Advanced Nuclear Energy Report

Fiscal Year 2026

TEXAS WORKFORCE COMMISSION

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ADVANCED NUCLEAR ENERGY WORKFORCE (ANEW) DEVELOPMENT PROGRAM LEGISLATIVE REPORT

Introduction

At the direction of Governor Greg Abbott, the Public Utility Commission (PUC) of Texas established the Texas Advanced Nuclear Reactor (ANR) Working Group, comprised of more than 100 experts and stakeholders. In 2024, this consortium dedicated roughly 50,000 hours of work to discuss and envision how Texas could become a national and global leader in advanced nuclear technology. The ANR Working Group published a report, Deploying a World-Renowned Advanced Nuclear Industry in Texas; Considerations and Recommendations for Action, which highlighted key recommendations, opportunities, and strategies to plan for the use of advanced nuclear energy in Texas.

Of the seven recommendations highlighted in this report, recommendation number three— Workforce Development Program for Community Colleges and Universities: a coordination plan between workforce, education, and industry to support a homegrown nuclear workforce in Texas capable of meeting ANR industry and Texas energy demand— resulted in Senate Bill (SB) 1535 during the 89th Texas Legislature, Regular Session (2025).

Background

SB 1535, effective September 1, 2025, amended Chapter 302, Labor Code, by adding §302.0081, which required Texas Workforce Commission (TWC) to create and administer the Advanced Nuclear Energy Workforce (ANEW) development program in an effort to begin implementing some of the ANR Working Group's strategies and recommendations.

Establishment of TWC's Advanced Nuclear Program

TWC embedded the ANEW development program within the Tri-Agency & Special Projects department. Through the establishment of this program, Tri-Agency staff dedicated their first year of work to institute the required partnerships and complete the agency processes necessary to launch a new departmental program.

This program, per statute, is mandated to work in collaboration with the Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB). ANEW program staff members are also required to work in consultation with a representative designated by the PUC of Texas to coordinate the state's nuclear energy strategies. For program year (PY) 2026, PUC appointed an advanced nuclear expert to work with us. Together, these entities, by rule, must establish and administer the program for the purpose of addressing urgent skilled labor demands in the advanced nuclear energy industry in Texas.

Tasks Completed

Since September 1, 2025, the Tri-Agency ANEW development program drafted, proposed, and posted for public comment the rules that would establish this program. On Monday, July 27, 2026, TWC officially adopted these rules.

In addition, TWC's Labor Market Information (LMI) department has worked closely with the Tri-Agency ANEW development program to understand the landscape of nuclear energy workforce and future trends in Texas. The ANR Working Group's 2024

report identifies nuclear energy as an emerging industry. The TWC LMI team agrees that soon there will be high demand for skilled workers in this industry. It is incumbent upon the ANEW development program to build bridges with partners that lead the right talent to best-fit job placements that meet employer demands.

See the section below titled *A Look at the Advanced Nuclear Ecosystem in Texas* for labor market data details.

Anticipated Impacts

In the next program year, our ANEW development program team looks forward to working with a group of advanced nuclear energy experts to develop a strategic plan for the state focused on building pathways of career preparation for a capable and enthusiastic candidate pool.

It is anticipated that once the ANEW development program effectively partners with all statutory collaborators to build the training and education pathways and programs SB 1535 envisioned, Texas will be prepared to meet the growing staff and skill demands of the state's advanced nuclear energy employers. The ANEW development program also foresees that Texas will easily be able to identify, invite, engage, and recruit a growing pool of students eager to work and advance in the industry.

What Other States are Doing

While Texas is embarking on our journey to establish itself as a leader in the advanced nuclear energy ecosystem, it is helpful to study the current national industry landscape and learn some best practices from some states that have initiated plans to establish or expand their advanced nuclear footprint. This section will explore what three different states—New York, Tennessee, and Virginia—are accomplishing in this field.

New York

Governor Kathy Hochul directed the New York Power Authority and the Department of Public Service to develop at least one new nuclear energy facility with a combined capacity of no less than one gigawatt of electricity, either alone or in partnership with private entities in upstate New York. The state of New York kicked off its work on June 23, 2025, with a focus on establishing at least one nuclear energy facility and developing a robust training pipeline.

Key State Projects and Initiatives

- **Nuclear Energy Facility Development:** This initiative will provide clean, reliable, around-the-clock power to support the state's economic growth and clean energy goals while shielding New Yorkers from long-term volatility and reducing dependence on fossil fuels.
- **NextGen Nuclear New York Initiative:** Commits $40 million over four years to rapidly build out the technical workforce required to support the state's upcoming Nuclear Reliability Backbone. The goal is to create a robust pipeline for technical training, retraining, coursework, and apprenticeship programs to prepare workers for the advanced nuclear energy sector. Key partners are technical high schools, community colleges, universities, labor unions, and other qualified training providers.

These initiatives together directly support Governor Hochul's directive to the state.

