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## Special Issue: Preparing Students for Success

This month's newsletter focuses on success stories of students who have undertaken educational opportunities where they can earn industry-recognized credentials aligned to the Energy Industry Competency model. These credentials are the base of CEWD's Get Into Energy Career Pathways Model, have been featured at CEWD's Annual Summit and in previous newsletters, and are integrated into many state energy workforce consortia's strategic workforce plans. These include the National Career Readiness Certificate/ACT WorkKeys, Energy Industry Fundamentals, the Utility Math Boot Camp, and the Natural Gas Boot Camp. While the Center has talked about how these programs better prepare those in the workforce pipeline for employment, this is the first time you'll hear from several graduates themselves and their great successes!

## College Credit for NCRC Helps Students Reach Graduation Goal Faster

ACT's National Career Readiness Certificate (NCRC™) is a portable credential that demonstrates a certain level of workplace employability skills in Applied Mathematics, Locating Information, and Reading for Information, a suite of assessments called WorkKeys. These workplace skills are highly important to the majority of jobs in the workplace. CEWD has recognized the NCRC as a work-ready credential that aligns well to the Energy Industry Competency Model, tiers 1-3: personal effectiveness as well as academic and workplace competencies.

Students who do well on the NCRC and NCRC Plus (the NCRC plus the Talent assessment) will now be eligible for postsecondary academic credit, the American Council of Education (ACE) has announced.

ACE recommends that students who score Silver or above be awarded credit for their achievement, which is the same level CEWD has recognized as the minimum for energy industry careers. A Silver-level certificate would earn three semester hours in applied critical thinking for vocational certificate programs; a Gold or Platinum score would earn three semester hours in applied critical thinking for lower-division baccalaureate/associate degree programs.

Several colleges have expressed interest and are preparing announcements for release as soon as Spring term, said Terry Ausman, Director, ACT Business Development.

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“Postsecondary institutions continue to find new ways to apply ACT National Career Readiness Credentials to a variety of programs and initiatives,” said Melissa Murer Corrigan, Vice President and Interim Head, ACT Workforce Development. “The ACE recommendation for college credit expands access and opportunity for students, employers, and communities.”

The NCRC and NCRC Plus are increasingly recognized as the “most effective” credentials “for certifying workplace skills and predicting workplace success,” said Jon Whitmore, ACT Chief Executive Officer, in a press release announcing the new credit recommendations. “The credential can now serve a larger segment of the U.S. population by expanding postsecondary opportunities for returning service members, dislocated and emerging workers, career and technical education students, and many others. This will ultimately create important dividends for the U.S. economy,” he said.

CEWD Executive Director Ann Randazzo said awarding college credit for the NCRC would help speed the process for job candidates making the transition into the energy industry from the military or other fields, and for students who are trying to get into the workplace faster. “With so many workers now eligible for retirement, the sooner we can get students into the pipeline, the better,” she said.

ACT has registered nearly 1.5 million NCRC certificates. Successfully completing the ACT WorkKeys assessments and earning an NCRC certificate “enables an individual to demonstrate essential foundational competencies across three critical skill areas linked by ACT research to workplace success: reading comprehension, applied mathematics, and locating information,” the release states.

Students who wish to earn credit should speak with the office of admissions at the college at which they intend to study, she said. Colleges may verify authenticity of an individual NCRC at

<https://myworkkeys.act.org/mwk/emEnterCertID.do?event=go&realm=17740116>

For additional information, please see

<http://www2.acenet.edu/credit/?fuseaction=browse.getOrganizationDetail&FICE=800047> or email [credit@acenet.edu](mailto:credit@acenet.edu).

## Energy Industry Fundamentals Class Produces First Graduates in Missouri

Joe Stoops, formerly enlisted in the military, had nearly completed his officer training and college education at Auburn University when he became ill and had to withdraw for medical reasons. When he later tried to complete his college education as a civilian, he learned just how tough it is “to be a poor college student,” he said.

So he looked for alternative means of completing his education while holding down a job to pay for it all. Stoops got a job as a reactor operator at the University of Missouri Research Center and enrolled in the Energy Industry Fundamentals course developed by CEWD to explore a possible long-term career in energy.

