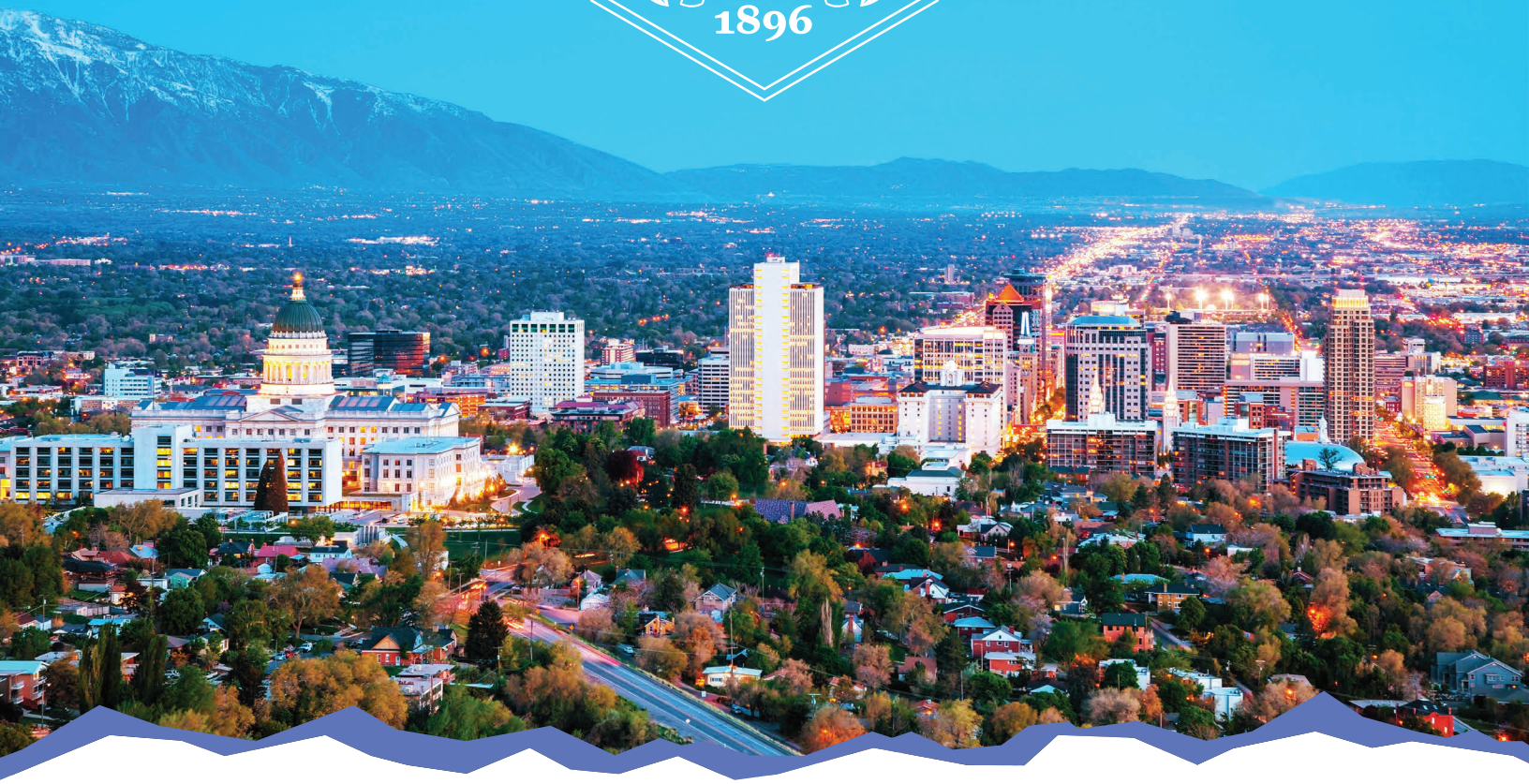


Utah Office *of*
Energy Development

OPERATION GIGAWATT:

Utah's Nuclear Lifecycle Innovation Campus

Response to Department of Energy
Request for Information

OPERATION GIGAWATT:

Utah's Nuclear Lifecycle Innovation Campus

Response to Department of Energy Request for Information

March 31, 2026

SUBMITTED BY:

The State of Utah

TECHNICAL POC & AUTHORIZED NEGOTIATOR:

Emy Lesofski
Director of the Utah Office of Energy Development & Energy Advisor to Governor Cox
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SUBMITTED TO:

U. S. Department of Energy
nlic-rfi@nuclear.energy.gov



Innovation Campus response announcement in Tooele County



Governor Cox



Spanish Fork



Utah San Rafael Energy Lab

Introduction



March 31, 2026

Department of Energy

RE: Request for Information (RFI): Operation Gigawatt: Utah's Nuclear Lifecycle Innovation Campus

Dear Secretary Wright,

America's leadership of the free world through the 20th century was built on a foundation of energy dominance. Abundant, reliable energy powered our country's victories in the world wars, built the strongest middle class in history, and facilitated the spread of democracy. Today, America is at a crossroads: we must decide whether to press forward with our tradition of energy dominance, or to sit back and watch as our adversaries take the lead. Utah is choosing the first path.

In Utah, with safety underpinning every action we take, we are committed to leveraging our resources and the extraordinary talents of our citizens to help provide America with the abundant energy we need to fuel our economy, strengthen American families, win the race for AI leadership, and ultimately ensure that the United States endures as the strongest and freest nation in history.

Nuclear power must play a central role in America's energy dominance. It has unmatched potential to provide firm, reliable, dispatchable, zero-emission power to our homes, businesses, and industries, including our national security sector and data centers. Utah, a state with a storied history in uranium mining, and home to America's only operating conventional uranium mill, is ready to become a leader in the nuclear fuel cycle. Utah has emerged as a critical player in America's nuclear economy, with Utah businesses providing key products and services for nuclear reactors across the country. The State's own Utah San Rafael Energy Lab will soon host one of America's first TRISO-fueled microreactors. But all of this is only the beginning as we seek to become a central hub in the nuclear renaissance.

With vast stretches of vacant, state-held trust land in our unpopulated desert regions, a highly educated and growing workforce, world-class universities performing cutting-edge nuclear research, and strong support from the Utah State Legislature, Utah is an ideal state to host a U.S. Department of Energy "Nuclear Lifecycle Innovation Campus." My team has identified a site that includes the transmission, transportation infrastructure, and a growing housing base needed to support a campus, while also enjoying full support from local elected leaders. This location will serve as the hub of the robust nuclear buildout we anticipate in our region should Utah anchor the nation's nuclear ambitions in the Western U.S. In short, Utah possesses the attributes and willingness to provide the Department of Energy's quickest path to an operational Innovation Campus.

