2021 ANNUAL REPORT



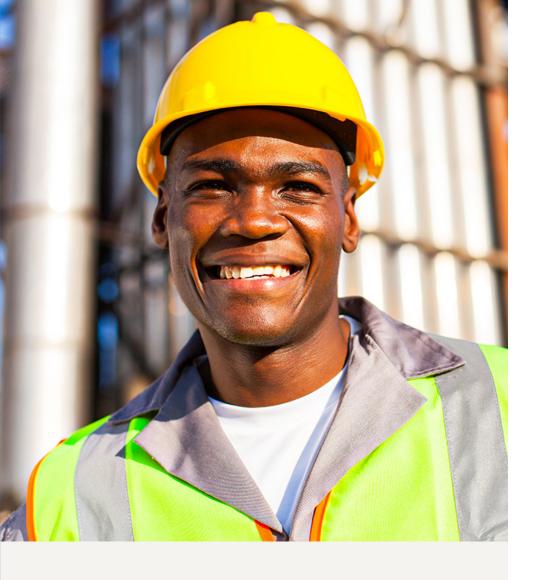


TODAY'S CEWD FOR TOMORROW'S ENERGY WORKFORCE

15 YEARS OF WORKFORCE DEVELOPMENT LEADERSHIP FOR THE ENERGY SECTOR

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About Us

The Center for Energy Workforce Development (CEWD) is a non-profit consortium of energy companies, contractors, associations, unions, educators, and business partners working together to ensure a skilled, diverse workforce pipeline to meet future industry needs. CEWD's coordinated approach to workforce development has united electric, natural, gas, and nuclear companies since 2006 and in 2021, in response to the need for enhanced collaboration, the Center expanded its umbrella to include the workforce development needs of those working in renewables, electric vehicle infrastructure, and energy storage. Further, recognizing the merits of collaboration among strategists, CEWD now welcomes business partners as associate members.

CEWD REPRESENTS
MORE THAN 120 ENERGY
COMPANIES. IN ADDITION,
THE CENTER IS GRATEFUL
FOR ITS PARTNERSHIP
AND SUPPORT FROM:

















CEWD Celebrates 15 Years of Workforce Development Leadership

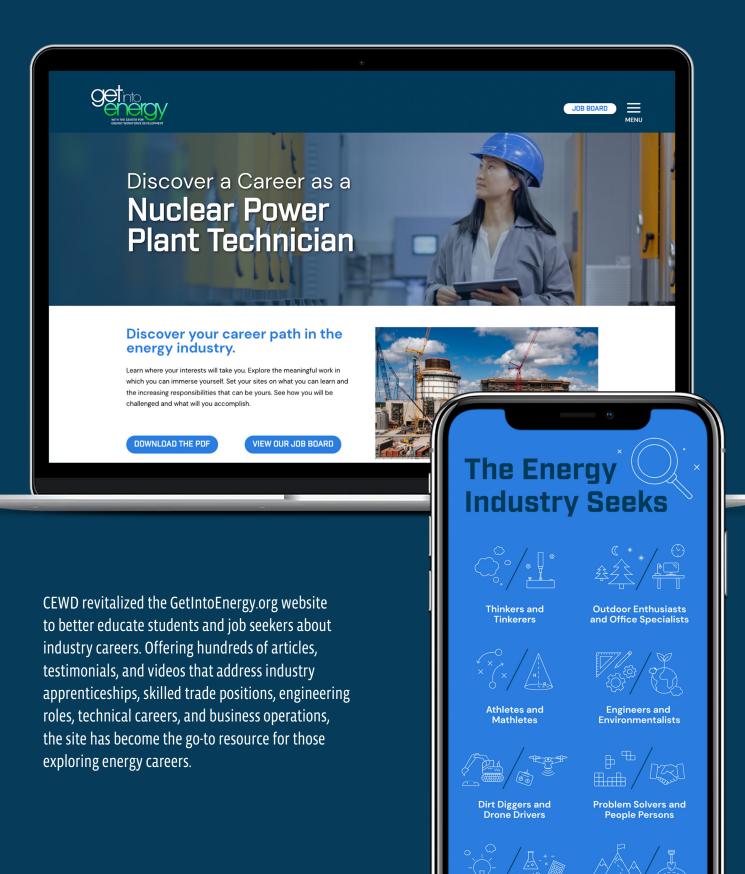
2021 marks CEWD's 15th anniversary of service to the energy industry.