“I have gotten quite a bit out of the course,” said Stoops, who successfully completed the program at the end of 2012. Though he was familiar with much of the material already because of his prior military and current work experience, he said it helped him better understand the nuclear industry from the commercial side, rather than the military side.

“We took tours of different power facilities and that was amazingly helpful,” he said, noting that the course would be ideal for someone just graduating from high school. “The program itself is designed for those who don’t have a technical background,” he said. “It’s very good material for someone who has not been exposed to it before.”

Stoops is hoping to come back and teach the class, tapping into his experience as an instructor in the military. His long-term goal is to complete his B.S. in electrical engineering at Missouri University, where he will be enrolling this winter, and then work in the nuclear engineering training department at a nuclear power plant.

Ben Barnhart, of Columbia, finished his B.S. in electrical engineering in May and is now working as a roofer, but took the Energy Industry Fundamentals class because he would prefer to put his engineering degree to work.

“I wanted to learn more about the energy industry and to network, because I’d like to become employed using my engineering degree,” he said, “either in the traditional energy sector or in solar energy.” Barnhart said he learned about the class through his friend’s father, who used to work at Ameren’s Callaway Nuclear Plant. He hopes to begin the job application process soon, now that he has earned the EIF credential in addition to his degree.

Stoops and Barnhart were among the six students who completed the class in Columbia, said Gayla Neumeyer, Manager of Education Programs at the University of Missouri Research Reactor, who currently serves as Secretary of the Missouri State Energy Sector Partnership, and as a collaborator on the Department of Labor grant that supported the class. Neumeyer said that all six participants passed the exam and earned the national ANSI-accredited EIF credential. Another nine participants completed the program in Kansas City, MO, in November, with eight earning the credential.

The classes were sponsored by Lincoln University, under a DOL-funded Missouri State Energy Sector Partnership (SESP) and Training Program grant subcontracted through Missouri University. Students were recruited by area One Stop Career Centers, through ads placed in local adult education brochures, through local utilities, and by word of mouth. The Missouri Energy Workforce Consortium supported the class through guest speakers, tours, career awareness information, and other resources to help students understand jobs in the utility industry, educational backgrounds needed, salary ranges, and career advancement potentials for different occupational tracks.

William Miller, Professor Emeritus of Nuclear Engineering and PI of the MU DOL SESP subcontract, said he considers the EIF programs a success. “With the pending retirement of up to 50% of the energy industry workforce in the next few years, programs such as this are essential to provide a pathway for individuals desiring to fill these positions. Excellent potential employees like Joe and Ben are now in that pool. We are continuing to reach out to provide this opportunity to others, currently working with Lincoln University (a historically black university) to provide courses in St. Louis and Jefferson City in Missouri in 2013.”

For additional information about the Get Into Energy Career Pathways Program and the Energy Industry Fundamentals curriculum, visit: <http://www.cewd.org/curriculum/eif-modules.php>

The URL for the web-based version of the EIF curriculum is available at: <https://www.nerlearning.org>

## Veterans Graduate from DTE Natural Gas Boot Camp

A few months ago, DTE Energy launched a pilot program to answer two questions using the CEWD/Midwest Energy Association (MEA)-developed natural gas boot camp materials: Would it help to better prepare external candidates interested in applying for energy jobs, and would military veterans be able to use this program to transition more smoothly from a service career to one in the private sector?

The answer, now that 33 participants have finished the 7-week course? Yes, on both counts.

“It was a huge success,” said Ray Kelly, Director of Corporate Safety and Technical Training at DTE Energy. “Long story short, we proved that the model works. We proved that we get good, enthusiastic potential candidates at the end of it.”

Of the 37 veterans who enrolled in the natural gas boot camp at the two locations tailored specifically for veterans, 33 completed the program. Those who left did so only because of other job opportunities or because they were called back into active duty, Kelly said. The natural gas boot camp will be available to all members over the next couple of months.

At Camp Grayling, an existing National Guard training base located in northern Michigan, 100 percent passed the Energy Industry Fundamentals final assessment, which was integrated into the full course with the natural gas boot camp. Of those at the southern Michigan community college location, 92 percent passed, meaning just one student did not, though his scores were very close to the pass line. "With remedial assistance he was able to pass on the second try," Kelly said. "Those are great results."

Joshua Tilley, a 38-year-old National Guardsman and Army veteran, was one of the graduates and is now applying for a job at DTE Energy. He said he learned of the boot camp the day he was finishing his temporary active duty with the National Guard, and immediately jumped on the opportunity.