Tennessee

Tennessee is leveraging its unique history with federal institutions and cutting-edge research to build a nuclear ecosystem. Through the creation of the Tennessee Nuclear Network (TN^2) and the findings

of the Tennessee Nuclear Energy Advisory Council (TNEAC), Tennessee has formalized a strategy to grow the advanced nuclear energy industry. Additionally, a $50 million nuclear fund was established to create a nuclear development and manufacturing ecosystem for Tennessee by providing grants and assistance to support nuclear power–related businesses that choose to relocate or grow in the state in the future.

Key State Projects and Initiatives

- **(TN^2):** Formerly the East Tennessee Economic Council Nuclear Working Group, TN^2 was designated in July 2025 as the state's official partnership for nuclear innovation. It serves as a statewide hub connecting industry, research, academia, and government to bridge the gap between policy and execution.
  - The network highlights a robust educational pipeline established in Oak Ridge, Tennessee, that supports every level of the nuclear energy and national security sectors. The cornerstone of this ecosystem is the University of Tennessee, Knoxville's Nuclear Engineering department.
  - The "K to Career" strategy begins early through a strong emphasis on science, technology, engineering, and math education within local K–12 school districts. By integrating advanced technology into the high school curriculum and providing students with access to a "living laboratory" of federal and private facilities, the region fosters a generational interest in nuclear science.
- **TNEAC:** Created via Executive Order 101 in 2023, this 22-member council was tasked with strengthening Tennessee's leadership in the nuclear sector. Their 2024 Final Report was designed to guide the state's transition to new nuclear generation.
- **Nuclear Opportunities Workshop:** This annual flagship conference (hosting more than 1,000 attendees) serves as the premier platform for showcasing advancements in fission, fusion, radioisotopes, and environmental management.
- **Statewide Engagement Events:** Ongoing projects include the Annual Nuclear Summit and the "Day on the Hill," which facilitate direct interaction between nuclear industry leaders and state legislators.

Virginia

In 2022, Virginia Governor Glenn Youngkin released an energy plan to set goals for the next 10 years and position Virginia to leverage existing assets and foster innovation to meet its own growing energy demands. Currently, nuclear power is a cornerstone of Virginia's energy portfolio, providing 32 percent of the state's total energy and 82.7 percent of its carbon-free power. The industry contributes $7.1 billion to the state's economy and supports more than 182,000 professionals. In response, the state of Virginia is focused on legislative shifts for utility companies

Key State Projects and Initiatives

- **Virginia Innovative Nuclear Hub:** This partnership between the state, industry, and academia administers a Small Grants Program ($1,000 to $100,000) for schools and nonprofits to fund career awareness and training.
- **Virginia Research and Education Reactor Facility:** This project, currently in the feasibility and design phase, will provide students with "hands-on," simulated real-world nuclear research and training environment.

- **The 17th Career Cluster:** Virginia established a dedicated "energy career cluster" in the K–12 system to provide a clear educational pathway for students entering the industry.
- **Framatome Nuclear Technology Academy:** This partnership with Central Virginia Community College specifically trains the next generation of nuclear technicians.
- **E2 Center (NuScale and George Mason University):** This is a control room simulation training center designed to engage students in hands-on nuclear science and engineering.
- **Virgina Center of Nuclear Materials and Reliability:** This project allows for research in Gen IV reactors (molten salts, liquid metals).
- **Small Modular Reactor (SMR) Control Room Simulators:** Simulation facilities at Virginia Tech, Virginia Commonwealth University, and University of Virgina College at Wise were expanded to prepare workers for SMR deployment.
- **Veteran Talent Pipeline:** Collaborative programs between utility companies and universities focused on transitioning military personnel into energy jobs.

Southeast Nuclear Energy Council | E4 Carolinas

Despite having different focal points and approaches, Tennessee and Virginia partnered to create the Southeast Nuclear Energy Council (E4 Carolinas). The Southeast Nuclear Energy Coalition (SNEC)—often referred to as the "Southeast Nuclear Energy Council"—is a strategic partnership formed in August 2024 between Virginia and Tennessee. It is the first multistate initiative of its kind, designed to move the two states from being competitors to being collaborators in the nuclear energy sector.

The coalition was officially established when Virginia Governor Glenn Youngkin and Tennessee Governor Bill Lee signed a Memorandum of Understanding. The primary drive behind this coalition is the exploding demand for electricity. Virginia houses the world's largest concentration of data centers while Tennessee is seeing a surge in high-tech manufacturing (like electric vehicle plants). Both states have realized that wind and solar alone cannot meet the 24/7 baseload power requirements of these industries. By forming this coalition, they are signaling to big tech companies that the Southeast will have a stable and carbon-free power grid.

