



Energy Partner Overview

June 29, 2023

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Overview



**Center for
Energy Workforce
Development**

Presented by: Kristie Kelley, Workforce Development Director



The Need

The energy industry will hire hundreds of thousands of employees over the next several years for skilled trade jobs, technical roles, engineering positions, cyber-security needs, and the myriad of positions that support the business of energy. With the competition for talent, the great resignation, the demographic drought, decarbonization objectives, and a reimagined energy grid, business leaders question where tomorrow's talent will come from.

There has never been a greater need to expose students - especially those from systemically marginalized communities - to careers in energy and demonstrate the need for innovators, technical thinkers, and those who can support a clean energy future than now.



The Solution

A modernized Energy Industry Fundamentals curriculum will serve as that national catalyst for education, exposure, and engagement to create a larger pool of qualified talent to fill energy careers of the future.

EIF 2.0 can also be embedded in incumbent worker training to create a “Student of the Business” and broaden employees’ understanding of the energy sector, not just their role.

The curriculum is modular but can also be combined with elective chapters to take a deeper dive into specific career paths while offering stackable credentials.



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Platinum Level Educator



Platinum Level Educator



Gold Level Educator



Silver Level Educator



Silver Level Educator



Silver Level Educator



Modernized Course Architecture

	<i>Unit A: The Power of Energy</i>	<i>Unit B: Companies That Power America</i>	<i>Unit C: Our Interconnected Grid</i>	<i>Unit D: Show Me the Money</i>
Introduction	The energy ecosystem & its transformation	The history & future of energy in the U.S.	Understanding electrical and natural gas transmission, distribution, and resiliency	The business of energy markets
Chapter 1	<ul style="list-style-type: none"> Find Your Career in Energy - Paths for Everyone What is Energy? The Importance of Energy Priority of Safety Energy Efficiency Energy Infrastructure 	<ul style="list-style-type: none"> A concise history of energy in the U.S. The energy continuum: A constant evolution of technology and markets The trajectory of energy 	<ul style="list-style-type: none"> Natural gas: transmission and distribution Natural gas equipment, processes, & reliability 	<ul style="list-style-type: none"> Math for energy: customers & companies Metering, billing, rate structure, and the emergence of smart metering
Chapter 2	<ul style="list-style-type: none"> Introducing diverse fuel sources: natural gas, coal, nuclear, wind, hydro, solar, biomass, geothermal 	<ul style="list-style-type: none"> What is an "energy company"? How do they operate? 	<ul style="list-style-type: none"> Power: transmission and distribution Power equipment, processes, & reliability 	<ul style="list-style-type: none"> Distributed generation / storage Natural Gas Markets Building electrification Electric vehicles
Chapter 3	<ul style="list-style-type: none"> Advantages and limitations of each electrical generation source 	<ul style="list-style-type: none"> The energy industry regulatory landscape Energy deregulation Energy policymaking 	<ul style="list-style-type: none"> Risk management for the energy industry Physical and cybersecurity and why it is crucial 	<ul style="list-style-type: none"> Workplace culture Advancing in the energy industry Emerging skills & career trends Energy Justice
Chapter 4	<ul style="list-style-type: none"> Generation trends: new generation construction & retiring fuel sources Focus on storage & hydrogen Other emerging technologies 	<ul style="list-style-type: none"> The future(s) of energy companies A holistic perspective on energy Decarbonization goals 	<ul style="list-style-type: none"> Grid modernization & smart grids Microgrids Reliability & resiliency: load balancing, blackouts, & crises 	<ul style="list-style-type: none"> The business of energy



Bonus Chapters

- Cybersecurity
- Electric Vehicles
- Energy Storage
- Hydrogen
- Military Connection (DoD)
- Nuclear



The Curriculum – Sneak Peak!