In Utah, we cherish our traditions, one of the greatest of which is building at the frontier. With this RFI response, we stand at the brink of another such opportunity. Utah is ready, willing, and able to write the next chapter of American energy dominance.

Sincerely,



Governor Spencer J. Cox

Tooele County Council Resolution

On March 24, 2026, the Tooele County Council passed a resolution declaring the Council's support for development of a Nuclear Lifecycle Innovation Campus within Tooele County. The text of this resolution is included below, and letters of support from council members absent during voting are included in ***Appendix 1: Letters of Support***. Further information on the Tooele County Corridor for the Innovation Campus is detailed in the body of this RFI response.

TOOELE COUNTY
RESOLUTION 2026-07

A RESOLUTION DECLARING THE INTENT OF THE TOOELE COUNTY COUNCIL TO PURSUE THE DEVELOPMENT OF A NUCLEAR LIFECYCLE INNOVATION CAMPUS WITHIN TOOELE COUNTY

WHEREAS, the Tooele County Council recognizes the importance of promoting the development of nuclear power to advance energy independence and promote economic development; and

WHEREAS, on January 28, 2026, the U.S. Department of Energy released a Request for Information from states interested in establishing a Nuclear Lifecycle Innovation Campus; and

WHEREAS, the Utah State Legislature has adopted S.B. 135 (2026 General Session), which directs the Utah Office of Energy Development to pursue the development of a Nuclear Lifecycle Innovation Campus within the borders of Utah, including the reprocessing and storage of used nuclear fuel, and to engage willing communities to develop consent-based siting for campus elements; and

WHEREAS, Governor Spencer J. Cox has directed the Utah Office of Energy Development to submit a response to the U.S. Department of Energy's Request for Information in accordance with S.B. 135; and

WHEREAS, the U.S. Nuclear Regulatory Commission and Utah Division of Waste Management and Radiation Control will work together to provide federal licensing, state permitting, and overall responsible regulatory oversight of the Nuclear Lifecycle Innovation Campus to ensure safe and environmentally healthy operations; and

WHEREAS, Tooele County possesses distinctive characteristics suitable for the development of a Nuclear Lifecycle Innovation Campus, including:

- Low population density and available arid land;

Tooele County Council Resolution *(cont.)*

- Access to transportation and energy infrastructure;
- Experience in radiological materials management at the Clive Facility;
- A skilled workforce with experience working with hazardous materials;
- A rapidly growing population;
- Cities and towns with a high rate of residential housing growth;
- A need to create additional employment opportunities within Tooele County;
- Proximity to military installations such as Dugway Proving Ground and Tooele Army Depot; and

WHEREAS, the development of a Nuclear Lifecyle Innovation Campus is expected to catalyze large-scale growth of tax revenue and employment opportunities within the county where the campus is established;

NOW, THEREFORE, BE IT RESOLVED BY THE TOOELE COUNTY COUNCIL as follows:

1. The Tooele County Council formally declares its interest in establishing a Nuclear Lifecycle Innovation Campus within the borders of Tooele County, including the reprocessing and storage of used nuclear fuel, and its intent to support the State of Utah's response to the U.S. Department of Energy's January 28, 2026 Request for Information.

2. The County Council commits to engaging with municipalities and residents of Tooele County to develop consent-based siting for campus elements.

3. The Tooele County Department of Community Development is hereby authorized to coordinate with municipalities, affected landowners, and state agencies regarding development of a Nuclear Lifecycle Innovation Campus within Tooele County.

4. The County Council commits to a transparent public process, including planning commission review, public hearings, and community outreach, to ensure informed participation and local support.

EFFECTIVE DATE: This resolution shall take effect immediately upon passage.

DATED this 24th day of March, 2026.

Tooele County Council Resolution *(cont.)*

Tooele County
Res. 2026-07

ATTEST:

TRACY D. SHAW, County Clerk

COUNTY OF TOOELE COUNTY CLERK SEAL STATE OF UTAH

APPROVED AS TO FORM:

NATHAN HARRIS
Deputy Tooele County Attorney

TOOELE COUNTY COUNCIL:

JARED S. HAMNER, Council Chair

Council Member Hamner voted aye
Council Member Hoffmann voted aye
Council Member Stromberg voted absent
Council Member Thomas voted absent
Council Member Wardle voted aye

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Executive Summary

Utah's Nuclear Vision

Executive Summary

Governor Cox's Operation Gigawatt and **Energy Superabundance Initiative** —which aim to more than double Utah's electricity generation—**have made nuclear energy a cornerstone of Utah's energy planning**; as such, we are proud to submit this response to the U.S. Department of Energy's (DOE) Nuclear Lifecycle Innovation Campus (Innovation Campus) Request for Information (RFI). **Utah is uniquely positioned to partner with DOE to advance the next generation of nuclear energy infrastructure as a nuclear-enabled state with key value-chain assets**, including a low-level radioactive waste (LLW) facility in Tooele County, nuclear-grade zirconium production for nuclear fuel assemblies in Weber County, and the nation's only fully licensed and operating conventional uranium mill, housed in San Juan County. Utah holds nine **memoranda of understanding (MOU) for nuclear activities** including workforce training, fuel fabrication, national lab-academia partnerships, component manufacturing, first-of-a-kind (FOAK) reprocessing, and several FOAK reactors including small modular reactors (SMRs) and microreactors. These MOUs encompass a critical range of nuclear reactor innovations, including Valar Atomics' Ward250 test reactor and NuCube's high-temperature test microreactor, Holtec's SMR-300, TerraPower's Natrium reactor, and Natura Resources' molten salt reactor. We have a **pro-business regulatory and taxation framework with stable policies and one of the strongest economies in the nation**, including being ranked number one for Fiscal Stability in the U.S. News and World Report. [1] Since 2024, we have **supported local nuclear supply chain development by passing critical legislation**, establishing supportive government entities, and creating a nuclear consortium. These efforts aim to safely expedite a pathway for the full nuclear lifecycle and establish an operational Innovation Campus by 2027.



U.S. Energy Secretary Chris Wright and Governor Cox gather at Hill Air Force Base to welcome the arrival of the Ward250 SMR on February 15, 2026.

