

Center of Excellence FY23 Work Plan and Quarterly Report – Q4 & Year End Review



Center Name: Pacific Northwest Center of Excellence for Clean Energy (July 2022 – June 2023)

Core Expectations		Activity #1: INDUSTRY	
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Economic Development</li> <li><input checked="" type="checkbox"/> Sector Strategy</li> <li><input checked="" type="checkbox"/> Ed/Innovation/Efficiency</li> <li><input type="checkbox"/> Supply/Demand</li> <li><input checked="" type="checkbox"/> Equity &amp; Access</li> </ul>	<p><b>Strengthen advocacy and community partnerships</b></p> <ul style="list-style-type: none"> <li>• Continue to build upon and develop a wider portfolio of clean energy/technology partners.                             <ul style="list-style-type: none"> <li>○ Work closely with stakeholders to listen/learn about emerging technologies.</li> <li>○ Continue to invite emerging technology experts to meetings as well as joining the Center’s Advisory Board.</li> </ul> </li> <li>• Create broader partnerships and alliances with organizations.                             <ul style="list-style-type: none"> <li>○ Continue involvement with CleanTech Alliance, Lewis County Energy Innovation Coalition, and CHARGE.</li> <li>○ Increase involvement with PNWH2 Association, Dept of Commerce’s Energy teams, Center for Energy Workforce Development, Clean Cities and other industry organizations as they emerge.</li> </ul> </li> </ul>		
Funding Sources %	Purpose	Projected Outcomes and Products	
CoE Allocation 90% (Workforce summit includes CCW partnership – 10%)	To meet Washington’s climate and DEI initiatives, industry and its workforce need to adapt to and work alongside of new and emerging technologies. The Center needs to provide nimble support within industry to report the best workforce gaps and needs to our education system.	~Workforce Summit – host one hybrid event that focuses on clean energy/technology workforce trends/gaps/needs. Report results. Q1 (report results from June 30 event) and Q3 (event and report). ✓ ~Promote Public Power Week and Careers in Energy Week to increase career awareness Q2. ~Attend at least two events to build industry knowledge. Q1, Q4 ✓ ~Publish 3-year Strategic Plan. Q1 ✓ ~Host Hydrogen Showcase to promote hydrogen education. Q1 ✓	
Report and Analysis on Actual Outcomes and Products/Activity #1			CoE_CleanEnergy
<p><b>Q1</b> (also continued on next page)</p>	<p><b>Energy Workforce Convening Summit</b> – Partnered with CleanTech Alliance; held June 30, 2022. Included 130 guests in a hybrid meeting. The Center hosted 12 participants, who represented K-12, higher ed, labor, industry, and an interested private party, at Centralia College. There were presentations by PNNL, WSU, Twin Transit, the Center, PGE, the Dept. of Commerce and CleanTech Alliance. A short breakout session, which had technical issues, developed into great conversations regarding gaps. Unfortunately, our event ended abruptly due to a bomb threat and conversations were cut short at the end. Data was collected and added to a report submitted to Career Connect Washington in September.</p> <p><b>One-on-One Gaps Analysis Interview</b> – The Center’s director met individually with 12 advisory board members and industry reps to discuss DEI initiatives, work- based learning, workforce and education gaps, trends and predictions. Results were added to interviews conducted by CleanTech Alliance which were included within a report to Career Connect Washington. Results will be summarized for the Center’s Advisory Board to review (and add to). A final report will be submitted with the Q2 report.</p> <p><b>Career Connect Washington (CCW)</b> – Building partnerships with AWB, STEM and ESD/K-12 contacts. Attended 10 Program/Industry Intermediary meetings to discuss findings and best practices. The director suggested that the intermediaries should work with other Centers of Excellence. Many Industry Intermediary’s work overlaps our Center’s work. It feels as if outreach to businesses may be duplicated when other Centers aren’t included/involved. <a href="#">Intermediaries   Career Connect Washington</a>.</p> <p><b>NREL Energy Executive’s Academy</b> – Created strong connections with PNNL, NREL, Battelle, HyStor, Toyota and other energy executives in Alaska, Idaho, Colorado and WA DC. Each month focused on different renewable research. Some takeaways included:</p>		

- A variety of feedstock, such as grass and green algae can be turned into bio jet fuel.
- Building a better wind turbine: Industry prefers boat manufactures over airplane manufacturers to make wind blades. They are less expensive due to cheaper lacquer. Balsa wood and foam used in newly engineered wind turbines can be recycled.
- Raised bi-facial photovoltaics are more efficient and add revenue. Agri-voltaics allows farmers and ranchers to conserve irrigation, grow better crops, and shade animals while generating renewable energy to sell back to the grid.
- Microgrid simulation research will help stop future power outages.
- Researchers are building sensors to detect hydrogen leaks and sky radiation.
- A Solar Furnace, which can concentrate sunlight energy to burn through a brick, is used to quickly age products by 30 years.
- Research continues on all renewables and is vastly improving solar energy and battery storage.
- All engineers (chemical, civil, computer, electrical, mechanical), all scientists (physics and biologists), technicians, mechanics, customer service rep's, computer programmers, and number crunchers are needed in this industry.

**Local & new innovations** – Visited/met with biofuel manufacturing (local business plus UW reps) who are seeking partners and funding; and a recycling plant looking to transform into a biofuel plant. Also joined PSE/WSU Charging Station Tour and connected with Shell Recharge.

**Hydrogen Shot Incubator Prize** – Hosted by the DoE, this workshop revealed the government's initiatives which establishes the framework and foundation for clean hydrogen deployment in the American Jobs Plan to lower the cost of hydrogen production 80% to \$1 per 1kg in 1 decade.

**Apprenticeship Building America** – Met L&I, center directors, and Career Connect Washington to discuss partnerships and possible projects.

**Hydrogen in Focus Expo** – Co-sponsor with Twin Transit. Planned and secured guest speakers, agenda and invitees. At Centralia College Oct 24

**Center for Hydrogen Safety (CHS)** – Joined the organization to attend quarterly meetings that showcases hydrogen safety and hydrogen business members. The CEO will be a guest speaker at our hydrogen event in October.

**Other meetings** – In addition to meeting with most of the Center's advisory board members, the director met with Jamie Holladay, PNNL's hydrogen lead; Larry Mattson, Jacobs; Abraham Mooney, Obsidian project (hydrogen storage); Mary Catherin McAleer, Weyerhaeuser wind project; and new contacts at Fortescue Future Industries. The Center's program coordinator met with CleanTech Alliance, Capital STEM Alliance and FWEE steering committees. She continues to lead changes and updates to the Centers webpages.

**Q2**  
(also continued  
on next page)

**Apprenticeship** – CoE attended the National Apprenticeship Week Workshop on Equity, Embedding Equity in Registered Apprenticeships

**CoE Advisory Board Meeting** – Discussed industry/workforce gaps and asked the board to share top concerns and top successes. Several voiced issues with recruitment and retainment, moral, workloads and burnouts. There's a lot of concern of how to balance the state's initiatives with resources. Presentations: High school programs within industry, new cybersecurity apprenticeship program, and retention strategies. A short discussion regarding skill standard updates – are educators using them? Website analytics shows "no."

**Careers in Energy Week** – Social media posts supported a broader reach. Made Careers in Energy presentations within Centralia College classrooms.

