



CEWD Accomplishments 2017

Mission: Build the alliances, processes, and tools to develop tomorrow's energy workforce.

The Center for Energy Workforce Development (CEWD) is a national collaborative organization that brings together the best from the energy industry, education, and government to deliver a single mission: build the alliances, processes, and tools to develop tomorrow's energy workforce. Formed in 2006, CEWD works closely with its members to document and replicate the processes, curriculum, and tools that improve the quality of hires into the industry's critical jobs, while saving time and money.

Just as the energy industry has changed in the past decade, CEWD has transformed as well, from an initial targeted focus on replacing an aging workforce, to a much broader focus on developing, hiring, and retaining a diverse, qualified workforce for the future.

In 2017, results of this gradual transformation became more evident as CEWD supported its members in several significant areas and enabled them to grow more adept and agile in addressing the industry's daunting Game Changers and other workforce impacts. We begin our 2017 Accomplishments report with a few examples:

CEWD staff offered significant support for **Strategic Workforce Planning** by meeting with individuals, member companies, and State Energy Workforce Consortia to identify gaps and opportunities in their workforce efforts and to provide targeted solutions and resources. As a center of knowledge and expertise for the industry, CEWD facilitated an increase in benchmarking and was able to quickly link workforce professionals across the country to share both lessons learned and best-in-class models.

In 2017, CEWD opened membership to **supplemental labor contractors** and welcomed five major contracting firms and the Distribution Contractors Association to the industry efforts. As contractor membership grew, CEWD appointed a single point of contact for contractor members to assure their workforce issues were identified and addressed promptly. Including interactions with potential contractor members, CEWD provided more than a dozen virtual and face-to-face overviews of CEWD member benefits and resources. Additionally, contractor representatives were elected to the CEWD Board of Directors and the Executive Council.

The 6th **Gaps in the Energy Workforce Survey** provided relevant, current data on the state of the energy industry. As the workforce continues to grow younger and the retirement forecasts are approaching normal levels, the data provides a deeper look at the composition of the workforce and an early look at future trends that will drive workforce efforts in the short and long term.

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Increasing diversity in the talent pipeline continues to be a driving force behind member company workforce development efforts. In 2017, CEWD focused on the theme Making the Connection to a Diverse, Qualified Pipeline to provide members with a comprehensive set of tools, resources, and best practices for improving workforce diversity and inclusion.

- **Regional Meetings:** Each regional meeting offered a variety of best practices from members in the region focused on diversity and quality in the pipeline.
- **The Annual Summit:** The 2017 Summit continued the focus on Strategic Linkages—making the connection between internal and external efforts to achieve the full impact of all initiatives and strategically linking to diversity objectives. It featured a wide array of best practices, workforce strategies, tools, and resources developed by CEWD and members, enabling them to better recruit, train, and retain a more diverse, qualified workforce.
- **New Tools for Diversity and Inclusion:** CEWD released a comprehensive set of diversity print materials that includes an assessment tool, a playbook, and a member showcase. The materials provide energy companies guidance on how to make real progress on building and retaining a diverse workforce that reflects the communities they serve. It includes: critical elements for change; diversity readiness questions; a comprehensive look at the most common gaps in recruiting, hiring, and retaining diverse talent; and how to address these gaps.
- **Strategic Linkages Guides:** Two Strategic Linkages Guides were developed to demonstrate how to connect strategies between the stages of the talent development pipeline, specifically for women in engineering positions and individuals with disabilities. Exploration of both topics were also presented in member webinars.

CEWD's Strategic Plan, which drove the organization's 2017 accomplishments, is organized in four strategic pillars: Workforce Planning, Career Awareness, Workforce Development/Education, and Member Value and Support. More detailed information on accomplishments in each of these areas follows in this report.

Workforce Planning

Identify critical workforce needs and measure the success of workforce development initiatives.

Strategic Workforce Planning has become more critical each year as the transformation of the industry—and specifically the Industry Game Changers—impact the timing, skills, and number of jobs that are needed in the future. Effective planning requires a forward-looking approach to workforce planning that also enables companies to plan and execute strategic workforce development initiatives to balance the supply and demand for future energy employees.

CEWD's Strategic Workforce Planning efforts are guided by the Workforce Planning Council that includes a cross-section of member companies. The Council meets quarterly to review progress and provide advice on the implementation of CEWD Strategic Workforce Planning resources. As a subset of that Council, the Workforce Analytics Team meets frequently to share best practices and benchmark initiatives within the team.

