! Ryan announced that sponsorships are available and asked the group to let him or Sean Bagsby know of any contacts for follow-up.

The new newsletter—Smart Energy—is here! Barbara noted how this issue was specifically designed as a timeless piece without dates and features college student success stories.

<http://cleanenergyexcellence.org/resources/smart-energy-newsletter/>

### **Next Steps Roundtable**

Ryan Fedie asked everyone to consider what next steps should be for the group. A brief roundtable allowed attendees to share their thoughts on how to maintain the momentum of the partnership and product development. The power of partnership—taking a few problems and

solving them well. Continued dissemination of education materials. Collaboration and coordination. Its about the partnership! A legacy group. Leading across boundaries.

### **Seattle City Light Smart Meter Training Lab Update**

Brad Harris gave a presentation about Seattle City Light's smart meter training center project. The lab will train 10 people at a time – AMI Lecture and Meter Training area. Active load meter board will be activated when training is going on. 35 – 40 meters will sit on the board; AMI data collector devices work with active load meter board; there will be internet connections to each data collector – with radio technology between meters and data collectors. The lab has a computer room to simulate a real-world set up where computers are separate from the meters. One system featured in the lab will be an Elster RF Mesh system where 10 meters talk to a device that conveys messages – those meters talk to another level of meter, which collects more information from other meters (that collect from 10) – not real time but students will be able to see yesterday's demand peaks and lows. Meters show TOU (time of use) price – kWh used calculated with price shows a consumption report – 13 months of data reveals off-peak, mid-peak and on-peak kWh usage. The meters will reveal what time of day energy is being used. The Meter Lab will have actual loaded meters and actual systems. Students will have access to this training that will be posted on the PNCECE website.

Karen mentioned that Seattle City Light is breaking ground for a new multi-craft training center scheduled to open in January 2015. At that time the meter lab will be moved and incorporated into the new facility. The new training center is located 5 – 10 minutes south of SCLs South Service Center.

### **Upcoming Meetings:**

- CoE Advisory Board Meeting, May 10
- Governance Board Special Meeting, May 15
- IEEE PES Student Forum in Seattle, date TBA
- *8<sup>th</sup> Annual Energy & Construction Best Practices Summit*, June 19 & 20, 2013

### **Adjourn**

There being no further business the Education Taskforce meeting adjourned at 1:30 p.m.