**Center for Energy Workforce Development (CEWD)** – Attended presentations and workshops at this national conference in DC. Presentations focused on efforts that are building Justice40, DEI and workforce developments. Networked with regional members. Joined West Coast CEWD Consortium.

**CleanTech Alliance** – Presented CoE information and industry gaps analysis during CTA's Board of Directors meeting in October. Accepted invitation to serve on CTA's Board of Directors in December.

**First Mode** – Met key staff. Company is expecting delivery of a mining truck in January to new Centralia location.

**Fortescue Future Industries (FFI)** – Met with new FFI staff who attended the H2 Expo. Rob Cowin joined the center's advisory board meeting and agreed to serve on our board. FFI's workforce group will have hydrogen job titles, skills and abilities information in Q3.

**Fusion Week** – Toured four fusion energy facilities (Avalanche, CT Fusion, Helion and Zap); met with Scott Hsu, Fusion lead with Dept of Energy, and discussed creating **10 CTC internships within fusion companies**. (continuing dialog).

	<p><b>Hydrogen In Focus Expo</b> – Partnered with Twin Transit/CoE hosted event. 80 community and transit VIP’s attended. Presented information about CoE/REVIT. Speakers included rep’s from FFI, Enapter, First Mode, Bonneville Environmental Foundation, K&amp;L Gates LLP, Center for Hydrogen Safety, PNNL, Washington Maritime Blue, as well as local officials. Had follow-up discussions with Enapter to showcase its electrolyser at the CoE.</p> <p><b>NWPUD Association</b> – Connected with Nicolas Garcia who shared CoE information with 27 PUD GMs and asked about/shared workforce needs and gaps.</p> <p><b>RiverFest</b> – Met AWB President Kristofer Johnson, Rep Matt Boehnke and Congressman Dan Newhouse. Networked with several PUD’s, PNNL, US Army Corps of Engineers, river and fish org’s, tribal community, other community groups, as well as Shaver Tugboats. Disseminated energy career fliers for students and parents. Pasco Chamber organizes this event annually.</p> <p><b>PNWH2 Hub Association</b> advising committee – Assisted with RFI reviews and project selection for a Dept of Energy concept paper that was submitted Nov. 4.</p> <p><b>Public Power Week</b> – Acknowledged and promoted careers in our state’s PUDs through social media.</p> <p><b>Washington Building &amp; Construction Trades Commission</b> – Erin Frasier arranged a meeting with electrician unions at Centralia College regarding the training requirements for an O1 indoor commercial electrician. They are looking for rural training spaces and hoping to partner with Centralia College. In a separate meeting, Erin shared bills that will be presented during Legislation session.</p> <p><b>Zap Energy</b> at TransAlta – Zap announced that their pilot fusion reactor will be built in Centralia. Talked to VP about internships and workforce needs.</p>
<p><b>Q3</b></p>	<p><b>Bonneville Environmental Foundation</b> – Met in Portland with REVIT K-12 team and BEF staff to review hydrogen activity kits and discussed partnership opportunities.</p> <p><b>Fortescue Future Industries (FFI)</b> – Met with FFI representatives, including their workforce development team who is working on hydrogen job descriptions, skills and abilities. Worked closely with FFI to begin developing a hydrogen training plan. An MOU will be developed soon.</p> <p><b>PNWH2 Hub Association</b> advising committee – DoE recommended that the group continue the application process. Participants pitched plans to a selection committee. After the participants were selected, the Center, Centralia College and WSU were included as community benefit/training partners. Due to signing NDAs, I’m not able to disclose details other than the CTC system was represented throughout the process and will be included if awarded. Awarding announcement will commence at the end of 2023. After negotiations and if awarded, then plans will be shared.</p> <p><b>Washington Building &amp; Construction Trades Association</b> – Met with Mark Riker and had a great discussion about apprenticeships and colleges.</p> <p><b>Washington Legislation Session.</b> Recruited CBC’s Jesus Mota to support Energy NW’s bill to identify small modular reactors as renewable energy.</p> <p><b>Other Meetings:</b> Capital STEM Summit, CleanTech Alliance, Center for Hydrogen Safety, Career Connect WA, Center for Energy Workforce Development (CEWD) virtual regional, EmPower Women In Leadership Summit, Lewis County Economic Alliance annual banquet, and <b>Washington State Dept of Commerce’s</b> NSF Technology Innovation &amp; Partnerships roundtable</p>
<p><b>Q4</b> (also continued on next page)</p>	<p><b>PNWH2 Hub Association</b> – Application was submitted at the beginning of the quarter and an announcement event was hosted at the Chehalis Tribal Community Center. Governor Inslee made the grant submission announcement among guests who included county commissioners, economic alliance staff, April Sims (Washington State Labor Council), Washington State Dept of Commerce staff and private parties involved with the application. In June, the U.S. Dept of Energy invited the association to include more details and clarification. Award announcement is expected in fall 2023. If awarded, work will begin in 2024 and will appear as a separate activity in the CoE’s workplan.</p> <p><b>Center for Energy Workforce Development (CEWD)</b> West Coast Conference, Las Vegas. Discussions included the future of workforce, what to expect in the workforce landscape, student connections, think tank dialog (promoting careers in energy), national conference review, and tips to maximize veterans talents and experiences. Connected with new staff at Seattle City Light and strengthened ties with CEWD.</p> <p><b>Advisory Board Meeting</b> – Presentations: Kristie Kelley, CEWD Workforce Development Director, who will launch new curriculum “Energy Industry Fundamentals 2.0” August 1; Stephanie Bostwick, NW Indian College Engineering Chair/instructor, NWIC’s renewable energy and microgrid technology programs; Bob Guenther, IBEW-77/ CoE Advisory Board Member, IBEW-77’s Cyber-OT Apprenticeship program; updates</p>

