

Chapter 2: A Just Transition for Energy Workers

The IBEW supports federal legislation that incentivizes employers to keep displaced fossil fuel workers working.

The IBEW is the largest labor union in the power sector with approximately 85,000 U.S. members at coal and natural gas power plants. Efforts to limit climate change have recently rendered many fossil fuel workers vulnerable to potential displacement following transitions to other forms of electrical generation, such as solar and wind power. The U.S. Energy Information Administration found that between January 2011 and December 2022, coal-fired generation capacity declined by more than 25,000 megawatts. That equates to about a third of the total coal-fired generation capacity.

Safeguarding fossil fuel workers against job displacement, particularly IBEW members, is of the utmost importance to the Government Affairs Department. These workers are often among the highest-paid blue-collar employees in their communities, and they face unemployment through no fault of their own. The IBEW is vigorously advocating for Congress to take decisive action, ensuring these affected workers receive adequate compensation and support to restore their livelihoods.

Recent Developments

Worker Retention

The IBEW supports any policy that would incentivize fossil fuel employers, primarily utility companies, to use tax codes to keep displaced fossil fuel workers on their payroll. Lawmakers can model such an incentive after the Employee Retention Tax Credit (ERTC) created under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act). The ERTC, initially designed for small employers, gives these businesses a tax credit of \$7,000 per annual quarter for a total of \$28,000 in annual tax credits to keep an employee on payroll. The IBEW is working with congressional lawmakers to modify the ERTC to support the significant number of fossil fuel workers vulnerable to displacement in the coming years. Protecting these workers is urgent, considering the U.S. is increasingly focused on reducing carbon emissions in the power sector.

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Chapter 3: Labor Standards on Energy Tax Credits in the Inflation Reduction Act

The Inflation Reduction Act of 2022 (IRA) offers energy tax credits that include bonus incentives for paying prevailing wages and employing registered apprentices, representing a major legislative victory for the IBEW. The Government Affairs Department is focused on ensuring the Department of Treasury correctly implements these labor standards with strong enforcement and compliance measures.

The IRA contains \$270 billion in tax incentives for various renewable energy projects. To qualify for these enhanced tax credits, owners and developers must ensure: (1) workers performing construction, alteration, and repair work on a renewable energy project are paid at least the applicable Davis-Bacon prevailing wage rate, and (2) registered apprentices perform a certain percentage of labor hours. These protections guarantee these projects create middle-class, family-sustaining career opportunities nationwide.

The prevailing wage requirements state the taxpayer must verify laborers and mechanics are paid prevailing wages during the construction of a qualifying project. Additionally, in some cases, alteration and repair of a project for a defined period after the owner places it into service also requires prevailing wage rates. The U.S. Department of Labor publishes a locality's most recent prevailing wage rates on Sam.gov (see chapter resources).

The apprenticeship requirements also mandate that if a taxpayer is claiming a credit, they must confirm qualified apprentices perform no less than the applicable percentage of the total labor hours of the project. Starting in 2024, the applicable percentage of total labor hours is 15 percent. In addition, the taxpayer must verify contractors have met all applicable apprentice ratio requirements.

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The IRA includes stringent penalties for noncompliance with the prevailing wage and apprenticeship requirements. These penalties include:

- Prevailing wage violation penalties:
 - If the taxpayer mistakenly fails to satisfy prevailing wage requirements, they can correct their error (and still claim credits at the bonus rate) by compensating each worker the difference between actual wages paid and the prevailing wage, plus interest, and paying a \$5,000 penalty per worker.
 - However, if the taxpayer's failure to satisfy the prevailing wage requirements is due to "intentional disregard," they must pay each worker three (3) times the difference in wages. The penalty is increased to \$10,000 per worker. Once the Treasury Department determines an intentional violation has occurred, the taxpayer must pay the affected employees and the Treasury within 180 days of the determination to remain compliant, or they will not be able to claim the bonus tax credits.
- Apprenticeship utilization violation penalties:
 - If a taxpayer mistakenly fails to satisfy the apprenticeship utilization requirements, they can correct their mistake by paying a penalty equal to \$50 multiplied by the total labor hours for which the requirements were not satisfied
 - This penalty is increased to \$500 per hour if the discrepancy results from "intentional disregard" for requirements