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In 2017, CEWD conducted its 6th Gaps in the Energy Workforce Survey. Fifty-six Electric and Natural Gas Utilities/Energy Companies participated in the survey (including 23 companies with nuclear facilities, and 17 public power utilities), along with all Electric Cooperatives and 1 Nuclear Supplier. 2017 was the first time the American Public Power Association has participated in the survey as a group. The number of employees represented by the participating companies has increased and represents over 75% of Investor Owned Utilities, 100% of Electric Rural Cooperatives (total combined population of 505,000), and 25% of Public Power Utilities (total population of 93,000), for a total electric and gas utility population of over 598,000 employees. Results from the nuclear companies were provided to NEI and the Chief Nuclear Officers in June 2017, and overall survey results were presented to the CEWD membership at the 2017 Annual Summit. The 2017 Gaps in the Energy Workforce Survey Executive Summary and a slide deck of all survey results are available on the CEWD website. An individual scorecard comparing a company's results to the national and regional results is available upon request.

Also during 2017, CEWD worked with several State Energy Workforce Consortia to either develop or update their 3–5-year strategic workforce plans. In-depth reviews of existing plans occurred in Michigan, Illinois, Wisconsin, the Dakotas, Minnesota, Nebraska, Florida, Georgia, New York, and Virginia. A new plan is in the works with the recent reenergizing of the Carolinas Energy Workforce Consortium and a new plan was developed in Louisiana. Arizona began discussions about rebooting their consortium and Nevada began planning conversations with a scheduled launch in January 2018. In each case, the state consortia members used the CEWD Strategic Workforce Planning process to review national and state Game Changers, review or revise demand data, and organize to implement actions supporting their plans' areas of strategic focus.

Career Awareness

Build awareness of the need for a diverse, skilled energy workforce.

CEWD and its members engaged in a wide variety of career awareness activities in 2017. Career awareness activities are aimed at five key demographics: youth, low income young adults, women, veterans, and transitioning workers. The overall intent of these activities is to make it easier for students and jobseekers to find us, understand our jobs, and understand what education pathways will lead to an energy job.

CEWD has developed energy career websites targeted to key demographic populations:



Get Into Energy: CEWD's national website, getintoenergy.com, provides resources for each key demographic to understand the pathways for critical jobs, where to find training, and a jobs site that lists all jobs currently posted by CEWD members. In 2017, visitors to the Get Into Energy site continued the previous year's trend of staying on the site longer and looking at more on each visit.

Get Into Energy Jobs: Students and jobseekers can access real-time job postings from CEWD members on the Get Into Energy Jobs site, getintoenergy.jobs. All jobs from member companies are posted nightly and can be filtered based on location, job title, or key words. In 2017, the site had over 22,000 visits, and a little over 7% of visitors clicked through to CEWD member company job sites.

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Troops to Energy Jobs: The companion job posting site for Troops to Energy Jobs, troopstoenergy.jobs, had an additional 28,000 visits, with 9% of visitors clicking through to CEWD member company job sites. Veterans can filter jobs through a unique-to-CEWD military occupation code translator that ties military jobs more specifically to utility critical jobs.

Troops to Energy Jobs Registration: The Troops to Energy Jobs registration site, troopstoenergyjobs.com/registration, allows veterans to enter basic information about themselves (like military occupation, field of expertise, resumes, geographical area they'd like to work in) and see information about companies located in their region. CEWD member companies can enter information about their recruiting staff so that veterans have a point of contact. In 2017, to ensure valid data in the system, CEWD reached out to all registered veterans by survey to determine their interest in staying engaged and updated the registration based on the response. In addition, the database is monitored weekly to ensure the integrity of the postings. There are approximately 2,000 veterans and 77 CEWD member companies currently registered on the site.

At least 16 states celebrated Careers in Energy Week with activities such as state proclamations, open houses, tours, video contests, events on military bases, and social media. CEWD provided resources for members to use, including posters and brochures, along with social media, as well as an interactive map on the CEWD site to keep up with all the activities: <http://www.cewd.org/state-consortia/>.

Get Into Energy / Get Into STEM with FIRST®

In 2016–2017, the CEWD member sponsors of the FIRST® initiative included: AEP, Consumers Energy, DTE Energy, Southern California/Edison International, NextEra Energy, Pacific Gas and Electric, National Grid, Edison Electric Institute, PSEG, Southern Company, and Tacoma Power.