To learn more on any of these state's projects, use the following links:

News & Reports - Virginia Innovative Nuclear Hub

Nuclear Workforce - East Tennessee Economic Council

Southeast Nuclear Energy Council | E4 Carolinas

Governor Hochul Announces Significant Steps in Development of at Least 1 GW of Nuclear Energy in Upstate New York | Governor Kathy Hochul | New York State

Best Practices

Based on the advanced nuclear energy strategic plans or reports for each of the above states, the following best practices and guidelines were compiled by TWC staff. These recommendation will be provided to the TWC Advanced Nuclear Energy subject-matter working group to consider as they collaborate to develop an intentional strategic plan and educational pipelines to expand advanced nuclear energy across the state. Those recommendations are detailed below.

Workforce Gaps

To bridge the workforce gaps, specifically for high-demand roles like welders, electricians, and nuclear technicians, other states recommend the following:

1. **Targeted Recruitment and Certification**
    - **Nuclear-Specific Testing:** Don't just train general trades; collaborate with industry firms to help electricians and welders pass specific nuclear certification tests during their community college programs.
    - **Leverage Military Personnel:** Target veterans because they often already possess the required security clearances and technical discipline needed for nuclear environments.
    - **Skill Mapping:** Identify workers displaced from other energy sectors (like coal) and map their existing skill sets to nuclear industry needs.
2. **Early-Stage Career Awareness**
    - **Middle School Engagement:** Start early with virtual reality tools, mockups, and "Careers in Nuclear" modules to show students (and teachers) how nuclear plants work before they reach college.
    - **Center of Excellence Format:** Integrate the entire supply chain into training so students understand the "value chain"—from fuel fabrication to maintenance, not just power generation.
3. **Integrated Educational Models**
    - **Public-Private Partnerships:** Establish co-op programs where students split time between the classroom and Texas' major nuclear employers.
    - **Flexible Credentials:** Develop more short-term trade school certificates and associate degree programs specifically for SMR maintenance and refueling, rather than focusing solely on four-year engineering degrees.
    - **Simulation-Based Learning:** Use microreactors on university campuses to provide hands-on training for technicians before they enter the field.
4. **Strategic Planning**
    - **Comprehensive Gap Analysis:** Continuously monitor the gap (reports identify a current supply shortfall for nuclear engineers, chemical technicians, and industrial managers).
    - **Statewide Site Database:** Maintain a database of potential manufacturing and supply chain sites to ensure workforce training is located near future project hubs.

Scaling Up

The following are recommendations to establish and/or scale up the presence of nuclear energy in Texas:

1. **Create a "Robust Ecosystem" via Collaboration**
    - **Practice:** Integrate private-sector companies with federal entities and academic institutions.
    - **Goal:** Ensure that the supply chain and generation capabilities grow in tandem rather than in isolation.
2. **Workforce Development Partnerships**
    - **Practice:** Establish direct pipelines between nuclear companies and educational institutions.
    - **Goal:** Scale the specialized workforce required to sustain new nuclear generation and maintenance.

3. **Strategic Advocacy and Regulatory Support**
    - **Practice:** Maintain a dedicated committee for advocacy, policy and regulatory affairs.
    - **Goal:** Streamline the regulatory environment at the state level to enable the deployment of critical baseload carbon-free energy.
4. **Proactive Public Engagement**
    - **Practice:** Use digital presence and public education initiatives to expand awareness statewide.
    - **Goal:** Build public participation and social license, positioning the state as a global hub to attract further investment.
5. **Economic Growth Integration**
    - **Practice:** Collaborate with state economic development entities and local industrial boards.
    - **Goal:** Treat nuclear energy not just as a power source, but as a primary driver of the state's overall economic health and industrial recruitment.

Implementation

To ensure these recommendations are followed, fiscally supported, and implemented, other states recommend:

1. **Strategic implementation via**
   a structured governance model with the following four specific working committees:

    - Advocacy, Policy, and Regulatory Affairs
        1. Annual Stakeholder Convening Coordination and Planning
        2. Public Engagement and Communication
        3. Workforce Development

A Look at the Current Advanced Nuclear Ecosystem in Texas

Although the advanced nuclear energy industry in Texas is embarking on development, there are some established programs, training models, and organizations making strides to launch Texas as a leader in this domain. The following sections examine labor market metrics and emerging trends within the nuclear energy workforce to contextualize the state's current standing and the potential for strategic expansion.

Advanced Nuclear Workforce Labor Market Information

The Bureau of Labor Statistics (BLS) manages multiple programs that offer information about the labor market for nuclear energy. The Quarterly Census of Employment and Wages (QCEW) provides the quarterly wages and monthly employment of firms on a quarterly basis. This is generally published six months following the reported quarter, so data for the first quarter of 2026 will be released August 2026. The Employment Projections (EP) program currently provides biennial proportions of occupations that compose each industry in Texas as well as the projected growth of these occupations in each industry and across all industries over 10 years. At the national level, these projections are published annually with an eight-month lag while at the state level, EP values have approximately a 30-month lag. In addition to these BLS programs, TWC has access to Help Wanted OnLine (HWOL) job advertisement data, indicating the number of job vacancies per occupation. This information is published one month behind the reported month.

