



Pacific Northwest Center of Excellence for Clean Energy

Educational Taskforce Meeting

Avista Headquarters
1411 E. Mission Ave.
Spokane, WA 99220

March 17, 2011 10 a.m. – 2 p.m.

In attendance:

Lawrence Beaty, ESTEC, Idaho State University
Ed Bowen, Washington Department of Veterans Affairs
Yvonne Chase, PNCECE
Ryan Davis, RETC
Karen DeVenaro, Seattle City Light
Rob Foley, Spokane Community College
Bruce Folsom, Avista
Jeff Hammarlund, Portland State University
Mike Hanson, Avista
Alan Hardcastle, Extension Energy Program, Washington State University
Barbara Hins-Turner, PNCECE
Jamie Krause, PNCECE
Jilliene McKinstry, Gonzaga University
Troy Nutter, PSE
Patrick O'Halloran, Spokane Community College
Shane Pacini, Avista
Jay Pickett, Centralia City Light
Alison Pugh, Edmonds Community College
Diane Quincy, Avista
R. Scott Rasmussen, ESTEC, Idaho State University
Rebecca Rhodes, IEL/Community College of Spokane
Kevin Schneider, PNNL
Dale Singer, Avista
Dennis Skarr, Washington Department of Veterans Affairs
Michael Wehling, PSE

Call to Order and Introductions, Diane Quincy, Avista

The meeting was called to order by Diane Quincy and introduction of attendees were made. Diane reviewed the agenda with the group and asked if any changes are needed. No changes requested. An overview of safety and building access was discussed.

Diane reviewed the Mission Statement of the Pacific Northwest Center of Excellence for Clean Energy Education Taskforce. The mission statement reviewed is as follows:

The Pacific Northwest Center of Excellence for Clean Energy Education Taskforce will:

- Identify, revise and/or expand curriculum focused on Smart Grid Education and Training using design standards and skill standards for occupations within established deadlines.
- Evaluate and revise curriculum goals annually.
- Redesign career progression within and between target occupations and between utilities, removing and reducing barriers for job progression.

Diane reviewed the Smart Grid Workforce Training Grant roles and direction (see diagram created by Diane Quincy). The taskforce is really validating the relevance of working group outputs, linking resources, people, and ideas to achieve project goals. Currently there are three working groups: the Curriculum Development Committee, the Career Lattice, and the Portal for dissemination of best practices.

Comments on the diagram were that “this is a useful tool to help organize our thinking.” Another comment was “that we need technology components to see how it is the driving force.” This group would be a good forum for what is coming down the line. Jay Pickett commented that Centralia City Light is supporting this grant but isn’t a recipient. They look forward to supporting this group in its efforts. In addition, a member commented that once the career lattice is finished, it will be a useful tool. The career lattice along with the Smart Grid Education Programs Matrix will be where the jobs feed into and will be an important tool in providing a portal for access and dissemination of best practices.

Adoption of December 1, 2010 minutes (Action Item)

Troy Nutter asked if there are any corrections to the minutes. No corrections were needed. Diane Quincy motioned to adopt the minutes and Troy Nutter seconded the motion. The motion was approved and the minutes were adopted as is.

Curriculum Development Committee, Bob Topping and Jay Pickett, Co-Chair

Structure and Learning

Jay Pickett gave an overview of the curriculum sub-committee held the previous day. A review about the committee and what they represent was presented.

It was noted that deliverables is top priority in this sub-committee. The charter was reviewed and approval is expected by the next meeting. A curriculum design template is being developed with comments from the Taskforce. It was noted that a definition for Smart Grid was needed. Jeff Hammarlund offered to review existing definitions of smart grid and bring them to the curriculum committee to review and approve. Bob Topping and Jay Pickett will be working on a workflow process when curriculum is received for approval. It was said that some kind of design around the curriculum to get started would be good with special attention around non-duplication with all the different partners. The contract for General Physics on-line Smart Grid 101 is currently being routed for approval at Centralia College.

