

Center Name: **Pacific Northwest Center of Excellence for Clean Energy**

Core Expectations	Activity	
<input type="checkbox"/> Economic Development <input checked="" type="checkbox"/> Sector Strategy <input checked="" type="checkbox"/> Ed/Innovation/Efficiency <input type="checkbox"/> Supply/Demand	<p><b>Build partnerships with industry, labor, and organizations</b></p> <ol style="list-style-type: none"> <li>1. Re-establish/bolster contacts and industry knowledge – Communicate with Advisory Board members and work closely with the Advisory Board Chair to listen/learn what’s important in the field and to receive recommendations for industry events to attend. Contact organizations such as Foundation for Water &amp; Energy Education (FWEE), CleanTech Alliance, Washington State University Energy Program, University of Washington Clean Energy Institute, Center for Workforce Development (CEWD), Pac Mountain Workforce Development Council, IBEW, Pacific Northwest National Laboratory (PNNL), and Idaho National Lab. Attend CleanTech Alliance Showcase, review industry websites, papers and publications.</li> <li>2. Increase work-based learning opportunities – through internship/State Work Study partnerships/apprenticeship opportunities for students. Share best practices with other CTC energy program deans and faculty; as well as ESD 113/Career Connected Learning. Work through industry to reach peers to promote work-based programs at other colleges.</li> </ol>	
Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 100%	To increase industry knowledge, build partnerships, and create work-based learning opportunities for students. To learn and share industry trends and needs.	~ Create at least 10 opportunities for CTC students to fill work-based learning opportunities with partnering industries. ~ Completion: On going with internships available to hire students during Q4.
Report and Analysis on Actual Outcomes and Products		
<b>Quarter 1</b>	<p>Contacted all PNCECE Advisory Board members and met directly with 9 members.</p> <p><b>INDUSTRY:</b> Met with Douglas County PUD and learned about their renewable hydrogen gas project; PNNL to learn about hydrogen gas safety education programs; and AVISTA, Puget Sound Electric and Tacoma Power to discuss career-connected programs, apprenticeships and internships.</p> <p><b>ORGANIZATIONS:</b> Met with: Dept. of Commerce Policy Pals, Pacific Education Institute, ESD 113, Regional Business Team (WorkSource), Bonneville Environmental Foundation, FWEE, WSU Energy Program team, CleanTech Alliance, Career Connect Washington, Lewis County Energy Innovation Coalition, Fast Charging Team, and Twin Transit.</p> <p><b>CONFERENCES:</b> Virtually attended: FWEE quarterly meeting; ESD 113: Emerging Job Sectors, DoE Hydro Conference, CleanTech Alliance Showcase, Hydroworks Int’l, EV Workforce, WSU EV Legislation, CleanTech Alliance Debate: Hydro vs. Electric; Everett CC Network Security Showcase; CCW: Energy Workshops; Chmura workshops/conferences; and IEEE Foundation Spotlight.</p>	
<b>Quarter 2</b>	<p>Continued to meet with Advisory Board members separately.</p> <p><b>INDUSTRY:</b> Met with: Michael Breish and energy/transportation policy makers at Dept. of Commerce; John Hofman, Distribution Modernization Section Manager/Transmission &amp; Distribution Services/Burns &amp; McDonnell; Twin Transit (wrote letter of support for 2 electric vans); CoEs of Helion and CT Fusion; and David Fortney, PGE Workforce Development in Portland, OR (to build connections for WA students to gain employment).</p> <p><b>ORGANIZATIONS:</b> Met with: FWEE; CleanTech Alliance; Career Connect Washington; Lewis County Energy Innovation Coalition; Fast Charging Team (Egils Milbergs) proposal to gather funding for fast charging stations; Megan Fiess, VP Workforce and Strategic Initiatives/Thurston County Chamber of Commerce; Brian Young, Michael Pomfret and Danica Hendrickson (UW); Aaron Feaver, JC</p>	

