Educator Overview
June 27, 2023
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Overview

Presented by: Kristie Kelley, Workforce Development Director
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.
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.
Supported by Our Generous Donors

- **Platinum Level Educator**
  - Exelon
  - National Urban League
- **Gold Level Educator**
  - Duke Energy
- **Silver Level Educator**
  - Centerpoint Energy
  - Constellation
  - PSEG Foundation
Modernized Course Architecture

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<th>Modernized Course Architecture</th>
<th>Unit A: The Power of Energy</th>
<th>Unit B: Companies That Power America</th>
<th>Unit C: Our Interconnected Grid</th>
<th>Unit D: Show Me the Money</th>
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<td>Introduction</td>
<td>The energy ecosystem &amp; its transformation</td>
<td>The history &amp; future of energy in the U.S.</td>
<td>Understanding electrical and natural gas transmission, distribution, and resiliency</td>
<td>The business of energy markets</td>
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| Chapter 1                      | • Find Your Career in Energy - Paths for Everyone  
• What is Energy?  
• The Importance of Energy  
• Priority of Safety  
• Energy Efficiency  
• Energy Infrastructure | • A concise history of energy in the U.S.  
• The energy continuum: A constant evolution of technology and markets  
• The trajectory of energy | • Natural gas: transmission and distribution  
• Natural gas equipment, processes, & reliability | • Math for energy: customers & companies  
• Metering, billing, rate structure, and the emergence of smart metering |
| Chapter 2                      | • Introducing diverse fuel sources: natural gas, coal, nuclear, wind, hydro, solar, biomass, geothermal | • What is an “energy company”?  
• How do they operate? | • Power: transmission and distribution  
• Power equipment, processes, & reliability | • Distributed generation / storage  
• Natural Gas Markets  
• Building electrification  
• Electric vehicles |
| Chapter 3                      | • Advantages and limitations of each electrical generation source | • The energy industry regulatory landscape  
• Energy deregulation  
• Energy policymaking | • Risk management for the energy industry  
• Physical and cybersecurity and why it is crucial | • Workplace culture  
• Advancing in the energy industry  
• Emerging skills & career trends  
• Energy Justice |
| Chapter 4                      | • Generation trends: new generation construction & retiring fuel sources  
• Focus on storage & hydrogen  
• Other emerging technologies | • The future(s) of energy companies  
• A holistic perspective on energy  
• Decarbonization goals | • Grid modernization & smart grids  
• Microgrids  
• Reliability & resiliency: load balancing, blackouts, & crises | • The business of energy |
The Curriculum – Sneak Peak!

Unit A The Power of Energy: Chapter 1

UNIT A: THE POWER OF ENERGY

CHAPTER 2: GET UP TO SPEED ON ENERGY LAMINAS AND CONCEPTS

- 1.1 Find Your Exceptional Field In Energy
- 1.2 What Exactly Is Energy Anyway?
- 1.3 Heat: Why Energy Is Important
- 1.4 Energy Efficiency Everywhere
- 1.5 Energy Systems and Economics
- 1.6 Getting Real About Workplace Safety
- 1.7 Organizations That Prioritize Safety
- 1.8 Great Regulations Do Great Things

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

EIF Unit C Chapter 9: The Power Transmission System
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
Can instructors still access original EIF 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
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
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Requirements
Instructors

Register

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
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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 careers in the energy sector. EIF 2.0 teaches learners all that needs to be done to build, sustain, and operate a reliable energy system, while safeguarding our natural resources. This 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, renewable energy, and emerging energy environmental stewardship, cybersecurity, 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.”

- Nadine Martin, Instructor at Flint Hills Technical College

WHY SHOULD EDUCATORS USE EIF 2.0?

The new 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:

- Rely on the course to meet content standards and best practices, as they align with the National Energy Education Development Project (NEEDP) curriculum.
- Use the real-world curriculum to develop new methods of teaching and technology.
- Access lesson plans, student materials, interactive activities and parking guides as part of the curriculum.
- Build awareness of career opportunities within the energy sector for learners.

- Earn a comprehensive credential that aligns to the energy sector cluster, which is currently offered in Colorado, Alaska, Oregon, Minnesota, 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.GetEnergy.org/EIF-2-0 and subscribe to our newsletter.
- Complete the “Teach the Trainer” program.
- Register your students and teach 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.
CEWD is here for Learners!

FOR LEARNERS

There has never been a more exciting time to work in the energy industry. With hundreds of thousands of career opportunities and a potential for high earnings, the Clean Energy Future is a prime sector for anyone looking to build a fulfilling career.

The Energy Industry Fundamentals (EIF) 2.0 curriculum is 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
- Opportunities 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 92-hour, interactive course for high school and technical school students (and beyond) to learn about the dynamic energy industry and prepare them for a career in the field. The EIF 2.0 curriculum allows learners to earn one industry-recognized credential and two additional certificates.

Program completion will earn a certificate that is essential to be accepted into an industry-recognized program. It also provides learners with the skills needed to build safety, engineering, business, and leadership skills.

WANT TO LEARN MORE?

Visit www.CleanEnergyWorks.org/EIF-2.0 and submit an online application.

Begin the program journey by creating an online account.

Begin the self-paced course using provided study guides and materials.

HOW CAN LEARNERS ACCESS EIF 2.0?

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

With CEWD certification as a first step in the energy industry, the journey doesn’t end there! LEARN MORE.

Includes an interview with Kristie Kelley, CEWD’s Workforce Development Director, at Kristie@cewd.org.
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