Hyperlink	URL	QR
DOL FAQs: Prevailing Wage Requirements in the IRA	https://www.dol.gov/agencies/whd/IRA	
DOL Slides on the Inflation Reduction Act's Labor Standards Provisions	<u>https://www.dol.gov/sites/dolgov/files/WH</u> <u>D/IRA-presentation.pdf</u>	
<u>Guide to Finding Wage</u> Determinations on sam.gov	https://www.dol.gov/sites/dolgov/files/WH D/Obtaining-WDs.pdf	
<u>Understanding a Wage</u> <u>Determination</u>	https://www.dol.gov/sites/dolgov/files/WH D/Understanding-a-Wage- Determination.pdf	

Chapter Resources

Chapter Resources

Hyperlink	URL	QR
IRS Initial Guidance on IRA Labor Standards Provisions (November 2022)	https://www.federalregister.gov/documents/ 2022/11/30/2022-26108/prevailing-wage- and-apprenticeship-initial-guidance-under- section-45b6bii-and-other-substantially	
IRS Notice of Proposed Rulemaking on Labor Standards Provisions (August 2023)	https://www.federalregister.gov/documents/ 2023/08/30/2023-18514/increased-credit-or- deduction-amounts-for-satisfying-certain- prevailing-wage-and-registered	

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Chapter 4: Carbon Capture Technologies

The IBEW supports the development of carbon capture utilization and storage (CCUS) technology. In particular, the IBEW supports technologies that achieve carbon reductions at power generation and industrial plants while highlighting American engineering and manufacturing and creating tens of thousands of union jobs.

Domestic energy sources like natural gas and coal are baseload (24/7) sources of electrical generation in an industry that provides workers, particularly in rural communities, with reliable livelihoods. The U.S. Energy Information Administration (EIA) has found that between January 2011 and December 2022, coal-fired generation capacity declined by more than 25,000 megawatts. This equates to about a third of total coal-fired generation capacity. In 2023, fossil fuels – namely coal and natural gas – contributed over 60 percent of the U.S. power generation mix. The EIA predicts natural gas will drop to 30 percent of total U.S. generation in 2050.

The international consensus is that carbon capture is essential to reducing carbon emissions to avoid the worst effects of climate change. Implementation of CCUS technology can support energy security, protect existing energy infrastructure, and create high-quality family-supporting jobs.

The IBEW's position is that CCUS adoption is essential to safeguarding energy careers critical to working families and communities across the U.S. IBEW members have worked countless hours installing and maintaining pollution control equipment in coal-fired powerhouses, steel mills, automobile manufacturing facilities, oil refineries, and other industrial facilities. CHAPTER 4



What Does Carbon Capture Technology Provide?

Effective CO₂ Control

To reach near-zero or equivalent emission targets, CCUS can work with coal and natural gas in retrofit applications. For example, for utilities, a coal plant with 90 percent effective CO2 removal has an emission rate of about 200 pounds of carbon dioxide per megawatt-hour, compared with 800 pounds for uncontrolled new natural gas combined-cycle units. In addition, for many industrial sources like refineries, steel, chemicals, paper, and cement, CCUS may be the only effective emissions control option.

Fuel for the Economy and Energy Independence

The deployment of advanced coal technology and CCUS will provide the U.S. with a path to enhanced oil recovery, energy independence, and greenhouse gas emission reductions. The commercialization of CCUS would also offer the U.S. a critical technology it could export – particularly to significant consumers of fossil fuels like China and India.

