Nuclear Energy:

A Federal Framework to Build the Workforce That Will Power America's Future









Nuclear Energy: A Federal Framework to Build the Workforce that will Power America's Future

Nuclear energy is poised to play a central role in America's economic future, energy security, and industrial competitiveness. As demand for reliable and affordable energy continues to grow, the United States has a unique opportunity to lead the world in advanced nuclear technologies while creating thousands of high-paying careers across operations, construction, manufacturing, engineering, and the skilled trades.

On May 23, 2025, President Trump issued four Executive Orders establishing a comprehensive national strategy to accelerate the deployment of advanced nuclear technologies, modernize the Nuclear Regulatory Commission, expedite reactor testing and commercialization, and strengthen the domestic nuclear industrial base. Together, these actions are designed to advance American energy dominance, bolster national security, enhance supply chain security and resilience, and ensure the United States remains the global leader in next-generation nuclear energy innovation.

Achieving these goals will require more than new technologies and infrastructure. It will require a highly skilled American workforce capable of designing, constructing, manufacturing, fueling, operating, and maintaining a new generation of nuclear facilities. Nuclear energy projects generate well-paying, long-term employment opportunities that support families and strengthen local economies. From reactor operators, technicians, electricians, welders, pipefitters, and instrument and control specialists to engineers, project managers, cybersecurity experts, and advanced manufacturing professionals, the nuclear sector offers career pathways across educational and experience levels.

The construction of nuclear reactors and nuclear fuel facilities creates substantial demand for skilled trades workers, often supporting thousands of jobs during development and construction phases. Once operational, these facilities provide stable, long-term employment with wages that consistently exceed national averages. Nuclear facilities also drive broader economic growth by supporting local suppliers, contractors, transportation providers, and professional service firms throughout the surrounding region.

Recognizing the importance of workforce readiness, the U.S. Department of Commerce's Economic Development Administration (EDA), in partnership with the Departments of Labor and Energy, have developed this framework to foster collaboration among Federal, State, and local governments and private industry partners. This collaborative approach seeks to leverage existing Federal workforce development, economic development, education, and training programs to support state, local, and private sector led efforts to build the workforce necessary to support the full nuclear energy lifecycle, from construction and manufacturing to long-term operations and maintenance.

As the nation expands its nuclear capacity, communities across the country have an opportunity to attract investment, develop new talent pipelines, strengthen regional economies, and create pathways into rewarding careers. By aligning public and private resources, investing in workforce development, and supporting innovation, the United States can build the skilled workforce necessary to meet growing energy demands while delivering economic opportunity for generations to come.

Nuclear Energy: A Federal Framework to Build the Workforce that will Power America's Future

Relevant Federal Workforce Support Programs

	Short-term support (already deployed or available for deployment within 6 months)	Medium/long term support (deployment within more than one year)
Construction Workforce	*EDA:* ▪ Planning grants to develop partnerships and strategies for building up nuclear construction workforce. *DOL:* ▪ Industry-Driven Skills Training Fund to form partnerships with eligible nuclear employers to provide skills training to current or newly hired employees. ▪ A nationwide network of Registered Apprenticeship experts to assist those interested in developing and joining nuclear Registered Apprenticeship programs. ▪ $40M in incentive funding to support scaling and expanding Registered Apprenticeships nationwide. ▪ DOL can grant waivers to expand state flexibility to apply Workforce Innovation and Opportunity Act funding towards priority construction jobs. ▪ Workforce Opportunities for Rural Communities grants to support industry partnerships and workforce training.	*EDA:* ▪ Workforce development grants to form sectoral partnerships between industry and training providers, develop curriculum, and provide training for skilled construction trades. *DOE:* ▪ Office of Energy Dominance Financing loans have eligible costs that include training facility construction, temporary housing, and other workforce infrastructure. *DOL:* ▪ Future Workforce Opportunities for Rural Communities funding rounds.
Operations Workforce	*DOE:* ▪ Nuclear Reactor Safety Training and Workforce Development (NRST) Round 1 and 2 grants to establish consortium to address gaps between skilled training needs and current nuclear workforce.	*DOE:* ▪ National Nuclear Talent Development program provides education and training support for nuclear engineering and nuclear-related disciplines and curricula development to community and technical colleges

Nuclear Energy: A Federal Framework to Build the Workforce that will Power America's Future

	Short-term support (already deployed or available for deployment within 6 months)	Medium/long term support (deployment within more than one year)
Operations Workforce (cont.)	*DOL:* ▪ Industry-Driven Skills Training Fund grants to form partnerships with eligible nuclear employers to provide skills training to current or newly hired employees. ▪ A nationwide network of Registered Apprenticeship experts to assist those interested in developing and joining nuclear Registered Apprenticeship programs. ▪ $40M in incentive funding to support scaling and expanding Registered Apprenticeships nationwide. ▪ DOL can grant waivers to expand state flexibility to apply Workforce Innovation and Opportunity Act funding towards priority nuclear jobs. ▪ Workforce Opportunities for Rural Communities grants to support industry partnerships and workforce training. ▪ Strengthening Community Colleges grants are building capacity at colleges to develop and deliver programs of study related to nuclear energy operations.	and trades schools in nuclear-related skilled craft degrees, certifications, and/or credentials. ▪ Gateway for Accelerated Innovative in Nuclear (GAIN) technical assistance vouchers for workforce development. *DOL:* ▪ Future Workforce Opportunities for Rural Communities funding rounds. ▪ Future Strengthening Community Colleges funding rounds. *NSF:* ▪ Support for nuclear operations curriculum development through the Advanced Technological Education (ATE) program.
Manufacturing Workforce	*EDA:* ▪ Planning grants to develop partnerships and strategies for building up reactor manufacturing and/or fuel cycle workforce. *DOL:* ▪ Industry-Driven Skills Training Fund	*EDA:* ▪ Workforce development grants to form sectoral partnerships between industry and training provider, develop curriculum, and provide training for skilled manufacturing trades.

Nuclear Energy: A Federal Framework to Build the Workforce that will Power America's Future

	Short-term support (already deployed or available for deployment within 6 months)	Medium/long term support (deployment within more than one year)
Manufacturing Workforce (cont.)	grants to form partnerships with eligible nuclear employers to provide skills training to current or newly hired employees. ▪ A nationwide network of Registered Apprenticeship experts to assist those interested in developing and joining nuclear Registered Apprenticeship programs. ▪ $35.8M in incentive funding to support scaling and expanding Registered Apprenticeships nationwide in manufacturing. ▪ DOL can grant waivers to expand state flexibility to apply Workforce Innovation and Opportunity Act funding towards priority manufacturing jobs. ▪ Workforce Opportunities for Rural Communities initiative to support industry partnerships and workforce training. ▪ Strengthening Community Colleges grants are building capacity at colleges to develop and deliver programs of study related to advanced manufacturing.	*DOE:* ▪ Gateway for Accelerated Innovative in Nuclear (GAIN) technical assistance vouchers for workforce development. ▪ Nuclear Talent Development program provides training support and curricula development to community and technical colleges and trades schools in nuclear-related skilled craft degrees, certifications, and/or credentials. *DOL:* ▪ Future Workforce Opportunities for Rural Communities funding rounds. ▪ Future Strengthening Community Colleges funding rounds. *NSF:* ▪ Investment in nuclear operations workforce development to advance industry-inspired training, experiential and hands-on learning opportunities, teacher professional development, and other offerings through a range of programs including Advanced Technological Education (ATE) and Experiential Learning in Emerging and Novel Technologies (ExLENT).