Per the latest numbers from QCEW, seven firms composed the nuclear electric power generation industry in Texas from October through December 2025, employing an average of 1,868 people per month and paying $78,718,162 in wages over the quarter.

Employment in this industry has remained steady. Over the last five years, average annual employment per month peaked at 1,875 employees in 2025 with a low of 1,693 employees in 2022. Because of the small size of the industry, a detailed state-level breakdown of occupations and projections is not available, so national-level data is needed. The BLS EP program's 2024–2034 National Employment Matrix reveals 16 occupations that each compose more than 1.0 percent of employment in the industry and together compose 71.7 percent of the industry's employment. The table below lists these occupations and their typical levels of education and training.

This table, shows that eight of the top 16 occupations in the industry do not require a bachelor's degree or higher. However, 12 of these 16 occupations typically need on-the-job training or prior work experience.

2024 National Staffing Pattern for Nuclear Electric Power Generation Industry

Standard Occupational Classification Code	Occupation Title	Percent of Industry[1]	Typical Education Needed for Entry[2]	Typical On The Job Training Needed to Attain Competency in the Occupation[2]
51-8011	Nuclear power reactor operators	11.2	High school diploma or equivalent	Long-term on-the-job training
33-9032	Security guards	10.7	High school diploma or equivalent	Short-term on-the-job training
19-4051	Nuclear technicians	9.0	Associate's degree	Moderate-term on-the-job training
17-2161	Nuclear engineers	7.9	Bachelor's degree	None
51-1011	First-line supervisors of production and operating workers	4.6	High school diploma or equivalent	None*
49-2095	Electrical and electronics repairers, powerhouse, substation, and relay	4.5	Postsecondary nondegree award	Moderate-term on-the-job training*
17-2071	Electrical engineers	4.4	Bachelor's degree	None
13-1199	Business operations specialists, all other	3.0	Bachelor's degree	None
49-9041	Industrial machinery mechanics	2.9	High school diploma or equivalent	Long-term on-the-job training
49-1011	First-line supervisors of mechanics, installers, and repairers	2.6	High school diploma or equivalent	None*

13-1151	Training and development specialists	2.3	Bachelor's degree	None*
11-1021	General and operations managers	2.1	Bachelor's degree	None**
13-1082	Project management specialists	1.9	Bachelor's degree	None
11-9041	Architectural and engineering managers	1.8	Bachelor's degree	None**
47-2111	Electricians	1.7	High school diploma or equivalent	Apprenticeship
11-9199	Managers, all other	1.1	Bachelor's degree	None*

* A prerequisite of less than five years of experience in another related occupation is expected. For example, a first-line supervisor of mechanics is expected to have some work experience as an industrial machinery mechanic.

** A prerequisite of five years or more experience in another related field is expected. For example, an engineering manager is expected to have five years or more of work experience as an engineer.

Sources:

1 Bureau of Labor Statistics, Employment Projections, 2024 National Employment Matrix for Industry 221113 - Nuclear Electric Power Generation.

2 Bureau of Labor Statistics, Employment Projections, Table 1.2: Occupational projections and worker characteristics, 2024.

2024-2034 Projected Nationwide Employment within Nuclear Electric Power Generation Industry[1]

Standard Occupational Classification Code	Occupation Title	2024 Employment	Projected Change	2034 Projected Employment
51-8011	Nuclear power reactor operators	4,300	-900	3,400
33-9032	Security guards	4,100	-900	3,100
19-4051	Nuclear technicians	3,400	-600	2,900
17-2161	Nuclear engineers	3,000	-500	2,500
51-1011	First-line supervisors of production and operating workers	1,800	-300	1,500
49-2095	Electrical and electronics repairers, powerhouse, substation, and relay	1,700	-300	1,400
17-2071	Electrical engineers	1,700	-200	1,400
13-1199	Business operations specialists, all other	1,200	-200	1,000
49-9041	Industrial machinery mechanics	1,100	-200	900
49-1011	First-line supervisors of mechanics, installers, and repairers	1,000	-200	800
13-1151	Training and development specialists	900	-100	800
11-1021	General and operations managers	800	-100	700
13-1082	Project management specialists	700	-100	600
11-9041	Architectural and engineering managers	700	-100	600
47-2111	Electricians	700	-100	600
11-9199	Managers, all other	400	-100	300

Source:

1 Bureau of Labor Statistics, Employment Projections, 2024–2034 National Employment Matrix for Industry 221113— Nuclear Electric Power Generation.

Across the board, nationwide employment for occupations within the industry is projected to decline. Employment for the industry overall is projected to fall from 38,200 employees to 31,500 employees. Industry projections are based on historical industry employment determined by long-term underlying trends and other economic factors. Staffing patterns are then applied to determine growth or decline of occupations attributed to the industry. Each occupation is analyzed to identify factors likely to cause an increase or decrease in demand within industries. The factors affecting occupational utilization for the occupations listed above, if available in all industries, are in the table below.