The sponsors provided funding to support the implementation of the Get Into Energy / Get Into STEM initiative. This funding provided sponsorships during the four 2017 Super Regional FIRST® Tech Challenge competitions that included branding, onsite robot doctors, and exhibit space. With 75 teams competing at each Super Regional, CEWD and its members were able to reach between 500 and 700 students at each of the four events, along with parents, coaches, and mentors helping to get the word out about careers in energy.

In addition, CEWD and EEI provided coordinated social media coverage for the Get Into Energy / Get Into STEM initiative and the companies involved in the effort. Through Snapchat, Instagram, Twitter, and Facebook posts, the events leading up to the competitions and real-time updates were broadcast out to the FIRST® community. CEWD reached more than 22,000 users on Twitter and nearly 600 of those users liked, clicked on, followed, or retweeted CEWD's tweets. Another 10,515 people saw CEWD's Facebook posts from the events.

To support our member companies, CEWD expanded its FIRST® toolkit to include best practices of how companies are supporting FIRST®. The toolkit is available on the CEWD website at <http://www.cewd.org/FIRST/>.

Workforce Development/Education

Implement short- and long-term education solutions to build a pipeline of skilled workers.

Since its beginning, CEWD has focused on developing education solutions—from competency models and career pathways to curriculum and credentials—that prepare students for jobs in the industry. These focused solutions are being implemented through partnerships between educators and member companies across the country. The partnerships span the student lifecycle from initial career interest through graduation and employment and are a critical element in communicating to students and jobseekers the competencies and credentials that are required, preferred, and recognized by employers and are being used in hiring decisions.



Over the past five years, CEWD has worked to create the **National Energy Education Network (NEEN)**, a national consortium of utilities and their education partners. Members of NEEN include community colleges and other educational institutions that have active partnerships with CEWD member companies, have relevant programs of study for our four critical job categories (Lineworkers, Technicians, Operators, and Engineers), and are producing quality candidates who are being hired into industry jobs. These partnerships and programs provide the baseline for documenting what works, sharing curriculum and practices, and identifying the potential pool (supply) of candidates from high schools, technical and community colleges, and universities. NEEN partnerships currently include 195 educational institutions representing 325 energy programs.

In 2017, using a new administrator functionality, CEWD worked with employers and educators to update sponsorship and program data. CEWD also made strides in reporting NEEN data and relationships. Using the Tableau visualization tool, CEWD was able to show the first supply/demand maps using actual data from the Louisiana Energy Workforce Consortium.

CEWD provided significant support to members implementing the **Get Into Energy Career Pathways Model**, Curriculum, and Credentials:

- There are now 62 active **Energy Industry Fundamentals (EIF)** Approved Course Providers, an increase of 15% from 2016. Nine of our EIF providers have their own online shells on the CEWD portal, and eight institutions have embedded EIF in their own learning management systems and are actively using the online version in a blended learning approach. From inception to date, 3,131 students have taken the assessment and 2,272 credentials have been awarded. There were 396 EIF paper credentials awarded in 2017. CEWD also entered the realm of digital credentialing and issued 1,574 digital credentials. The digital credentials were issued to all 2017 credential earners and those earners from 2016 where we had valid email addresses. In 2017, CEWD contracted with five subject matter experts to make suggested content updates to modules 1 through 5 of EIF.
- A major update of the **Get Into Energy Math & Test Prep Workshop** took place in 2017. The program was redesigned utilizing a blended learning approach. For those who may not have taken math in a while or haven't used their math skills frequently in their recent employment, there is an online self-study portion of the program. Practice quizzes and links to online instruction are provided on the Get Into Energy website. The second element of the program, the in-person workshop, has been enhanced to include more direct teaching time, use of cooperative learning, an additional section on test-taking strategies, and resources candidates can use after completion of the workshop to continue their preparation.

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- Talent pipeline resources, best practices, and tools related to gas technicians and stories on best practices in the natural gas industry have been compiled on the CEWD website to meet the needs of members in the natural gas industry.

Member Value and Support

Support the needs of CEWD members.

CEWD continues to provide member communication through monthly newsletters highlighting company and national best practices and CEWD resources; social media channels; webinars; and the CEWD websites, including Get Into Energy, Troops to Energy Jobs, and the CEWD Curriculum site. In addition, CEWD represented the industry with multiple speaking engagements at national and state events.

