



Fall Advisory Board Meeting Minutes (In-person and Virtual*)
November 8, 2024

Members Present

Alice Massara, Tacoma Power, Chair
Bob Guenther, Organized Labor Rep.
Christina Chestnut, Thurston County Chamber/WorkSource*
Christine Reid, IBEW 77*
Erik McCoy, Puget Sound Energy*
Jason Selwitz, WSU Energy Program*
Jeremy Gall, Avista*
Joe Clark, Lewis County Transit*
M.L. Norton, Centralia City Light
Nicole Schwall, Lewis County PUD
Richard DeBolt, Economic Alliance of Lewis County
Sarah Giomi, Energy Northwest*
Sarah Letsch, Avista*
Steve Marshall, CATES*

Ex-Officio

Monica Brummer, CoE Director
John Steidel, Centralia College faculty

Members Absent

Aman Gill, Centralia College faculty
Betsy Lazo, Centralia College Dean
Brian O'dell, Chelan County PUD
Brian Young, PnWH2
Court Stanley, Centralia College Trustee
Dan Kay, Wahkiakum PUD
David Fortney, Portland General Electric
Jim Lowery, Centralia College Trustee, retired
Kate McAteer, WSU Tri-Cities
Rulon Crawford, Centralia College faculty
Travis Kinney, Lewis County PUD

Guests

Amber Tilton, US Army Corps of Engineers*
Mike Bowen, Climate Corps Fellow, Clean Buildings
Emily Klickman, Climate Corps Fellow, K-12 Outreach

Minutes Recorder

Emily Girt, CoE Program Coordinator

Welcome & Introductions

Alice call to order and review of agenda

Welcome Sarah Letsch, Amber Tilton, Mike Bowen, Emily Klickman

Short introductions and "How do you or would you like to use our website?"

(<https://cleanenergyexcellence.org>) (note, everyone introduced themselves. We included new introductions and comments that answered the website question):

- Sarah Letsch, Avista: Manager of Recruiting and HR Compliance, has been with Avista for six years, in recruiting and workforce development for about eight.
- Erik McCoy, PSE: Have been using the website recently in the last three to six months at career fairs and high schools to sell apprenticeships. The pathways tab with all the options is a great section to send people too.
- Amber Tilton, USACE: Talent Manager (recruiting), working with the corps for 20 years.
- Sarah Giomi, Energy Northwest: Program Manager helping with funding efforts, before that working on workforce development efforts. It's important to connect with others and appreciate the board member page.
- Joe Clark, Lewis County Transit: We use the website quite a bit in developing the REVIT program for job information and guidance. In our proposals we use the reports and

things that are posted. We appreciate the value of it and the hard work that has gone into it. It's a tremendous resource for us.

- Emily Klickman, K-12 Education Outreach Fellow: The K-12 resources page has been most helpful to find experiments and curriculum to share with teachers.
- Bob Guenther, Retired from IBEW 77: Lobbied in the legislature for nearly 14 years. The website is an opportunity to start bringing folks together, because there are so many people doing the same thing.
- Nicole Schwall, Lewis County PUD: HR Manager, uses the careers and apprenticeship sections at career fairs and other events.
- Jason Selwitz, WSU Energy Engineer, Dean at SPSCC: Involved in the Walla Walla Energy program, is interested in continuing conversations to get/build community college involvement in the energy industry. SPSCC program is building a connection with South Seattle College.

Spring Meeting Minutes (May 2024)

Action: Approved

CoE Report/Update

Our work: focuses on generation, transmission and distribution of electricity. It also includes:

- Electrification of everything
- Batteries, fusion, biofuels, cybersecurity, hydrogen, H2 hubs, and energy storage

Strategies

- 1) Strengthening advocacy and community partnerships
 - a. Women in Hydrogen, RHA, fusion, EV training for CTC faculty, Energy Educators Association, information sharing with EEA
 - b. FWEE: National Hydropower Association award support, H2 fuel cell cars for the academies, activity guide, increasing academies to more locations
 - c. CEWD: published materials in Spanish. We co-chair the West Coast Consortium
- 2) Increasing awareness of careers
 - a. FWEE academies, REVIT support
 - b. What's new: Career Clusters – by Advanced CTE
 - i. Energy and Natural Resources are partnering in a new category (first time for energy)
 - ii. CEWD and Advanced CTE have been working at these changes for two years which creates new pathways for schools and increased awareness
 - iii. Christina Chestnut (10:47) chat:

CTE Team shared this morning: Career Clusters - Advance CTE <https://careertech.org/career-clusters/>. The National Career Clusters® Framework. The Career Clusters Framework serves as the foundation for designing consistent, high-quality Career Technical Education (CTE) and career pathway programs.
- Bob G. question: PACMTN has had industrial clusters for many years now, have you tried to tie those to the career clusters?
- Christina C. comment: Clusters are being worked on and there is a national level effort to crosswalk CIP and SOC codes, but it will take time to implement.
- 3) Monitor Funding & Grants to Increase Opportunities
 - a. Projects with money into the CoE