	<p>Dream; West Sound STEM and WA State STEM Foundation; WorkSource Regional Business Team; wrote support letter for Maritime Blue/Build Back Blue: Green Energy to Charge the Blue Economy.</p> <p><b>CONFERENCES:</b> CETA: Joint rulemaking workshop; CHMURA: Higher Ed and COVID; Pac NW Predictions: Renewable Energy Reimagined (off shore wind); WA Solar Conference; Washington's Energy Workforce Needs CEO Roundtable with Gov. Inslee; WSU Green Transportation; Regional Economic Forecast &amp; Innovation EXPO; Lewis County Biorefinery Review; CleanTech Alliance: Cascadia Innovation &amp; Circular Economy Conference; US Dept of Commerce/Best Practices; CleanTech Alliance Leadership Summit; CleanTech Alliance Clean Materials Workshop; The Future of Work and the Workforce: A Conversation with US Secretary of Labor, Marty Walsh; National Association of State Energy Officials Advanced Technology and a Resilient Electric Grid: Assessing Risks and Planning for the Future.</p> <p><b>CoE Clean Energy Advisory Board Meeting</b> (virtual): Avista presented internship program, John Steidel talked about first year common year in Industrial Trades at Centralia College, I presented Director's report and followed up with a survey. Board agreed on: three 2-hour meetings per year while in virtual status with third meeting being more discussion focused on one or two topics; two sub-committees were formed (3-year strategic planning and marketing), introduced four guests (3 new advisory board members).</p> <p><b>WORK-BASED LEARNING OPPORTUNITIES:</b> Shared internship opportunities at Wahkiakum PUD (new), Bonneville Power Administration (6), PNNL, and UW Clean Energy Institute. BPA prefers to hire CTC students and is promoting the opportunities to attract more CTC students.</p>
<p><b>Quarter 3</b></p>	<p>Met with Advisory Board members separately (have met with all members but two)</p> <p><b>INDUSTRY:</b> Met with Cam LeHouillier, TPU; Jon Bersche, City of Seattle; Andy Johnstone, P.E., engineering business; Olympic Community Solar throughout the quarter to discuss workforce needs, trends and gaps. Also met with Aubre Nelson, L&amp;I, about apprenticeships.</p> <p><b>ORGANIZATIONS:</b> Met with: FWEE; CleanTech Alliance; Career Connect Washington; Lewis County Energy Innovation Coalition; Egils Milbergs and CATES team; Aaron Feaver, JC Dream/CHARGE; WorkSource Regional Business Solutions Team; Pacific Education Institute (PEI); Rep Matt Boehnke (Kennewick/W Richland LD-8); CYAI Bradford Hurte.</p> <p><b>NREL Energy Exec's Academy</b> – applied to attend National Renewable Energy Laboratory's academy and was accepted. The director will travel to Golden, CO, June through September to learn more about renewable energy including hydrogen.</p> <p><b>CONFERENCES:</b> CleanTech Alliance Hydrogen Technologies; CleanTech Advocacy Day; Capital STEM Alliance Steering Committee; and West STEM Summit (more conferences listed on page 8).</p> <p><b>CoE Clean Energy Advisory Board</b>(virtual): Held an interim advisory board meeting for a deep discussion about internships, pre-apprenticeship and apprenticeship programs. Presenters included Jeremy Gall, Avista; Nancy Estergard, Grays Harbor College; Thomas Gill, AWBI; and Alice Massara, Tacoma Power (DEI). Created and met with the CoE Advisory Board Strategic Planning Sub Committee.</p> <p><b>WORK-BASED LEARNING OPPORTUNITIES:</b> Through Energy Educators Association: Shared internship opportunities Lewis County PUD (6); Oregon Dept of Energy's College Internship Program (4); Hydropower and STEM Career Academy (24 high school students); Helion Entry Level fusion technicians (to bring awareness that fusion is hiring entry level positions).</p> <p>~Met with Bradford Hurte, ICF Workforce Consultant to learn about his efforts with CYAI which involves giving \$400 to apprentices who register in programs containing at least 10% networking/cybersecurity. Introduced him to Brianna (CoE IT), Dennis Skarr, Everett, and Bob Guenther, IBEW 77 (working on Cybersecurity apprenticeship program).</p> <p>~Will continue surveying industry through Career Connect Washington's Clean Energy/Clean Technology Industry Intermediary partnership with CleanTech Alliance, and am expecting work-based learning opportunities will continue to grow.</p>
<p><b>Quarter 4</b></p>	<p><b>INDUSTRY:</b> The director and program coordinator visited Rocky Reach Dam and the new visitor's center operated by <b>Chelan PUD</b>. Presented new clean energy technology that's emerging in Washington to the <b>FWEE executive board</b> and committee.</p> <p>Partnered with the Lewis County Economic Alliance to co-host a <b>Hydrogen Symposium</b> at Centralia College. Nearly 100 participants attended to hear an announcement from global green energy company Fortescue FFI. FFI is looking to buy the TransAlta industrial park to replace the existing coal generation plant with a green hydrogen plant. Green hydrogen is a zero-carbon fuel that does not require burning fossil fuels in the production process. Guest speakers and panelists discussed the benefits of hydrogen in the community. CoE's director presented how the center and the college system would support hydrogen through program development; she joined a</p>

subgroup of 12 gathered for networking and dinner after the event, which included Brian Young, Stephanie Celts, Aaron Fever plus two others from JCDream, Jennifer States, Mel Clark, Gus Williams and David White (from Oregon).

**Advisory Board Meeting – May 13** – this virtual meeting included the new hydrogen partnership announcement as well as the center's new three-year strategic plan. Action items: approved strategic plan and the center's name. The board advised to keep the name as is: the Pacific Northwest Center of Excellence for Clean Energy. More meeting details are included in the last section of this report.

**Energy Workforce Convening** summit, June 30. A Career Connect Washington deliverable. More than 100 participants joined this first hybrid workforce summit led by CleanTech Alliance. Guests included industry, CTC, K-12, and other clean energy stakeholders. Guests listened to a host of speakers and participated in a short, valuable breakout session. CoE sponsored an in-person event at Centralia College which had 12 attendees. Though folks were invited to network after the event, ours ended quickly due to a perceived bomb threat.