The Bipartisan Infrastructure Law (BIL)

The BIL creates several new programs to support carbon capture technologies' research, demonstration, and commercialization. These include:

- \$3.5 billion for Regional Direct Air Capture Hubs, which would create four direct air capture hubs (facility, technology, or system that uses carbon capture equipment to capture carbon dioxide directly from the air)
- \$2.5 billion for Carbon Storage Validation and Testing for the development of new or expanded commercial large-scale carbon sequestration projects and associated carbon dioxide transport infrastructure, including funding for the feasibility, site characterization, permitting, and construction stages of project development
- \$2.1 billion for Carbon Dioxide Transportation Infrastructure Finance and Innovation Program to establish and carry out large-capacity, common carrier infrastructure with associated projects in all significant carbon-dioxide emitting regions of the U.S.
- \$355 million for energy storage demonstration projects, including carbon capture technologies and direct air capture technologies

Employers will pay all construction and maintenance workers prevailing wages on projects funded by carbon capture and direct air capture programs created under the BIL.

The Inflation Reduction Act (IRA)

The Inflation Reduction Act included an extension and modification of the Section 45Q tax credit for carbon sequestration. In addition, the IRA provides significant financial incentives for deploying direct air capture (DAC) facilities. DAC facilities must be built and operational by December 31, 2032 to qualify for the incentives. Requirements and benefits are as follows:

- Facilities must capture at least 1,000 metric tons of carbon oxide
 - If the facilities utilize the captured carbon, DAC facilities can receive a base credit of \$26 per ton
 - With an additional \$36 per ton if sequestered
 - With an extra increase to \$130 per ton and \$180 per ton if the project adheres to labor standards

- Electricity-generating facilities must capture at least 18,750 metric tons of carbon oxide
 - If facilities utilize the captured carbon, it can receive a base credit of \$12 per ton or \$17 per ton if sequestered
 - If the project adheres to labor standards, the facility is eligible for \$60 per ton to \$85 per ton, respectively
- The credit period is 12 years

IBEW and other stakeholders expect the IRA reforms to the 45Q tax credit will significantly boost the building of carbon capture facilities nationwide.

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Chapter 5: Advanced Nuclear Power

The IBEW supports initiatives that develop advanced nuclear technologies that extend the lives of current nuclear reactors. Nuclear generation is the only baseload (24/7) source of zeroemissions energy production. Nuclear generation is critical if the United States continues to reduce carbon emissions and avoid the worst potential impacts of climate change.

Next-generation nuclear power is a critical component of the effort to combat climate change. The IBEW supports research and development funding and collaboration with industry to nurture next-generation nuclear reactors, balancing economic competitiveness with reasonable regulatory oversight. Advanced nuclear technology is a fundamental component of an all-of-the-above energy strategy.

Nuclear plants provide an industrial base in communities throughout the U.S. The industry supplies high-quality employment, providing family-sustaining careers that pay on average a third more than other jobs in the community. The IBEW is the largest union in the nuclear industry – 15,000 IBEW members are employed full-time at 55 nuclear facilities nationwide. In addition, thousands more IBEW members in the construction sector rotate through nuclear plants under contracts for maintenance and refueling.

Nuclear generating facilities are among the safest industrial work environments in the world, and nuclear power has accounted for 20 percent of annual U.S. electricity generation since the late 1980s. In recent years, however, the U.S. nuclear power industry has faced economic challenges. These challenges are particularly difficult for plants located in power markets where natural gas and renewable power generators influence wholesale electricity prices. As a result, at least a dozen nuclear power reactors have permanently closed since 2012. The industry had planned even more closures, but strong federal action by Congress and the Biden-Harris administration has injected support and incentives to ensure nuclear generation can compete on a fair playing field with other power generation sources. These incentives have delayed the retirement of some nuclear reactors.

