



Educator Overview
June 27, 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



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 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



Original EIF Material



Can instructors still access original ELF material?

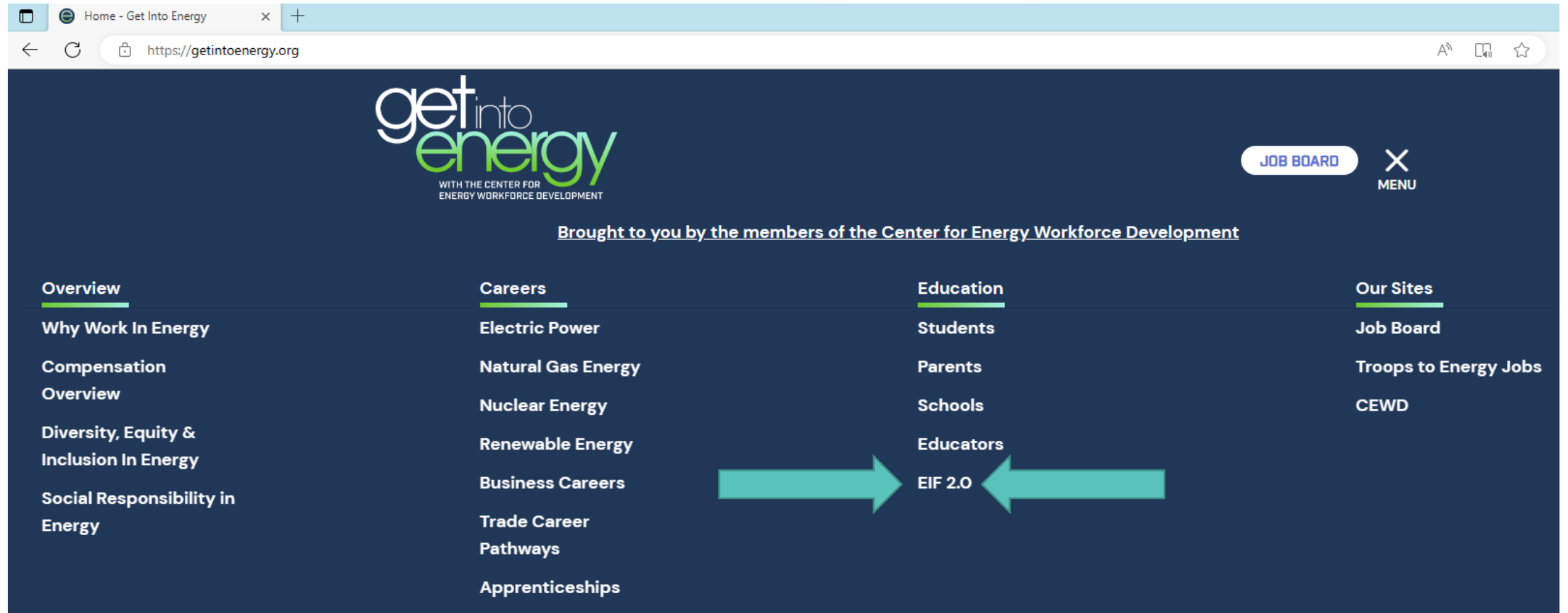
- Yes, but not encouraged since the content of the curriculum has been modernized
- Instructors must be a current Approved Course Provider (ACP) – prior to May 31, 2023 – and request access to the library of the Energy Educators Community Exchange Group through EEI to view instructor resources and student modules
- In order to share original curriculum with students, instructors will need to download the modules and either share electronically or print material manually (no longer available publicly through Get Into Energy website)
- Effective June 1, 2023, the end of course assessment for the original curriculum is no longer available; therefore, certificate cannot be earned by students for the previous edition



New Resources



Website



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

Learning Management System (LMS)*

*Currently testing and formatting is subject to change.

- Learn Dash
- [Student Experience Demo](#)
- [Instructor Demo](#)



