



**Center of Excellence (CoE) For Energy Technology
Advisory Board Meeting
April 1, 2009
9am-11am**

Call to Order – Pat McCarty, Chair

Pat welcomed everyone and asked for introductions at Centralia College and remote locations: PGE, Wilsonville; Avista, Spokane; Green River, Veterans Assc; Wenatchee Valley College

Director's Report – Barbara Hins-Turner

1st Quarter '09 Projects

Communication from State Board of Community and Technical Colleges (SBCTC) on SSB5048 and HB1323 requiring SBCTC to designate and fund Centers of Excellence:

During yesterday's House Education Appropriations Committee meeting, Representative Anderson expressed some concerns about accountability and performance measurement for CoEs. He indicated that he would be seeking amendments during the floor debate. He also had some other concerns about clusters and economic development strategy.

Carolyn McKinnon and I met with Representative Glenn Anderson regarding SSB 5048 (the one that requires SBCTC to designate and fund CoEs). If you will recall from my previous message, he had expressed some concerns regarding accountability and performance reporting during a House Higher Education Committee hearing last week.

Basically, he would like to see performance and accountability language added in to the statute along with the requirement to designate and fund CoEs. I showed him our new performance based funding model and described our accountability plan to him. He indicated that these steps were all moving in the right direction.

Barbara expressed special thanks to Bob Guenther, IBEW 77, Kairie Pierce, Washington State Labor Council and Troy Nutter, PSE for supporting sponsorship of the bill.

New CoE Funding Model:

All CoE's received additional Performance Based funding in the amount of \$50,000 through June 30, '09. CoE Energy funding will be utilized for the following projects:

- Northwest Energy Efficiency Taskforce (NEET) Project – Alliance with WA, OR, MT, ID utilities working on conservation and energy efficiency workforce challenges. CoE role is to identify across the 4 state region where the strong energy efficiency programs are located in colleges, universities and privates. The funding supports contracting with Annie Lindberg to conduct the research.
- Energy Efficiency Auditor Train the Trainer being developed in partnership with WSU Extension Energy Program and Veterans Assc to develop energy efficiency auditor train the trainer program to be delivered to community college faculty and veteran's trainers. This will provide a foundation for align training to Building Performance Institute Standards throughout the state.

National Commission on Energy Policy (NCEP) Bipartisan workgroup – Barbara is serving on taskforce with industry, labor, trade associations and three colleges selected on a national level.

- January and February meetings in DC
- Developing report that aligns workforce projections with energy policy
- Three model case studies selected for report:
 - Pacific Gas and Electric PowerPathways
 - IBEW Regional Training Centers
 - Washington State Center of Excellence for Energy Technology, Centralia College
- April 23, final meeting in DC

Events – Special thanks to all those that have presented and participated in all the events!!! Presenters will report out later.

Women in Trades Fair, March 27, Seattle

- CoE – Construction, Process Control, Marine Manufacturing, Energy

Electric Vehicle purchased through Lewis County Economic Development Grant

Special welcome to New Market Skills Center and High Schools

Introduction – Annie Lindberg, CoE Research for NEET

Completing Masters in Environmental Studies at Evergreen State. Project purpose is to identify energy efficiency programs in Universities and Community Colleges and any other organizations offering programs in WA, OR, ID and MT. No uniform name for “Energy Efficiency” exists making it necessary to look across disciplines to identify programs that might relate. Outcomes will include:

- What happens to students who graduate and what fields they enter?
- Companies interested in hiring people in the energy efficiency field will know which schools to look for and partner with those programs.
- Ultimate goal is to create database on-line so people can look at schools that interest them and prospective employers can look to see where to find employees.

Q- Green River Veterans-Is there any effort to standardize and make programs the same across the board in the four state region?

A- Right now there is no standardization and we are working on finding the different programs that exist. We need to figure out what exists before we can even think about standardizing.

Q- Are any of these programs working on degrees or certifications?