Recent Developments

Nuclear's Future, Nuclear Energy Provisions in the Bipartisan Infrastructure Law

The Biden-Harris administration has identified the nation's current fleet of nuclear power plants as vital for achieving national goals of a net-zero electricity sector by 2035 and net-zero emissions economy-wide by 2050. Accordingly, the Bipartisan Infrastructure Law (BIL) includes several nuclear energy-related provisions. The BIL established a \$6 billion civil nuclear credit program designed to preserve the existing nuclear fleet and prevent premature shutdowns of nuclear power plants. The DOE expects this provision to help maintain the U.S. reactor fleet and to save thousands of high-paying jobs nationwide. The law provides \$6 billion through 2026 (\$1.2 billion annually). Diablo Canyon in California is the first nuclear plant to receive support under this program.

Under this program, owners or operators of commercial U.S. reactors can apply for certification to bid on credits to support their continued operations. The project owners must show that without aid the reactor will close for economic reasons. Additionally, project owners must demonstrate the closure will lead to increased carbon emissions.

The BIL recognizes the contributions of our nation's existing nuclear reactor fleet in providing reliable, power to millions of households, and supports continued operations of these zero-emission energy sources and the nearly 100,000 U.S. jobs in the nuclear industry.

Reliability for Uncertain Times

While the U.S. implements more intermittent renewable power from solar and wind, the need for reliable baseload generation will grow. Severe weather events, such as polar vortexes and the recent triple-digit summer heatwaves the U.S. has been experiencing, demand the nation has access to reliable baseload generation that will operate in stressful conditions.

The U.S. can reduce carbon dioxide emissions by 3.5 billion tons by 2050 if we ensure all existing nuclear reactors run for 80 years instead of 60 years. In addition, the U.S. expects electricity demand to rise significantly in the coming decades. Thus, our zero emission goals are inextricably linked with the reliable electricity of nuclear reactors.

A Permanent Place for Waste

Critical to the future of the nation's nuclear sector is opening a permanent repository for spent nuclear fuel. More than 88,000 metric tons of spent nuclear fuel are sitting at 121 temporary sites in 39 states nationwide. Since the late 1970s, the IBEW has endorsed legislation that ensures central storage, safe transportation, and permanent disposal of spent nuclear fuels.

Due to local opposition, the Department of Energy has abandoned the decades-long effort to designate Nevada's Yucca Mountain as a repository. Instead, the DOE has announced a search for communities willing to store nuclear waste. A permanent geologic repository would help boost support for nuclear generation since storage stability for byproducts will solidify nuclear as a foundational part of our nation's energy portfolio.

In the interim, the IBEW supports opening a temporary facility to store spent nuclear fuel safely. This would allow for the redevelopment of shuttered nuclear plants. The facility would also bring economic revitalization, tax revenue, and jobs to communities hit hard by the closures. In addition, due to existing electrical transmission infrastructure, many closed nuclear stations are ideal sites for the future development of other forms of electrical generation, including renewables.

Pending Priorities

Fuel for Advanced Nuclear Reactors

The U.S. government is investing significant resources towards developing new advanced reactors. The Department of Energy's Advanced Reactor Demonstration Program represents a multi-billion-dollar commitment to developing and deploying new nuclear technologies.

Most of these new reactors require a next-generation nuclear fuel called High-Assay, Low-Enriched Uranium (HALEU). DOE's Advanced Reactor Demonstration Program selected nine designs that each require HALEU-based fuels. Unfortunately, no HALEU is produced in the U.S. today for commercial purposes. The industry imports from Russia since it is the only international source currently available.

To address this, the IBEW and the nuclear industry have called for federal support for domestic HALEU production. The need for a safe domestic source of HALEU fuel has become even more pressing since Russia invaded Ukraine in February 2022, and the Biden-Harris administration is committed to HALEU as well: the Inflation Reduction Act provides \$700 million to support the availability of HALEU.

Nuclear Power Production Tax Credit

The Inflation Reduction Act has created a new production tax credit (PTC) for conventional nuclear generation. Congress modeled the nuclear PTC tax credit after wind generation's current production tax credit. The nuclear PTC tax credit will now provide a base credit rate of 0.3 cents/kWh and a bonus credit rate of 1.5 cents/kWh. To claim the credit, a nuclear facility must pay its construction and maintenance workers prevailing wages. This credit came into effect on January 1, 2024, and expires at the end of 2032.