	<p>from CoE and industry; and an unveiling of the center’s new 35 career pathway webpages (<a href="https://www.cleanenergyexcellence.org/careers/">https://www.cleanenergyexcellence.org/careers/</a>) .</p> <p><b>Advisory Board Changes</b> – EnergyNW Steve Lorence replaced by Sarah Giomi; WSU’s Todd Currier and Alan Hardcastle retirements (no replacements named); and added Megan Fiess, PAC Mountain Workforce Development Council.</p> <p><b>CleanTech Alliance Perkins Coie Luncheon – Developing a Skilled, Inclusive Workforce</b> – Marie Kurose, <i>CEO, Workforce Development Council of Seattle</i> and Garry Clark, <i>CEO and President, Economic Alliance Snohomish County</i> presented the importance of developing a diverse, skilled workforce and how to build opportunities within businesses to attract and retain workers with diverse backgrounds. Emerging clean tech offers an opportunity to ensure that climate action drives the creation of new, quality jobs that ensure racial and economic inclusion and environmental equity. Diversity isn’t a buzzword anymore; it’s an expectation.</p> <p><b>NW Tribal Clean Energy Summit and Tribal Relations Workshop</b>, at Tulalip Lodge – This event engaged tribal leaders, citizens, staff, and collaborators in conversation about navigating the cultural, economic, and social challenges of implementing clean energy projects. Takeaways: a better understanding of tribal customs, land ownership, how to work together, energy sovereignty and new connections. While working on a project that involves tribal lands, project developers must meet the tribal council, land owners and land users simultaneously to gain project approval. It takes time to build relationships because of council’s priorities - serving the interests and health of the tribal members is first.</p> <p><b>National Governors’ Association roundtable on Cybersecurity in Energy/Cyber-Operations Technology</b>, Washington DC – accepted an invitation made by Governor Inslee’s office to attend and participate in discussions that will lead to action recommendations for governors. Monica was the only two-year college and Washington state representative at this event. Other attendees included US Dept of Energy’s Cybersecurity program managers, CEOs representing the energy industry, and universities in South Dakota, South Carolina and Texas A&amp;M. Many attendees stated they appreciated having college perspective and shared that education and training are important to include.</p> <p><b>Puget Sound Regional Council</b> – Met virtually to discuss the needs of EV technicians and training in King County. There are 190 openings with only 6 apprenticeships feeding into them. Will continue meetings to find funding for training to fill gaps.</p> <p><b>CleanTech Alliance Innovation Showcase, Seattle</b> – Listened to a great line up of speakers and led discussions in workforce breakout sessions.</p> <p><b>Other Meetings:</b> CleanTech Board of Directors; City of Olympia regarding EV training; PSE Power Plant Operator Apprenticeship description rewrite; Hydropower Visions Road Map discussions; CEWD monthly regional meetings; Capital STEM Alliance; WSU Green Transportation; IBEW Cyber-OT presentations to utilities; PNWH2 Hub and Fortescue Future Industries; Lewis County Renewable Task Force (Biofuels); and made presentations at Twin Cities Rotary (two) and Longview Rotary</p>
<p><b>2022-23 Review</b></p>	<p><b>Summary</b> – The year was filled with networking opportunities that are critical to upskilling training opportunities throughout the CTC system. <u>What worked:</u> the more networking we did, the more opportunities to network increased. Comments returning to us are positive about the work we are doing. <u>Opposite of that:</u> Meetings and networking take a lot of time and energy. More than 200 additional hours were dedicated to working on hydrogen efforts. There wasn’t time to attend all meetings that represented all of the sub-sectors within this industry (EV, solar, wind, hydro, hydrogen, biofuels, cyber-OT, climate initiatives). <u>Strategy:</u> To attend meetings/events with the largest impact; and recruit others, such as CoE Advisory Board members, to attend on behalf of the CoE and report back.</p> <p><b>Status of Industry</b> – In meeting climate, DEI, tribal and state initiatives, this industry and its sub-sectors are changing faster than anticipated.</p> <p><b>Looking forward</b> – Continue meeting with new industry rep’s who are beginning to share workforce needs. We will need to map skills and abilities of the jobs that are quickly emerging. In June, we learned King County needs 190 technicians; and our fusion and hydrogen partners will require technicians as well. In fact, all manufacturing and energy employers will require technicians to keep new technologies working.</p>

Core Expectations	Activity #2: EDUCATION <span style="float: right;">CoE_CleanEnergy</span>	
<input type="checkbox"/> Economic Development <input checked="" type="checkbox"/> Sector Strategy <input checked="" type="checkbox"/> Ed/Innovation/Efficiency <input checked="" type="checkbox"/> Supply/Demand <input checked="" type="checkbox"/> Equity & Access	<p><b>Strengthen education partnerships</b></p> <ul style="list-style-type: none"> <li>• Continue to build the Energy Educators’ Association (EEA) statewide.             <ul style="list-style-type: none"> <li>○ Send targeted emails that deliver news, trends, opportunities, and labor market data.</li> <li>○ Develop workshops/forums for faculty and deans to include subject matter experts and networking.</li> <li>○ Support educators to enhance programs (provide trends/labor market materials/connections to industry).</li> </ul> </li> <li>• Create broader partnerships and alliances with those we serve.             <ul style="list-style-type: none"> <li>○ Increase involvement with Center for Energy Workforce Development and National Council for Workforce Education.</li> <li>○ Attend WEC, CTC energy program advisory board meetings; serve on CTC boards and committees.</li> </ul> </li> <li>• Continue to build and develop partners with STEM and K-12 ESDs to reach grades 8-12 and parents.             <ul style="list-style-type: none"> <li>○ Continue to serve on committees for Capital STEM Alliance and Foundation for Water &amp; Energy Education (FWEE); and increase involvement with Bonneville Environmental Foundation.</li> <li>○ Distribute/share materials and opportunities for faculty and students.</li> </ul> </li> </ul>	
Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 90% CCW 10%	As industry evolves and adopts new technologies it will need an adaptive workforce. It’s imperative to keep our education partners abreast of news, trends and changes to support the educational needs of the workforce.	~Present industry news/trends in STEM & FWEE quarterly meetings. ✓ ~Meet CCW program coordinators; share events/news. ✓ ~Send at least 2 monthly emails to Energy Educators’ Association. ✓ ~Host 2 forums/workshops for EEA with subject matter experts. ✓ ~Attend Hydrogen Academia Working Group (every 6 weeks) ✓
Report and Analysis on Actual Outcomes and Products/Activity #2		CoE_CleanEnergy
<b>Q1</b>	<p><b>Center for Energy Workforce Development (CEWD)</b> – Joined four <b>Think Tank</b> sessions which included industry, tribal, union, and education members across the country. All energy industry rep’s reported experiencing the same pain points/issues as our rep’s in Washington and decided that a cohesive national campaign is needed to support jobs in this industry. We all agree that career awareness needs to be built; and outreach to middle school aged students and their parents needs to be enhanced. More discussions will be held at the national convention in November.</p> <p><b>Everett CC BASIC Cybersecurity Apprenticeship Summit</b> – Witnessed a cybersecurity attack in Everett’s state-of-the-art cybersecurity lab and learned about efforts to create a new cybersecurity apprenticeship program through WSU’s BASIC grant and IBEW Local 77.</p> <p><b>Shoreline CC</b> – Met with Guy Hamilton for an update on Shoreline’s energy program. Sent labor market materials and agreed to join Shoreline’s energy advisory board.</p> <p><b>Energy Educator’s Association</b> – Sent emails inviting members to: attend energy workshops and training sessions; apply for grants; share job, apprenticeship and internship opportunities; and read updates of CoE activities.</p> <p><b>Hydrogen Academia Workgroup</b> – Attended meetings and was asked to chair the global academia group. Decisions need to be made regarding the direction of this work group. If it should be split into two (safety and general hydrogen education) or stay as one group. TBD</p> <p><b>WSU Energy Program</b> – Met with Matt Booth who is gathering workforce needs and gaps to share with legislatures. He will share his report.</p> <p><b>PNNL/WSU Advanced Grid Institute</b> – Connected with Jeff Dagle, Kevin Schneider and Melanie Roberts of PNNL; Jason Edwards, Energy lead in Senator Murray’s office; Michael Furze, Dept of Commerce; Scott Corwin, NW Public Power Association; Armando Berdiel, Seattle City Light; Larry</p>	