A- There are short-term certificate programs as well as 2 year technical degree programs. The object is to find out what each program is or is not providing.

Q-Are any of them working on industry certification in conjunction with a degree?

A- Some are industry certification programs. Most of these programs have just popped up in recent years so we really don't know if they are providing what industry needs.

Q- Does there appear to be any common bases for these industry certifications or are they creating their own?

A - Barbara- The state standard is becoming the Building Performance Institute (BPI) Certification. What we don't want to happen is what happened in the boiler world where

there are 300 certifications in the US and often cities can't agree on certification requirements. .

-Statement - From a community college standpoint advisory boards are formed to create a degree so someone is giving us the information that we need. The critical part is to find some kind of consistency.

Q- Do you currently have a list of the colleges and the certifications?

A- We are developing it right now. The list for WA and ID is a good list and we are working on OR and MT, but need to zero in on which programs are really energy efficiency programs.

Q- Diane Quincy- do you have a target date for the detailed analysis.

A- End of June.

Q-Diane- Have you thought of marrying this work with Center for Energy Workforce Development (CEWD) work?

Barbara - Yes, we have spoken with NEET leadership and have had several conference calls with CEWD. We have talked about their "Get into Energy" site and having a link about "Get into Green Energy".

Dr. Jim Walton, President Centralia College

Introduction and welcome to Centralia College. Thanks to all for participating. You are helping people across NW with training and succession planning for the industry.

Update on Research and Skill Standards Projects – Alan Hardcastle, WSU Extension Energy Program

WSU work- With COE and related areas.

Skill Standards-Derive skill standards projects through COE- Define requirement of industry in particular occupations and sectors. Industry would really benefit from being clear about expectations of Knowledge, Skills and Abilities that companies have for particular occupations. Skill Standards work include:

- Energy Skill Standards for Plant Operators and Mechanics in '06
- Plant Electricians- very close to being done.
- Combustion Turbine Tech - combined cycle, gas turbine specialist.
Sending out surveys now and trying not to overwhelm industry partners.
- Wind Technician - working with regional wind companies including PSE, Energy NW, Whitecreek Wind, Vestas, Anexco about participating in our Phase Two - focus group with wind technicians. We ask the people doing the work what the work is, not management two or three levels up.

April 6/7 is the wind tech focus group in Richland at Energy NW Nine Canyon wind farm. These skill standards will create standardization for not only Washington but across the region. We participated in national grant proposal submitted by Columbia Gorge Community College in OR to DOE to our standards a regional standard and perhaps with the American Wind Energy Association to make them a National Standard for the Wind Industry. We will know about that proposal at the end of April.

Other Projects

Trends and Workforce Requirements in Renewable Energy Occupations (in Wind, geothermal, biomass, solar, etc)

What are the emerging trends in these energy sectors? What are the implications for renewable and the expectations in terms of employment, skills and training programs.

In the process of interviewing employers who are online today to get more specific information about the actual skill expectations they have. Also, information on their delivery systems and what kind of delivery systems they think are really necessary. And, has the recession had an effect or are they just moving in different directions?

Energy Efficiency (EE)

What is it? What isn't it? It's very nebulous. It depends on how you define it. There are many sectors, occupations and activities. EE and narrow it down into specific areas where we know we are going to see high demand both nationally and regionally for Pacific Mountain area because some of the funding comes from WIRED. In the process of collecting basic information on the trends in this industry, including, what our definition is for the purpose of this research. Hope to combine that with some training program information and get more specific about some key occupations where we expect to see some growth. We helped the Employment Security Department with The Green Economy Jobs Study that the legislators required last session to do a fairly broad based survey about the green economy in Washington State. WSU helped them design the research for the analysis and write the final report. We see clearly that energy efficiency is by far the largest category in green economy jobs and that construction and related energy efficiency jobs is by far the largest single sector. There are many opportunities to exploit and build on that whole area of industry in terms of identifying appropriate education and training and all the support services to help move forward in that sector. There is a lot of interest in the legislature on how we can jump start the industry, how we can put a lot of lay off construction folks to work doing renovation and weatherization.