"I'd never thought of a career in energy before that, but now I think it's the best thing I've done since I joined the military," he said. "I hope to be one of the lucky ones that gets hired."

DTE Energy has just begun the process of determining which of the graduates will become full-time employees, Kelly said. Consumers Energy, the other utility partner in this pilot program, is also beginning its hiring process.

"Using our regular internal recruiting processes, we will take a serious look at the folks out of this course to fill jobs at DTE," Kelly promised. "We do have jobs to fill."

Those whom DTE Energy is unable to hire Kelly will refer to the state's energy workforce consortium. "We'll post a notice for all energy companies across the state, so that if we can't hire them they can be hired by somebody else."

Tilley said he was amazed at how much information was packed into the course. "I couldn't believe I was able to fit so much information in my brain, and I was able to hold on to it," he said. "I learned a lot, and so did my classmates."

Tilley, a generator repairman who learned about the program through a posting at the National Guard, said he believed that many of the skills he developed in the military would translate well into a civilian energy job.

"The first part of the class on power generation," he said, "I worked with generators so I had a good understanding of electrical work." In addition to the technical skills, however, he said that "working in a group of individuals, when your success depends upon other people's success" was something that was important in both the military and the energy industry. "You work as a unit and a team, and that's the fundamentals of everything in the military. But you also have to be able to make decisions on your own when the time comes."

"We have a set of knowledge and skill requirements that we are looking for," Kelly said, which map well with the skills and knowledge of veterans who were accepted into the program, like Tilley. "Being able to quickly identify an affinity group that could be successful, that was one of the key success factors in this program," he said.

Kelly said DTE Energy plans to post more than one type of job that graduates can apply for and will be doing so in the coming weeks. And if Tilley doesn't get one of those? "I'll try one of the other energy suppliers through our state consortium in Michigan," he said.

## Math Boot Camp Helps Job Candidates Achieve Success on the CAST Test in New Jersey

Like many potential job candidates who wish to enter the energy industry, Nicholas Greene struggled with some of the math skills needed to pass a critical pre-employment test, the Construction and Skilled Trade Selection System (CAST).

After not being successful on his first try, the 26-year-old military veteran took a job as a security officer at a New Jersey hospital. Then he got a call from the Human Resources department at PSEG, telling him about an upcoming boot camp that could help him over his math hurdles.

The six-week pilot program grew from a partnership between Union County Community College, which had money left over from a Green Workforce Initiative Grant, and Helicon, Inc., which developed the math course. Union County Community College reached out to PSEG for assistance in finding referrals to the program as well as a facility to hold the classes, said Carol Reitz, HR Consultant, PSEG Talent Acquisition.

“We did some brainstorming and put together an outreach program, using our contacts to find people who had previously taken the CAST test,” she said. “The program is designed to better prepare these potential job candidates by giving them the math skills they need to ultimately pass the test.”

The program is CEWD’s Utility Math Boot Camp. The course consists of timed daily quizzes, instruction, practice problems, and exercises, and covers tiers 1-2 of the Energy Competency Model. An analysis of the competencies taught in the boot camp shows a direct relationship to the abilities required in the EEL employment test batteries used by the industry.

Because Union County Community College was offering the course at no charge, Greene saw no reason not to take it. “Once I got there, the instructor said it would be a lot of work, but it would be worth it. She wasn’t lying,” he said. “It was a lot of work and all, but it was definitely worth it.”

Greene, who wants to be a lineman, said the CAST test was the major obstacle standing between him and the opportunity to apply for a job at PSEG, where his uncle also works. “I have military and security experience,” he said. “I like working outdoors, and I think I’ll like electrical work. I need to find a profession that will suit me well.”

Reitz said 14 people from diverse backgrounds took the course and the test. All, including Greene (who passed), showed improvement in their math scores. “We’re very pleased,” she said. “The students came prepared and were ready to go. They were very committed and dedicated. They worked hard.”

The program was offered at nights and on weekends to accommodate people’s work schedules, she said. It was taught at Union County Community College, but the CAST test was given at PSEG.

“The class was a good opportunity to prep external candidates for the test, in the hopes that they would be successful and could then enter the workforce pipeline,” Reitz said.