Like the Energy Department's Civil Nuclear Credit Program, the nuclear PTC intends to help financially vulnerable nuclear facilities by increasing the competitiveness of nuclear plants when compared against natural gas and renewable generation; the program's effectiveness in increasing nuclear competitiveness is especially notable in unregulated energy markets. Additionally, the PTC will possibly end the string of premature nuclear plant retirements that have resulted in lost work hours and jobs for IBEW members.

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Chapter 6: Right-of-First-Refusal

The right-of-first refusal, or ROFR, is a state-level policy giving electric utilities the right to first build, own, and operate new transmission lines in their service area. ROFR policy gives electrical utility companies the first opportunity in the transmission planning process to acquire and agree to build a project/facility identified as needed. It enables them to acquire assets such as land, facilities, equipment, or rights-of-way important for transmission line operation. Critical aspects of the right-of-first-refusal for electrical utilities may include:

- Evaluation Period: The utility with the ROFR is usually given a specific period determined by the state ROFR law to evaluate the terms of the proposed action and decide whether to exercise their right or decline the opportunity to build the transmission line
- Notification: When the assets owner decides to sell or transfer the assets they are typically required to notify the existing utility with the ROFR clause, outlining the terms and conditions of the proposed transaction
- Consequences of Declining: Third-party developers can bid to build the proposed transmission line if the utility chooses not to exercise its right of first refusal

The right-of-first-refusal is a mechanism designed to maintain stability in the ownership and operation of critical electrical infrastructure. It allows the incumbent utility to have control over essential assets, ensuring the continuity of service and regulatory compliance. It also avoids the time-consuming and costly process of evaluating competing proposals and selecting winners. The specific details of ROFR provisions can vary from state to state, however.

ROFR is a debated policy with notable opponents. Independent transmission developers argue open competition in building transmission lines will lead to lower costs and faster construction. However, several recent analyses show that projects selected via competing processes do not produce savings for customers. Debate over ROFR state laws are only active in states within the Midcontinent Independent System Operator (MISO), a regional transmission organization with the most advanced plans for building out interstate electrical transmission.

Recent Developments

In December, the IBEW sent a coalition letter with several electrical utilities and independent transmission developers to the Federal Energy Regulatory Commission (FERC) supporting the commission's proposed rulemaking for regional, long-term, scenario-based transmission planning and calling on FERC to finalize its rule as soon as practicable. In addition, the letter asks FERC to require implementation of the proposed right-of-first-refusal provisions to facilitate the timely development of needed transmission infrastructure.

In 2023, Illinois Governor J.B. Pritzker vetoed a provision in the state legislature's omnibus energy bill (HR 3445) that would have granted ROFR authority to incumbent utilities in the state. Governor Pritzker claimed ROFR policies would increase costs for transmission projects. The utilities that supported the ROFR provision in Illinois stated ROFR would actually allow construction to begin sooner. The governor's veto would result in delays to transmission projects, increasing costs and putting the benefits of zero-emission energy transition at risk.

IBEW locals in Illinois were successful in securing a project labor agreement with an incumbent utility in the state to build transmission lines that would have been constructed under the proposed ROFR law. The project labor agreement to build new electrical transmission lines in Illinois was the primary reason why the IBEW supported a ROFR law in the state.

In December 2023, an Iowa district court ruled against an Iowa state law giving incumbent utilities a right of first refusal to build transmission projects approved by the regional transmission grid operator Midcontinental Independent System Operator (MISO). As a result, the court barred MidAmerican Energy and ITC Midwest from taking any action related to the five transmission projects MISO awarded them. These projects are part of MISO's Long Range Transmission Planning Tranche 1 projects.

The state of Iowa passed ROFR legislation in June 2020. This gives incumbent utilities the first opportunity to build MISO-approved projects. The court ruling does not prevent incumbent utilities from being awarded the projects in a competitive solicitation.

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