We are looking at skill requirements across energy occupations to find common skill sets using the skill standards we already have for cross-occupational/cross-site analysis. What are the fundamental skills that anyone pursuing a career might need to enter the energy industry? It may also help us answer the question with renewable of how much is really different between renewable and traditional occupations in the energy sector. Answering these questions can help us tease out those opportunities and help us align our training programs to support future programs.

Q- Have you looked into the manufacturing side?

A- The survey the ESD did include some manufacturing. They weren't quite as prominent as the application side of construction but they are definitely in the mix. Manufacturing and new materials is very prominent in Washington.

Q-What are the skills across the board?

A – It is difficult to answer the difference between renewable and traditional occupations.

Q-Pat- What is phase two?

A- Look at the workforce development implications and growth in renewable sectors.

Grays Harbor College (GHC) – Industrial Control Systems Program

Mike Kelly and Fred Hennige - Bellingham Technical College (BTC) approached GHC to expand BTC program to a more regional basis. Process control is needed for operator training with two parallel tracks. Benefits include working with COE to secure grants. Both colleges are learning about distance education and curriculum. The idea is to create a regional program that is housed at Satsop Regional Education and Training Center (RETC) to create jobs. The program includes online class work and labs. Hands on will

be at RETC with flexible times and schedule to reach a broad area and get to people who can't attend traditional programs. It is a good fit and ties with industry and COE.

Q- Pat- When do you expect your first classes?

A- Fall, '09

Q-Pat- Is the equipment on order?

A- One of the other partnerships is with the WIRED Energy Panel which Jim Lowery coordinates to ensure equipment ordered is up to industry standards. The contract is complete and the equipment is being ordered and assembled to do some showcasing at the Energy summit.

Q- Who are your target students? Who do you hope to attract?

A- Hope to attract incumbent workers, high school and dislocated workers.

Q- Are you getting students through Centralia College or other areas?

A- Through Grays Harbor College but we are still learning. The goal is to take the general education courses on line at miscellaneous colleges and the technical courses at Satsop.

Q-Jim-What platform are you using?

A-Using Angel for on line.

Q-Jim- Have you developed course content?

A-90% and on Angel, but it hasn't been transferred on-line.

Barbara- Thanks to Pat for letter of support on behalf of CoE Advisory Board and to Jim Lowery for work on equipment which will be housed on the second floor of Flex Tech building

Jim Lowery- acknowledged all partners involved in equipment purchase.

Curriculum Review and Recommendations – Dale Singer, Grand Coulee

Jan 19 Dale Singer, Todd Arendt and Stan Burt, TransAlta, Joe First, Lewis County PUD and Rulon Crawford and Barbara Hins-Turner, Centralia College met at Trans Alta to discuss energy technology curriculum. Both Grand Coulee and TransAlta hired Centralia College Energy students students in August providing opportunity to determine student/new hire knowledge.

Program changes over time due to industry input:

- CAD class removed and Print Reading added because reading prints is more beneficial than drawing a print.
- New Hires had some confusion with how VARS reacts with the system and load vs. frequency changes. Thought training was more geared to transmission rather than generation and would like more focus on generation.
- Looking at lab equipment for hands on training. Class room work is good, but applying the theories with hands on solidifies it.

Western Region Boiler Manufacturers – March 10-12, Spokane, WA presented by Barbara

- Jay Pickett, Energy Technology distance instructor and Seattle City Light, Boundary Plant

Attended the Western Region Boiler Association Conference in Spokane with Bob Clark, Panglobal Publishing. WRBA selected COE as primary trainer for the boiler operators in their trade association territory. WRBA provided \$2,000 in scholarship funding at '08 summit.