**ORGANIZATIONS:** Met with CleanTech Alliance and SBCTC to discuss apprenticeships.

Attended the first session of **NREL's Energy Executive's Leadership Academy**, and discovered that our center director was the first attendee from Washington (and Oregon). She was joined by 19 other energy executives representing industry, government, tribal nations, native Alaska Americans, and education. 160 executives applied and 20 were selected; when done in September, this group will join more than 300 alumni. We learned about the technology advancements in solar and wind generation – such as bifacial solar panels (double-sided panels are much more efficient) and how wind turbine blades can be manufactured with balsa wood and foam that are more easily recyclable at the end of service. We posted photos on social media and will follow up with news bites in 2022-23 Q1.

**CONFERENCES:** National Green Energy/H2 Report – followed up with Nick Barilo, PNNL, and was invited to join the **global hydrogen academia workgroup**. Followed up with Nicolas at OSU to learn about hydrogen projects that students are conducting. Also attended CleanTech Alliance's Government Meeting (recruited Stephanie Celts to present). Also recruited Joe Clark to present hydrogen at CleanTech Alliance's Showcase.

**AWB Aerospace and Manufacturing Workforce Summit** – attended the summit at the Museum of Flight and made new contacts. Led the table breakout session and learned that some faculty may spend up to 75% of their time researching and writing grants to secure new lab equipment; and that industry partners donate old equipment for labs, which isn't always helpful. The director encouraged all attendees, with a focus on industry, to support labor market data by posting multiple job openings to show real demand.

**Work-Based Learning Opportunities:** Avista and Tacoma Public Power offered summer programs for high school students. Wrapped up planning in Q4. Students were emerged in all aspects of operations as well as careers in energy. These programs began in July and will be reported in 2022-23 Q1 report.

## Year Review

**It's been an amazing first year:** The CoE started with hiring a new director and ended with hiring a program coordinator as well as working in a new partnership with CleanTech Alliance as a Career Connect Washington's Clean Energy/Clean Technology Industry Intermediary. Events were held virtually most of the year, which offered a lot of learning opportunities.

**Status of Industry:** The energy industry is in the midst of tremendous change. Driven by federal and state climate initiatives, utilities are faced with shuttering fossil-fueled generation plants, conducting intricate tracking and reporting; and discovering ways to produce more energy without contributing to greenhouse gas emissions. These additional tasks, which are daunting for the state's smaller utility districts, are added to the continuous work of complying with national, tribal and state regulations, while supplying affordable, reliable electricity to meet the demands of our state. A demand that includes electrification of all things fossil fueled - which could weaken an aging infrastructure if not planned safely. There's a lot of work – meeting these demands while also diversifying the workforce at all levels. We are going to see some new forms of generation, new hiring policies, and new work-based learning opportunities in the near future.

**Ending the year:** The Center ended the year with a strong Advisory Board and with stronger industry connections. We witnessed that for the first time, two of our utilities hired students under the age of 18 to learn operations. Smaller utilities are struggling with finding time and people power to meet initiative demands. This industry will experience changes in years to come as emerging technology (fusion, biofuels, electrification of vehicles and hydrogen) flourishes in our state. The center staff will remain nimble to learn and share industry news and trends.

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Core Expectations	Activity	
<input type="checkbox"/> Economic Development <input type="checkbox"/> Sector Strategy <input checked="" type="checkbox"/> Ed/Innovation/Efficiency <input type="checkbox"/> Supply/Demand	<b>Strengthen partnerships with colleges</b> <ol style="list-style-type: none"> <li>1. Re-connect with colleges that offer energy programs. Work with interim director to connect with deans, attend WEC, update college program information on PNCECE website.</li> <li>2. Connect faculty to enhance collaboration. Communicate with faculty and deans of current CTC energy programs and create a group for faculty.</li> <li>3. Participate in Chmura data pilot to provide current labor market data to CTC colleges with energy programs, and report trends quarterly.</li> </ol>	
Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 100%	Strengthen communication with CTC energy program faculty and deans to assist in strengthening programs and increasing enrollment.	~ Create a strong network between CoE and statewide energy programs Q1-Q4. ~ Participate in Chmura data pilot and training. Q1 ~ Share labor market trends quarterly. Q1-Q4 ~ Share and present Chmura tool to Advisory Board. Q2 ~ Attend at least two WEC meetings Q1-Q4. ~ Create one virtual event to build network for faculty Q3 or Q4.
Report and Analysis on Actual Outcomes and Products		
<b>Quarter 1</b>	The Interim Director sent nine introduction emails to deans of energy related programs, the director connected with an additional eight plus WSU. Connected Shoreline and Bellingham Tech to Fast Charging Station group; and connected to colleges on the east side of Washington (anticipated in-person visits which were canceled due to increase in COVID). Participated in more than eight hours of Chmura training and provided labor market data to five stakeholders.	
<b>Quarter 2</b>	-Attended fall WEC; serving on one sub-committee: Student Success (Persistence and Completion); sent two emails through WEC List Serve regarding energy educator opportunities. -Introduced Ray Kabusta, Bellingham Tech to Fast Charging Team. They are interested in supporting the Good Jobs Challenge proposal that the Fast Charging Team, led by Egils Milbergs, is creating. -Met with Izad Khormae, Clark College; sent emails to Clark and Lower Columbia regarding internship opportunity at Wahkiakum PUD. -Continued Chmura training. Shared labor market data with Clark and Centralia colleges; as well as CoE advisory board. -Assisted CoE_ANR with CIP Codes for HB 1168 (included energy/environmental policy, fishing/fisheries science/management; energy systems engineering general; parks/recreation/leisure facilities management; and lineworker/constructing poles/transmission lines). -Learned two key faculty had quit within system. Met with Gail Alexander/Cascadia. Could not connect with Louise Petruzzella/Shoreline. -Toured UW Clean Energy Test Beds; met with Michael Pomfret, Danica Hendrickson (workforce) and Brian Young. -Started Energy Educator's Association and began emailing 60 deans and faculty information about internships, apprenticeships and educator opportunities. Will plan a virtual meeting in Q3/Q4	
<b>Quarter 3</b>	Attended Winter WEC; sent emails through WEC ListServe regarding energy educator opportunities and apprenticeship programs. <b>Energy Educator's Association</b> , comprised of nearly 60 deans and faculty – sent emails about internships, apprenticeships and educator opportunities. Planned and held a virtual meeting:	