Utah has a **highly skilled workforce and a large population of nuclear experts** available to support the development of a Utah-based Innovation Campus. For example, experts at the State's Utah San Rafael Energy Lab (USREL) specialize in advanced nuclear research, including hosting the Valar Atomics Ward250 test reactor. Similarly, Utah's highly ranked universities and technical colleges house world-class experts and generate future nuclear specialists, including the University of Utah, hosting one of only 25 university research reactors nationwide as part of its nuclear engineering program. We are **actively making strategic investments in nuclear-focused community outreach and education**, including the establishment of vocational training centers and partnerships with higher education institutions. We are designing strategies to strengthen the current skilled workforce, and develop a robust talent pipeline to support the future requirements of the Innovation Campus, anchoring a revived national nuclear workforce supporting energy dominance. Utah is **ideally located in the Intermountain West[1] region, positioning the State as a central logistics and energy hub**, and providing easy access to major metropolitan areas throughout the West and international markets through interstate partnerships.

[1] Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Utah landscape





▲ *Tooele County*

Utah's Vision

Utah's vision for the Innovation Campus is to **build a nuclear ecosystem that strengthens long-term national security, advances technological leadership, and expands domestic capacity**. Our vision seeks to meet U.S. energy growth requirements, where nuclear power expansion is critical, but limited by current domestic capabilities.

In collaboration with DOE, Utah intends for the Innovation Campus to **enable innovative full nuclear lifecycle operations, including enrichment, fuel fabrication, recycling and reprocessing of used nuclear fuel (UNF), and waste disposition**—specifically interim storage and permanent repository—while also supporting complementary capabilities such as advanced reactor deployment, advanced manufacturing, and a data center. Our co-location model is designed to shorten iteration cycles between research, demonstration, licensing, and deployment to reduce supply-chain risk and to create a single ecosystem where innovation meets standards, safeguards, and operational excellence. Building on our existing storage and materials-management assets, strong policy posture, and proven ability to host nuclear industrial operations, the Innovation Campus will advance integrated solutions aligned with national goals for safety, security, stewardship, long-term accountability, and cost discipline. The Innovation Campus will act as a **keystone for nuclear development in the West, with Utah well-positioned to lead regional excellence through a tri-state 2025 MOU** accelerating Utah-Wyoming-Idaho nuclear development, as referenced in *Appendix 2: Governmental MOUs*. Leveraging the collective resources of the Intermountain West will ensure the Innovation Campus becomes part of a resilient nuclear energy ecosystem, supercharging deployment of next-generation nuclear technologies across the U.S. and supporting domestic nuclear supply chains.

[2] Utah's Trust Lands are managed by the School and Institutional Trust Lands Administration (TLA) to generate revenue on behalf of its beneficiaries, primarily Utah's K–12 public school system. The Corridor includes approximately 48 square miles of TLA land. OED and TLA have executed a MOU to work collaboratively to explore options for development of the Innovation Campus on TLA lands within the proposed Corridor (see *Appendix 2: Governmental MOUs*).

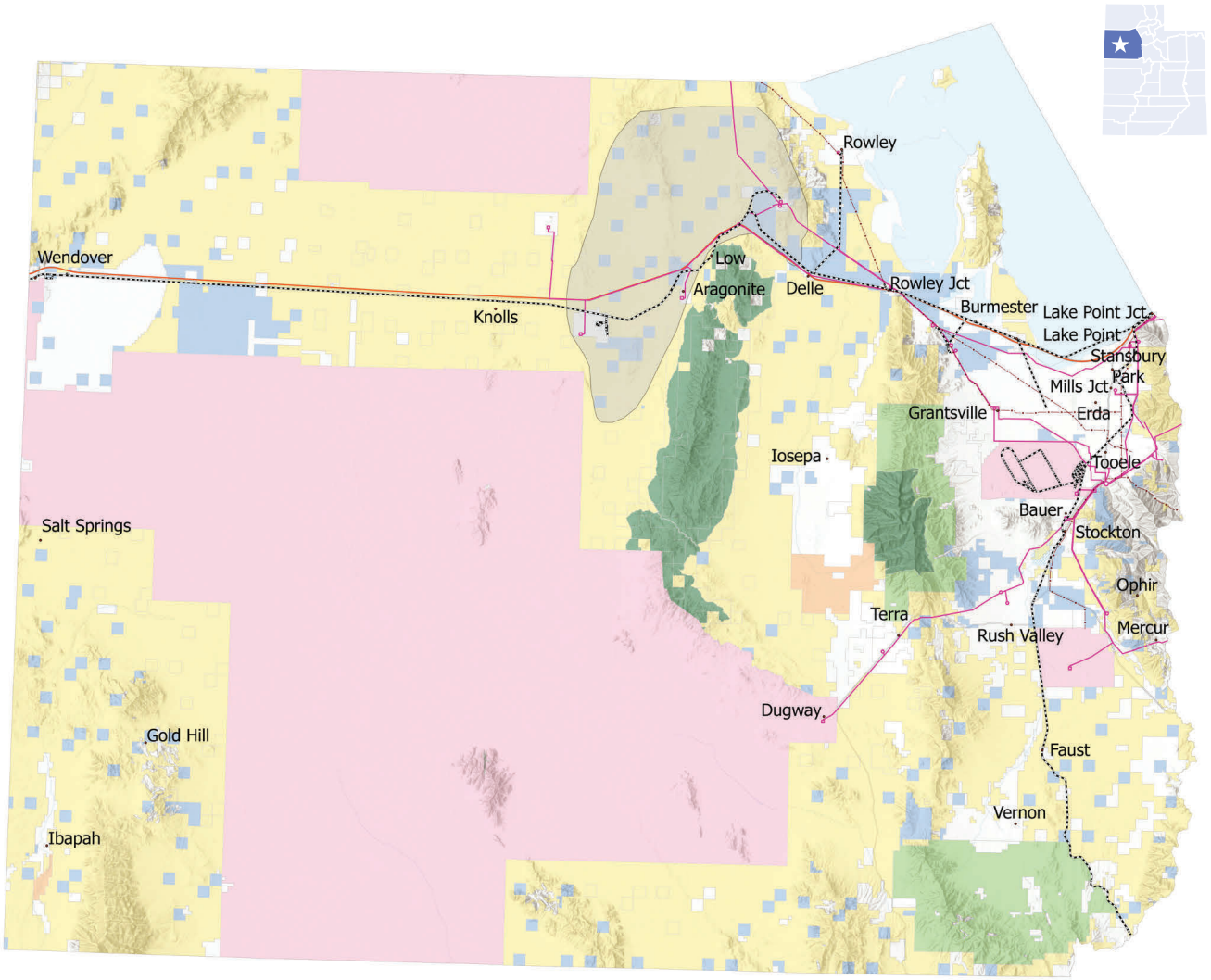
Utah has **identified a Corridor in Tooele County (the Corridor) as a strong candidate location** for the Innovation Campus (shown in *Executive Summary Figure 1*). The Corridor includes a significant amount of state-controlled trust lands[2] with the scale and flexibility to accommodate the full Campus lifecycle. It **offers practical logistics and infrastructure advantages** with access to transmission, rail, and road networks, proximity to Salt Lake City International Airport (SLC) and access to a growing, educated workforce. The Corridor's high aridity supports safe, reliable operations, and is a favorable attribute for waste-management activities. The Corridor is in a remote area that currently hosts LLW activities while remaining close to a supportive and growing community, including housing developments within the County. **Tooele County leadership has expressed explicit support for being an advanced nuclear hub** by adopting a Resolution in support of the Innovation Campus. With favorable site characteristics, accessible infrastructure, and backing from both the community and local government centered on existing nuclear industry, Tooele County stands out as an excellent candidate for the Innovation Campus.