THAT'S A DECADE AND A HALF OF LEADERSHIP, PROBLEM-SOLVING, ISSUE MANAGEMENT, AND PEER COLLABORATION TO SUPPORT THE DEVELOPMENT OF A SKILLED, DIVERSE ENERGY WORKFORCE. CEWD IS COMMITTED TO:

- Strengthening awareness and promoting the merits of 21st century clean energy careers
- Building effective partnerships that support a more diverse, equitable, and inclusive energy workforce
- Harnessing best practices in training and upskilling to support companies developing employees in increasingly technical and dynamic energy careers
- Supporting the industry's commitment to fostering modern day work cultures that attract and retain diverse, talented professionals

CEWD supports individuals and companies with their unique workforce development needs and harnesses the power of the industry to support sector-wide workforce development priorities. In fact, CEWD is leading the industry's response to some of the most significant priorities associated with the future of work, including decarbonization and the future of the energy workforce, Diversity, Equity, and Inclusion (DE&I), workforce transition, career awareness, training modernization, and much more.

Promoting 21st Century Clean Energy Careers









In October, CEWD hosted EnergyCareers 2021, a virtual career exploration event and job fair, which attracted 1,150 registrants eager to better understand energy careers. Participants learned why there's no more exciting time to be part of the energy sector than now through 20 educational sessions and interactions with 45 energy companies.

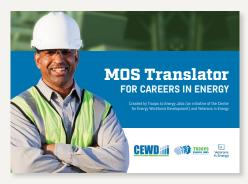
WE ALSO CONDUCTED RESEARCH TO UNDERSTAND THE PUBLIC'S OPINIONS ABOUT CAREERS IN ENERGY, WHICH SHOWED:

- Two-thirds of Americans have a favorable opinion of working in the energy industry.
- Three-quarters of Americans say with the variety of roles, the energy industry is a thriving one for employment.
- Americans say a top reason to work in the energy industry is because it is an essential industry that is growing.
- Two-thirds of Americans would suggest a career in energy to a friend, family member or student.

CEWD published 14 customizable resources that promote energy careers, enlightening parents, those considering skilled trade positions, and those who have a misunderstanding of the breadth of employment opportunities that exist in energy. We also coordinated speaking and booth representation at the American School Counselors Association's "Careers Your Students Need to Know About" and ASME's E-fest, focused on engineering students.

CEWD DELIVERED MESSAGING ABOUT INDUSTRY CAREERS TO VETERANS AND THEIR ADVISORS:

- CEWD hosted a virtual exhibit booth and six educational sessions for the 4,500 registrants of the Student Veterans of America's career focused conference. Approximately 2,000 resumés were collected and disseminated to the industry's military recruiters.
- Collaborated with the Department of Labor to connect transitioning servicemen and women with careers in energy through weekly job fairs and support from placement advisors.
- Partnered with Veterans in Energy to update the M.O.S.
 Translator and create a toolkit to make it easier for veterans to determine how best to transition their military skills into a career in energy, and to help hiring managers understand and interpret what veterans bring to the industry.



Building a More Diverse, Equitable, and Inclusive Industry

To continue efforts in this space, CEWD announced the DE&I Roadmap for Change, a multi-year initiative supported by CEWD and its association partners: AGA, APGA, DCA, EEI, NEI, and NRECA and the IBEW. Along with this new initiative, we were able to host three Listening Sessions in support of the Roadmap and discovered the industry's most significant DE&I challenges are increasing representation in leadership roles, sourcing and hiring diverse candidates, and retaining diverse candidates.