	<p>Bekkedahl, Portland General Electric; and Nick Peretti, Snohomish County PUD. Listened to Washington’s Clean Energy Projects and Perspectives; and asked questions about industry workforce gaps and needs. It’s interesting how many people are drawn to workforce discussions (the Center’s director asked workforce needs questions and attendees approached her wanting to discuss more). Also discussed REVIT with Jason Edwards, who will help support the project. Largest takeaway other than making great connections: Our electric generation partners will be able to support demand when the coal plant closes, but won’t be able to keep up with demand when the natural gas plants close. Wind and solar are not the answer because they are not reliable generation sources. Dismantling dams won’t help the issue either.</p> <p><b>PNNL Internship/External Mentorship program Sept 2022 – May 2023</b> – The director agreed to be an External Mentor for a PNNL intern who is studying the effects shuttering a coal generation plant has on a community. The student, Finn, is a senior at Duke University. The director meets with PNNL, all of the interns and mentors monthly, and with Finn weekly (sharing experiences, setting up interviews, sharing reports).</p> <p><b>Other Meetings:</b> WorkSource Regional Business Solutions Team meetings; BIL40101 Energy Resilience Needs; and SBCTC Irene Shaver, Climate Solutions Summit.</p>
<p><b>Q2</b> (also continued on next page)</p>	<p><b>Center for Hydrogen Safety/Global Hydrogen Academia Group</b> Co-chairing group with Alicia Corbell, San Juan College, Dean of the School of Energy/Center of Excellence for Renewable Energy &amp; Sustainability. We are working on developing a plan for identifying skills and curriculum builds.</p> <p><b>PNNL – Internship program.</b> Mentoring Duke University Senior, Finn, who is building his presentation on “How do we integrate energy equity metrics into policy.” Finn and I meet weekly. Program runs thru May 18.</p> <p><b>K-12: REVIT K-12</b> – Participated in initial planning meetings and two day-long tours with superintendents from Centralia and Chehalis; Twin Transit, ESD 113 and Bonneville Environmental Foundation. Toured Oregon Manufacturing Innovation Center, Clark College’s Mechatronics labs, Clark PUD Community Solar project, First Mode, and Zap Energy’s engineering lab. Also met with Enapter.</p> <p><b>Tribal:</b> Stephanie Botwick – NREL/Tribal connection met during Fusion Week. Held discussions about energy programs at tribal colleges. Invited her to attend our advisory board meeting; however, she wasn’t able to attend due to a storm/power outage.</p> <p><b><u>CTC System</u></b></p> <p><b>SBCTC/Irene Shaver</b> - Involved with planning a climate summit – April 20/21 at CC. Focus is faculty involved with energy, manufacturing and transportation. Other center directors are involved as well.</p> <p><b>CoE FAQ</b> – Dr. Mohrbacher requested a 2-page FAQ about the Center and its work for the CTC Presidents and Governor Inslee. The FAQ was approved by Chris Bailey and shared with the college presidents and the governor.</p> <p><b>Combined CoE Summit</b> – Joined CoE’s HSEM and GTSM to plan a combined summit: <i>Building Pathways for Success: Securing Infrastructure, Supply Chain and Energy Systems</i> – a combined summit that will be held June 6/7 at Columbia Basin College. Secured PNNL/Advanced Grid Institute to speak and will reach out to WSU.</p> <p><b><u>WEC</u></b></p> <p>Good conversations regarding Career Connect Washington with deans and Erika Borg of AWB. Requested interest to build hydrogen team.</p> <p>Subcommittee: <b>Economic Recovery/Future of the Workforce Committee</b> – talked about the need for curriculum to address renewable clean technologies.</p> <p><b><u>After WEC:</u></b> Toured AVISTA’s Jack Stewart Training center with Betsy Lazo, Centralia College interim CTE dean; and Carl Douglas, director, CoE_Semiconductors and electronic manufacturing.</p> <p><b>Energy Educators Association</b> – Continued sending updates, invitations to training and events, job announcements, CleanEnergy Clips and an invitation to join an emerging technology think tank.</p> <p><b>Spokane CC:</b> Met with David Cox and Ashley Purdin toured SCC’s energy tech program/lab</p> <ul style="list-style-type: none"> <li>• Dave suggested that I organize a quarterly faculty meeting for auto/diesel faculty to focus on EV Technicians (last half of three quarters Thursday 11am through Friday 11 am with a social during evening hours).</li> </ul> <p><b>Centralia College</b></p>

	<ul style="list-style-type: none"> <li>• Asked to serve on CC’s Strategic Planning Committee – meetings began in October.</li> <li>• John Steidel and Aman Gill, Dr. Mohrbacher and Dr. Hammer attended the hydrogen expo</li> <li>• Aman Gill is part of the REVIT K-12 team and attends the CoE’s advisory board meetings</li> <li>• Met with a student, who’s pursuing Chemical Engineering, to discuss internship and career opportunities</li> </ul> <p><b>Bellingham Tech</b> - Ray Kabista</p> <ul style="list-style-type: none"> <li>• Didn’t have time to connect at WEC but followed up with a phone call. I need to tour their facilities and meet their faculty. They sound like they have amazing auto and mechatronics programs.</li> </ul> <p><b>Shoreline</b> – attended Advisory Board Kick Off Party</p> <ul style="list-style-type: none"> <li>• Met Lindsey Virdech, who leading the re-design of their energy program, Wanda Waldrop, Adv Manufacturing Career Navigator, and Gary Fantozzi, director of automotive program (Tesla, Toyota and Honda).</li> </ul>
<p>Q3</p>	<p><b>Global Hydrogen Academia Group</b> Co-chairing group with Alicia Corbell, San Juan College, Dean of the School of Energy/Center of Excellence for Renewable Energy &amp; Sustainability. New Q3 members include: Michelle Fox, Dept of Energy/Hydrogen &amp; Fuel Cell Technologies Office, and Kristie Kelley, CEWD’s workforce development director.</p> <p><b>PNNL – Internship program.</b> Mentoring Duke University Senior, Finn, who is interested in the equity and effects of a coal power plant shutdown. Finn and I meet weekly. Program ends May 18.</p> <p><b>K-12: REVIT K-12</b> – Twin Transit, PI of this project, has secured \$375,000 funds from Dept. of Ecology and Career Connect WA. Hired Phil Crocker, Teater-Crocker, Inc, as project manager. Phil met with CC Dean Betsy Lazo to discuss dual credit introduction to renewable energy class. Phil is working with Educurious to create curriculum for grades 6 – 12. Project timeline shows curriculum will be launched Fall 2024. Center’s role = bringing partners into the team, organizing tours, hosting meetings and building connections between team and college.</p> <p><b>Lewis County Renewable Task Force</b> – Supporting UW Biofuels program with letters of support (for grant applications) and discussions.</p> <p><u><b>CTC System</b></u></p> <p><b>SBCTC/Irene Shaver:</b> Climate Summit – April 20/21 at CC. Continued planning meetings for a Q4 event.</p> <p><b>CoE Directors</b> – Hosted all directors and Carolyn/SBCTC for the winter quarterly meeting at Centralia College..</p> <p><b>WSU Green Transportation</b> – planning meetings to co-host a virtual event for CTC automotive, diesel and energy faulty and deans. Webinar will be in Q4 and will include planning for follow-up meetings. Clark College’s head of automotive will present on behalf of EV technology programs in the system.</p> <p><b>Combined CoE Summit</b> – <i>Building Pathways for Success: Securing Infrastructure, Supply Chain and Energy Systems</i> – a combined summit that will be held June 6/7 at Columbia Basin College. Continued planning meetings for a Q4 event.</p> <p><u><b>Energy Educators</b></u> - Emails focused on opportunities for students, faculty and staff, including:</p> <ul style="list-style-type: none"> <li>• FWEE Summer Academies for students</li> <li>• WSU Green Transportation webinar and Supply Chain Summit</li> <li>• Internships and Job opportunities</li> </ul> <p><b>Centralia College</b></p> <ul style="list-style-type: none"> <li>• Asked to serve on CC’s Strategic Planning Committee – meetings began in October.</li> <li>• Hosted a learning session between industry and Centralia College. Utilities and businesses that were represented included AVISTA, BPA, Centralia City Light, FFI, First Mode, Lewis County PUD, PSE, Tacoma Power, TransAlta, and IBEW Local 77/labor unions of Lewis, Mason, Thurston counties.</li> </ul>
<p><b>Q4</b> (also continued on next two pages)</p>	<p><b>Renewable Energy Vehicle &amp; Infrastructure Technician (REVIT) K-12</b> – Phil Crocker, REVIT project manager, shared the timeline below and is meeting deadlines. We continue to meet as a group monthly. Twin Transit is the leading organization.</p> <ul style="list-style-type: none"> <li>• Timeline: 2023-24: research and design <ul style="list-style-type: none"> <li>○ Alignment and Clarification – March 2023</li> </ul> </li> </ul>