	<p><b>Electric Transportation Transition: A Conversation on the Community College Role.</b> Presenters: Center for Advanced Transportation and Energy Solutions (CATES) which included Egils Milbergs, John Niles and Steve Marshall. Colleges with automotive programs were invited to attend the free forum. Colleges represented during the forum included Bellingham Tech, Centralia College, Columbia Basin, Everett (CoE Aerospace), Lake Washington, and Yakima Valley. CATES was looking for college input to share with Tonia Buell, of WA Dept of Transportation, who is organizing EV funds for our state.</p> <p>Strengthening Community Colleges TAACCT Grant – met with CoE directors as well as other CTC faculty to see if there would be any interest in partnering on a grant. Interest was in pursuing CDL, manufacturing and IT programs (no energy).</p> <p><b>Energy Programs-</b> met with Wenatchee Valley's Riva Morgan and Yuritzi Lozano to discuss their program and apprenticeship connections; Nancy Estergard to discuss apprenticeship program (she presented in our March 11 interim advisory board meeting). Assisted CC faculty in applying for funding to purchase energy lab equipment.</p> <p><b>Chmura</b> – attended webinars that revealed economy trends and corresponding reports. Pulled reports for CC and BTC.</p>
<p><b>Quarter 4</b></p>	<p><b>Bellingham Technical College</b> – Discussed BTC's clean energy program to find avenues to strengthen the program to serve industry needs. Sent Chmura/JobEQ reports; met with a new manufacturer, Sharc Industries, to learn workforce needs; held email conversations with Burns &amp; McDonnell, regarding the need for energy designers. BTC offers strong design programs that have been cut from other CTC programs. The result, BTC submitted an internal program revision justification and shifted the energy program from an electronics core to a CAD design core, and changed the program name to Sustainable Design.</p> <p><b>Centralia College</b> - Lovington Grant Award at Centralia College – assisted the Industrial Trades/energy program by writing a grant to purchase renewable energy lab equipment. Grant of \$44,704.63 was awarded.</p> <p><b>Energy Educators' Association</b> – Increased number of EEA emails with information and opportunities, including grants. One led to a conversation with Steve Abercrombie, South Seattle College, that encouraged him to apply for the National Green Jobs Advisory Council. Steve is now part of that council with McKinstry as his industry partner. He will report at the NCWE conference in October.</p> <p><b>Chmura/JobEQ</b> Continued providing labor market information to stakeholders using Chmura. Also paid dues to Skagit to continue using Chmura 2022-23 fiscal year.</p> <p><b>CoE Directors:</b> Met with Carl Douglas, director of the CoE_Semi-Conductors, to share center information and build support since we are both new directors. Continued meeting other directors virtually.</p> <p><b>WEC:</b> Led a breakout session updating 5 attendees on emerging technologies including fusion, hydrogen and EV transportation.</p>
<p><b>Year Review</b></p>	<p><b>It's been an amazing year:</b> The year started with slow and somewhat successful email introductions to dean and faculty. The director met virtually with most deans and some faculty who offered energy programs. Our website was updated to showcase 92 programs. We offered one virtual event for auto faculty (EV transportation) and invited faculty/deans to join our first hybrid workforce summit.</p> <p><b>Status of colleges:</b> College programs have changed since the director last worked at the center. Colleges with specifically targeted programs, such as wind only at Walla Walla, solar only at Shoreline, and line workers only at Spokane, needed to adjust or broaden their coursework to meet local industry needs. Students were showing less interest moving out of their district to attend a specific program. Due to the pandemic and economic times, colleges began re-visiting programs with lower enrollment. Consequently, the system lost programs at Spokane (line school) and Cascadia colleges. Faculty and program staff turnover also slowed progress of communication. Good news, Bellingham Tech and Shoreline are revisiting and renewing programs; and Clark College is re-designing and re-starting theirs.</p> <p><b>End of the year:</b> The Energy Educators' Association is still growing identity and will have more focus in 2022-23. The changes that incorporate emerging technologies, electrification of vehicles for example, has given the center an opportunity to work with deans and faculty who have not worked with any CoE. At the end of the year, our new program coordinator increased the number of clean energy and clean technology programs from 92 to 186. That number will continue to grow as more programs are offered to assist emerging technologies within industry.</p>