WE LEARNED THE PRIMARY WAYS THE INDUSTRY CAN PROMOTE DIVERSITY ARE THROUGH:

- Community outreach, education, and focusing on inclusive talent pools
- Making people more aware of careers in energy through hands-on experiences
- Supporting local workforce and training diverse groups
- Spending more time and money investing in building out diverse pipelines and relationships

CEWD published the Business Plan for DE&I in Energy, in collaboration with DiversityInc and initiated relationships, collaboration, and partnerships with organizations that can help fuel diversity in the industry's talent pipeline, including the National Urban League, Out4Undergrad, Job Corps, Autism Speaks, and a myriad of veterans' organizations.

We created the Campus Energy Network in collaboration with National Utilities Diversity Council. These pilot programs with Minority Serving Institutions expose diverse, high-performing engineering students to energy careers through mentors and industry leaders. American Association of Blacks in Energy and Society of Hispanic Professional Engineers have been valuable program partners.

EDUCATIONAL PROGRAMMING WE HOSTED INCLUDES:

- Increasing Diversity in Skilled Trade Positions
- Hiring from the Neurodiverse Community
- Five Questions about Inclusion that Stop Leaders in their Tracks
- What the #1 Ranked Utility for Diversity Has Done to Earn that Distinction
- Leadership Development Program for Diverse Employees
- Best Practice Sharing from Effective Community Based Organizations



Supporting Companies Developing Employees in Technical and Dynamic Energy Careers

CEWD CONDUCTED AN INAUGURAL SURVEY AMONG TRAINING LEADERS TO ESTABLISH BASELINES ABOUT THE INDUSTRY'S TRAINING OPERATIONS:

- 72% of respondents expected an increase in their technical training budgets in 2022.
- 60% of respondents described corporate training as decentralized.
- Emerging training benchmarks need to be validated — average progression, ratio of trainer/trainees, % of revenue spend.
- Majority of training is prepared and delivered in-house, with safety as the predominant content area.

THE ENERGY INDUSTRY
FUNDAMENTALS PROGRAM,
A 130-HOUR STUDENT
TRAINING PROGRAM,
WILL BE ENHANCED
IN BOTH CONTENT AND
DELIVERY, SUPPORTING THE
QUEST TO HAVE 500,000
STUDENTS COMPLETE THE
CURRICULUM OVER THE
NEXT TEN YEARS.

CEWD SUPPORTED THE TECHNICAL DEVELOPMENT OF TOMORROW'S ENERGY WORKFORCE:

- Administered the EIF exam to 676 students, through efforts of partnerships with educators and energy company partners.
- Submitted comments to Advance CTE
 on behalf of the energy industry for the
 reconsideration of the National Career
 Clusters® Framework, which is being
 addressed "to modernize its structure and
 design to ensure its relevance for current and
 future needs of every learner, at all levels, and
 of the workplace."
- Conducted the STEM Innovation Challenge with Derby High School in Kansas taking top prize and Louisa County High School in Virginia being awarded second.
- Partnered with The NEED Project to support student exploration of the energy industry and the careers it offers, recognizing students at Milwee Middle School in Florida and the Academy for the Arts, Science, and Technology in South Carolina in the EnergyCareers 2021 Challenge.

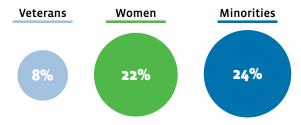
Supporting Workforce Development Professionals

CEWD COMPLETED THE 2021 GAPS IN THE ENERGY WORKFORCE REPORT, WHICH SHOWED:

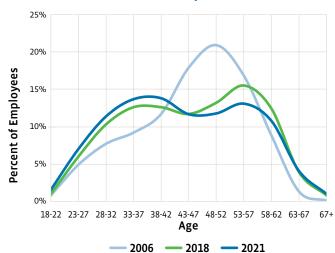
- The energy workforce continues to get younger.
- Forecasted retirement attrition has dropped to its lowest point in eight years.
- 8% of the industry's workforce is comprised of veterans, compared with 5.3% that make up the general workforce population.