- Highschool framework & definition – April 2023
- April 14, 2023: OSPI deadline for framework approval
- Middle school definition & approval – May 2023
- Curriculum Materials Development & Testing
- Sept. 2024 implement first course; Oct 2024 dissemination
- Offer professional development and updates

#### **Career Connect WA**

- Served as a Clean Technology/Clean Energy sector co-leader with CleanTech Alliance. Attended regular meetings with CCW sector and program leaders; as well as planning meetings and updates with CleanTech Alliance. We made suggestions on RFI's for future project funding and co-wrote CCW reports. CleanTech hired a research organization to publish workforce information (published later this year).
- Deliverable: **CoE website update, Career Pathways** – Emily, the CoE's program coordinator, researched, updated and refreshed our Energy Career Pathway website pages. Now totaling 35 careers, <https://www.cleanenergyexcellence.org/careers/>, Emily continued researching and building pages for apprenticeships, internships, scholarships, CTC programs and more.
- **FWEE Academy**, Wenatchee. The Foundation for Water & Energy Education (FWEE)'s annual summer academy was sponsored by Microsoft, National Renewable Energy Laboratory (NREL), and Chelan, Benton and Douglas County PUDs. The center along with Bonneville Environmental Foundation and NREL co-sponsored a hydrogen car experiment for 36 high school students. Monica attended the first two days of the academy for the experience and to shoot pictures for the center, FWEE and PUDs to use.
- **FWEE Energy Generation Activity Guide**. The center worked with FWEE to update facts and include hydrogen generation in the 32-page colored guide; and printed 2,000 copies to be used at outreach events, such as Riverfest in Pasco and the Southwest Washington Fair in Lewis County.

#### **CTC System/Energy Educators**

**Green Transportation Workforce Development and Training for Electric Transportation** – We held our first successful CTC automotive and manufacturing faculty training session in April. The webinar, which launched a partnership with WSU Green Transportation and the center, kicked off a series of quarterly training opportunities for our CTC faculty in automotive, diesel, manufacturing and electric vehicle technician programs. Thirty guests attended the first virtual event, which included presentation from EV experts and Clean Cities; and additional faculty attended the in-person Climate Solutions Summit (see below). All expressed excitement for us to move forward with in-person training that will showcase EV automotive labs at Clark and Shoreline. In-person visits will be held in fall and spring quarters; another virtual webinar will be held winter quarter.

**SBCTC Climate Solutions: Energy, Manufacturing and Transportation Retreat** at CC. Thirty-five CTC faculty and SBCTC staff met at Centralia College to learn and discuss industry trends and faculty needs. The center assisted Irene Shaver and her team with logistics and programming. The group toured Twin Transit's electric bus and WAVE Induction charging station; and Holy Lamb Organics. Through a grant program, SBCTC awarded each college team \$5,000 to buy equipment, schedule tours or sponsor a project to enhance existing curriculum.

**Supply Chain Summit 2023: Building Pathways for Success: Securing Infrastructure, Supply Chain & Energy Systems**, Columbia Basin College. Partnered with four Centers of Excellence (HSEM, GTSCM, AAM, and Construction) and hosted a full-day summit. CoE\_Clean Energy's role: co-facilitator, secured guest speakers (WSU, PNNL, CISA), photographed event, and provided \$250 to help purchase supplies. Agenda line up was fantastic. Bulk of work was done by HSEM, GTSCM and CBC staff. Attendance: fewer than 50. We made new connections in cybersecurity which were critical to prepare for the NGA Cyber-OT event.

**WEC** – Monica attended and toured the manufacturing labs at CPTC. She connected deans from Walla Walla and Clover Park Technical colleges to move biofuel equipment; and will follow up with a biofuel project that involves a partnership between the CoE and UW's biofuels research dept. College updates include:

- **Bellingham Tech** – Ray Kubista stated they can't keep up with demand for technicians; cutting energy program (but keeping technician program)
- **Big Bend** – We discussed grants and a possible renewable energy event at Big Bend.



	<ul style="list-style-type: none"> <li>• <b>Lake WA Tech</b> – Gus from CleanTech Alliance met with the college president and Patty Murray as they announced the \$1.1 million CDS to fund solar installation project.</li> <li>• <b>Shoreline</b> – Attended energy program advisory board meeting to help move the energy program forward. Lindsey Virdeh is leading the effort and focusing on energy design, such as solar design, education.</li> <li>• <b>Yakima Valley College</b> – looking at starting renewable energy and engineering tech programs. Perry Tech has a one year waiting list.</li> </ul> <p><b>Combined CoEs:</b> The center identified more than 60 CIP codes for SBCTC dashboard which were submitted to COE_IT for dashboard inclusion.</p> <p><b>Other Meetings:</b> NW Tribal College; WSU workforce partnership building; CoE directors (spring meeting in Yakima); Hydrogen Global Academia Work Group; SBCTC program inventory training; Centralia College Executive Management Team (EMT), VPI Executive Team and CC Strategic Planning; PNNL Internship/Mentorship program.</p>
<p><b>2022-23 Review</b></p>	<p><b>Summary</b> – Outreach through the CTC system increased compared to the prior three years; and included automotive faculty and more networking with deans. The auto faculty have not worked with a CoE and are thrilled to get some help. Throughout this year, we strengthened ties with NW Indian College, WSU, PNNL and other CoEs.</p> <p><u>What worked:</u> Partnering with other organizations and CoEs to host events increases our work efficiency. These partnerships strengthen collaboration and allows us to work with more sub-sectors. Also, more faculty are requesting to join the Energy Educators’ Association ListServe.</p> <p><u>Opposite of that:</u> Need well-defined check-off lists when working with partners to assure items aren’t missed or duplicated. Also, new emerging sub-sectors are focused on permitting and site regulations, and are slow at sharing training needs. It’s a hurry-up-and-wait situation. We aren’t sure where all of the new technologies will locate, which makes it difficult to reach out and share information with colleges (NDA agreements are good to know what is coming, so we can prepare, but aren’t helpful when needing to communicate with others).</p> <p><u>Strategy:</u> Continue partnering and increasing streamlining/efficiencies to reach more CTC and K-12 faculty of energy sub-sectors; continue working with emerging sub-sectors to define incoming skills/abilities and training needs. Looking forward to next year’s opportunities.</p> <p><b>Status of Education</b> – CTC enrollment and faculty/dean turn-over continues to affect the health of energy-related programs. It’s difficult to be on the edge of emerging technologies without being able to fully direct colleges on what’s coming.</p> <p><b>Looking forward</b> – Our new industry partners are beginning to share workforce training needs. We will map skills and abilities of the jobs that will quickly emerge. Through CCW, we are working with a consultant who will release new data. Through the NGA roundtable, the group will increase awareness of the need re-categorize energy as a high demand workforce sector as well as the need for additional CIP codes (cyber-OT, hydrogen, fusion). CEWD discussed releasing free interactive web-based energy curriculum targeting student in the last two years of high school/first two years of college, August 1.</p>