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Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 100%	Keeping the website updated and current will increase trust within industry, labor, and education. Partnering with industry during events, such as career fairs and energy events, will increase awareness of CTC programs and careers.	<p>~ Update website - an on-going process. Work closely with the website manager to update the education, activities and video pages. Big updates Q1.</p> <p>~ Promote/participate in events, such as Expand Your Horizons and Careers in Energy Week Planning Q1; Events Q2.</p>
Report and Analysis on Actual Outcomes and Products		
<b>Quarter 1</b>	<p><b>PNCECE Website:</b> Updated Energy Programs, Advisory Board and About Us pages.</p> <p><b>MEDIA:</b> CC published a new director story on CC website which was picked up by The Chronicle, SBCTC News and KELA (radio interviewed the director). News was shared on social media (Facebook and LinkedIn). Took photos and reported news regarding Twin Transit's Wave Induction Quick Charge plate. PNCECE continued updating website, Facebook and LinkedIn with news and event information.</p> <p><b>CoE Digest:</b> Published CoE/Clean Energy and industry news in monthly FAQ sheet published through CoE/Construction.</p> <p><b>SBCTC Video:</b> Wrote copy and partnered with SBCTC in creating a 15-second video. Media campaign ran Aug. 30 – Sept. 30.</p> <p><b>EVENTS:</b> Invited Sarah Bowles, Tacoma Power, to participate in <i>Expand Your Horizons</i> occurring in October. Planned workshops.</p>	
<b>Quarter 2</b>	<p><b>-Careers in Energy Week</b> increased visibility through social media and website (daily posts of different careers) Hosted 30 8<sup>th</sup> and 9<sup>th</sup> grade students during Sneak Peek (formally Expand Your Horizons) to talk about energy careers; disseminated FWEE materials.</p> <p>-Made presentations to two Industrial Mechanical classes regarding careers in energy; and to faculty and staff regarding the Center.</p> <p>-Purchased an electricity generating bike to use at tradeshow and conferences. It will also be used in Centralia College's mobile lab and in the fitness center. Centralia College also purchased an upright stationary electricity generating bike.</p> <p>-Staffed table at Regional Economic Forecast &amp; Innovation EXPO – discussed Center's purpose and disseminated FWEE materials.</p>	
<b>Quarter 3</b>	<p>Centralia College added the <b>CoE's logo</b> to the outside of the Industrial Trades mobile lab.</p> <p><b>CoE Website:</b> Added a resource page with documents to the website for the CoE Advisory Board to use.</p> <p>Continued updating website and social media with news, trends, jobs and apprenticeship opportunities.</p> <p>Presented CoE information at the first Transit Summit, hosted by Twin Transit. Transit companies talked about hiring techniques and learned about EV buses and charging stations. I presented the group with a labor market study and assisted Tacoma's Around Town transit with ideas for finding employees.</p>	

<p><b>Quarter 4</b></p>	<p>Through due diligence, our new program coordinator expanded our college program listings from 92 to 186 and streamlined the areas of study as well. Updates can be found online at <a href="https://www.cleaneenergyexcellence.org/college-programs/">https://www.cleaneenergyexcellence.org/college-programs/</a></p> <p><b>Presented CoE and college program information</b> at a Lewis County Economic Alliance monthly luncheon. Approximately 50 guests attended and many commented afterwards that they appreciated learning about the Centers.</p> <p><b>Co-sponsored Events:</b> Logo appeared in invitations and advertisements for May's Hydrogen Summit and June's Energy Workforce Convening Summit. The director was a featured presenter in both events.</p>
<p><b>Year Review</b></p>	<p><b>It's been an amazing year:</b> All of the centers partnered with SBCTC to produce a :15 video (for each center) that resulted in 1.9 million impressions overall (thank you). Our web manager continued to do an excellent job updating news and events on our website and social media. We have more work to do updating and archiving pages. Through meetings and webinars, the center is getting more recognition and is developing more business contacts.</p> <p><b>Marketing Status:</b> <i>Expand Your Horizons</i> was changed to <i>College Sneak Peak</i>. We partnered with Tacoma Power and hosted more students than in past years. It's wonderful to inspire minds and expose them to careers in energy. We purchased an electricity generating bike that will be used inside Centralia College's Industrial Trades Mobile Lab (the center's logo was added to the outside of the trailer). We reached out to our advisory board, who agreed to share images for marketing templates and campaigns. The director needs to follow-through with those who were eager to help. We also rejoined the Center for Energy Workforce Development (CEWD) to partner with outreach efforts.</p> <p><b>End of the year:</b> We continue to host an amazing amount of information on our website and are adding more resources and pages to suit the needs of our advisory board, Energy Educators Association and emerging technologies. Moving into 2022-23, the director has joined CEWD's Workforce Think Tank to create new collaborative efforts in promoting careers in energy.</p>