We also conducted a separate study for contractors, learning the contractor workforce is much younger and retirement-based attrition is extremely low. 29% of the contractor workforce is diverse.

ELECTRIC & NATURAL GAS COMPANIES WORKFORCE COMPOSITION



AGE DISTRIBUTION | TOTAL COMPANY



- Hosted the 2021 Workforce Development
 Summit This event welcomed more than
 300 attendees for three days of educational
 programming on many of the industry's most
 critical topics, including program tracks
 addressing the Future of Training, Upskilling,
 and Learning in Energy Careers; Building a
 More Diverse, Equitable, and Inclusive Energy
 Workforce; Essential Steps to Connect with
 Tomorrow's Workforce, and Managing the
 Business of Workforce Development.
- Hosted two "I Am Remarkable Workshops," courtesy of Accenture, that help women and under-represented groups and allies celebrate their achievements in the workplace and beyond.
- Published the Strategic Workforce Planning Whitepaper that demonstrates why analytically driven workforce planning must be a business imperative.
- Created the new Supplemental Workforce Community of Practice, which has about 10 companies represented.





CEWD HELD DOZENS OF PEER-CONNECTION MEETINGS,
UNITING INDUSTRY PROFESSIONALS IN SHARING BEST
PRACTICES AND ADDRESSING COMMON CHALLENGES.
CEWD SPONSORS A HOST OF COMMUNITIES OF
PRACTICE, AND CREATED TWO NEW ONES IN 2021
IN RESPONSE TO MEMBER NEED:

DIVERSITY, EQUITY AND INCLUSION COMMUNITY:

Increasing diversity in the talent pipeline continues to be a driving force behind the workforce development efforts of CEWD's members. The community shares best practices and resources, including focused discussions in 2021 on increasing diversity in skilled trades, recognition of PRIDE month, gender-neutral terminology within the industry, effective community partnerships with minority serving organizations, and more.

ENERGY INDUSTRY FUNDAMENTALS(EIF) COMMUNITY:

The EIF Approved Providers Community of Practice provides EIF curriculum and credential implementation support to a growing network of EIF educators. The group is broken down into high school and training providers, and community college providers. This group shares ideas on what has been successful in teaching the course and achieving the desired outcome of credential attainment.

NATIONAL ENERGY EDUCATION NETWORK (NEEN) COMMUNITY:

CEWD's NEEN community includes over 240 educational institution members. NEEN members are focused on preparing students for a variety of careers in the Energy industry, addressing "what can we do to prepare our students for jobs for the future?" and "what are the best practices for the engagement and retention of students?".

TECHNICAL TRAINING COMMUNITY:

The community provides a resource for member companies to discuss internal training programs, materials, and processes. This group identifies best practice solutions for training delivery and assessment, use of technology to deliver training, and metrics to support training effectiveness.

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TRAINING AND DEVELOPMENT LEADERS COMMUNITY OF PRACTICE*:

This new Community of Practice is for those responsible for leading and influencing their enterprise's training and development operations. The group's 2021 agenda included establishing benchmarking training data exclusive to the energy sector (e.g. trainer to student ratios, progression times, training facility size, etc.) and strategic discussions about how companies are using AI, VR, and AR and modernizing training to meet the needs of today's and tomorrow's learners.

TROOPS TO ENERGY JOBS COMMUNITY:

Member company representatives meet through teleconference to share ideas, discuss best practices, and address their military recruiting, training, and retention strategies. In 2021, they aggregated the industry's voice by hosting awareness events about energy careers and they are planning an exclusive veterans' hiring event in 2022.

STRATEGIES AND CONSIDERATIONS WITH A SUPPLEMENTAL WORKFORCE COMMUNITY OF PRACTICE*:

This new Community of Practice is for those who wish to learn from others about how they are engaging their supplemental workforce. Recognizing there can often be confusion over which bucket a supplemental worker falls into, the group will explore relationships with contingent or staff augmentation workers, independent contractors, scope of work providers, and service providers.