- i. CCW Round 13 recently closed
 - 1. Supporting applications from BEF, Boys & Girls Club, JumpStart, REVIT, Green Jobs Youth Pathways
 - ii. PNNL Clean Energy Accelerator Program
 - 1. Using VR technology and working with Center for Hydrogen Safety
 - 2. Partners from Washington, Utah, Connecticut, and Texas
 - iii. EPA Grant
 - 1. Found a grant to get Kenworth EV trucks into colleges with CDL and diesel tech/EV programs
 - 2. CoE for Global Trade and Supply Chain management has taken this project on with support from us
 - iv. Grays Harbor Carbon Capture
 - 1. In negotiations, would supply field trips for students and working with Grays Harbor College and Elma School District
 - v. H2 Hub (no current updates)
- b. Projects without money into the CoE
 - i. REVIT

Events

- June: SWW Energy/STEM Academy, RHA Annual Summit, CTA Innovation Showcase
- July: Dept of Energy HFTO/PNNL visit, PNW Energy Summit & Energy Solutions Showcase, Innovation Engine Workshop (INTENT)
- August: PNWH2 CBP, CoE Director's retreat, GTSE, SWW Fair, AGI
- Sept: PNWH2 at Centralia College, Hydrogen in Focus: Transportation, WSU Tri-Cities Clean Energy Showcase
- Oct: SBST Celebration, WA Solar Summit, CleanCurrents, NREL Water Power STEM & Workforce, Fusion Week, Energy NW Public Power Forum
- Nov: Bioeconomy, PSU/NSF Powerise, CEWD National Conference
- Upcoming: Hydrogen Safety through Center for Hydrogen Safety webinar

SEI K-12 Energy Fellow Update, Emily Klickman

- Community of Practice
 - Six 90-minute sessions for college staff and faculty
 - Topics include building efficiency standards, environmental science, clean energy, HVAC
 - Provides support and resources to integrate these topics within curriculum: electrification, decarbonization, the energy/water nexus, climate change, green job topics
- FWEE/STEM Academy
 - Field trips: hatchery, First Mode, Mossyrock dam, Lewis County PUD
 - STEM projects: build your own hydropower, build your own hydrogen car, VR headsets (climb a communication tower, restore power to a town, and more)
- Mobile Lab: 12 computers, simulators (forklift, bulldozer, backhoe, welding, electrical panels), scheduled to visit Napavine, Chehalis, Boistfort, and Centralia
- School Energy Challenge
 - Centralia High School is registered, recruiting for one or two more schools
 - Includes building/classroom audits, how to reduce energy usage and add efficiencies, implement changes and re-audit

Green Innovation: K-12 REVIT & H2 Report, Joe Clark

Update on our H2 hub project:

- Additional funding through a community decarb grant, that gave us \$2.75 million
- Class A truck to haul large loads (hydrogen fuels) and truck to haul hydrogen
- Have received three hydrogen buses and four Toyota Mirai's, and are helping other transit and I-5 partners purchase buses
- Currently 150kg hydrogen fuel to use at the site
- On track for spring 2025 to install hydrogen fueling production site at the Port of Chehalis
- Looking at solar to complement the fueling site
- Did an energy analysis with Lewis County PUD of six different energy providers across the I-5 corridor
 - \$5.58/kg cost of production- want to take advantage of 45V (direct pay of \$3/kg)
 - Solar array to increase clean energy (summer of 2025 if permitting goes through, many of the reports have been done already)
 - 426kg/550 Barr

Richard question: Is Ameresco building your solar site?

- Joe: Yes, we went through a program to select a local contractor who is already on the state list and will be using local civil engineers and electrical engineers and contractors. Ameresco will be overseeing the general contracting.

Bob question: How many acres of solar do you have there?

- Joe: Three acres and should be 1MW. Hoping to increase in the future as well. Planning to use Toyota Lift battery storage to store excess energy.

Update on REVIT:

- Started with \$225,000 Dept of Ecology Grant; added CCW Grant: \$175,000; total grant funding: \$400,000 roughly
- Notified yesterday that REVIT has received another grant, \$447,000, to continue and will be moving toward implementing this with a lot of support and partners. Monica and Aman have been working hard at this. Richland High School and several others are interested in curriculum. Matching up local high schools with two-year colleges: Skagit and Skagit High School, Big Bend and Moses Lake are also interested. Want to implement this without burden and with authenticity. These are classified as CTE and Science classes in the K-12 arena. Implementing this should bring \$10,000 in new funding to schools for each class offered.
- Program equipment for five sites is in the works/the goal.
- DACUM process really broke out what students need to know.
- K-12 side
 - 9th grade exploratory course,
 - 3 prep courses; 10th, 11th, and 12th grades
- Collegiate level opportunities: facility management, engineering
- Continued accreditation and development/management
- Building this program in a very systemic fashion
- Monica building partnerships with other colleges and universities
- Students are really starting to engage

Monica comment: Career pathways will be imbedded in this, students will learn about apprenticeships, what it takes to work in certain jobs, and what other education they will need

Conversation: Chehalis fueling station construction.