Core Expectations	Activity #3: FUNDING <span style="float: right;">CoE_CleanEnergy</span>	
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Economic Development</li> <li><input checked="" type="checkbox"/> Sector Strategy</li> <li><input checked="" type="checkbox"/> Ed/Innovation/Efficiency</li> <li><input checked="" type="checkbox"/> Supply/Demand</li> <li><input checked="" type="checkbox"/> Equity &amp; Access</li> </ul>	<p><b>Monitor funding/grants to increase opportunities</b></p> <ul style="list-style-type: none"> <li>• Partner with other organizations and apply for grants when possible <ul style="list-style-type: none"> <li>○ The Center is waiting for award announcements and has been included within proposals supported by Build Back Better, Apprenticeship Building America, Good Jobs Challenge, and hydrogen education congressional ask.</li> <li>○ Continue work as CCW Clean Energy/Technology Industry Intermediary and find pathways to connect CCW with opportunities brewing in industry.</li> </ul> </li> <li>• Identify a list of industry needs and potential funding for workforce development and prepare a crosswalk between them.</li> <li>• Assist CTC system with program needs including program reviews, funding needs, sharing information, news and labor data. <ul style="list-style-type: none"> <li>○ Use Centralia’s Lovington Award as an example to help other colleges.</li> </ul> </li> </ul>	
Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 100%	Increasing work-based learning and college course offerings requires additional resources. Additional dollars are needed to fund projects to support and promote energy programs and workforce education.	~Submit invoices to CleanTech Alliance for CCW funding – quarterly. ✓ ~Collaborate with CoE’s to build cohesive branding. ✓ ~Explore collaboration projects with other CoE’s ✓ ~Update SBCTC of grant submissions and awards & expand outcomes/products as funding emerges. ✓
Report and Analysis on Actual Outcomes and Products/Activity #3		CoE_CleanEnergy
Quarter 1	<p><b>-Renewable Energy Vehicle and Infrastructure Technician (REVIT) training programs</b> – 1) Partnered with Twin Transit staff who submitted a \$685,000 proposal to fund a training program that will include CTC faculty and deans on a curriculum building team. Proposal is on Senator Patty Murray’s list to be funded which will be voted in legislature in November. Visited AGI Institute in Tri Cities and met with two of Senator Murray’s staff who will support the bill, and set a meeting with area senator/congress staffers in Q2 for a hydrogen update. 2) Twin Transit submitted a similar proposal to the Dept. of Ecology for K-12 REVIT training and included the Center to assist with pathway development. DoEcology funded the request at \$245,000 which will go to two local school districts for faculty training and classroom/lab equipment.</p> <p><b>-NSF Engines: Type 1: The Pacific NW Smart Grid Technology Ecosystem: Creating prosperity through a smart, sustainable, and secure electric grid</b> – Led by Portland State University, the Center was asked to collaborate as a partner within this grant. The Center’s director will serve on the project’s advisory board if funded. Partners include PNNL, Technology Association of Oregon, Portland General Electric, NW Energy Efficiency Alliance, LinkOregon, Oregon Titan Fusion Center, PSU and State of Oregon Chief Information Security Officer. The Center was not included in any monetary ask.</p> <p><b>-PNWH2 Association</b> – Joined the hydrogen hub association as an advising committee member to be a voice for workforce development and training. The Center submitted an RFI to the association to request continued REVIT funding. Signed a lot of privacy, conflict of interest, and no disclosure statements. The group is charged with writing a concept paper to submit to the Dept of Energy in Q2.</p>	
Q2	<p><b>REVIT</b> – Partnered with Twin Transit on a K-12 grant to fund REVIT training grades 8 – 12. Twin Transit won \$225,000 from the Dept. of Ecology for this project. The check was announced at <i>Hydrogen in Focus</i>. Twin Transit is working with local media for a follow up story.</p> <p><b>Congressional Ask</b> – Two days after meeting with Patty Murray’s staff, the center director was advised that we will not receive funding for the CTC REVIT program. We are seeking other funding sources. Updated SBCTC.</p>	