# Center of Excellence FY21-22 Work Plan and Quarterly Report

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Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 100%	Additional dollars are needed to fund projects to support and promote energy programs and workforce education.	<ul style="list-style-type: none"> <li>~ Join Lewis County Energy Innovation Coalition – Q1.</li> <li>~ Explore collaboration opportunities with CleanTech Alliance – Q2.</li> <li>~ Subscribe to grants.gov and other grant sources – Q1.</li> <li>~ Collaborate with other CoEs – Q1 retreat and on-going.</li> </ul>
Report and Analysis on Actual Outcomes and Products		
<b>Quarter 1</b>	<p>Joined Lewis County Energy Innovation Coalition and attended meetings. Explored collaboration opportunities with CleanTech Alliance including meeting with CCW and discussing project ideas - which led to co-authoring the first draft of Energy/Clean Technology RFI for CCW. Subscribed to Grants.gov and tracked progression of the National Association of State Energy Officials Infrastructure Investment and Jobs Act (passed by the US Senate Aug. 10). Met CoE directors for a summer retreat and bi-weekly meetings. Volunteered to serve on the WA CoE marketing committee.</p>	
<b>Quarter 2</b>	<p>Partnered with CleanTech Alliance to work with Career Connect Washington: co-wrote 2-page one-pager, Request for Information (RFI) and Request for Proposal (RFP) and submitted RFP in November. We secured the Career Connect Washington Industry Intermediary position for Clean Technology/Clean Energy sector. The Center will receive \$120,000 to hire a program coordinator, update tools and create new marketing tools to support CCW efforts. Began work on MOU and plan to hire a program coordinator.</p>	
<b>Quarter 3</b>	<p><b>Career Connect Washington</b> Clean Energy Industry Intermediary partnership. CleanTech Alliance hired a workforce development manager. The CoE promoted a program coordinator position and interviewed candidates. Also attended a lot of CCW meetings.</p> <p>The CoE was included within CleanTech Alliance's <b>Build Back Better</b> grant application (one of 60 grants within Maritime Blue). If awarded, the CoE will hire a program coordinator/navigator who will help direct new students into programs or internship opportunities throughout the state as well as assist graduates with job searches upon graduating from a program.</p> <p>Submitted a letter of support for a BBB grant supporting Kitsap County/foir ferries.</p> <p>Assisted West Sound STEM, who were seeking to apply as a <b>CCW Program Intermediary</b>.</p> <p><b>Hydrogen Hub RFI</b> – attended meetings and assisted with workforce needs/information. CoE was included in a consortium RFI.</p>	



	<p><b>Apprenticeship Building America</b> – met with two groups interested in including the CoE in an application. One group, OlySolar stopped the process. The second group, led by L&amp;I, evolved to include the Centers in two applications – one with L&amp;I in category 1 of the grant; and one with CCW/ESD within category 4.</p> <p><b>Hydrogen Valley</b> – Met with Joe Clark, Twin Transit, who will include the CoE in upcoming congressional funding opportunities to support hydrogen workforce development. As hydrogen develops in the area, Twin Transit will develop apprenticeship opportunities.</p>
<p><b>Quarter 4</b></p>	<p><b>Career Connect Washington/Good Jobs Challenge</b> – CoE convened an interview committee to select and hire a part-time, full benefited program coordinator. 75% of her salary will be paid through CCW funds. She started May 3.</p> <p>A Good Jobs Challenge rep from the U.S. Economic Development Administration contacted Alice Massara as a reference for the GJC phase two CCW proposal. This gave hope to Maud Daudon, ED of CCW, that the grant was moving closer to being fulfilled for CCW. Award announcements should be coming soon. EDA received 509 applicants requesting funding from the allocated \$500 million.</p> <p><b>Apprenticeships Building America</b> – attended several meetings with Peter Guzman leading the effort with statewide stakeholders to discuss best practices of applying for this grant. CCW and LNI both applied separately and included the Centers of Excellence in the applications. What came out of the meetings, was a role for the Centers to play at creating an apprenticeship toolbox.</p> <p><b>REVIT – Renewable Energy Vehicle &amp; Infrastructure Technician training program – Congressional Ask</b> – the CoE partnered with Twin Transit and Douglas County PUD in submitting a Congressional Ask proposal outlining needs for workforce development. The \$685,000 request moved onto Patty Murray’s list to be approved. Senator Murray’s 2021 list was funded at 100%, so we are hopeful this project will be funded. The request included support letters from JCDream, Department of Ecology, and WSU.</p>
<p><b>Year Review</b></p>	<p><b>It’s been an amazing year:</b> We were involved with so many grant opportunities including Career Connect Washington (CCW), Good Jobs Challenge/phase 2, Build Back Better/phase 2, Apprenticeships Build America (included with LNI and CCW), and a Congressional Ask for workforce training. We were awarded \$120,000 as CCW Clean Energy/Clean Technology Industry Intermediary partner with CleanTech Alliance. The funding pays the salary of a part-time benefited program coordinator. The program coordinator started May 3.</p> <p><b>Status of additional funding:</b> We are waiting for award announcements on the Good Jobs Challenge and Build Back Better grants; and have moved forward in the Congressional Ask. The \$685,000 Congressional Ask, which is on Senator Murray’s list, involves a partnership between the center, Centralia College and Twin Transit to create Renewable Energy Vehicle &amp; Infrastructure Technician training. The LNI Apprenticeships Build America was not funded.</p> <p><b>End of the year:</b> The center shared grant information through emails with the Energy Educators’ Association. Many opportunities were passed, such as the Dept. of Labor TAACCCT grant, because colleges aren’t interested in managing large grants in the midst of ctcLink, the pandemic and staff shortages. Other opportunities to work with K-12 in the hydrogen world are beginning to emerge.</p>