SEI Buildings Fellow Update, Mike Bowen

- Clean Building Performance Standard: review of the standards, tiers, timelines, methods of compliance, investment criteria, and exemption forms
- Centralia College has been fully benchmarked
- Working with Lewis County PUD and sent out a joint email
 - The biggest challenge has been getting responses to mail, email, and phone calls
- Involvement on campus: joined the sustainability committee, working to gather student commuting data to find solutions to improve students' campus life
- South Seattle College Career Fair- representing SEI, talked about the CoE, got to talk to students about the different fellowships
- Review of Mike's slide: map of the college and all meter locations throughout campus
- There are 60 Tier 1 buildings in Lewis County

Bob comment: I find it interesting, the buildings built in the last several years have 25-30 acres of roof space that could have been used to support solar but weren't built to support the weight.

- Mike: The Sports Hub is actually a good candidate and is a very clean building.

Jason question: Did you both come out of graduate programs into the fellowship?

- Mike: No, I worked in the solar industry for two years after graduating with my bachelor's before moving here and finding the fellowship.
- Emily K: Master's in environmental law, worked in a law office for a couple years but was bored and this opportunity was a good pivot point.

Monica comment: The work that Mike is doing will be going statewide with other fellows and funded by commerce. 60 fellows will be placed over 3 years.

Pulse of the Sector, all

Where is your workforce growing or being re-shaped?

- Jeremy: Been thinking about the future energy workforce- lineworkers won't go away, demand maybe increasing with projects. But thinking about microgrids and large manufacturers/data centers. Opportunity for more of a hybrid technician type role between control, generation, substation technicians- more of a management piece.
- Sarah L.: Trends that I've noticed recently, over the years, is that our team spends a lot of time at the university recruiting engineers for interns, there is a smaller and smaller pool to choose from particularly for electrical engineering. Have a female mechanical engineer who is learning electrical engineering on-the-job. A lot more policy, grant writing, and clean energy positions.
- Erik: Having multiple hiring freezes over the last few years we now have a shortage of apprentices and a staggering number of workers eligible for retirement in the next couple of years. How do we get people in faster? Looking at implementing some different hiring policies.

- Christina: Employment can be paid for from WorkSource for up to 6 months to help offset training costs.
- Monica: Up in your area, Bellingham Tech has an electrical program that bypasses the first year of an electrical apprenticeship. Can you speak on the PSE training center being built?
- Erik: The training center in Puyallup should be completed this time next year and we should be able to run exercises with fire departments and other organizations. GRIP grant award was approved last week for \$46 million for some focused work in Skagit Valley on undergrounding and resiliency. About 150 jobs will be supported, and a quarter to a third will be apprentices.
- Christine (IBEW): There is a lot of potential and a lot of growth for our members in transmission and supporting classifications needed to meet our climate goals.
- Alice: Tacoma Power has a lot going on, really focused on reaching into K-12. We're piloting a program working with Degrees of Change and UW Tacoma. Fostering trust in the community. Academic Fellowship for engineering- covering many disciplines with UWT. Pilot starts in Jan.
- ML: We're seeing growth in technology that drives the grid here. Have to grow our own meter & substation technicians- nobody wants to move. Brands of equipment seems to be a determining factor. Can grow linemen into those positions.
- Nicole: Same. Looking to start an apprenticeship for hydro operators, always looking for industry specific engineers/engineering supervisors, GIS work, growing our fiber department. Really looking to grow our own.
- Jason: WSU Energy Program has a contract with DOE, to house the NW Onsite Clean Energy Technical Assistance partnership in Olympia to identify potential sites, customers, and reaches Alaska, Washington, Oregon, Idaho. SPSCC is training students in design software to go work in engineering/architecture programs. There may be a need for those skills within utilities. We have a robust cybersecurity program, our largest technical program that is not nursing. Auto program is incorporating EV safety, and classes are mostly at night.
- John: Developing/improving pipeline from high school to college, encouraging students to pursue engineering, dual credit classes in high schools.
- Bob: Cybersecurity program/apprenticeship still needs a JATC/utility to pick it up, training would be based at Everett Community College.
- Steve: One of the new skills that seems to be coming into focus and demand is being able to use AI, figuring out how to use it to improve cybersecurity and more. Two of the biggest investors are in our backyard, Amazon and Microsoft, and are spending billions on Artificial Intelligence. People seem to be gravitating toward using that new tool.

Quick Advisory Board Review and Recommendations

Thank you, board members, Jeremy and PJ, for your service. We wish you continued success.

- Discussion prompt: the advisory board has a couple of openings, including Commerce, who should be brought on?

Lunch, Energy Display, VR, and Discussion

Final Adjourn -- moving next spring to be in person, 100% online next fall.