From the 16 occupations listed, the BLS has found noteworthy trends driving projected employment up or down for four occupations across all industries. Digital and electronic infrastructure is decreasing the projected need to hire as many nuclear power reactor operators and security guards. For this same reason, there is a higher projected demand for electrical engineers to deploy that infrastructure and for training and development specialists to develop a workforce that can leverage new tools for this infrastructure. These trends reflect projected growth or decline nationwide across all industries and not specifically the nuclear electric power generation industry, where there is an overall projected decline. The trends and factors affecting utilization will likely be felt within the industry.

In Texas, employment projections and staffing patterns are not available for nuclear electric power generation. However, the statistics for these occupations across all industries are available and provided with job demand and 2025 median wages below.

BLS Factors Affecting Occupational Utilization[1]

Standard Occupational Classification Code	Occupation Title	Industry Title	Factors
13-1151	Training and development specialists	Total, all industries	Demand change - share increases as demand for continuous training increases due to accelerating technological advancements such as artificial intelligence and large language models in the labor market.
17-2071	Electrical engineers	Total, all industries	Demand change - share increases as electrical infrastructure is updated and new electrical systems and technology are developed.
33-9032	Security guards	Total, all industries	Productivity change - share decreases as improvements in remote sensing, including drones, and autonomous robots, allow security guards to patrol larger areas.

51-8011	Nuclear power reactor operators	Nuclear electric power generation	Productivity change - share decreases as the increasingly widespread implementation of digitization in nuclear power plants make nuclear power reactor operators more productive.

Source:

1 Bureau of Labor Statistics, Employment Projections, Table 1.12, Factors affecting occupational utilization, 2024-2034.

This table shows that all occupations large enough to report employment and wages have an annual median wage well above the statewide median of $48,621, except for security guards. Employment for occupations in nuclear energy is low, reflecting the industry's size in Texas. The openings and projected growth in these occupations is also negative or small compared to other occupations. It is worth repeating that projections are based on **historic** employment trends. Therefore, any potential or developing nuclear energy projects would not be factored into the employment growth projections. These figures are only a reflection of the firms that have been operating in Texas in the past and their demand for these occupations.

Texas Occupational Statistics for Selected Occupations Across All Industries[1]

Occupation Title	Employment Base Year 2024	Employment Projected Year 2034	Change in Employment 2024 – 2034	Percentage Change	Total Annual Openings	Help Wanted Ads 2025	Texas Median Wage 2025
Architectural and Engineering Managers	17,264	19,548	2,284	13.23	1,392	9,242	$171,372
Business Operations Specialists, All Other	90,338	102,181	11,843	13.11	9,409	3,087	$80,819
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	2,526	2,685	159	6.29	220	1,430	$102,469
Electrical Engineers	15,170	17,292	2,122	13.99	1,058	8,718	$129,452
Electricians	76,440	87,459	11,019	14.42	8,102	7,669	$58,574

First-Line Supervisors of Mechanics, Installers, and Repairers	67,690	75,243	7,553	11.16	6,508	16,123	$76,758
First-Line Supervisors of Production and Operating Workers	58,632	62,922	4,290	7.32	6,210	6,644	$70,145
General and Operations Managers	443,259	507,400	64,141	14.47	43,029	36,289	$103,235
Industrial Machinery Mechanics	56,922	69,335	12,413	21.81	6,379	1,393	$61,933
Managers, All Other	99,765	112,699	12,934	12.96	9,141	17,921	$134,391
Nuclear Engineers	1,476	1,667	191	12.94	107	167	$128,345
Nuclear Power Reactor Operators	N/A	N/A	N/A	N/A	N/A	2	N/A
Nuclear Technicians	183	152	-31	-16.94	19	257	$124,056
Project Management Specialists	114,539	130,281	15,742	13.74	9,808	30,099	$98,439
Security Guards	101,064	115,770	14,706	14.55	15,229	21,631	$35,984
Training and Development Specialists	43,081	52,484	9,403	21.83	4,856	5,747	$62,856

Sources:

1 TWC, Employment Projections 2024–2034 and Occupational Employment and Wage Statistics 2025; Lightcast® 2026.

Emerging Industries and Occupations Consideration

Each of the 28 Local Workforce Development Boards (Boards) designated across Texas determines their own Targeted Occupations List (TOL) based on several economic indicators and local knowledge. These TOLs are leveraged by Texas education and workforce partners in varied ways, one of which is to ensure the appropriate education and training opportunities are available to prepare the future workforce to meet the needs of high-demand occupations. If there are gaps identified, ideally, stakeholders will be convened to develop or expand the programs necessary to build the future regional workforce supply needed.