# Center of Excellence FY21-22 Work Plan and Quarterly Report

Center Name: **Pacific Northwest Center of Excellence for Clean Energy**

Core Expectations	Activity	
<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> </ul>	<p><b>Increase the diversity of the energy workforce</b></p> <ol style="list-style-type: none"> <li>1. Create/reuse marketing tools showing diversity inclusion. Collaborate with SBCTC in creating a non-traditional video. Re-establish video links on the Center's website (videos that are still current).</li> <li>2. Build outreach opportunities to encourage diversity within applicant pools. Recruit students of diverse background into energy programs. Partner with industry to include diverse representatives in events, such as career fairs.</li> </ol>	
Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 100%	To increase exposure, enrollments, and diversity within CTC energy programs.	<p>~ Support SBCTC non-trad video – Q1</p> <p>~ Support two events that promote energy jobs to K-12 students using targeted outreach to schools with a higher percentage of diverse students. (Contact two CTC's with energy programs, the local utility and local WorkSource to support a local career fair). Q4.</p> <p>~ Work with Education Service Districts to find targeted schools with highly diversified student bodies). Q4.</p>
Report and Analysis on Actual Outcomes and Products		
<b>Quarter 1</b>	<p><b>SBCTC Video:</b> Wrote copy and partnered with SBCTC in creating a 15-second video promoting careers in energy for women. Media campaign ran Aug. 30 – Sept. 30. Combined with other CoE's, total impressions = over 2 million. PNCECE shared the video on social media and website.</p> <p>Discussed outreach concerns with industry partners Avista and Tacoma Power; and organizations, such as CCW and ESD 113. Discussed future marketing campaign with CTC energy program deans.</p>	
<b>Quarter 2</b>	<p>-Discussed procuring photos of current employees in jobs with advisory board members. PJ LeCompte agreed to research and provide photos to use in cohesive marketing tools for CTC programs.</p> <p>-Supported outreach opportunities by disseminating information on K-12 instructor programs, internships and apprenticeships. Will be building outreach opportunities through Career Connect Washington programs.</p> <p>-Met with ED's of West Sound STEM and WA State STEM Foundation to establish a working relationship and share out K-12 opportunities. Will continue to develop these relationships through CCW.</p>	
<b>Quarter 3</b>	<p>Continued conversations regarding diversifying the workforce with industry and grant partners.</p> <p>Added workforce videos back into the CoE website that are still current and demonstrate DEI.</p> <p>Alice Massara presented DEI information in our interim Advisory Board meeting March 11. The board asked her to continue her presentation at the spring Advisory Board meeting in May. Her presentation revealed the need for diversification in all levels of staffing, and how to recruit and retain employees with diverse backgrounds.</p>	

<b>Quarter 4</b>	<b>Energy Educators' Association:</b> Shared summer internship and learning experiences as well as opportunities for K-12 students and staff to attend energy related summer programs. Supported FWEE summer academy and Bonneville Environment Foundation Fellowship. Promoted energy job openings at Helion, NORPAC and industry partners.
<b>Year Review</b>	<p><b>It's been an amazing year:</b> We assisted SBCTC with creating a :15 video that featured images of workers in non-traditional roles. <b>Careers in Energy Week</b> social media campaign included daily images that showcased a diversity of real workers doing real jobs (resulted in increased social media outreach). Our Advisory Board Chair presented the importance of diversifying every level of industry to our advisory board (response was extremely positive).</p> <p><b>Status of DEI:</b> Equity, Diversity and Inclusion (DEI) has become a top priority for leaders across all industries. It is crucial to the success of business and is on the forefront of those who are in people strategy positions. DEI is factored into grant writing and deliverables and is a focus of Career Connect Washington outcomes. We need collaboration with all organizations who reach underserved communities.</p> <p><b>End of Year:</b> Job/career fairs continued to be held virtually or were non-existent as traditional in-person events. Avista was able to present to high school students at the end of Q3 and we need to encourage more partners to follow their lead. We will continue to keep DEI forefront in all aspects of our work.</p>

## Center of Excellence FY21-22 Work Plan and Quarterly Report

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Center Name: **Pacific Northwest Center of Excellence for Clean Energy**