WORKFORCE PLANNING (WFP) ANALYTICS COMMUNITY:

The WFP Analytics Team is a community focused on sharing best practices in workforce analytics within their companies and lessons learned through analytics work. Time is spent during discussions on information sharing, benchmarking questions, and documenting best practices for use on the CEWD Workforce Planning Template.

WORKFORCE PLANNING COUNCIL:

This Council provides guidance to CEWD on data and reporting to support the balancing of job demand and educational supply, including the CEWD Gaps in the Energy Workforce survey, detailed supply and demand reports, and the analysis of alternate sources of data. The Council also supports CEWD in the development of metrics to evaluate the success of workforce development efforts at the national, state, and company level.



Sponsored by the Center for Energy Workforce Development



CEWD PRESENTED THE IMPACT AWARDS FOR WORKFORCE DEVELOPMENT EXCELLENCE.

2021'S HONOREES INCLUDED:

CONSORTIA GAME CHANGER AWARD

This award recognizes a state energy workforce consortia partner.

 Awarded to the Missouri Energy Workforce Consortium.

CEWD'S 2021 WORKFORCE CHAMPION AWARD

 This award was presented to Matt Kellam of Dominion Energy for tremendous workforce development leadership.

CHAIRMAN'S AWARD FOR WORKFORCE DEVELOPMENT LEADERSHIP

This award recognizes a company for excellence in general workforce development leadership.

• This award was presented to **Exelon**.

COMMUNITY PARTNER AWARD

This award was created to recognize the vital role community partnerships play in the advancement of the CEWD mission to ensure our workforce represents the diverse communities we serve. Three companies were honored this year.

- Delmarva Power was recognized for their Path to Success Program which supports the company's mission of creating economic equity within the communities they serve.
- Nicor Gas was commended for their work to address the growing need for a qualified, skilled and diverse pool of candidates for entry-level natural gas utility roles.
- ComEd was recognized for the strength of two of their community partnerships, with Chicago Builds and CONSTRUCT Infrastructure Academy.



State Energy Workforce Consortia Active in Promoting Careers in Energy



ARKANSAS ENERGY WORKFORCE CONSORTIA

The University of Arkansas (Pulaski Technical College —

Line Worker Program) saw cohorts 2 & 3 graduate successfully in 2021. There were 30 students who completed the line worker program and on the universal offer dates, each cohort received 100% job offers during this pre-employment process. 60% of students from both 2021 cohorts received more than one job offer. Students in the cohorts brought diverse perspectives to the group with 48% of the group bringing gender or racial diversity. Cohorts 4&5 of the Arkansas line worker program will begin in early in 2022. The Arkansas Energy Workforce Consortia (AEWC) has been proud to support the development of these programs.



CAROLINAS ENERGY WORKFORCE CONSORTIA

In the past few years, the Carolinas Energy Workforce Consortia's

(CEWC) strategic focus has been working to build and implement line worker training programs throughout the Carolinas to meet increased line worker hiring needs. In 2021 the CEWC continued to focus on this strategy by having a continued partnership between company representatives and the community colleges to ensure open communication and implementation of the established line worker curriculums. Outside of the line worker skill sets, the CEWC has focused on understanding other emerging in-demand roles and skills for the Carolinas. This is a continued effort as hiring numbers continue to change as a result of the pandemic. As these hiring needs are more clearly defined, the CEWC will define key objectives for 2022.



FLORIDA ENERGY WORKFORCE CONSORTIUM

The Florida Energy Workforce Consortium (FEWC) utilized 2021

as an opportunity to build a stronger infrastructure and reinforce the strategic plan to position the organization as a leader in the state. By making key improvements to the bylaws and policies, FEWC is now better able to capitalize on grants, funding resources and partnership opportunities, and the revised bylaws increase FEWC's reach to potential new members by broadening the membership criteria.

Florida was excited to kick off a Career Awareness event in October with a proclamation from the Governor's office declaring "Careers in Energy Week." In partnership with the state Department of Education, the consortium was able to deploy a marketing strategy that effectively encouraged participation in the CEWD EnergyCareers 2021 event and was able to highlight energy sector career pathways throughout the year.