CEWD also hosted national and regional meetings for members and their partners to meet face-to-face to share best practices and hear from experts on the most effective ways to build the energy workforce. CEWD was able to reach hundreds of interested members during 2017 through five regional meetings, the National Forum for State Energy Workforce Consortia leadership, and the CEWD Annual Summit. In 2017, CEWD published a Best Practices Guide that highlights company, educator, and consortia initiatives across all levels of education and for different demographics. The guide can be found at <http://www.cewd.org/Documents/CEWD-BestPracticesGuide-FNL.pdf>.

Over 175 energy workforce practitioners attended the 12th CEWD Annual Summit to discuss ways that energy companies can improve their workforce development initiatives. A summary of the Summit can be accessed at <http://www.cewd.org/Documents/2017CEWDSummitSummary.pdf>. The National Forum summary is available at <http://www.cewd.org/Documents/2017NationalForumSummary.pdf>.

Information on upcoming CEWD meetings and events can be found on the homepage at www.cewd.org.

CEWD grew several existing Communities of Practice and started some new ones in 2017:

KT&R Community: The Knowledge Transfer and Retention (KT&R) Community is focused on sharing process and procedure information that might improve their own or others' KT&R programs. This community shares implementation ideas and best practices using this community website: <https://workforceplanning.groupsie.com/>. For most of the companies involved, the main issue isn't clear processes, procedures, or expectations—the issue is successful implementation and measurement of success. The community meets monthly, and members are discussing setting up a wizard-style reference page on the CEWD website.

Diversity Community: Increasing diversity in the talent pipeline continues to be a driving force behind the energy industry's workforce development efforts. The Diversity Community includes both companies and educators who work together to implement CEWD's diversity assessment tool and playbook.

Troops to Energy Jobs Community: Each quarter, interested member company representatives meet through teleconference to discuss current practices and events in military recruiting, training, and retention. There are 53 member companies who have officially committed to the Troops to Energy Jobs objectives.

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Energy Industry Fundamentals (EIF) Community: The EIF Approved Course Providers Community of Practice provides EIF curriculum and credential implementation support to a growing network of EIF educators. This group shares ideas on what has been successful teaching the course. This community meets monthly via conference call.

High School Community: The High School Community of Practice provides support and idea-sharing on ways to build awareness around energy careers, as well as how to implement education efforts such as energy academies and adding a 17th career cluster. The group has quarterly conference calls and shares resources.

Contractors Community: A number of national contractors joined CEWD in 2017 and, while they share many of the workforce challenges of IOUs, municipalities, and coops, the purpose of this Community of Practice is to identify workforce issues unique to the contractor environment and to ensure CEWD resources and tools are directed to addressing them. This group has monthly calls and shares resources.

CEWD hosted a number of member webinars in 2017, including:

- *Delivering on the Nuclear Promise* series
- Troops to Energy Jobs Registration Database
- Establishing a 501(c)(3) in a State Energy Workforce Consortium
- National Energy Education Network (NEEN) Administration Update
- Common Employability Skills Employer Toolkit
- Strategic Linkages for Recruiting, Hiring, and Retaining Women in Engineering
- EEI Testing Update and Strategies to Enhance Testing Outcomes
- CEWD/Department of Labor *Employer Assistance and Resource Network on Disability Inclusion (EARN)* two-part webinar series
- National Energy Foundation's (NEF) Energy Literacy Survey: Implications for the Energy Workforce Pipeline

CEWD partnered with EEI, NEI, NRECA, AGA, and APPA, along with company volunteers, to establish Veterans in Energy (VIE), a national initiative with the goal of providing transition, retention, and professional development support to military veterans working in the energy industry. VIE elected its first board of directors and officers and held its second Veterans in Energy Forum in October of 2017. VIE will serve as a national-level veterans employee resource group, connecting military veteran employees to others around the country and providing leadership opportunities in VIE at the state, regional, and national levels.

CEWD made great strides during 2017 in providing support to existing and new State Energy Workforce Consortia. These consortia are the boots on the ground for implementing many of the best practices that are improving the return on workforce efforts. CEWD provides support to start, maintain, or reenergize consortia work. Just a few of the state consortia contributions in 2017 are highlighted below, but a full list of Accomplishments can be found on the CEWD website.