Jessica Muller, HR Specialist, PSEG Talent Acquisition, said another goal of the pilot program was to increase the diversity in the talent pipeline. Those who passed the test can now apply for jobs as linemen, underground assistants, division mechanics, equipment operators, substation mechanics, or meter technicians, she said. This includes Greene.

Overall, the math boot camp was a great success. PSEG was very impressed with the results achieved. An overwhelming majority of the math boot camp graduates are now CAST test-qualified for positions at PSEG. PSEG is looking for additional opportunities to be involved with the boot camp and highly recommends that you adopt this program, too! The boot camp is available free of charge to all CEWD members at <http://www.cewd.org/curriculum/mathbootcamp.php>.



## CEWD Sets Goals for 2013

The Center has a lot in store for 2013. Here are our goals for the year:

### **Career Awareness** – *Build awareness of the need for a skilled energy workforce*

- **Troops to Energy Jobs:** Provide resources to make it easier for veterans to find and prepare for our jobs.
- Implement Pilot for Get Into Energy: Women.
- Update Get Into Energy branding material.
- Build national awareness of the need for skilled energy technicians and engineers.
- Integrate career awareness messages into National Energy Foundation curriculum available for K-12 education.

### **Workforce Development/Education** – *Implement short and long term education solutions to build a pipeline of skilled workers*

- **Get Into Energy Career Pathways for Low Income Young Adults:** Implement college credit for selected apprenticeships and boot camps.
- **Troops to Energy Jobs:** Align industry education and credential requirements, military training, and credit for prior learning to accelerate entry into energy careers.
- **Arizona Sun Corridor Grant:** Develop education support network for EIF-approved providers.
- Identify common curriculum requirements and available curriculum for Tiers 6 and 7 of Energy Competency model.
- Expand National Energy Education Network.
- Implement Energy Industry Fundamentals curriculum and credential, and support approved providers.
- Expand curriculum available on the CEWD Curriculum site.

### **Workforce Planning** – *Identify critical workforce needs and measure the success of workforce development initiatives*

- **Get Into Energy Career Pathways for Low Income Young Adults:** Monitor workforce development metrics in Pathways states.
- **Troops to Energy Jobs:** Benchmark existing industry military employment and identify potential company recruiting and hiring goals.
- Produce National Workforce Data: Conduct 2013 CEWD Workforce Survey, collect data for 2013 Metrics Scorecard, produce 2013 Demand Reports.
- Provide tools and resources to balance workforce supply and demand at the state level.
- Develop templates for CEWD Workforce Planning Model and provide support for member implementation.
- Complete National Energy Workforce Plan.

**Member Value and Support** – *Support the needs of CEWD members*

- **Get Into Energy Career Pathways for Low Income Young Adults:** Manage project implementation and provide support for the state consortia in pilot states.
- **Get Into Energy Career Pathways for Low Income Young Adults:** Develop National Template for Low Income Young Adult implementation and outcomes of Gates Grant.
- **Troops to Energy Jobs:** Complete Troops National Template and roll out to members.
- **Great Lakes Consortium (Joyce):** Develop strategic and state workforce plans for consortia in Great Lakes States.
- **Arizona Sun Corridor Grant:** Design and manage Process Capture System for grant deliverables and best practices; create toolkits/templates for replication.
- Enhance member website to provide tools for member implementation of model programs and best practices.
- Provide communication to members on best practices, trends, and tools to support workforce development implementation efforts.
- Conduct the 2013 Annual Summit, sponsor regional forums, and support state consortium implementation.
- Create mutually beneficial alliances with organizations that support and advance Center initiatives.

**Upcoming**

**“Hiring Our Heroes” Hiring Fairs**

Various Dates / Locations

[View the list of events](#)

**South/Southeast Regional Meeting**

April 4, 2013  
Pensacola, FL

**Midwest Regional Meeting**

April 16, 2013  
Kansas City, MO

**Mid-Atlantic/Northeast Regional Meeting**

April 25, 2013  
Washington, DC

**Northwest Regional Meeting**

May 7, 2013  
Spokane, WA

**West Regional Meeting**

May 9, 2013  
San Ramon, CA

**State Energy Workforce National Forum**

November 6, 2013  
Arlington, VA

**CEWD Annual Summit**

November 6-8, 2013  
Arlington, VA

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