Core Expectations	Activity	
<input checked="" type="checkbox"/> Economic Development <input checked="" type="checkbox"/> Sector Strategy <input type="checkbox"/> Ed/Innovation/Efficiency <input checked="" type="checkbox"/> Supply/Demand	<p><b>Develop a wider portfolio of clean energy sectors and partners</b></p> <ol style="list-style-type: none"> <li>1. Recruit board members to represent transportation, clean energy entrepreneurs, storage and other non-represented clean energy organizations. Network within industry events to find potential board members. Seek advice from Advisory Board as to which industry representatives are missing. Recruit two new members who represent new clean energy partners.</li> <li>2. Participate/network in appropriate conferences, showcases or other events such as the CleanTech Alliance Showcase.</li> </ol>	
Funding Sources %	Purpose	Projected Outcomes and Products
CoE Allocation 100%	To diversify Advisory Board membership to include a wider variety of clean energy stakeholders.	~ Work through the Advisory Board, recruit two new board members that represent other clean energy sectors. Q1-Q4. ~ Attend at least two events, such as the CleanTech Alliance Showcase and the Lewis County Energy Innovation Coalition ~ Develop a new strategic plan beginning 2022 Q3-Q4.
Report and Analysis on Actual Outcomes and Products		
<b>Quarter 1</b>	Attended CleanTech Alliance Showcase and additional workshops, as well as the Lewis County Energy Innovation Coalition (LC EIC). Discussed hydrogen projects that are being developed in Douglas and Lewis counties with Douglas County PUD and the LC EIC. Will report on new Advisory Board members next quarter (inviting potential new members as guests to fall meeting).	
<b>Quarter 2</b>	New Advisory Board Members were introduced at the Fall Advisory Board meeting in November. They include: <b>Richard DeBolt</b> , Executive Director of Lewis Economic Alliance. Richard, formerly in marketing of Washington's only coal plant, TransAlta and a former commissioner, Richard is connected to the retrofitting project of TransAlta	

	<p><b>Christine Reid</b>, IBEW 77, political director and lobbyist. Member of IBEW 77 for more than 15 years.  <b>Joe Clark</b>, Executive Director of Twin Transit, who bring electrification and renewable hydrogen gas to the transportation world.  <b>Conferences/Expos:</b> Staffed table during the Regional Economic Forecast &amp; Innovation Expo in December. Met Shailesh Shere who holds several positions at Grays Harbor PUD. Shailesh is interested in reaching out to high schools and colleges to share career information. Shailesh also became a board member of Centralia College's Industrial Trades Advisory Board.  Created two Advisory Board Sub-Committees: 2022-25 Strategic Planning; and Marketing</p>
<p><b>Quarter 3</b></p>	<p><b>CoE Advisory Board</b> - Recruited Elton James from Pac Mountain Workforce Development to serve on the CoE Advisory Board. As of April 15, discovered Elton had resigned his position, so we will need to re-recruit.</p> <p style="padding-left: 40px;">Will invite Shailesh Shere, Grays Harbor PUD; David Fortney, PGE; Steve Marshall, CATES; and Laura Wurth, Bellingham Tech, to attend May's Advisory Board Meeting as guests.</p> <p><b>Advisory Board Sub Committee</b> – surveyed advisory board members and began meeting with sub-committee to design a 2022-2025 strategic plan. Members include Alice Massara, Brian Young, Erik McCoy, Jeremy Gall, Steve Lorence and Todd Currier.</p> <p><b>CONFERENCES</b> (continued from page 2): RH2-Producing Green Hydrogen with renewable electricity and electrolysis Systems; Building a Winning NW Hydrogen Hub; NW H2Hub RFI working sessions; Clean Tech in Snohomish County; and Chmura's Economic Outlook.</p>
<p><b>Quarter 4</b></p>	<p><b>Advisory Board Strategic Plan Subcommittee</b> – the committee continued to meet and developed a three-year plan. The plan was presented to the board, discussion was held and the plan was approved with some minor copy changes.</p> <p><b>Advisory Board Actions/May 13:</b> The board held a discussion about the center's formal name and voted to keep the center's name as the Pacific Northwest Center of Excellence for Clean Energy siting that utilities, such as Bonneville and AVISTA extend into states outside of Washington. The board also determined that "Clean Technology" does not need to be singled out nor added to the center's name because clean technology is implied to be included within the Clean Energy sector.</p> <p><b>Added</b> Steve Marshall, CATES, and Laura Wurth, Bellingham TC, to the Advisory Board. Working with PACMT ED William Westmoreland to find another candidate.</p>
<p><b>Year Review</b></p>	<p><b>It's been an amazing year:</b> We are so thankful for the support of a strong Advisory Board that participates in meetings, emails, surveys and subcommittees. We added experts in the fields of hydrogen and transportation electrification and are inviting educators representing other parts of the state and CTC system. The three-year strategic plan was approved and needs to be published.</p> <p><b>Status of portfolio:</b> The director seeks knowledge and expertise of subject matter experts who can share experience and industry needs. We partner with CleanTech Alliance and continue to broaden our reach through CCW, STEM and K-12 networks. The director also serves on committees such as FWEE, Capital STEM, a global Hydrogen Academia Workgroup, and the Pacific Northwest Hydrogen Hub Association (PNWH2); and is making national connections through NREL and CEWD.</p> <p><b>End of the year:</b> Events are beginning to open to in-person; though some industry site visits are still closed due to COVID policies. We're excited to see what technologies and workforce opportunities emerge.</p>