The State looks forward to collaborating with DOE to perform detailed siting to determine the optimal parcels for both the Campus and long-term waste repositories.

▼ *Signing of the MOU between the states of Utah, Wyoming, and Idaho regarding regional energy collaboration*



EXECUTIVE SUMMARY FIGURE 1 | TOOELE COUNTY CORRIDOR

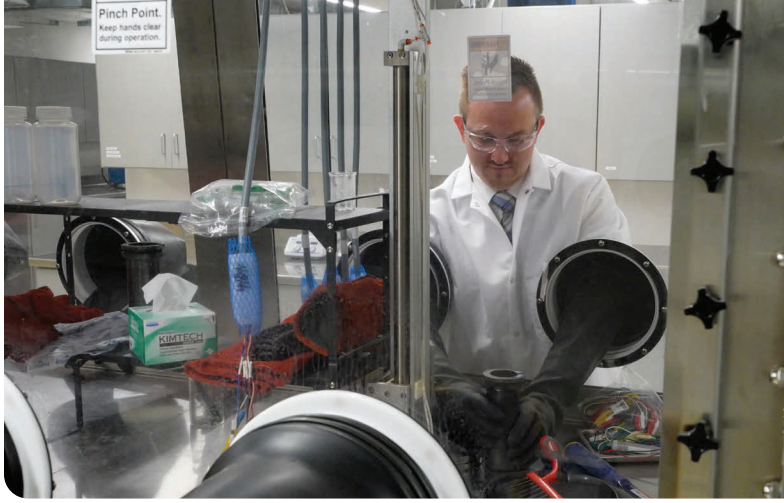


Utah's Nuclear Experience & Depth of Partnerships

Utah is ready on day one to stand up and operate the Innovation Campus. We have cultivated a durable nuclear ecosystem that **combines existing nuclear operations, advanced research partnerships, strong industrial capacity, a highly educated workforce, and a policy framework** intentionally designed to support nuclear innovation and deployment. Our approach integrates responsible fiscal governance, coordinated economic development, infrastructure investment, and community engagement to facilitate the safe and efficient development of complex energy technologies with broad public understanding.

Utah already hosts multiple components of the nuclear value chain and we have decades of experience, responsibly managing nuclear materials and supporting national programs. Utah's nuclear experience is a suitable nationally relevant foundation for reinforcing domestic nuclear capabilities, particularly in the West. Energy Fuels operates the White Mesa Mill uranium mill near Blanding, employing 150 people at full operation, and has access to the highest-grade uranium deposits in the U.S. via the La Sal and Pandora mines. [2] [3] **Utah continues to invest in its nuclear capabilities,** with the re-opening of the Velvet-Wood uranium mine by Anfield Energy, the first uranium project approved under Executive Order 14302 on Reinvigorating the Nuclear Industrial Base to restore American energy independence, set to begin operations in 2026. Westinghouse Electric Company operates its Western Zirconium facility in Ogden, producing zirconium and hafnium materials used in nuclear fuel assemblies and defense applications. [4] EnergySolutions operates one of the nation's most significant commercial LLW disposal facilities in Clive, Utah, within Tooele County, which has supported cleanup programs and nuclear operations across the U.S. for many years. EnergySolutions has also partnered with the DOE Test Bed Initiative on a demonstration to solidify and dispose of liquid mixed LLW. Nusano is constructing a large-scale radioisotope production facility in West Valley City capable of producing dozens of medical and industrial isotopes critical for cancer diagnostics, treatment, and advanced manufacturing. [5]

Building upon this foundation, **we have actively partnered with advanced nuclear companies and federal research institutions to position Utah as a center for nuclear innovation**. Through the Utah Office of Energy Development (OED), **we have executed MOUs with nuclear developers and research partners**, including Curio, EnergySolutions, Hi Tech Solutions (HTS) and Holtec International (Holtec), the Intermountain Power Agency (IPA), Nuclea Energy Inc, NuCube Energy, Oklo Inc., TerraPower, and Valar Atomics (see *Appendix 3: Nuclear Industry & Research MOUs*). Additionally, General Matter is in the early development phase of a manufacturing facility to support the nuclear fuel cycle.Utah has also **established a partnership framework with INL to create a collaborative research and workforce development model** connecting INL, USREL, the Utah System of Higher Education (USHE), and private nuclear developers. These partnerships support activities ranging from advanced reactor demonstrations and fuel-cycle innovation to workforce development, regulatory collaboration, and applied research.



▲ *USREL Director Dr. Jaron Wallace working in the lab*

Acquired in 2024, **USREL, our state-owned research and demonstration facility in Emery County, is central to Utah's growing nuclear innovation ecosystem**. We established USREL to provide industry, government, and research partners with a site for testing and deploying emerging energy technologies, including advanced nuclear systems. The facility provides laboratory infrastructure and opportunities for collaboration with universities, national laboratories, and private industry. Developers are **utilizing the site to test advanced reactors and other advanced nuclear activities**. [6] Our integrated research platform enables Utah to accelerate innovation while maintaining alignment with federal research priorities and incorporating industry expertise.

Utah possesses the necessary depth, capabilities, and governance to responsibly operationalize a full nuclear-lifecycle Innovation Campus.

Utah's Supportive Policy & Regulatory Framework

Utah has demonstrated our dedication to nuclear development through the **implementation of multiple policy measures and legislative actions enacted since 2024. Governor Spencer Cox launched Operation Gigawatt, a plan to more than double Utah's electricity generation capacity over the next decade** and create entire ecosystems with domestic supply chains to ensure support for energy-intensive industries and economic growth. The **Utah Legislature enacted a suite of measures designed to build long-term institutional capacity for nuclear energy development**. House Bill (H.B.) 249 established the Nuclear Energy Consortium within OED, and created mechanisms, to coordinate policy, research, and workforce development around nuclear technologies. [7] Additional legislation adopted in 2026, including H.B. 78 and Senate Bill (S.B.) 135, further strengthened Utah's regulatory framework by establishing a Nuclear Energy Regulatory Office and authorizing activities related to advanced nuclear fuel-cycle technologies and directing OED to pursue a Nuclear Innovation Campus. [8] [9] These actions demonstrate our sustained commitment to supporting nuclear innovation through clear governance structures, funding mechanisms, and long-term policy stability.

