

**Education Taskforce Meeting  
Tuesday, October 12, 2010  
PSE Wild Horse Wind Farm**

In attendance:

Ed Bowen, DVA  
Mike Cabacungan, InSys  
Yvonne Chase, PNCECE  
Terry Cox, North Seattle Community College  
Peter Dauenhauer, IncSys  
Ryan Davis, RETC  
Roger Ebbage, Lane Community College  
Robert Foley, Spokane Community College  
Bruce Folsom, Avista  
Alan Hardcastle, WSU  
Mike Hanson, Avista  
Rod Hedman, Spokane Community College  
Barbara Hins-Turner, PNCECE  
Jamie Krause, PNCECE  
Alice Lockridge, Seattle City Light  
Seth Maier, DVA  
Jim Malinowski, Clark College  
Peter McKenney, Gonzaga  
Jilliene McKinstry, Gonzaga  
Bill Neiles, IBEW  
Troy Nutter, PSE  
Mike Ochoa, Spokane Community College  
Shane Pacini, Avista  
Kairie Pierce, WSLC  
Alison Pugh, Edmonds Community College  
Diane Quincy, Avista  
Dale Singer, Avista  
Dennis Skarr, DVA  
Bob Topping, Chemekita College  
Sue Walsh, BPA  
Michael Wehling, PSE  
Ron Wheadon, Cascadia Community College  
Lynda Wilkerson, North Seattle Community College  
Sally Zeiger Hanson, WSU

Call to order was conducted by Troy Nutter and Barbara Hins-Turner asked everyone to introduce themselves and what organization they represent. Barbara also noted that the set-up of the meeting was designed for industry and labor to sit inside the group and the education representatives to sit outside the group. This design was set-up so we can hear from industry and labor only and therefore we can obtain some direction on where

we go on the education piece of this grant, what the next step will be, what they see the outcome on education for smart grid, and how they want to invest in the curriculum with some possible endorsement. Alan Hardcastle and Sally Zeiger Hanson facilitated the meeting. The next meeting will have education sitting on the inside and industry and labor on the outside. Barbara relayed that the grant is now in phase 2 and started the meeting by playing the 2010 Energy Summit video for everyone.

## **Overview of the Smart Grid Workforce Development Grant**

Jamie Krause presented an overview of the Smart Grid Workforce Development grant on who the partners are, the products to be developed, and the role of the Governance Board. Jamie relayed that we are getting into the meat of the grant with our Educational Advisory meeting. Jamie also unveiled the new logo for the Pacific Northwest Center of Excellence for Clean Energy. The three major objectives of the grant is delivering smart grid training, creating the training portal, and sharing best practices with people across the state and across the nation. The governance board for the grant was established this last summer. They are there to provide leadership, direction, and oversight for the grant. The make-up of the board is industry, education, and labor. The board meets on the third Tuesday of every month with the exception of October. The Project management plan is done and the metrics and benefits have been approved by DOE. The contracting has been begun with our sub-recipients and internal processes have started in regards to progress reports, reporting, and leverage/match requirements. We are also in the process of receiving approval from DOE to back date our contracts to the first of August. This will also allow the sub-recipients to use the expenses incurred as match/leverage back to April. A communication plan is being developed. Barbara Hins-Turner will lead this with support from others.

## **Industry Roundtable**

Alan Hardcastle facilitated the Education Advisory Committee on their roles and responsibilities, the work of the Education Taskforce, the subcommittee composition, and the scope of work. The following information was solicited from the industry partners:

### **What is happening in your industry now?**

Avista:

- Involved in 3 grants now – timing of various grants calls for training now while information and products are still being developed. Grant management skills needed.
- Working on training for new and incumbent workers
- Culture change needed: Training upgrades for current employees and Trust in new technology and tools
- Need collaboration across industry, with labor and among colleges

- Increased focus on end users – need program delivery and communication training
- Increased focus on relationship with customer (move away from transactions)
- Focus on increasing reliability of system i.e. reducing outages, manage load, limit impact.
- New approaches to dispatching work needed.
- Integration of various technologies
- Customer service – need to be able to answer customers' questions; customers are hesitant – don't want "stupid smart meter".

#### *Technology:*

- Analysis of current system
- Implementing new devices in targeted area; plan to expand

#### BPA –

- Involved in multiple grants
- Exploring new technology – does it deliver?
- Working on stability of western grid (syncophaser)
- Researching storage
- Wind forecasting – part of innovation project
- Feels like industry is on the brink of significant change – seems analogous to change the phone companies went through when the transition from old phones to cell phones happened
- Customer education is essential
- Workforce development approach needs to be updated

#### PSE –

- Auto meters have been in place 10 years
- Smart grid calls for cross-organization collaboration – new integration within utilities' structure needed
- Need to understand segmentation of customers – customers motivated for different reasons.
- Regulations – Can savings from efficiencies be reinvested in the system?

#### IBEW –

- New smart meters increase reliance on IT systems which results in increased cyber security issues

- Over estimation of job creation at federal level is problematic. More retraining needed than new employees.
- Recognize that customers are different (ex: residential vs. commercial) – different solutions needed for each and there are customer service implications.

WA State Labor Council –

- No new jobs; jobs are changing and evolving; new skills can be added mid-career.

### **Additional Changes on the horizon –**

- Complexity of work is increasing
- Customers concerned about losing “their” meter reader losing their job
- Public policy is lagging behind the technology
- Energy education will be area of growth
- Radical change is forecast for the industry – BIG IT changes are coming
- Google and others are vying for roles such as managing data
- Change management competencies are needed
- Airlines metaphor – One company can cause industry revolution (ex: South West Air)
- Mandatory standards
- NW is different (no aggregators)
- Increased regulations
- First education efforts need to be with utilities staff. Message: “You’re part of making this work.”