Foundation for Water Energy and Education (FWEE) Recruitment Workshop – March 3, New Market Skills Center, Co sponsored by CoE -

- Jim Lowery reported

Conference purpose was to connect industry and K-12. Panels involved labor, private industry, public utilities, education. First Panel introduced training needs with industry, second panel introduced high schools to discuss their needs and last panel provided background, tour and explanation of New Market.

Statement-Some asked what the follow up is going to be. How we develop our curriculum and access the skill standards that are already out there.

Barbara – there will be follow up to these discussions on the 2nd day of the summit.

Colorado SECTORS Academy – Feb 17-19, Denver, CO

- Dale Singer, CoE Advisory Board member and Operations, Grand Coulee Dam Presented on Power Generation Model Skill Panel report at conference. They are a bit behind us but looking to see what industry they want to focus on and develop skills standards or Center of Excellence model. Spoke with a man from Energy program for state workforce and suggested he get in touch with Washington State and use our skill standards with some mutual agreement.

Barbara- We were invited because our Power Generation Skill Panel was selected as one of four models in the state.

Good Jobs Green Jobs Fair, Feb 5, Washington DC

- Dr Alan Hardcastle, WSU Extension Energy Program

2500 people attended conference which was about where we are in conservation and jobs creation. Organized labor was big contributor. Alan’s presentation focused on the Green Economy Jobs Study and the Electric Sector Workforce Challenges research that looked at retirements, shrinking employee base in the energy industry and replacement of workers with new workers. Washington is well ahead of other states about taking action and finding solutions to these issues. Met with National Renewable Energy Lab and deputy staff director from Senator Murray’s office. Shared with senator’s office our work and how we are most interested in continuing to receive senator support and our gratitude for her supporting community and technical education programs and making sure we have adequate resources to keep the work moving forward. Made alot of great contacts and made great leaps in Washington’s visibility.

Annual Energy Best Practices Summit, June 25/26, Pacific Mountain Regional Training and Education Center

- Co-sponsored by Construction Center of Excellence
- Theme Sustainability in the Green Economy
- Keynotes - Green for All, Veterans Green Jobs Act and Washington Green Economy Jobs Report. Panels will include the Northwest Energy Efficiency Taskforce leadership team, best practices energy efficiency training and model skill panel to include Power Generation and Seattle King County Green Building Design.
- Evening crab feed and scholarship auction, donations for the scholarship auction are welcome.

Center of Excellence for Construction, Renton Technical College, Julia Cordero

described the cross over between energy and construction in energy efficiency. Construction is handling all RSVP and registrations.

Chair Board of Trustees, Centralia College, Judy Guenther

Summit Scholarship Auction - This year more than any other we need everybody to contribute items for auction. We made \$1,000 first year and \$2,800 last year, but we need more. Give, give, give. Contact us and donate something for student scholarships. It is also a fund raiser. Trustees serve crab feed and this year both Centralia and Renton trustees will participate.

Centralia College, Rulon Crawford reported by Barbara

Spring term Energy Efficiency class is full with over 40 students and 2nd section opened. Equipment is very hard to fund. Lewis County Economic Development Council is funding a lab at Centralia which is on order from Labvolt. Student placement is still excellent in spite of the economy.

Wenatchee Valley College, Riva Morgan

Reported 2nd year ITV class from Centralia College is going well after the initial start up. Student just hired by Grand County PUD as a hydro mechanic helper.

Open Forum

Jim Malinowski urged utilities to donate surplus materials to colleges instead of scrapping equipment, but think about education possibilities. Some historic items can be donated.

Alan- suggested acquiring a department from general administration that specializes in finding equipment that people need. Could we create an inventory from utilities to match equipment with institutions that are looking for items and create an inventory website.

Pat- It is possible for things that have less resale value (copper, etc) like instrument panels that would head to the scrap heap otherwise.

Statement- The NW Manufacturing Alliance is working on surveying and creating a website to barter or share talent and resources. Web site is coming on line in about 3 weeks.

Alan volunteered to find out more about what can be done about surplus and connect it.