Utah's existing regulatory institutions further reinforce our readiness to host advanced nuclear activities. **Utah is a U.S. Nuclear Regulatory Commission (NRC) Agreement State**, exercising delegated authority from NRC under Section 274 of the Atomic Energy Act (AEA) to regulate certain radioactive materials activities. Through the Utah Department of Environmental Quality's (DEQ) Division of Waste Management and Radiation Control (DWMRC), **Utah licenses and regulates the use of radioactive materials in medical, industrial, and research applications, oversees uranium milling activities, regulates LLW disposal, and enforces radiation protection standards**. DEQ's Division of Water Quality (DWQ) ensures that nuclear-related activities meet rigorous environmental protection standards, particularly with respect to groundwater monitoring and long-term environmental stewardship. These responsibilities require continuous coordination with federal agencies and provide the State with deep expertise in nuclear material regulation, inspection, and emergency preparedness.

Our **familiarity with national nuclear programs also extends to waste management and interstate coordination**. We participate in regional and national energy policy initiatives through organizations such as the Western Governors' Association (WGA), which coordinates with federal agencies on issues including used fuel management, transportation safety, and repository programs such as the Waste Isolation Pilot Plant (WIPP). Through these collaborations, Utah has developed **extensive experience in nuclear materials transportation** that is essential for hosting major nuclear infrastructure and facilitating initial operations by 2027.

Utah's experienced state regulators will ensure efficient permitting and oversight of the Innovation Campus that meets DOE's operational goals. Our supportive policy framework across government branches enables us to address Campus needs, including infrastructure and nuclear investment pathways.

Utah's Carbon and Emery counties have long sat at the center of Utah's energy ecosystem. The region's skilled workforce, extensive transmission infrastructure, and high levels of community support for energy development position Carbon and Emery counties to play a key role in Utah's nuclear energy ambitions.

Emery County is home to the USREL, which hosts Valar Atomics' Ward 250 TRISO-fueled microreactor and continues to attract interest and investment from nuclear companies developing new reactor technologies. Emery County is also home to the proposed Blue Castle Project site notable for its key infrastructure assets, including its size, water, rail/road, and transmission corridor access.

Both Carbon and Emery counties offer ideal locations for nuclear generation, research, and ancillary activities. The USREL is designed to be a catalyst that will drive development of the nuclear industry to the entire Carbon/Emery region. Establishment of an Innovation Campus in Tooele County for the nuclear fuel lifecycle will enhance nuclear energy opportunities in the Carbon/Emery region.

Strong Pro-Business Economy

Utah's nuclear strategy is complemented by **one of the strongest industrial and economic environments in the nation**. According to the U.S. Bureau of Economic Analysis (BEA), Utah recorded the **highest real Gross Domestic Product (GDP) growth rate of any state in 2024.** [10] The State also maintains an AAA credit rating and is nationally recognized for its strong fiscal management and low debt levels, reflecting a longstanding commitment to financial responsibility, prudent governance, and stable policies. [11] [12] We consistently rank among the most business-friendly states due to our **competitive tax structure, including a flat 4.5% corporate income tax rate**. Utah complements our pro-business tax environment with **targeted incentives** such as the Economic Development Tax Increment Financing (EDTIF) program, which ties tax credits to job creation and investment benchmarks. Additionally, Utah offers specialized incentives such as the High-Cost Infrastructure Tax Credit, which can reimburse up to 30% of infrastructure-related revenues and up to 50% of project infrastructure costs for major infrastructure investments. These attributes provide a stable environment for long-term infrastructure investments and large capital projects.

We **reinforce our pro-business ecosystem with a focus on permit streamlining** as a core pillar of competitiveness. For example, the Governor's Office of Economic Development (GOED) serves as a central facilitator across agencies and jurisdictions to help make permitting predictable and time-efficient by reducing administrative friction while maintaining regulatory standards. This approach supports faster project delivery, lowers execution risk for investors and developers, and strengthens Utah's reputation as a **place where complex projects can move from concept to construction with fewer avoidable delays**.

Utah's broader industrial ecosystem further strengthens our capacity to host nuclear infrastructure. **Global non-nuclear companies** including Adobe, Northrop Grumman, Goldman Sachs, Qualtrics, Delta Airlines, Pluralsight, Rio Tinto, and Texas Instruments **have chosen Utah as a base for major operations**, citing the State's collaborative government partnerships, skilled workforce, pro-business regulatory climate, and exceptional quality of life. [13] [14] [15] [16] Utah's economy is supported by strong clusters in advanced manufacturing, aerospace and defense, life sciences, information technology (IT), financial services, and energy technologies. These clusters provide a robust supplier base and engineering workforce capable of supporting the complex manufacturing and technical requirements associated with the Innovation Campus.

Utah's role as host of the Innovation Campus would facilitate expansive business growth by utilizing our robust private-sector infrastructure and favorable pro-business policies to attract additional investment. As Innovation Campus activities grow, Utah's industrial base will deepen and diversify, stimulating supplier formation and expansion, increasing in-state contracting, and pulling in additional corporate functions into the local economy. The durable, private-sector-led nuclear Innovation Campus will strengthen Utah's overall economy by signaling long-term market confidence, improving our competitiveness in high-value industries, and reinforcing our brand recognition as a reliable place to invest, build partnerships, and grow.

Downtown Salt Lake City





2025 signing of the MOU between Utah and INL

Utah's Highly Educated Workforce

We benefit from a **highly skilled workforce and a strong, connected education ecosystem**. It is comprised of vocational education institutions including technical colleges, and leading research university programs, which develop talent and are capable of meeting the requirements of advanced industries. Utah has the **youngest population in the U.S. and one of the highest labor-force participation rates**. [17] USHE includes sixteen public institutions serving more than 200,000 students annually and producing more than 70,000 degrees and technical credentials each year. [18] [19] Research universities such as the University of Utah and Utah State University contribute expertise in engineering, materials science, aerospace systems, and energy technologies, while technical colleges provide essential industry-aligned training programs that support advanced manufacturing and energy infrastructure development. The proposed **Tooele Corridor is located near the rapidly growing and highly educated Wasatch Front**[3] metropolitan center, which supports critical industrial operations.

[3] The Wasatch Front is Utah's north-central major metropolitan region and contains major cities including Salt Lake City, Provo, Orem, Bountiful, Layton, and Ogden.