Instructors

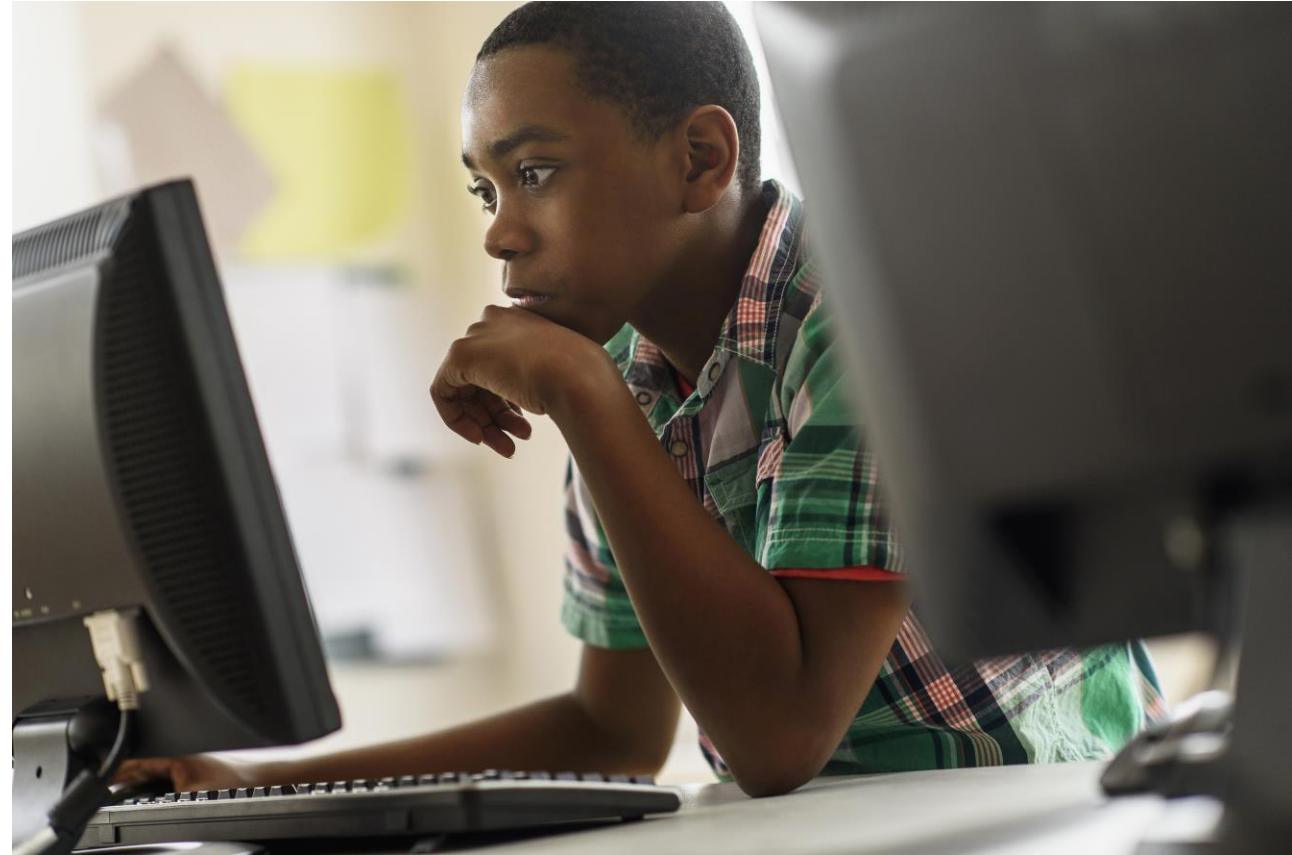
PowerPoints

Activities & Equipment list

Pacing guide

Articulation agreement template

Stackable credential recommendations



Requirements



Instructors

Register

Register through the new EIF 2.0 Database to become an Approved Course Provider



Submit

Submit teaching credentials to verify status as an instructor



Complete

Complete the Train the Trainer program (video coming soon!) to be activated as a Group Administrator



Learners

Register

Register through the new EIF 2.0 Database to become an active learner eligible to take the modernized course

Submit

Submit optional chapter quizzes and/or unit tests along the way to verify learning objectives have been met

Complete

Complete the end of course assessment to earn industry-recognized certificate of completion (must score 70% or higher)



Career & Technical Education



How to embed EIF 2.0


- Although the content is modernized, the overall concept and high-level framework will remain consistent; therefore, most likely will be easily adopted modularly into any CTE course
- CEWD will provide a revised framework, list of core competencies covered, as well as stackable credential recommendations for secondary and post-secondary options; therefore, can be offered as an elective or dual enrollment course (pending articulation agreement with local college) at the high school level
- If a career pathway for energy has been adopted, EIF 2.0 can be incorporated into current program
- If a career cluster for energy exists, EIF 2.0 can be embedded into current pathway in lieu of the original version



To Learn More



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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Center for Energy Workforce Development | 701 Pennsylvania Avenue, Washington, DC 20004 | www.GetIntoEnergy.org/EIF-2-0/



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.





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.

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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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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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