FEWC representatives serve on numerous advisory boards across the state facilitating connections between education and industry and the consortium is poised to deliver on its 5-year strategic vision to sustain a qualified workforce that meets the needs of the state of Florida.



GEORGIA ENERGY AND INDUSTRIAL CONSTRUCTION CONSORTIUM

The Georgia Energy and Industrial Construction Consortium (GEICC) focused its efforts on inspiring Georgia's students to pursue STEM education and energy careers. For Careers in Energy Week, it received the Governor's proclamation, participated in EnergyCareers 2021, and promoted member organizations' events through social media campaigns.

The GEICC scholarship program also expanded this year with 25 (\$1,000) scholarships given to students from across the state. Additionally, GEICC partnered with the Lieutenant Governor to present the Student of the Year award and \$500 scholarship and was a competitive event sponsor for the Georgia Technology Student Association (GATSA) State Leadership Conference for Energy & Engineering. GEICC also held its annual golf tournament and reported its highest revenues to date, which will be funneled back into the scholarship program.



LOUISIANA ENERGY WORKFORCE CONSORTIUM

The focus of the Louisiana
Energy Workforce Consortium

(LEWC) continues to be heavy in worker programs. Delgado Community College graduated 14 students from cohort #5 that was significantly impacted and delayed by Hurricane Ida. An agreement was reached among the consortia members and Delgado that allowed students to begin work while still enrolled in the program. This allowed more resources to assist consortia members with Ida restoration and provided

students with hands-on training in the aftermath of one of the most destructive storms ever to hit the U.S. The Fletcher Community Technical College program graduated cohorts #7 and #8 with 12 students in each group and each cohort had 100% job placement.

The LEWC continues to pursue the Gas Worker Training Program in partnership with the Louisiana Gas Association. Initial plans to commence the first class in 2021 were delayed, allowing time to identify more schools across the state to offer the program. Additional schools have been identified and enrollment is expected in 2022.

The LEWC worked with the Louisiana Department of Education STEM administrator to advertise and promote the CEWD's EnergyCareers 2021 as a way of expanding industry career awareness.



MICHIGAN ENERGY WORKFORCE DEVELOPMENT CONSORTIUM

In 2021, MEWDC, received two grants totaling \$1.35 million to support registered apprenticeship and expanding their reach into the tree-trim line clearance and energy efficiency contractors. Between the utilities and the new critical contractor companies, MEWDC members will hire 427 new apprentices. MEWDC also developed and launched a business model, including membership dues that generated \$42k in the first 6 months and overhauled the MEWDC website, providing members with greater connectivity and valuable information to drive awareness of the numerous Michigan energy opportunities. The consortium assembled its first Diversity Committee, leading to expanded partnerships with three diverse organizations and while using \$40k in grant funds, this committee is positioned to conduct focus groups in diverse

communities and execute a social media campaign to attract more women and minorities into skilled trades.

This year, MEWDC expanded the leadership team, adding representatives from energy efficiency contractors and the Michigan Works Association and expanded School to Work programs to more diverse communities (Flint, Jackson, and Grand Rapids).

MEWDC also hosted a successful virtual Careers in Energy Week, with a proclamation from the Governor and virtual contests for students.



NEBRASKA ENERGY WORKFORCE CONSORTIUM

The Nebraska Energy Workforce Consortium (NEWC) continued

work on solidifying internal processes to strengthen the foundation of the consortium in 2021. One of the main achievements was to optimize the Get Into Energy-Nebraska website by creating a member's only section with a resource page for shareable content regarding energy careers. OPPD sponsored four days of virtual educational sessions where NEWC members conducted presentations on energy careers for students. Social media has been a focus for the consortium as well, engaging on several platforms including Facebook, Instagram and Twitter. The NEWC was also a sponsor and booth exhibitor for EnergyCareers 2021 hosted by CEWD. The NEWC has continued to work closely with the Department of Education, including being a gold sponsor for SkillsUSA and participating in their outreach opportunities with middle and high school students.