Utah is prepared and actively investing in further developing its workforce to support the needs of the Innovation Campus. We signed an MOU with HTS and Holtec to build a permanent nuclear training facility in Utah by 2028, emphasizing operations, maintenance, and emerging technologies. Additionally, Utah is advancing a coordinated workforce strategy with its academic and training institutions and INL, leveraging the region's established collaboration momentum under the Utah–INL engagement to create clear pathways from education to employment.

Utah's nuclear industry has a proven track record of benefiting the local workforce. The Innovation Campus will serve as a durable engine for rural and statewide economic opportunity by attracting private capital, enabling supplier expansion, and supporting apprenticeships while building the next generation of nuclear stewardship.

Utah's **highly educated and credentialed talent pool and investment in specialized workforce development will reduce staffing risk and enable reliable execution** as programs scale and requirements evolve. Our strong workforce foundation will prevent talent shortages that drive up labor costs, increase reliance on out-of-state hires, slow licensing and operational readiness, elevate quality and compliance risk, and ultimately make the project less competitive for private capital.

Utah's quality-of-life also helps recruit and retain specialized talent. A University of Utah survey found access to outdoor recreation is the top factor for tech-sector employees choosing to live and work in Utah, underscoring the state's ability to attract skilled workers from across the U.S. Dianne Meppen, director of survey research at the Gardner Institute said, "[Of the] Utah natives working in the tech industry that have left the state and moved back, 82% said outdoor recreation and/or access to wilderness and public lands was the most important factor in moving back, over family (76%), career opportunities (76%), and cost of living (61%)." Further, 38% chose to stay in Utah despite a higher salary offer elsewhere. [20]

Utah's Supportive Infrastructure

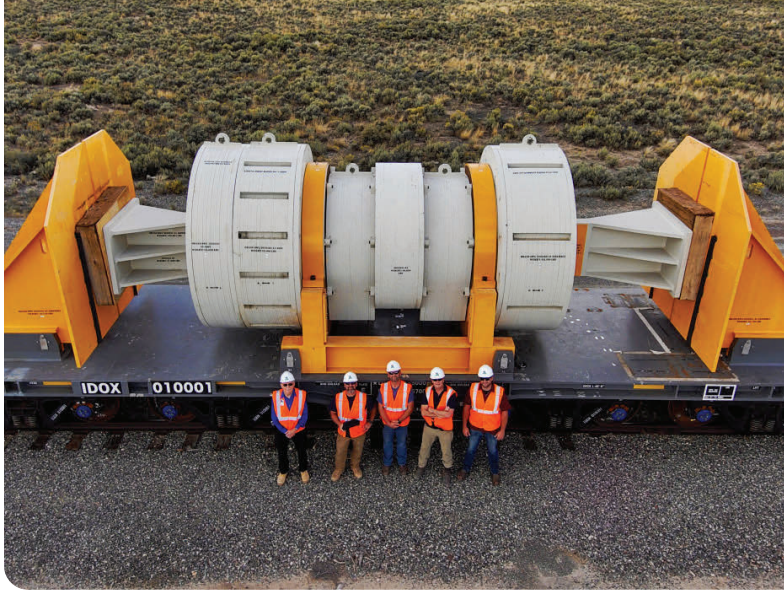
The Corridor provides **industrial-grade transportation, power, and telecommunications infrastructure** to support advanced manufacturing, defense, and energy operations at scale. These functions are critical for the Innovation Campus' need to move oversized components and regulated materials, run on continuous high-reliability energy, and maintain secure, always-on connectivity for monitoring, compliance, and cybersecurity.

Utah's grid is backed by a **diversified generation fleet and PacifiCorp's high-voltage transmission system, including 345 kilovolt (kV) and 230 kV** corridors through northern Utah and the Tooele region, linking Western Interconnection resources to Wasatch Front load centers, with **added resilience through initiatives such as Operation Gigawatt**. High-capacity fiber backbones connect the Corridor to the Wasatch Front for reliable operational and research data needs. Additionally, water supply planning, supported by local water districts and the Utah Division of Water Resources (DWRe), provides a pathway to dependable utilities in Tooele County.



A rural Utah highway flanked by power lines

We are the **"Crossroads of the West," connecting Western states to the rest of the U.S.**, supporting a broad trucking and logistics network. Utah, and specifically the Corridor, sits at the **intersection of major transportation routes**, including **Interstates 15 and 80**, providing rapid access to key markets such as Las Vegas, Phoenix, Denver, California, the Midwest, and the Pacific Northwest, with rail lines running parallel



Aerial shot of the Atlas railcar carrying a test load simulating a shipment of used nuclear fuel

through the region. In Tooele, the **Class 1 heavy-haul mainline** is generally **capable of specialized shipments** and may allow for the DOE Atlas railcar designed for large-scale transport of UNF. Utah's road and rail system also **links directly to the Southern California port complex** (Ports of Los Angeles and Long Beach), and cooperative logistics relationships supported by the Utah Inland Port Authority (UIPA) help facilitate efficient movement of goods between Utah and coastal shipping hubs—reducing supply-chain risk and enabling timely import of critical components for advanced nuclear facilities. Multimodal connectivity, including access to a major airport, enables rapid distribution of time-sensitive materials like medical radioisotopes, which often require same-day or overnight transport due to short half-lives, to hospitals and research institutions across the Western and Midwestern U.S. [21]

The Innovation Campus will **catalyze broader infrastructure upgrades in Utah**, including better roads and freight connectivity, a more reliable electric grid, and stronger broadband and fiber, extending well beyond the Campus itself. For Utahns and local communities, this translates into **shorter and safer commutes, fewer and shorter power outages**, and **faster, more reliable internet** that improves access to education, telehealth, and remote work. Moreover, the Innovation Campus in **Tooele County could directly benefit the Great Salt Lake** by serving as a location to **test and deploy water-efficient technologies**, such as air cooled data centers and water-efficient advanced reactors, **helping reduce demand on scarce water supplies that ultimately affect the lake**. Over time, these shared improvements raise quality of life and make local towns more attractive, supporting stronger local services and sustained community growth.



Power lines silhouetted against a southern Utah sunset

Utah's Community Engagement & Nuclear Acceptance

Utah has **prioritized stakeholder engagement on nuclear energy since 2025**, including statewide public education initiatives and county-level polling to understand community knowledge and perspectives on civil nuclear energy. Our polling has shown **favorable sentiment toward nuclear development** when communities are provided with clear information regarding safety, economic benefits, and environmental impacts. Of those surveyed in Tooele County, 88% had a favorable perception of the economic benefits nuclear activities bring to the State. Engaging local communities early in the nuclear deployment process demonstrates Utah's commitment to implementing community education and engagement programs designed to inform residents about nuclear technologies and their potential role in the State's energy future.