	<p><b>Wrote Letters of Support</b> for biofuels, transportation and REVIT K-12.</p> <p><b>CleanTech Alliance/Career Connect Washington</b> – submitted quarterly report, invoices and participated in funding/budget discussions.</p>
<p><b>Q3</b></p>	<p><b>-Wrote Letters of support</b> for biofuels, green transportation, PNWH2 Hub (hydrogen) and REVIT</p> <p>-Opted out of applying for congressional asks this year due to work with PNWH2 project and do-not-compete clauses. <b>Represented Centralia College in the PNWH2 application</b> to assist with training. Will follow up with grants in 2024 if hub is not funded.</p> <p><b>-Career Connect WA</b> funding will end June 30, 2023. Working on a plan to extend funding. CCW report due April 30.</p>
<p><b>Q4</b></p>	<p><b>NSF Engines: Type 1: The Pacific NW Smart Grid Technology Ecosystem: Creating prosperity through a smart, sustainable, and secure electric grid</b> – Led by Portland State University, the Center was asked to collaborate as a partner within this grant.</p> <ul style="list-style-type: none"> <li>Announcement that PSU was awarded funds occurred this quarter. First meeting will be Sept. 12, 2023, to start the planning phase of the project. No funds were awarded to the CoE (advisory board capacity only). This will be reported as a new activity 2023-24.</li> </ul> <p><b>Career Connect WA</b></p> <ul style="list-style-type: none"> <li>We submitted a proposal for additional funding to continue employer engagement and pay for staff. The center is included at \$5,000 per month, July – December. Funds will be used for website design and updates; travel; and printed materials.</li> </ul> <p><b>CleanTech Alliance/CCW Good Jobs Challenge</b></p> <ul style="list-style-type: none"> <li>We submitted a Letter of Intent to apply for Good Jobs Challenge grant funds that would include EV technicians and solar installers. Letter was submitted June 30. Application is due July 31, 2023. Prior to submitting the LOI, CleanTech Alliance lost key staff.</li> </ul> <p><b>NW Energy Efficiency Council/Smart Buildings Center/sei – Clean Energy Incubator</b> – Met and exchanged information about who we are and what we do. They offer a Building Operator Certification, Climate Corps Fellows and additional training options for industry. They met with TransAlta to see if they could tie into funding around Centralia’s coal operation – retraining employees. TransAlta’s return request was to focus on K-12 energy career awareness. Conversations will continue.</p> <p><b>Pacific Mountain Workforce Development Council – Pathways to Infrastructure grant funds for <i>Scaling Worker-Centered Tribal Training Programs for Broadband Expansion</i></b> and included the CoE as a convening partner. Funds were included to support a CoE program coordinator for three years – starting in 2024. Anticipated award announcement will be delivered during Q1 2023-24.</p>
<p><b>2022-23 Review</b></p>	<p><b>Summary</b> – We continue to receive strong support and inclusion with CleanTech Alliance, Career Connect Washington, and other strong partners.</p> <p><u>What Worked:</u> CCW funding gave us opportunities to support projects, update our website, and provide additional training. CleanTech Alliance was our lead partner and submitted the final reports and invoices. This allowed us a great opportunity to expand our outreach without overburdening Centralia College’s budget office.</p> <p><u>Opposite of that:</u> Many colleges have been overburdened in the past with large grants. So much so, that they aren’t interested in being fiscal agents (a message shared by multiple colleges). As a partner, we’re included in others’ work which may also have a positive/negative affect on the center; so we work hard, sometimes harder, to keep our image positive. Also, we are experiencing being included within proposals without prior discussions – which may lead to misunderstandings and increased deliverables if those grants are awarded. This inclusion without discussion is adding additional stress to an already full workload. We really need a grant writer (at the SBCTC level?).</p> <p><b>Status of Funding</b> - There are billions of federal dollars to fund clean energy and low-carbon projects; and the application and submission processes move quickly. Applications have increased benchmarks for environment and inclusion; and there is an increased effort for grant writers to include community benefits and education/training within proposals. Many grants include additional points for coal-supported communities. All of this leads to fielding requests from organizations – some of which are chasing dollars without having a solid project or plan.</p> <p><b>Moving forward:</b> Finishing work with CCW and evaluating other opportunities; continuing work with PSU; scrutinizing other inclusions and comparing to available workload. We need to be ready for PNWH2.</p>

Core Expectations	Activity #4: CHMURA		CoE_CleanEnergy
<input checked="" type="checkbox"/> Economic Development <input checked="" type="checkbox"/> Sector Strategy <input checked="" type="checkbox"/> Ed/Innovation/Efficiency <input checked="" type="checkbox"/> Supply/Demand <input checked="" type="checkbox"/> Equity & Access	<b>Chmura Data Pilot, Phase 2</b> The Workforce Data Pilot will identify, extract, format and deliver workforce and related data, using the Chmura JobsEQ RTI platform. This project will demonstrate the use and effectiveness of occupational, industry and other data to the workforce education and training system. Eleven Centers of Excellence are participating in the Phase II Pilot and will fully engage in the continuation of the collection of data, work with the RTI Jobs Posting tool, develop a community of practice and information dissemination process. Intended completion for pilot: Spring 2023		
Funding Sources %	Purpose	Projected Outcomes and Products	
CoE Allocation 100%	The Workforce Data Pilot Project will collect, map, and produce industry demand, workforce and economic impact data, professional technical occupations, utilizing the Chmura JobsEQ RTI proprietary workforce and economic management tools to inform and benefit CTC workforce programs. The project will also utilize the RTI Jobs Posting tool.	~Professional development for CoE staff. ✓ ~Expansion to include incorporation of Jobs EQ Job Postings tool – engage with Chmura regarding how to publish or use on coewa.com site and possibly all COE sites. <b>0 – pilot not ready yet</b> ~Create Community of Practice. <b>0 – moved to FY 24</b>	
Report and Analysis on Actual Outcomes and Products/Activity #4			CoE_CleanEnergy
Q1	Provided labor market materials to Bellingham Tech, Centralia, Shoreline and South Seattle colleges. Joined Centers in agreeing to add a new job board feature by Chmura which will be housed on the combined CoE website with a link from our website to <a href="https://www.coewa.com/">https://www.coewa.com/</a> .		
Q2 – Q4	Continued to provide labor market reports as requested by colleges and industry partners to support college programs and CoE work.		
<b>2022-23 Review</b>	<b>Summary:</b> Chmura is an extremely useful planning tool for our colleges and partners. We are thrilled that we have this tool at our fingertips and are looking forward to assisting the other CoE's in creating a good community of practice.		

Core Expectations	Activity #5 – AWARENESS <span style="float: right;">CoE_CleanEnergy</span>	
<ul style="list-style-type: none"> <li>☒ Economic Development</li> <li>☒ Sector Strategy</li> <li>☒ Ed/Innovation/Efficiency</li> <li>☒ Supply/Demand</li> <li>☒ Equity &amp; Access</li> </ul>	<p><b>Increase Awareness of Clean Energy/Clean Technology Careers and Career Pathways</b></p> <p>A blend of activities: strengthening advocacy, community partnerships and education along with efforts to increase and build awareness. This new activity showcases work that increases awareness in emerging technologies and workforce needs, to include.</p> <ul style="list-style-type: none"> <li>• Career Connect Washington Industry Intermediary highlights (Sector Leader)</li> <li>• Workforce training inclusion in hydrogen, fusion and other emerging fields</li> </ul>	
Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 90% CCW 10%	Building awareness of the Center and as well as industry news and trends is vital to building new connections and supporting the energy industry. As new technologies begin to emerge, it's important to be a voice for workforce and the CTC system.	~Present CoE information to two organizations unaware of CoE. ✓ ~Attend at least two events that are not industry focused that offer opportunities to increase networking contacts. ✓ ~Participate in the region's hydrogen hub efforts (PNWH2.org). ✓ ~Create/send a newsletter to EEA, Advisory Board and new stakeholders. ✓
Report and Analysis on Actual Outcomes and Products/Activity #5		CoE_CleanEnergy
<b>Quarter 2</b> <b>(also continued on next page)</b>	<p><b>Apprenticeship Video</b> – partnered with CoE's Aerospace, Allied Health, Construction and Marine to produce an apprenticeship video that was aired during apprenticeship week (Nov 14 -18). Funded by L&amp;I Peter Guzman. CoE Energy Advisory Board member Christine Reid, IBEW Local 77, represented our center and industry.</p> <p><b>Career Connect WA</b> – submitted clean energy activities and programs that fit into Career Explore, Career Prep and Career Launch programs. Encouraged CCW to update their website interactive map to include Avista's Energy Pathways' Program (Avista had 16 students enroll in their summer program from 11 Spokane schools; and launched their first 9-month program this fall with 3 students).</p> <p><b>Centralia College Foundation Gala</b> – Dr. Mohrbacher acknowledged and thanked the CoE and the work that's being done to bring hydrogen training to CC.</p> <p><b>CleanEnergy Clips</b> – published the center's first newsletter that features regular columns for "Building a Work-Ready Clean Energy Workforce," Career Connect WA updates, Industry News, "It's Electrifying Work" (see attached). Sent in December to the Energy Educators' Association and CoE Advisory Board. We will add a sign-up feature for additional interests and link it to the website.</p> <p><b>Fortescue Future Industries (FFI)</b> – FFI requested to work with the CoE and Centralia College in building a hydrogen training program. They asked for a "wish list" which was delivered in the form of a spreadsheet with monetary ask. The CoE director requested help from SBCTC in projecting statewide training costs.</p> <p><b>PNWH2</b> – Signed NDA's to participate on advising and selection committees, so details cannot be shared. Continued to be a voice for workforce training development within hub meetings and presentations. Sent a COE FAQ to encourage hub participants to partner with the CoE and CTC colleges. Director is continuing to serve on advising committee on behalf of workforce training. May need to organize a future community event.</p> <p><b>Senator Patty Murray</b> – in partnership with Twin Transit, a congressional ask to support a CTC REVIT program of \$685,000 was submitted in Q1. The ask was included on Patty Murray's list. The director met with Murray's staff to thank them for the inclusion and to inform them of all of the work being done by the center – including hydrogen hub, K-12 REVIT and global academia work.</p> <p><b>Presentations: CoE, industry and career information</b> during Capital STEM Alliance, Careers in Energy Week (classes at CC), <i>Hydrogen in Focus</i>, and Thurston/Mason/Lewis Economic Alliance Expo.</p>	