Unit A The Power of Energy: Chapter 1

START COURSE



EIF Unit B Chapter 5: The Past, Present, and Future of Energy

START COURSE



EIF Unit C Chapter 9: The Power Transmission System

START COURSE



UNIT A THE POWER OF ENERGY

CHAPTER 1: GET UP TO SPEED ON ENERGY CAREERS AND CONCEPTS

- 1.1 Find Your Exceptional Field in Energy
- 1.2 What Exactly is Energy Anyway?
- 1.3 Here's Why Energy is Important
- 1.4 Energy Efficiency Everywhere
- 1.5 Energy Systems are Ecosystems
- 1.6 Getting Real About Workplace Safety
- 1.7 Organizations that Prioritize Safety
- 1.8 Good Regulations Do Great Things

Timeline



July 10th:

Instructors / Group Administrators
will have access to the LMS and Library
for new curriculum and resources



August 1st:

Learners will have access to the new
LMS to begin course



Resources


CEWD is here for you!



Website



CEWD is here for Energy Leaders!



The Power of Finding the RIGHT PEOPLE

HOW AN INDUSTRY-RECOGNIZED CREDENTIAL
FUELS THE ENERGY WORKFORCE FORWARD

FOR LEADERSHIP


As the industry looks to hire hundreds of thousands of people in the coming years to support America's Clean Energy Future, energy companies have an opportunity – and a responsibility – to develop their talent pipeline in collaboration with local educational partners. And now, the new Energy Industry Fundamentals (EIF) 2.0 curriculum, a program powered by the Center for Energy Workforce Development, can provide the connection point to bring much needed, quality energy education into the classrooms.

Energy companies have an opportunity to come together to support EIF 2.0 as an industry-recognized program.


WHAT IS EIF 2.0?

The new EIF 2.0 curriculum, available in August 2023, is a 120-hour, interactive course for high school and technical school students (and beyond) to learn about the dynamic energy industry and expose them to sector careers. EIF 2.0 familiarizes learners with all that needs to be done to build, sustain, engineer, innovate, manage, advance, and protect our energy system, while safeguarding natural resources. CEWD is especially eager to ensure the curriculum is integrated into under-served and under-represented communities.

Program completers will earn a certificate that is expected to be accepted as an industry-recognized credential. By earning a certificate, program completers show interest in the energy sector, demonstrate industry aptitude and gain exposure to power and fuel generation, new and emerging energy, environmental stewardship, cybersecurity, engineering, energy policy, and much more.



EIF 2.0 isn't just for students looking to become a part of the energy workforce. Many companies intend to use the curriculum to ensure their existing employees have a comprehensive knowledge of the industry and how all its parts connect to power and fuel America.






WHY SHOULD ENERGY EMPLOYERS RECOGNIZE THE EIF 2.0 PROGRAM?

Electing to recognize the EIF 2.0 certificate in the application and hiring processes can help energy companies:


- ✦ Create a connection with local training providers to build a talent pipeline for careers in highest demand
- ✦ Establish a standard of excellence by creating a baseline level of knowledge for candidates entering the energy workforce
- ✦ Improve baseline knowledge of applicants, which promotes efficiency and continued curiosity
- ✦ Increase talent pool of qualified, diverse committed candidates
- ✦ Identify candidates who understand the energy sector and associated careers to improve retention rates and build long-term careers
- ✦ Collaborate with training organizations and compete for talent among other sectors

"It's important that we help create interest in opportunities within the energy industry to develop a workforce that reflects the communities we serve. Supporting the Energy Industry Fundamentals 2.0 curriculum provides the opportunity to do just that. This program can have a big impact in educating tomorrow's leaders today."



— Ron Reising, Chief Human Resources Officer at Duke Energy, a corporate partner and contributor to the program.



To learn more about the EIF 2.0 curriculum and certification and how to make this program a part of your development strategy, reach out to **Kristie Kelley**, CEWD's Workforce Development Director, at Kristie@cewd.org.



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CEWD is here for Hiring Managers!



The Power of Finding the RIGHT PEOPLE

HOW ENERGY COMPANIES CAN EMBRACE AN INDUSTRY-RECOGNIZED CERTIFICATION

FOR HIRING MANAGERS

As the industry looks to hire hundreds of thousands of people in the coming years to protect America's Clean Energy Future, energy companies have an opportunity – and a responsibility – to develop their talent pipeline in collaboration with local educational partners. And now, the new Energy Industry Fundamentals (EIF) 2.0 curriculum, a program powered by the Center for Energy Workforce Development, can provide the connection point to bring much needed, quality energy education into the classrooms.

