**What is the Energy Industry Fundamentals Certificate?**

Developed by the Center for Energy Workforce Development, CEWD is a non-profit consortium of electric, natural gas, and nuclear utilities and their associations - Edison Electric Institute, American Gas Association, Nuclear Energy Institute, and National Rural Electric Cooperative Association. CEWD was formed to help utilities work together to develop solutions to the coming workforce shortage in the utility industry. One solution is to fill a gap in industry training. While there are occupation-specific credentials in the energy industry, there is no credential that ensures potential workers gain an understanding of the industry as a whole to make occupation-specific training more meaningful and to understand how one’s company (once hired) fits into the big picture. In many instances, utilities end up having to provide this training after employees are hired. This philosophy of learning the basics before occupational training aligns with the energy industry competency model. See the pyramid below.

![Training Components](image)

### Why should my school offer it?

The Energy Industry Fundamentals course, for which the credential is based, takes a comprehensive look at the energy industry, including nuclear, natural gas, and renewable. Instructor guides and student materials are provided as part of the program, focusing on experiential learning techniques with a comprehensive
online assessment at the end of the course. Students will be required to pass the assessment to receive the certificate.

What are the benefits to students?
Since CEWD is a coalition made up of energy companies, this credential is being created by the industry for the industry. This ensures that students are learning the right material that will help them succeed at their jobs.

How is it structured?
Energy Industry Fundamentals is divided into modules. For those who want offer the opportunity for their students to earn the credentials, all modules must be completed. This may not be the case in all situations, so schools or other training organizations can just use specific modules to fill in what they are already doing. The modules for the program include:

- Basic and emerging principles and concepts that impact the energy industry
- Compliance with procedures necessary to ensure a safe and healthy work environment
- Electric power generation
- Electric power and natural gas transmission
- Electric and natural gas distribution
- Energy careers and entry requirements
- Energy ‘hot topics’ (such as Smart Grid technologies)

What is required of our school to issue the credential?
CEWD has earned accreditation from the American National Standards Institute (ANSI) for assessment-based certificate programs. Therefore, there will be a set of requirements for organizations offering the course to lead to the credential. CEWD is the administrator of the credential and only those approved providers will have access to the assessment for their students.

How many credits will it be worth?
The course is 130 hours (instructional time). Colleges that are offering the program for credit should refer work within their standard systems for assigning credit hours.

What are the costs involved?
CEWD is providing the course materials for free. The fees associated with the certificate will come into play when an institution applies to become a provider (a $50 application fee) as well as when students take the assessment to earn the credential ($35 per student).

Where can I find the materials?
Videos, Test Prep and other materials can be found at getintoenergy.org/educators
CEWD Energy Competency Model: Generation, Transmission & Distribution

Tier 1 – Personal Effectiveness Competencies
- Interpersonal Skills
- Integrity
- Professionalism
- Reputation
- Motivation
- Dependability & Reliability
- Self-Development
- Flexibility & Adaptability
- Ability To Learn

Tier 2 – Academic Competencies
- Mathematics
- Reading, Writing & Information
- Listening
- Speaking
- Engineering & Technology
- Critical & Analytical Thinking
- Science
- Information Technology

Tier 3 – Workplace Competencies
- Business Fundamentals
- Teamwork
- Following Directions
- Planning, Organizing & Scheduling
- Problem Solving
- Decision Making
- Ethics
- Employability & Entrepreneurship
- Skills
- Working with Basic Hand & Power Tools & Technology

Tier 4 – Industry-Wide Technical Competencies
- Safety Awareness
- Industry Principles & Concepts
- Environmental Laws & Regulations
- Quality Control & Continuous Improvement
- Troubleshooting

Tier 5 – Industry-Specific Technical Competencies
- Non-Nuclear Generation (Coal, Natural Gas, Oil, Hydro, Solar, Wind, Biofuels, Geothermal)
- Nuclear Generation
- Electric Transmission & Distribution
- Gas Transmission & Distribution

Tier 6-8 – Occupation-Specific Competencies
- Lineworker
- Substation Technician
- Engineering Technician
- Relay Technician
- Natural Gas Technology
- Plant Operator
- Electrical Technician
- Mechanical Technician
- Instrument & Control Technician
- Alternate Fuel Technicians