Another noted that understanding what the curriculum committee’s role is as a group and identifying what the tasks are, clarify what works and what doesn’t, and staying in touch on who

is developing curriculum with exchanges between the committee and others needs to be understood. Barbara Hins-Turner clarified how the group was formed and why those specific people were recruited.

Kevin Schneider asked about the role of PNNL in regards to the ten skilled trade occupations. PNNL is working on another grant with the University of Washington (UW) on the graduate level. They are pushing the work with UW to be transformed to other universities. In addition, Jeff Hammarlund, PSU, could work on articulation agreements with community college programs who want to adapt the curriculum in their area. This is about those who want to move beyond the two year programs. The advantage for Oregon is showing them the benefits that this regional effort is a bonus. There may be an opportunity for Oregon utilities to use this as a resource. There is a combination of organizations in Oregon that help create the curriculum in higher education.

Shane Pacini from Avista talked about the effort in Pullman along with their three Smart Grid DOE grants. One has been going on for almost 2 years. It is changing the work processes of our staff. Part of the demonstration project is changing out or putting new metering equipment in along with other smart grid components for over 15,000 customers. The customers will be getting all of the latest smart grid stuff from end to end in their house. CSRs need training for their group and have created a customer service for the impact they may receive once it is up and running. Diane Quincy discussed the training center for the craft trainers are building a smart grid substation training center and will identify how to train a substation worker and connect to distribution lines. The attempt is to cross-crafting areas of Smart Grid.

It was requested that when the curriculum committee charter template is ready, please send it out to everyone.

Lawrence Beaty, ESTEC, Idaho State University discussed the delivery of the skill sets and addressing the evolution of those trades is unclear. In Idaho the job description and the evolution is a challenge. It was said that by the time it gets through the curriculum committee at the college it can be obsolete. Jeff Hammarlund also said that some of these challenges are also in Oregon. Collaboration and co-teaching model with industry, looking at courses being co-taught with faculty and industry may be a good option. There has been some disconnect between industry and education which can be difficult. There are common skill standards that bring together different employers to agree on the fundamentals. Gonzaga relayed that some have different visions on how they would use ZagOps, so they run into the same issue. Avista said that it isn't always clear but identifying what the core is and adapting as it evolves is key. PNNL replied that not every student that completes their courses works in the utility industry so there is a need to prevent over tuning it to one industry. It was said that education is a life-long process and doesn't stop once the formal education is completed and the job is obtained. Request that looking to deliver via online, ITV, etc is important to those in the rural areas.

Jay Pickett commented on and promoted the Summit. It is June 23-24, 2011 at the Satsop Development Park, Elma, WA. The link to register can be obtained from Ryan Davis.

PSU connection

Jeff Hammarlund did an overview on how Portland State University (PSU) was originally involved in the Smart Grid grant application. They are still interested in participating and bring in the Oregon Utilities for this project. Jamie Krause introduced the PSU work plan and discussed how they will participate on the project. Some discussion was conducted and no objections to move forward were mentioned. Alan Hardcastle motioned to move PSU's work plan to the Governance Board for approval and Troy Nutter seconded the motion. The motion was approved. The work plan will be introduced to the Governance Board at their next meeting.

Update on Career Lattice, Alan Hardcastle & Sally Zeiger Hanson

Data Collection to-date

Barbara Hins-Turner discussed how the ten occupations were selected for the project and how the process was conducted. Alan Hardcastle discussed the career lattice status. The lattice is being developed to look at the interconnect between the different occupations and how they connect, what is common, what is unique, and the current internal training that is being offered at the different companies. The different models in how the lattice will be viewed were discussed. Collecting the data will come first then a model will be designed. Ryan Davis was asked to suggest an on-line utility tool for the model.