The labor market data used to help develop these lists is inherently historical. Therefore, it reflects past employment trends and uses those trends to project future demand. For emerging industries and occupations, those projections may not fully capture upcoming market shifts, new technologies, legislative actions, or announced investments. For these reasons, it is especially important to supplement quantitative labor market data with qualitative information gathered from employers, industry leaders, economic development organizations, and workforce partners to better understand future workforce demand.

Furthermore, because the TOLs guide job seekers and students towards training programs for skills to fill local needs, it is critical that consistent qualitative information-gathering discussions are occurring with key stakeholders across all industries. Such discussions ensure not only that emerging occupations and their labor and skill demands are tracked early but also that regional secondary and postsecondary training providers are aware of emerging trends to build or expand the right employment pathways in those occupations and industries. As of August 2026, the North Central Texas Workforce Board Area is the only region of our state that includes Nuclear Technicians, Standard Occupational Classification (SOC) 19-4051, on their TOL. Board Leadership shared information about the steps taken and factors considered to add this occupation to their TOL.

The North Central Texas Council of Governments recommends that regions interested in considering adding advanced nuclear energy emerging SOCs to their TOL should:

- Track legislative actions or state policies related to industry;
- Connect with regional or state-level industry representatives or leaders to remain notified of any nuclear project considerations in their areas;
- Connect with economic development representatives or leaders to remain appraised of any industry or employer considerations in their areas; and
- Have representation from this industry included on their Boards or other committees to include their perspective in these conversations.

Advanced Nuclear Workforce Training Pipeline

As the Advanced Nuclear Energy industry scales up in the coming years, that growth will certainly create opportunities for Texas' youth and job seekers hoping to leverage new training experiences or existing skills to transfer into emerging occupations. TEA, which maintains oversight for public, K–12 educational programming, has already built an inventory of pathways students can choose from to begin occupational training for this industry. Similarly, the THECB, the entity tasked with administering post-secondary education programs in Texas' public

community, junior, state, and technical colleges and universities, has an established sampling of programs available with training aligned to nuclear energy industry occupations.

These education agencies, in partnership with TWC, have been developing coherent pathways that align secondary, postsecondary, and workforce ramps to ease students' transitions into high-wage, in-demand jobs across industries. Agencies have recently begun to focus their efforts on the advanced nuclear energy industry. The following section outlines representative education and training programs currently established in the training pipeline that are designed to facilitate career readiness within the nuclear energy sector.

Secondary Offerings

With oversight from the TEA, Texas secondary, public-school districts and open-enrollment charter schools offer career and technical education (CTE) programs that students can complete while in high school. These CTE programs are developed to provide coherent and rigorous content to prepare young students for the world of work and post-secondary education and training experiences. CTE program academic standards are closely aligned with relevant technical knowledge and skills needed to meet the demands of local and statewide industry high-wage, in-demand, and high-skilled occupations and to prepare students for emerging occupations and industries.

The framework of Texas' statewide CTE model is administered by the TEA's Division of College, Career, and Military Preparation. The division regularly engages with partners in higher education and the workforce to develop and refresh CTE program organization. The framework begins with 14 career clusters. These are further split into relevant Programs of Study (POS) that focus on curriculum and objectives specific to workforce industries and occupations.

Each POS includes coherent course sequences, industry-based certification alignment, and work-based learning recommendations and opportunities to prepare students for the high-demand occupations in those industries. TEA has established the career clusters and POS below that could potentially align directly to the advanced nuclear energy industry or have occupations which also could support the development or operational functions of the industry but currently do not include advanced nuclear energy components within their coherent courses or curriculum. With effective collaboration, the POS could be strategically modified to prepare students to transition into post-secondary advanced nuclear energy programs or enter the advanced nuclear energy workforce with industry-recognized credentials.

Career Cluster	Statewide Programs of Study
Agriculture, Food, and Natural Resources	Environmental and Natural Resources
Energy	Renewable Energy
Manufacturing	Welding, Robotics, and Automation Technology
Engineering	Engineering Foundations

Career Cluster	Programs of Study	Region
Manufacturing	Advanced Manufacturing and Industrial Technology	Education Service Center 7 Kilgore

To learn more about the TEA's CTE Programs of Study and how they align to high-skilled occupations in Texas, visit the CTE Programs of Study website.

Post-secondary Offerings

Texas has eight public universities that offer an associate, baccalaureate, or minor in nuclear engineering. It is also the home to two world-class

nuclear energy programs, the University of Texas at Austin (UT Austin) and Texas A&M University in College Station. Both institutions offer nuclear degrees and research programs, are leaders in nuclear research, and operate their own research reactors.

The Texas A&M lab offers unique opportunities for undergraduate students to experience managing nuclear power plants through full computer simulations. The simulator models nearly every component in a nuclear power plant and replicates the control room panels used by licensed operators. These experiences play a critical role in preparing students for the nuclear workforce and as leaders in the growing field of nuclear energy.