In addition to community outreach, Utah recognizes the **importance of meaningful engagement with Tribal governments**. Utah maintains formal channels for Tribal consultation and collaboration. OED is coordinating efforts to inform and work with Tribal governments about matters related to energy development, infrastructure planning, and environmental stewardship.

Utah's Nuclear Future

Utah's nuclear future is inseparable from the nation's nuclear future. We already play a central role in the U.S.' modern, secure, and sustainable nuclear supply chain. Utah offers a **rare combination of existing nuclear operations, proactive policy leadership, strong regulatory institutions, advanced research infrastructure, modern transportation networks, a highly capable workforce**, and, based on preliminary analysis, a Corridor that can embrace all aspects of the Innovation Campus. Just as importantly, we have demonstrated a sustained commitment to working collaboratively with federal agencies, neighboring states, national laboratories, universities, private developers, Tribal governments, and local communities to responsibly expand the nation's nuclear capabilities. Through these efforts, Utah stands ready to support federal partners in advancing a secure, reliable, and innovative nuclear energy future for the whole of the U.S.

Utah looks forward to the opportunity to host the Innovation Campus through close collaboration with DOE and our private sector, research, and academic partners, and the supportive community of Tooele County.

01

State Interest

What level of interest does your state have in hosting a comprehensive Nuclear Lifecycle Innovation Campus? Provide a detailed description of your state's strategic vision and approach to developing an Innovation Campus that integrates all functions outlined in Section II of this RFI, or, if not all functions are integrated, please specify why. Additionally, please identify what your state requires from the federal government in order to be a host for an Innovation Campus, or what private resources may be required, and what resources the state would plan to contribute.

State Interest

Utah's Interest in a Nuclear Lifecycle Innovation Campus

Utah is expressly interested in hosting a comprehensive Innovation Campus to establish the State as the premier Western center for integrated nuclear energy development and a nationwide leader in progressing nuclear innovation and energy dominance. The U.S. currently lacks a coordinated framework for nuclear fuel cycle development and material management, limiting the ability to scale nuclear energy in response to growing demand. By coupling commercial innovation, academic research, and federal partnership, Utah intends to create a FOAK initiative that integrates the full nuclear lifecycle unified under a single, self-sustaining Campus model. Further, Utah recognizes the broader national imperative to fully establish a capable domestic nuclear energy system; the Innovation Campus can be a scalable model that addresses structural gaps in the U.S. nuclear fuel cycle and accelerates advanced nuclear technologies.

Utah envisions an integrated Innovation Campus that can coordinate and support all major elements of the nuclear lifecycle. This includes the potential **co-location of uranium enrichment, fuel fabrication, fuel reprocessing and recycling, and waste treatment and management** designed to capture the efficiencies of co-located operations while maintaining robust security and rigorous environmental monitoring and controls. Utah recognizes that realizing this vision will require the exploration and deployment of advanced and, in some cases, FOAK technologies in the U.S. Utah is prepared to lead this effort in close partnership with DOE and with trusted industry, national laboratory, and academic partners. Utah views the Innovation Campus not as a standalone operation, but as a **foundational pillar for a broader American-based nuclear innovation ecosystem**, catalyzing new technologies, talent development, and commercial opportunities that contribute to U.S. nuclear energy dominance.

Utah recognizes there is a **benefit to remaining open to all viable technology solutions** in early strategic planning. We propose a technology-agnostic approach that enables support for research and development (R&D) and technology investment aligned with free market opportunities, national security priorities, and domestic supply-chain resilience, recognizing that not all strategically important capabilities will be commercially attractive to private investors. Utah's adaptable posture extends to the financial and legislative elements of Campus development. **Utah has laid the legislative groundwork** with the passage of S.B. 135 and H.B. 78 **to revisit and revise any existing regulatory barriers** to best enable Campus success and is committed to exploring a range of financial incentives and mechanisms to motivate necessary private investment.

Utah has identified the Corridor in Tooele County as a strong candidate location for the Innovation Campus and the **proposed project enjoys support at the state, regional and local level**. As provided in our introduction, Tooele County passed a resolution supporting the Innovation Campus, and the mayors of the county's three largest cities, Erda City, Grantsville, and Tooele City, submitted formal letters expressing their support (see *Appendix 1: Letters of Support*). Utah's pursuit of hosting the Innovation Campus is **backed by strong commitment from key public-sector partners. Governor Spencer Cox is fully committed** to advancing the Innovation Campus and has engaged stakeholders to drive momentum, coordinate State participation, and keep development moving. In conjunction with Governor Cox's initiative, the Utah Legislature passed S.B. 135 and H.B. 78, which establish durable policy support and willingness to continue addressing enabling conditions as the project progresses. **Tooele County is committed to responsibly hosting the Campus** and supporting the local planning and coordination needed to move from vision to execution.



Utah's Capitol City, Salt Lake

The Innovation Campus is **anticipated to increase State and local revenues**, catalyze a multi-disciplinary skilled workforce (e.g., engineering, skilled trades, logistics, environmental compliance, quality assurance/quality control (QA/QC), radiation protection, emergency management), and provide intergenerational job security through long-horizon construction, operations, maintenance, and regulated-industry roles. The Innovation Campus will also **drive housing development and broader improvements** in transportation, utilities, broadband, and emergency response capacity, strengthening Utah's long-term infrastructure and resilience, and generating additional demand for local services and hospitality that can contribute to increased tourism and business travel.

Utah is also **committed to continuing engagement with Tribal Nations** throughout planning and operations with **an explicit focus on securing economic benefits for Tribal communities**. Innovation Campus economic opportunities include participation, and sustained collaboration to protect cultural and environmental priorities.



Utah State flag

Co-location benefits of a shared fenceline and shared infrastructure include:

- Lower cost, faster delivery: shared utilities and corridors reduce duplication and enable phased buildout.
- Coordinated grid and water systems: common interconnection plus shared intake, treatment, storage, and wastewater capacity.
- Streamlined logistics: shared heavy-haul access, internal roads, and staging areas for large components.
- Secure-by-design integration: coordinated secure communications and Campus monitoring while maintaining NRC-required separation of licensed facility safety/security systems.

Strategic Vision for a Utah Nuclear Lifecycle Innovation Campus

Utah's strategic vision is to rapidly and safely design, build, and operate an Innovation Campus that embraces the full scope of nuclear lifecycle functions to provide a strategic space for bold advancements by our private and research partners with initial operation online by 2027. Utah is uniquely positioned to co-locate many of the lifecycle functions behind a shared fenceline on State-held-trust lands, enabling end-to-end coordination across planning, development, construction, operations, security, and supporting services. If co-location of certain operations is not technically viable, Utah will coordinate with DOE and our private partners on requirements for deliberately integrating offsite operations into the broader Campus ecosystem through defined interfaces, governance, logistics, and infrastructure connectivity so they operate as part of a single, cohesive Innovation Campus enterprise.