Satsop Development Park, Stan Radcliff - going to Washington DC and will be visiting congressional offices. PDA is working with WIRED on layout of RETC. Stan is lead for project renovations in the building.

Q- Touch on Energy Efficiency class at Centralia.

A-Barbara-Rulon was in Energy Efficiency at PGE for year mostly in residential. Students will do energy audits on their homes to better understand energy conservation and efficiency.

New Market- Mark Wager, Alternative Energy Program purchasing LabVolt equipment for training. It is difficult to get the kids in the program.

Barbara – This is a national problem. CEWD [Get into Energy](#) Website provides some information. Jim, Rulon and Teri Pablo are working on DVD about energy jobs to interest K-12 kids, parents and counselors. This is funded by WIRED and is focused on

what would keep a high school kid's attention while watching this video to be completed by June 25 for the Summit.

Bill Olfert - OSPI staff is interested in green technology programs. The successful ones are with manufacturing, etc. The idea is to integrate them together and start them at middle school. OSPI is getting stimulus money for green related programs and K-12 can create programs of study to expose them to the opportunities.

Teri Pablo – No Thurston High School District has offered the energy program in No Thurston School District for many years and has been able to attract up to 50 students in the beginning class and 20-25 in advanced class. Have had a hard time connecting that program to post secondary so we working with Rulon and Centralia College to align Tech Prep credits. Kids are attracted by Electric Vehicle race annual Alternative Energy Event in Lacey. This year's event will be held May 1.

Statement- Kids are attracted through school tube- to get them interested through their avenue, not ours, instead of giving out DVD's.

Statement- And then have a follow up so kids can say "what now" Have them have research available for kids to follow thru and inform teachers.

Jeff Frias - create bilingual program through channel 3 of public access educational and cultural programming for this area and upload it to you-tube. Put it on the Centralia College web-site. Go on location for education programming and integrate it nationally. Get to the kids where they are through My Space, Face Book, Twitter, etc. Latino population - 50% are dropping out of high school. Address the needs of workforce development and create a partnership over the next couple of months and beyond.

Jim Lowery- shared community interest in electric vehicle showing truck at different functions such as Earth day, WIRED career day, Growing Places Auction etc.

Diane Quincy, Avista

Partnership with Gonzaga University- has two programs

1. Certificate in Transmission and Design Engineering available on line.
2. Systems Operator Training on non-credit basis.

Avista line school in partnership with Spokane Community College enrolls 40 students twice times a year in pre line training.

Barbara- recognized Gary Franklin, TransAlta new Advisory Board member and '06 graduate of Energy Program as first graduate to serve on the Advisory Board.

Meeting adjourned.

Attendance:

Centralia College

Pat McCarty, Tacoma Power
Judy Guenther, Centralia College
Jim Walton, Centralia College
Jim Guenther, TransAlta
Gary Franklin, TransAlta
Angela Mallow, TransAlta
Stan Radcliff, Satsop Development Park
Jeff Frias, Centralia College
Jim Malinowski, Clark College
Mike Kelly, Grays Harbor College
Fred Henninge, Grays Harbor College
Annie Lindberg, Centralia College
Cindy Mann, Centralia College
Bill Olfert, WIRED
Jim Lowery, WIRED/Centralia College
Barbara Hins-Turner, Center of Excellence for Energy
Julia Cordero, Center of Excellence for Construction
Alan Hardcastle, WSU Extension Energy Program
John Loyle, Pacific Mountain Workforce Development Council
Teri Pablo, North Thurston High School District
Mark Wager, New Market Skills Center
Kairie Pierce, Washington State Labor Council

Wenatchee Valley College

Riva Morgan, Wenatchee Valley College
Dale Singer, Grand Coulee Dam

Avista

Diane Quincy, Avista
Terry Bushnell, Avista

Green River

Ed Bowen, Veterans Assc
Jeff Reyes, Veterans Assc

Wilsonville

Pat Hatleli, PGE
Mark Lewis, PGE