	<p><b>Fliers</b> – Utilized CEWD resources to print energy career fliers for students and parents. Added a QR code for the CoE and contact information. Sent fliers to events and included them within CC’s mobile training lab</p> <p><b>Website</b> – updated the job board page; added EV, automotive, pre-engineering and other CTC programs to build program resource from 92 to 186 offerings; published new pages for apprenticeships and K-12 resources; and built Career Pathway information to rebuild career pages in Q3.</p>
<p><b>Q3</b> (also continued on next page)</p>	<p><b>Advisory Board Member meetings:</b> Met with Bob Guenther to discuss cybersecurity apprenticeship program and a new telecommunications apprenticeship opportunity. Bob also met with PNNL Intern to tell the TransAlta story.</p> <p><b>Career Connect WA:</b> Met with Kareen Borders, West Sound STEM and CleanTech Alliance to discuss potential K-12 projects. I suggested that we support Bonneville Environmental Foundation’s fellowship program and H2 vehicle competition for faculty and staff.</p> <p><b>Congresswoman Marie Gluesenkamp Perez:</b> The Congresswoman met several Centralia College VIPs and toured several classrooms and campus facilities. We had time to share the great work of the Centers of Excellence and how we are broadening our outreach to include new technologies – such as hydrogen, biofuels, EV, and fusion.</p> <p><b>Foundation for Water &amp; Energy Education (FWEE):</b> Using Career Connect Washington funds to support updating FWEE’s energy activity book to include new industry information and add hydrogen generation page. Will purchase and disseminate first run copies in Q4.</p> <p><b>Industry Connections/new contacts:</b> Met with other representatives to discuss CoE work and possible partnerships with Snohomish PUD, Douglas County PUD, Energy NW, PSE; Green River College, and K-12 Insight</p> <p><b>Presentations:</b> CoE, industry and career information during Twin City Rotary meetings</p> <p><b>Website:</b> Hired a web designer who rebuilt and updated the center’s 35 Career Pathway pages. <a href="http://Clean Energy Careers   Center of Excellence for Clean Energy (cleanenergyexcellence.org)"><u>Clean Energy Careers   Center of Excellence for Clean Energy (cleanenergyexcellence.org)</u></a>. We will improve the website’s navigation and format responses.</p> <p><b>Newsletters:</b> Purchased a Constant Contact membership and will build a consistent communication plan for news distribution in Q4.</p>
<p><b>Q4</b></p>	<p><b>National Outreach:</b> Increased CoE awareness through presentations in meetings hosted by: global hydrogen academia work group, Center for Hydrogen Safety, NGA Roundtable on Cybersecurity in Energy, Hydropower Vision Road Map, PNNL Internship/Mentorship program.</p> <p><b>Regional Outreach:</b> Increased CoE awareness through presentations in meetings hosted by: CEWD, WSU Green Transportation, NW Tribal Clean Energy Summit, CleanTech Alliance Innovation Showcase, and PNWH2 Hub.</p> <p><b>Local Outreach:</b> Increased CoE awareness through presentations in meetings hosted by: Capital STEM Alliance, Lewis County Economic Alliance, SBCTC Climate Solutions Retreat, Twin Cities Rotary (part 2) and Longview Rotary.</p> <ul style="list-style-type: none"> <li>• <b>SW Washington District Directors for Sentors Patty Murray and Maria Cantwell</b> – The two new area representatives requested to meet with the CoE and college VIPs. Monica gave them an overview of the center and a tour of Centralia’s campus. They met CC’s president, vice president of student affairs and director of the college’s foundation.</li> </ul> <p><b>Newsletters:</b> Purchased a contract with Constant Contact and delivered newsletter #2 in May.</p> <p><b>CoE website update, Career Pathways</b> – Emily emerged herself in WordPress training to enable us to bring the website work in house. We re-hired the original website designer and will continue polishing the site – with plans to relaunch by the end of the year.</p>
<p><b>2022-23 Review</b></p>	<p><b>Summary:</b> This year we pulled the website and social media in house, created a newsletter, and are increasing our Energy Educators’ Association outreach. We are making great progress in sharing information about the CoE. Some of the proof lies in the increased invitations to participate in workshops and roundtables; as well as increased requests to partner. One of the most unique examples: a contact through PNWH2 shared us as a resource to reach out to Centralia leadership for a possible sister city partnership with a coal community city in Chili.</p> <p><b>Status of Awareness:</b> There are a lot of organizations incorporating/including clean energy workforce development and training into their work and we’re continuing to discover them.</p> <p><b>Moving forward:</b> We will develop a communications plan to include tools, frequency, audience and type of outreach (newsletters, targeted emails, website, Facebook, LinkedIn). We will continue to reach out and discover new partners; and are looking forward to “what’s next?”</p>



## **2022-23 BOARDS & COMMITTEES:**

**Capital STEM Alliance** – executive committee board member

**Career Connect Washington Clean Energy/Clean Technology** – Sector co-leader with CleanTech Alliance as partner

**Center for Energy Workforce Development (CEWD)** – member

**CEWD Think Tank** – participant

**Center of Excellence for Clean Energy**

**Energy Educators' Association** – Coordinator

**Center for Hydrogen Safety** – member

**Centralia College Sustainability Committee** – member

**CleanTech Alliance** – Board of Directors

**U.S. Dept of Energy Hydropower Vision Roadmap** – contributor

**Foundation for Water and Energy Education (FWEE)** – committee member

**Global Hydrogen Academic Work Group** (international, led by Center for Hydrogen Safety/PNNL) – Co-chair

**Lewis County Energy Innovation Coalition** – committee member

**Lewis County Renewable Task Force** – committee member

**National Renewable Energy Lab's Energy Executive Leadership Academy** – 2022 graduate

**Pacific Northwest Hydrogen Association (PNWH2)** – advising and selection committees; representative for Centralia College as a hub partner

**Pacific NW National Labs (PNNL) Internship Program** – external mentor

**Puget Sound Energy (PSE)** – Generation apprenticeship review committee

**Shoreline CC Energy Program** – advisory board member