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EIF 2.0 isn't just for students looking to become a part of the energy workforce. Many companies intend to use the curriculum to ensure their existing employees have a comprehensive knowledge of the industry and how all its parts connect to power and fuel America.



WHAT DOES AN EIF 2.0 CERTIFICATION MEAN?

For energy companies that elect to recognize the EIF 2.0 certification as part of the hiring process, it's important for hiring managers to understand what this means. Applicants who have an EIF 2.0 certification are coming to the table with:

- ✦ 120 hours of industry education and experience across varied topics
- ✦ An understanding of the energy sector and associated careers to improve company retention rates and build long-term careers
- ✦ Work ethic that operates under an industry standard of excellence
- ✦ Compliance procedures necessary to ensure a safe and healthy work environment
- ✦ Ability to earn stackable credentials, such as OSHA 10

HOW CAN HIRING MANAGERS USE THE EIF 2.0 CERTIFICATION TO FIND THE BEST CANDIDATES?

An EIF 2.0 certification is a seal of approval from the energy industry given the amount of work and time each individual puts into the program. Hiring managers can help identify the best candidates by finding those who have this certification and promoting the company's certificate adoption.

- ✦ Add the EIF 2.0 logo on the website
- ✦ Filter online job postings with an 'EIF 2.0 Certification' option
- ✦ Post about EIF 2.0 credential recognition on social media
- ✦ Build an energy pathway with schools and community-based organizations that offer the EIF 2.0 curriculum to funnel program completers to the talent pool



To learn more about the EIF 2.0 certification and what it means for energy employers, reach out to **Kristie Kelley**, CEWD's Workforce Development Director, at Kristie@cewd.org.




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CEWD is here for Educators!



Energy in the CLASSROOM

PREPARING STUDENTS FOR CAREERS IN ENERGY

FOR EDUCATORS

As the energy industry looks to hire hundreds of thousands of people in the coming years to support America's Clean Energy Future, educators have an opportunity to teach students the skills and experiences they need to thrive in the energy sector. The new Energy Industry Fundamentals (EIF) 2.0 curriculum, a program powered by the Center for Energy Workforce Development, can provide the connection point to bring much needed, quality energy education into the classrooms.


WHAT IS EIF 2.0?

The new EIF 2.0 curriculum, available in August 2023, is a 120-hour, interactive course for high school and technical school students (and beyond) to learn about the dynamic energy industry and expose them to sector careers. EIF 2.0 familiarizes learners with all that needs to be done to build, sustain, engineer, innovate, manage, advance, and protect our energy system, while safeguarding natural resources. The industry is especially eager to ensure the curriculum is integrated into under-served and under-represented communities.

Program completers will earn a certificate that is expected to be accepted as an industry-recognized credential. By earning a certificate, program completers show interest in the energy sector, demonstrate industry aptitude and gain exposure to power and fuel generation, new and emerging energy, environmental stewardship, cybersecurity, engineering, energy policy, and much more.

"As educators, we look to empower students to engage with the world around them, pursue their interests, and succeed to their fullest potential. The Energy Industry Fundamentals curriculum allows me to do that with my students, and I love that it exposes them to an in-demand sector with many career opportunities."

— Natalie Martin, Instructor at Flint Hills Technical College





WHY SHOULD EDUCATORS USE EIF 2.0?

The free EIF 2.0 curriculum is created by the energy industry for the energy industry, ensuring learners have access to an educational track that will help them succeed in a long-term career. Educators can:


- ✦ Easily use the course as content interfaces with most all Learning Management Systems
- ✦ Use the modularized curriculum for easy embeds within existing career and technical education programs
- ✦ Access lesson plans, student materials, interactive activities and pacing guides as part of the curriculum
- ✦ Build awareness of career opportunities within the energy sector for learners
- ✦ Teach a complete framework and associated competencies that align to the energy career cluster, which is currently offered in Colorado, Florida, Georgia, Michigan, Oklahoma, and Virginia
- ✦ Create a connection between learners and energy companies to build a talent pipeline for in-demand careers
- ✦ Develop a relationship between high schools that offer EIF 2.0 and their post-secondary partner(s) with an articulation agreement to encourage early participation

HOW CAN EDUCATORS ACCESS EIF 2.0?