The UT Austin Nuclear and Radiation Engineering Program offers a minor in Nuclear Engineering, and the requirements consist of 15 credit hours toward the minor.

Wharton County Junior College's Nuclear Power Technology Program is the only Associate of Applied Science nuclear power program offered in the state of Texas and one of nine in the United States. This program allows students to pursue a career in the nuclear/power-generation industry and gain practical experience in reactor operations, radiation protection, and safety protocols.

The following table[1] outlines the Classification of Instructional Programs (CIP) codes and academic programs offered by Texas post-secondary institutions that align with the occupations support the advanced nuclear energy industry.

CIP	Program Name	College/University
03.0103	Transdisciplinary Studies of Energy and Environmental Systems and Services	Texas Southern University
03.0103	Energy and Earth Resources	University of Texas at Austin
14.0101	Mechanical Engineering, Energy Systems	Texas Christian University
14.1301	Renewable Energy	Texas Tech University
14.1901	Mechanical and Energy Engineering	University of North Texas
14.2301	Nuclear Engineering	Texas A&M University, University of Texas at Austin
14.4801	Energy Transition and Sustainability	Rice University
14.4801	Resource and Energy Engineering	University of Texas at Austin
14.4801	Surface and Energy Engineering	University of Texas at Austin
15.1701	Energy Systems Technology/ Technician	Tarrant County Community College, Tyler Junior College
15.1701	Renewable Energy	Texas Tech University
15.1703	Solar Energy Technology/Technician	Texas State Technical College
22.0207	Energy, Environment, and Natural Resources Law	University of Houston
30.7102	Energy Management	University of Texas at Austin
30.9999	Energy	Texas A&M University

41.0205	Nuclear Power Technology/ Technician Program	Wharton County Junior College
45.0603	Energy Economics	Rice University
47.0701	Energy Systems Installation and Repair	Coastal Bend College, El Paso Community College, Panola College
51.0905	Nuclear Medical Technology/ Technologist	Amarillo College, Collin County Community College, Galveston College, Houston City College, Tarrant County College, and the University of Incarnate Word
52.0210	Energy Business Administration	Texas Christian University
52.0210	Energy Business	University of Texas Permian
52.0299	Energy Commerce	Texas Tech University
52.0803	Global Energy Leadership	University of Houston
52.1301	Energy management	Lamar University, University of Texas at Dallas

Source:

1 THECB Program Search Tool Texas CIP Code Inventory

Operational Projects

Complementing the state's established education and training framework, Texas also hosts several ongoing nuclear energy initiatives. The following table details 10 operational nuclear projects currently active within the state.

Project Name	County	For More Information/Source
South Texas Project Electric Generating Station Units 1 and 2	Matagorda	South Texas Project
Comanche Peak Nuclear Power Plant Units 1 and 2	Somervell	Nuclear Regulatory Commission
UT Austin Nuclear Engineering Teaching Laboratory Reactor	Travis	Nuclear Regulatory Commission
Texas A&M Nuclear Science Center Reactor	Brazos	Nuclear Regulatory Commission
Waste Control Specialists (WCS)	Andrews	Waste Control Specialist
Pantex Plant	Carson	U.S. Department of Energy
enCore Energy Rosita Uranium Operation	Duval	enCore Energy
enCore Energy Alta Mesa Uranium Operation	Brooks	enCore Energy

Uranium Energy Corporation Burke Hollow and Hobson Processing System	Bee, Karnes	Uranium Energy
Aalo Atomics Austin Manufacturing Facility	Travis	Aalo

To learn more about the status of the Texas advanced nuclear energy industry projects and pipelines, please explore the following links:

- Cultivating Homegrown Nuclear Talent in Texas
- Existing Nuclear Workforce Development Assets in Texas

Established Nuclear Energy Organizations in Texas

Beyond current educational and project-based initiatives, numerous organizations are actively driving advanced nuclear technology development in Texas. Outlined in the table below are 15 companies integral to these efforts.

Name	County	For More Information/Source
REPLOY Power	Travis	REPLOY Power
Deployable Energy	Harris	Deployable Energy
Subcritical Systems Inc	Travis	Subcritical Systems
Aalo Atomics	Travis	Aalo Atomics
Last Energy	Travis	Last Energy
Natura Resources	Taylor	Natura Resources
Deep Atomic	Travis	Deep Atomic
ENTRA1 Energy	Harris	ENTRA1
ZettaJoule	Harris, Montgomery	ZettaJoule
Quantum Leap Energy	Travis	Quantum Leap Energy
Uranium Energy Corp.	Nueces	Uranium Energy
enCore Energy Corp.	Dallas	enCore Energy
Paragon Energy Solutions	Tarrant	Paragon Energy
NSSI	Harris	NSSI
Pelican Energy Partners	Harris	Pelican Energy Partners

Program Year 2027 Plans and Next Steps

The ANEW development program is prepared to focus the next program year on leveraging the comprehensive resources and pathways already established in the state.