The outcomes of the lattice are to identify career structures, training gaps, and develop or improve programs. Industry uses lattices to clarify career paths with new and incumbent workers in addition to designing internal training. The workers/students could use the lattice to navigate for different career options or training choices.

Currently, interviews are being conducted with industry representatives. A list of where the lattice is at and who has been interviewed was dispersed. Some categories in the handout are still being developed. The analysis and one-page scenarios are being designed. Information from our core partners is encouraged.

Jeff Hammarlund asked if any outreach with other states to expand the region was being considered. Outreach to other states will be done but starting with core partners was the first priority. It was mentioned that if anyone has connections within employers' companies please forward them to Alan Hardcastle. Jay Pickett presented an organizational chart from Centralia City Light talked about how it has smart grid already installed. Another member wondered how broadly and/or narrow this group is that WSU is collecting data from for the lattice. The discussion continued and more information will come. PSU and Avista will provide information as needed for the lattice.

Smart Grid Education Programs Matrix, Alison Pugh

Alison Pugh presented a document on the Smart Grid Education Program Matrix being designed that reflect Washington, Oregon, Idaho, and Montana. She relayed that this is a draft living document with new programs coming on board and some changing. They are trying to collect all the training programs that relate to energy and the occupations in energy. Some gaps will show since the document is not completed just yet. What is presented on the document is the up and running programs, from demonstrated they will figure out a plan on how to incorporate this for public consumption. Alison's diagram and how the information was displayed. It was requested that the document be sent out to the Taskforce for feedback so the group can help match training

programs to occupations. The document will be posted on SharePoint. Jamie Krause will follow-up with the group. Barbara Hins-Turner suggested we add industry endorsement and labor organizations that is associated with the occupation/utility, and what is remote or on-line. In addition, suggested considering what is on the job training (OJT) involved with the different occupations and adding the Higher Education Coordinating Board (HECB) website that displays all of the OJTs listed in Washington State.

Ryan Davis presented the Air Force website that shows how students, industry, and education can maneuver around to see the different careers and drill down from there. Diane Quincy talked about the Get Into Energy website as another tool to show how the information can be formatted.

Upcoming meetings

Barbara Hins-Turner mentioned that Don Guillot, Karen DeVenaro, and herself will be visiting the Wilsonville Training Center - PacifiCorp Meter Lab on March 28th.

Good of the Order

The Curriculum Development Sub-Committee will be looking at the Smart Grid curriculum in what has been developed or is on the docket to be developed. The General Physics on-line Smart Grid 101 module that will be developed was another area discussed. The agreement is that it is available on partner Learning Management System, so those who do not have access to General Physics but are partners with PNCECE will be granted access.

Barbara Hins-Turner talked about the Summit coming up in June and the speakers lined up thus far. Rodger Woodworth of Avista and Lee Hall from BPA will be keynote speakers. Alison Pugh will lead the Educators Forum, and Lindsey Woolsey from CSW will be part of day two.