- ✦ Visit www.GetIntoEnergy.org/EIF-2-0/ and submit an online application
- ✦ Complete the "Train the Trainer" program
- ✦ Register your students and begin EIF 2.0



For additional questions about the EIF 2.0 certification or to locate energy companies with which to partner in your community, reach out to **Kristie Kelley**, CEWD's Workforce Development Director, at Kristie@cewd.org.



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CEWD is here for Learners!



How Learners Can SUPERCHARGE a Career in Energy


FOR LEARNERS

There has never been a more exciting time to work in the energy industry. With hundreds of thousands of open jobs in the coming years to support America's Clean Energy Future, learners of all ages can find their place in the sector by gaining the needed education and skills-based expertise through the Energy Industry Fundamentals (EIF) 2.0 curriculum, an industry-recognized program from the Center for Energy Workforce Development.

Not sure a career in energy is the right move? Industry workers with the right education and training have access to:

- ✦ High earning potential
- ✦ Career advancement
- ✦ In-demand skills
- ✦ Thousands of career options
- ✦ Opportunity to make an impact in the community

The EIF 2.0 curriculum sets learners on the right path to enjoy these benefits and more.





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WHY SHOULD LEARNERS ENROLL IN EIF 2.0?

The EIF 2.0 curriculum is created by the energy industry for the energy industry, ensuring learners have access to an educational track that will help them succeed in a long-term career. Program completers stand out to energy employers by bringing:

- ✦ 120 hours of industry education and experience across varied topics, complete with an industry-recognized credential after passing the assessment
- ✦ An understanding of the energy sector and associated careers to support candidacy for internships and careers
- ✦ Work ethic that operates under an industry standard of excellence
- ✦ Familiarity with compliance procedures necessary to ensure a safe and healthy work environment
- ✦ Ability to earn stackable credentials, such as OSHA 10



HOW CAN LEARNERS ACCESS EIF 2.0?

- ✦ Visit www.GetIntoEnergy.org/EIF-2-0/ and submit an online application
- ✦ Register for EIF 2.0 as an individual by creating an online account
- ✦ Begin the self-paced course using provided student guides and materials

WHAT ARE LEARNERS' NEXT STEPS ONCE THEY EARN THE EIF 2.0 CERTIFICATE?

An EIF certification is a seal of approval from the energy industry given the amount of work and time each individual puts into the program. With the completion of the course, learners are encouraged to:

- ✦ Include EIF 2.0 completion on their resumé
- ✦ Add provided digital badge to their social media profile
- ✦ Connect with employers who prioritize applicants with the EIF certificate in the hiring process
- ✦ Look for and select 'EIF 2.0' as an earned credential on available job applications

For additional questions about the EIF 2.0 certification, reach out to **Kristie Kelley**, CEWD's Workforce Development Director, at Kristie@cewd.org.



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Next Steps

Reach 500,000 learners in the next decade, or sooner!





It's your turn...

- Adopt EIF 2.0 as an Industry Recognized Certificate
 - Add to Application for Jobs
- Recognize as foundation to other Stackable Credentials
- Embed in Incumbent Workforce Training
- Support creation of an Energy Career Cluster
- Promote locally
 - Share social media announcements
 - Partner with schools



Database*

*Currently testing and content is subject to change.



EIF 2.0 Connect with Us

Thank you for your interest in EIF 2.0.

Name *(Required)*

First

Last

Email *(Required)*

School or Organization Name: *(Required)*

State *(Required)*

Are you currently working with, sponsored or have a partnership by an energy company? *(Required)*

- ☐ Yes
☐ No

How Did You Hear About EIF? *(Required)*

Submit

Questions?

Visit our FAQ section of the EIF 2.0 webpage

Contact Kristie@cewd.org





Thank you!



Kristie Kelley, Workforce Development Director

Kristie@cewd.org or 850-549-1298



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