TWC, in conjunction with a PUC appointee, will organize a working group of subject matter experts to lead two critical tasks. The first is to develop an advanced nuclear energy strategic plan for the state to address labor supply gaps and talent retention issues in the advanced nuclear energy industry. The second is embarking on

the expansion of education and training pathways, curriculum development, and skill development guidelines that meet the demands of this growing industry. This will include identifying appropriate stakeholders to establish the working group and convening these experts periodically to guide the work.

ANEW development program staff, in collaboration with Texas Tri-Agency Workforce Initiative partners (TEA, THECB, and TWC), will provide technical and administrative support to bolster the working group's efforts, ensuring all parties are moving the work forward. Additionally, ANEW development program staff will focus attention on potential funding sources for the program.

Future Considerations

ANEW development program staff is envisioning a plan for future years beyond PY 2027. As the advanced nuclear energy industry grows, the resources needed to support it will undoubtedly adjust and change, and the program must adapt to advance progress. To do so, program staff members are considering the following long-term objectives.

Program Plans

In addition to industry representation, key members from technical colleges, community colleges and universities that currently have nuclear programs or plans to create/expand program offerings will participate in the working group to contribute to curriculum and objective considerations as well as developing new program proposals. To ensure the best potential for proposed program plans, appropriate THECB staff members will be identified to collaborate with the subject-matter expert working group to navigate THECB's review and approvals processes and to develop curriculum requirements for new degree and certificate program proposals.

Eventually, as new credentialing programs and pathways are developed, TWC outreach teams will be leveraged to promote awareness of career opportunities in nuclear energy to public school students to ensure training pipelines will have a ready, eager pool of candidates.

Future Nuclear Projects

Texas is already seeing significant momentum in the ANR sector, and state leaders actively cultivating a landscape for industry growth. Current research indicates a pipeline of over 20 nuclear energy projects slated for development across the state at varying phases of maturity as outlined in the following table.

Project Name	County	For More Information/Source
Long Mott Generating Station — Dow and X-energy	Calhoun	The Texas A&M University System (TAMUS)
ACU / Natura Molten Salt Research Reactor (MSRR / MSR-1)	Taylor	Nuclear Regulatory Commission
Last Energy PWR-5 Pilot Reactor at RELLIS	Brazos	TAMUS News Article
Terrestrial Energy IMSR / Project TETRA	Brazos	NuclearNewswire Article

Kairos Power RELLIS Deployment Track	Brazos	TAMUS News Article
Natura Resources MSR-100 at RELLIS	Brazos	TAMUS News Article
Aalo Atomics RELLIS Deployment	Brazos	TAMUS News Article
Last Energy Haskell County Nuclear Project	Haskell	World Nuclear News Article
Fermi America Project Matador — AP1000 Portion	Carson	Nuclear Regulatory Commission
Blue Energy / GE Vernova–GE Hitachi Texas Project	Victoria	Blue Energy News Article
Antares Microreactor at Joint Base San Antonio	Bexar	U.S. Airforce News Article
ZettaJoule ZJ0 Research Reactor	Brazos	TAMUS News Article
Natura MSR-100 Permian Basin Produced-Water Project	Permian Basin	PR Newswire Article
NANO Nuclear / BaRupOn Liberty LAMP Project	Liberty	NANO Nuclear News Article
enCore Upper Spring Creek–Brown Area Satellite ISR Project	Live Oak	enCore Energy
enCore Upper Spring Creek / Brevard Expansion	Live Oak, Bee	enCore Energy
UEC South Texas Hub-and-Spoke Expansion	Karnes, Bee, Goliad, Duval	Uranium Energy Corp
Fermi America / Quantum Leap Energy / ASP Isotopes HALEU and Isotope Facilities	Carson	ASP Isotopes
Quantum Leap Energy–Texas A&M Conversion Program	Undisclosed	ASP Isotopes
Terrestrial Energy Fuel-Salt Production Demonstration	Brazos	NuclearNewswire Article
Deep Isolation Full-Scale Deep-Borehole Disposal Demonstration	Milam	Deep Isolation
Pantex High Explosives Synthesis, Formulation and Production Facility	Carson	PanTex

Program Recommendations

To accommodate the projected rapid growth of the nuclear sector in Texas, it is essential to expand nuclear energy curricula across the state's secondary and higher education systems. By establishing robust advanced nuclear curricula and developing an intentional strategic plan for advanced nuclear energy in Texas, the state can bridge anticipated critical labor gaps and cultivate a skilled workforce of technicians, welders, and operators to meet employer needs.

Although we have established a strong foundation with early successes, the transition to a leading nuclear economy is a long-term endeavor. But Texas is prepared for the challenges ahead. Texas has the right tools, deep industry knowledge, and a dedicated workforce — everything required to drive this initiative forward and secure the state as a global leader in nuclear innovation.

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