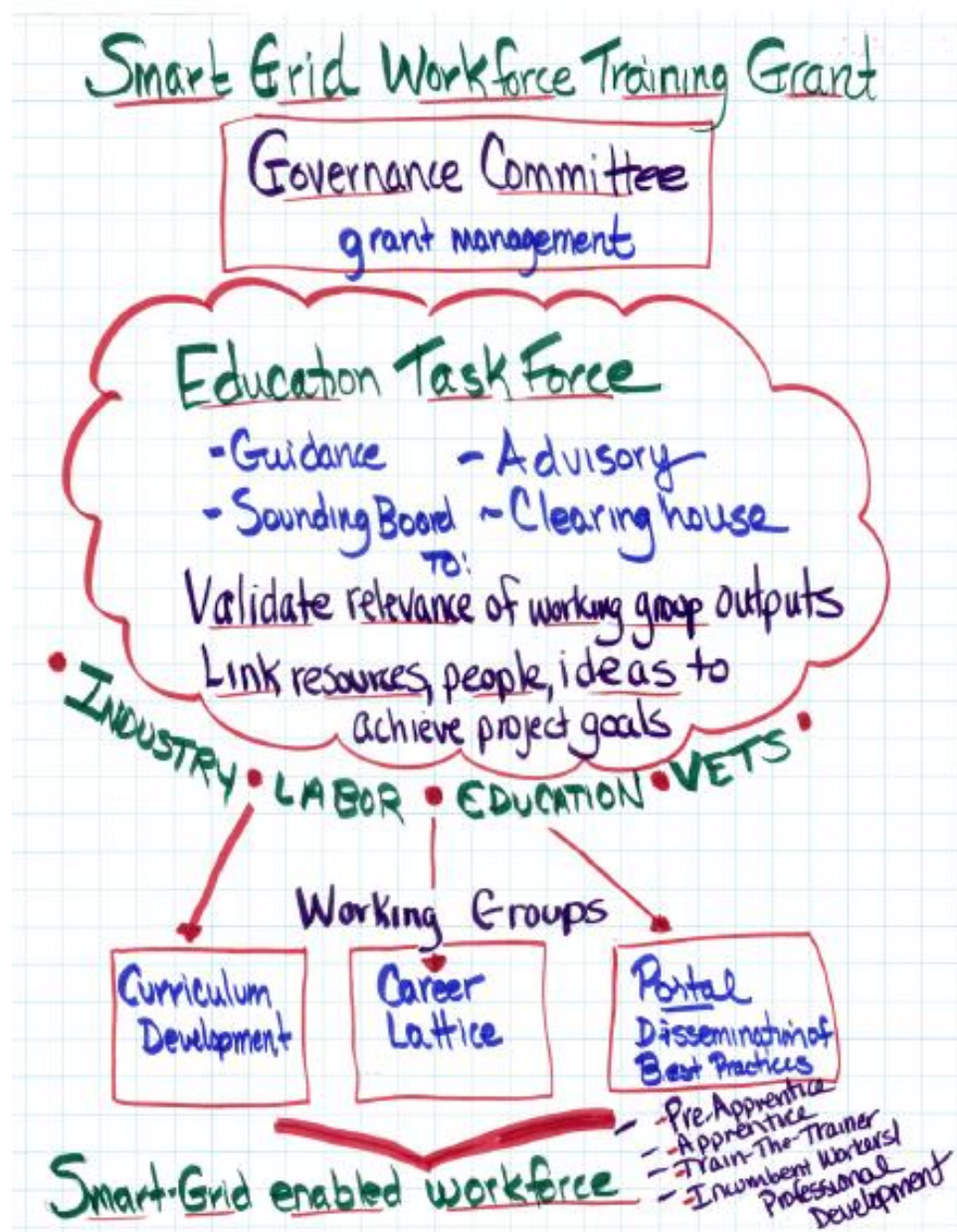
Parking Lot

- SharePoint – use for document/gathering data.
- Articulation; specialty certification – that bridges gap between 2yr and 4yr graduates.
- Design template – Share with larger group
- Consider substation/distribution demo site
- Meter Tech – morphing to maintain data systems to their evolutions; how do they fit?
- Existing Programs – can we get information on delivery method? Can program be fully “on-line” (campus only, hybrid).
- What about looking at which programs utilities endorse.
- HECB – OJT/Apprenticeship list – integrate with Alison Pugh list.
- NW Energy Efficiency Council – role to play?

Next Steps

- Review program list – Alison list. How do programs relate to occupations (especially in “yellow highlighted” areas), are there programs that are missing on the list. Jamie Krause to send out to attendees – can we use SharePoint?
- Quick Inventory: Smart Grid curriculum 1) What is created 2) Underway 3)Shareable. Work with Jamie Krause to send out.

Diane Quincy presented a diagram of the Smart Grid Workforce Training Project. This diagram lays out the roles and responsibilities of the different areas of this project. It received rave reviews.



Adjourned at 2:05 pm