OKLAHOMA ENERGY WORKFORCE CONSORTIUM

The Oklahoma Energy Workforce Consortium (OEWC) continues

efforts to build awareness of energy industry careers and the 17th Career Cluster. OEWC participated in Careers in Energy Week, including securing a proclamation issued from Governor Stitt recognizing the designation within the state. OEWC also promoted and participated in CEWD's EnergyCareers2021 and was pleased to welcome students from across the state to the event to strengthen their understanding of the industry's career opportunities.



VIRGINIA ENERGY WORKFORCE CONSORTIUM

The Virginia Energy Workforce Consortium (VEWC) continued its

work in support of the Commonwealth of Virginia's efforts to build a diverse portfolio of energy and talent pipeline development resources. VEWC participated in the Virginia Chamber of Commerce's 2021 Conference on Corporate Sustainability and Energy Diversity and launched a DE&I roundtable series addressing "Evolution of DE&I in the Energy Industry," "Courageous Conversations in the Workplace/Energy Sector" and "Making the Business Case for DE&I in the Energy Industry." VEWC held the "Energy Workforce Development Pathways Summit" bringing together industry representatives, educators, and policy makers to discuss the changing nature of work in Virginia's rapidly evolving energy industry as well as current and future energy

workforce needs. The culminating publication of the "Virginia Energy Workforce Roadmap to 2045" paper will be released in 2022.

Additionally, Careers in Energy Week was proclaimed by the Office of the Governor and celebrated throughout the Commonwealth.



WISCONSIN ENERGY WORKFORCE CONSORTIUM

The Wisconsin Energy Workforce Consortium's [WEWC] 2020-2024

Strategic Plan focuses on the industry's needs for skilled craft and technical workers and engineers while factoring in the unique industry and workforce challenges in Wisconsin and the need to diversify the utility workforce.

After the 2020 purchase of a trailer for a Careers in Energy Mobile Learning Lab, much of 2021 was focused on design, tool and material acquisition, build out, and usage documentation for the trailer. WEWC is excited to showcase the mobile learning lab in 2022 at various Careers in Energy events in the state. The mobile learning lab will utilize life size, mobile displays that promote both the electric and gas trades through visual and hands-on demonstrations.

Wisconsin Technical Colleges, honorary WEWC members, were awarded an NSF grant to create a Utilities and Energy Coordination Network. A website for the network was launched in 2021.



Looking Toward 2022

As we celebrate the accomplishments of 2021, we are eager for continued progress in 2022.

CEWD WILL:

- Create and participate in events and programs that increase awareness of energy careers
- Expand PR and communications initiatives that will ensure article placement on careers in energy and expanded social media engagement, including piloting an industry TikTok presence
- Create a Speakers Bureau that will train industry spokespeople who will help represent the industry at outreach events
- Host EnergyCareers 2022 and a virtual recruitment event exclusive to veterans
- Implement the first steps of DE&I Roadmap for Change and begin education and action on Roadmap recommendations
- Conduct DE&I metrics survey
- · Expand DE&I Best Practice sharing
- Develop meaningful, action-focused initiatives with organizations supporting historically marginalized groups
- Continue pilot programs with Minority Serving Institutions to provide lessons learned by energy companies
- Redevelop the Energy Industry Fundamentals Program (once funding is secured) in an effort to educate 500,000 students about careers in energy over the next ten years
- Lead assessment of Knowledge, Skills, and Abilities required for 2035 Workforce
- Host Energy Skills Convening between educators and energy companies to discuss preparing students for skills of 2035
- Assess universal associate degree for energy careers
- · Assess shared curriculum within industry
- Hold Think Tanks on some of the most critical discussions associated with workforce development priorities in the energy sector





The Center for Energy Workforce Development (CEWD) is a non-profit consortium of energy companies, contractors, associations, unions, educators, and business partners working together to ensure a skilled, diverse workforce pipeline to meet future industry needs.

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