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The new **Louisiana** Energy Workforce Consortium evolved from idea to beginning to deliver a lineworker certificate program in 2017. The state utility employers gathered lineworker demand data from utilities and their contractors for 2018–2022 and developed a state-level demand forecast. Two educators were selected to develop and deliver an industry-recognized certificate. The team also developed an assessment protocol, ran prospective students through, and began the course in 9 months. The consortium also completed their strategic plan and started to discuss the next key jobs needing workforce development pipeline work in 2018.

Colorado Energy Workforce Consortium member companies, along with the Colorado Department of Labor and Employment, focused efforts in 2017 on increasing outreach and hiring of persons with disabilities. They organized a learning session with state officials and an Arizona Consortium member to get this goal off the ground. Part of their action item list included doing “lunch and learns” within their companies to educate fellow employees and to hold a regional job fair specific to this population during Careers in Energy Week.

Through extensive benchmarking with CEWD members in other regions and benchmarking with other industries, the **Wisconsin** Energy Workforce Consortium voted to form a 501(c)(3) nonprofit structure in 2018.

Members of the **Nebraska** Energy Workforce Consortium engaged TCI Solutions to implement a Legacy I³ program modeled after the Minnesota model led by Xcel Energy.

The **Iowa** Energy Workforce Consortium successfully secured a grant from the Iowa Department of Education to develop an Energy Career Pathways document for use in helping students understand the opportunities in energy.

Duke Energy took the lead in organizing other electric and gas utilities, as well as contractors, to begin the work of reenergizing the **Carolinas** Energy Workforce Consortium. Companies from both North and South Carolina have worked together over several months to begin developing a 3–5-year strategic plan for the consortium. Duke Energy and Electricities of North Carolina have taken on the Chair and Co-Chair role and two teams have been established to begin working on detailed action plans for implementation.

In 2017, CEWD continued to provide implementation support to State Energy Workforce Consortia through its regional consultant model. Consultants Rosa Schmidt in the Northeast, MidAtlantic, and Southeast Regions; Beth Britt in the Midwest Region; and Ray Kelly in the Northwest, West, and South Regions collectively provided direct support to their state consortia more than 200 times through face-to-face meetings, teleconferences, and webinars. Additionally, they organized several significant cross-regional benchmarking efforts to accelerate consortium efforts. These three consultants joined CEWD following successful careers in major energy companies and have organized and led State Energy Workforce Consortia during their previous careers.

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Focus for 2018

As CEWD continues to work with its members and their partners to develop industry solutions for regional implementation, following are a few highlighted areas of focus for 2018:

- Support for implementation of workforce and education solutions among members
- Update to National Strategic Workforce Plan and Game Changers
- Tools, resources, and best practices to improve retention in critical key jobs
- Methodology for forecasting contractor workforce demand
- Coordinated energy careers image campaign in partnership with member associations
- National Template for Diversity and Inclusion
- Guided assessment and planning tool to assist members with focused implementation of tools and resources
- Support for State Energy Workforce Consortia in development and implementation of state strategic workforce plans

For a complete list of CEWD's 2018 goals, visit <http://www.cewd.org/about/strategies.php>.

CEWD initiatives are funded primarily through generous contributions from our Electric and Natural Gas Utility members, contractor members, the major trade associations (EEI, NEI, AGA, NRECA, APPA, and DCA), and through substantial in-kind contributions for back office support from EEI.

Ten quick ways to get more from your CEWD Membership

Workforce Planning

1. Use the assessment in the Strategic Workforce Planning Wizard to assess the health of your company's Workforce Planning process.

Career Awareness

2. Verify that your company jobs are posted on the CEWD jobs sites.
3. Make sure that your company is registered on the Troops to Energy Jobs Registration site and the Get Into Energy Registration site.
4. Add the link to Get Into Energy on your company website:
<http://getintoenergy.com/about/badge.php>.

Education

5. Verify that your education partners are registered in NEEN. If not, nominate them using the link on the CEWD homepage.
6. Include the link for the Get Into Energy Math & Test Prep self-study on your company recruiting page.
7. Hold a meeting or webinar to educate others in your company on the resources available through CEWD.

Structure and Support

8. Join a State Energy Workforce Consortium.
9. Attend a CEWD regional meeting and the Annual Summit.
10. Join a CEWD Community of Practice.



701 Pennsylvania Ave. N.W., Washington, DC 20004-2696
202-638-5802

For more information, please visit:

www.cewd.org • www.getintoenergy.com • www.troopstoenergyjobs.com
Facebook: [Center for Energy Workforce Development \(CEWD\)](#) • Twitter: [@GetIntoEnergy](#)