### **Education Taskforce Formation.**

- Taskforce will provide input and oversight
- Sub-committees will take on specific tasks

### *Discussion:*

- Need to coordinate training initiatives – each utility has its own training program in place
- Apprenticeship standards and training needs to be evaluated
- Need to “nest” new skills training into existing programs
- Check taskforce membership for supply/demand balance. Need learning expertise on the taskforce.

### **Career Lattice discussion**

- WEI – meter tech – Western Energy Institute is looking at transition of meter workforce into other energy occupations, we should review that work.
- Include work experience qualifications (not just degrees and certifications)
- Show how military training fits into lattice
- Leverage work of CEWD
- Include “wish list” for job skills on lattice – skills they must have, should have, would be nice to have
- Tie prior training/experience to upgrade training
- Address recruitment – attracting employees and students
- Directory of SMEs who could assist partners in defining requirements and guide the project.

### **Next Steps**

- Survey industry partners

**Workforce: Looking Ahead**--more in-depth conversation needed about industry changes and Smart Grid impact on workforce development– may be primary agenda item at next meeting of the Education Taskforce.

- Utilities are each taking different approach
- Turnkey employee needs vs. modules need for on-the-job upgrades
- Jobs are different at each utility (except line worker)
- Job competencies are more accurate than job titles
- K-12 foundational skills needed
- Idea: competency lattice instead of career lattice
- Hiring freeze impacts options of who to hire
- Need to know up front if regulations or funding limit training
- Smaller labor pool is forecast
- Need to know: How do we create common Smart Grid vision and what needs to be in place to make it all work?
- Energy industry has image problem – need help recruiting; mentoring
- Colleges – need industry support to maintain programs if enrollment goes down when economy recovers; could share costs with industry for incumbent worker training

Note: Underlining indicates major theme of discussion.

### **Nomination/Confirmation of Education Taskforce Members**

Sue Walsh from Bonneville Power Administration was nominated as the Chairwoman for the Education Taskforce.

## Questions and Answers from Education

Are the veterans able to submit to industry a series of questions generated today and would they be willing to answer them and also provide questions generated to the veterans for them to answer.

*Yes. The group asked for the questions to be submitted all at once so industry doesn't get repeats.*

What unique hazards would Smart Grid create in an industry that has been built on risk management? Smart Grid may change that...at least on the supply side.

*Industry doesn't see the hazards changing, they will stay the same – what is changing is the way we do work and ensuring safety is still part of that work. The electricity still goes through the capacitors, lines, switches, and transformers – everything is the same except we are isolating it down, at least on the supply side, to control the power on the voltage and frequency and limit the amount of outages we have to make our systems not only more reliable but more efficient. We are updating power lines and transformers so we don't have the power loss and downtime. Smart Grid will reduce this down time and money savings down the line. We are still doing the high voltage overhead line structure; the interface with the supply side of the grid. The installation and maintenance of those net meters and generators will become critical for demand side generation.*

How do we get the students to understand the potential in this profession as it becomes more automated? When the economy turns around we will be competing for students for the workforce. Tracking and

*Tracking and recruiting awareness to get these students and people from other organizations to participate in those programs? Some students perceive this industry as boring work. Marketing should be done in a way for the student to interact with the industry so they see the potential. Education needs industry to help promote this industry to the students as a viable and exciting career.*

Would industry consider letting the community college do some of the training and possibly put an apprenticeship worker in the education system to interact with the student and teacher. It would be helpful if industry would consider using those resources, especially for incumbent workers.

*How can we do that and make it available and immediate and not based on specific curriculum dates or times. It would be difficult to do because apprenticeships go to school in the evenings and then again on Saturdays.*

The model the college was thinking of was to have the full time student take normal curriculum courses then one week workshops on particular subjects.

*Pulling an employee off the job for a week and pay him while he goes to school will not work. As an apprentice I don't have to pay him to go after hours. If they go in the evening and on Saturday, then they go on their time. Paying for their books, tuition, and some equipment for the apprenticeship if available isn't the issue. The history of utilities has been cradle to grave with their employees. We do everything available to try and advance within if they show the desire to move the company.*

Industries willing to provide knowledge manage support in the form of coaches to the colleges, in the form of mentoring?

*We have done some mentoring and are rolling out a program on how you mentor individuals with the local schools. Also in the professional branch of the company there are those same type of mentoring programs. There have been some successful outcomes as a result. It is very time consuming but rewarding and beneficial. One program is where engineers work with the kids and it is a big deal in Spokane. Most industries would not deny a request to spend 30 minutes with a kid. Our local colleges and universities are very proactive in coming to industry and asking what they need a couple of years from now.*

## **Closing**

Alan Hardcastle has suggested that this discussion continue to the next meeting. He said that we will take back what we have collected today and come out with a proposed schedule of meetings. We will look at the current group and make sure we have the right people at the table to move forward.

Alan also said that having our industry partners in the center have been a real opportunity and the education partners willing to sit on the outside with burning questions are appreciated. Know that all are respected and will make a big difference in meeting the goals of this grant.

Barbara Hins-Turner thanked everyone for coming and reminded everyone of their Spokane trip coming up.

Troy Nutter announced the tour of the Wild Horse Facility will meet in the lobby.

Meeting adjourned.