A Full Nuclear-Lifecycle Campus

Utah welcomes all aspects of the nuclear lifecycle as DOE has outlined in Section II of the RFI. Through Utah's existing nuclear ecosystem, the **State currently operates in most aspects of the lifecycle.** The following sections outline Utah's existing capabilities in all 17 of the functions listed in the RFI.



▲ *The EnergySolutions facility in Clive*

01. Nuclear Fuel Reprocessing or Recycling

Utah recognizes that the U.S. has not operated commercial UNF reprocessing for decades and that restarting it will require a deliberate, phased path that proves technical performance, economics, safeguards, and regulatory compliance. Utah is **well positioned to support that path through proximity to, and long-standing collaboration with, INL** and its DOE used-fuel research capabilities, coupled with in-state research capacity at the University of Utah and applied facilities and **subject matter expertise** at the USREL. Together, these assets can help mature industrially scalable, proliferation-resistant separations and recycle approaches that integrate "safeguards-by-design" (materials control and accountability, security, and monitoring) from the outset.

As part of the Innovation Campus, **reprocessing and recycling capability could create material and operational synergies with adjacent Campus elements**, such as: fuel fabrication (recovered materials feeding qualified fuel fabrication pathways) and waste management (segregating and conditioning waste streams into engineered waste forms to support compliant storage and disposal). Utah is prepared to convene public–private and federal partners to define a realistic development sequence, from bench and pilot demonstration through a licensable commercial concept, while ensuring that infrastructure needs (power, water, hot cells, chemical processing, and integrated waste handling) and workforce requirements (chemists, nuclear engineers, and process operators) are planned in parallel.

02. Disposition of Waste Streams

Utah has a **long history of safe and compliant disposal** of nuclear waste streams. **Tooele County in particular has hosted EnergySolutions' Clive disposal facility, which disposes of LLW, since 1988**. Utah brings a depth of technical and regulatory experience as well as demonstrated public acceptance of LLW disposal and storage, which can be leveraged where appropriate to support safe, compliant management of certain waste streams associated with the Innovation Campus. Utah is prepared to partner with DOE to evaluate safe, compliant pathways for interim storage, recycling-enabled management, and eventual final disposition of the waste streams from the Innovation Campus and, as needed, national nuclear waste streams. Utah has **begun a review of the Corridor's capability to host interim and long-term storage** within reasonable distance of the Innovation Campus and is open to further exploration of geologically suitable locations and the monitoring processes that would be required for long-term stewardship. Utah intends to coordinate with DOE and our partners to efficiently **perform a full-Corridor characterization and formal feasibility studies.** Utah's preliminary approach is to integrate disposal planning early, alongside community engagement and permitting strategy, while advancing additional detail as described in ***Question 10: HLW Management, Treatment, Storage & Disposal***.

Utah also recognizes that, under current federal regulations, governance, ownership, and control of UNF and high-level waste (HLW) are federal responsibilities. Accordingly, Utah anticipates DOE would lead development, licensing, and operational oversight of any HLW and UNF long-term storage or disposition solutions with Utah providing siting collaboration (including land where appropriate) and facilitating coordination among DOE, NRC, and State regulatory authorities to clarify roles and interfaces. For LLW, Utah sees potential value in a separate, fit-for-purpose strategy, leveraging existing in-state disposal and storage capabilities near the Innovation Campus where feasible, while planning for expanded LLW capacity to support regional nuclear activity—supported by the necessary enabling infrastructure (transportation and logistics, engineered barriers, long-term monitoring, and emergency preparedness) to ensure the enduring safety and viability of the Innovation Campus.

03. Fuel Fabrication for Fresh & Reprocessed Materials

Utah will leverage the Innovation Campus as an **opportunity to expand U.S. fuel-cycle capacity by siting secure, NRC-compliant fuel fabrication and advanced fuel development capabilities** that can supply **emerging SMRs** and other advanced reactors deployed on Campus and across Utah, as well as the broader region. Consistent with the RFI's scope, Utah is open to fabrication pathways spanning low-enriched uranium (LEU) and high-assay low-enriched uranium (HALEU) fuels, and, where federally authorized, appropriately licensed, and aligned to national policy, select reprocessing-enabled concepts (e.g., mixed oxide (MOX) and transuranic (TRU)[4] fuels) and advanced fuel forms (e.g., tri-structural isotropic (TRISO), metallic and fast-reactor fuels). Utah's intent is to support both civilian and national security objectives by enabling fuel forms that improve performance, safety, and supply-chain resilience, while maintaining clear governance, safeguards, material controls, and physical protection requirements.

Utah brings relevant industrial experience and an established nuclear-adjacent manufacturing base: the State has produced nuclear-grade zirconium products since 1978 at the Westinghouse Western Zirconium facility in Ogden, which informs our workforce and supplier ecosystem aligned to precision manufacturing and stringent QA/QC. To execute fuel fabrication at the Innovation Campus, Utah anticipates the need for precision manufacturing space, hot cells, specialized gloveboxes, and shielded handling as required by fuel form and material. Additionally, the Innovation Campus will require robust QA/QC and non-destructive examination, alongside secure storage, shipping, and receiving integrated with safeguards and security expectations. Utah would expect partners to propose an **integrated workforce plan** covering manufacturing technicians, nuclear engineers, radiation protection, and quality assurance specialists, alongside **training pipelines and certifications** appropriate to the selected fuel types and regulatory pathway.

[4] TRU waste is radioactive waste that contains materials of alpha-emitting elements heavier than Uranium.



▲ *USREL, located in Emery County*

04. Conversion for Fresh & Reprocessed Material

Utah sees **conversion as a strategic Innovation Campus capability to strengthen the domestic fuel cycle** by transforming uranium concentrate into high-purity uranium hexafluoride (UF_6) for enrichment, supporting both LEU and HALEU pathways and enabling exploration of advanced conversion approaches that improve yield, reduce secondary wastes, and simplify downstream handling. Utah does not currently have UF_6 conversion capacity and there is only one conversion facility currently in the U.S. However, **Utah does host closely related, regulated chemical and radiological operations**, most notably the White Mesa Mill (San Juan County), which conducts uranium processing and provides a proven foundation of nuclear-material handling discipline, environmental compliance practices, and a workforce familiar with tightly controlled industrial processes. [2] [22]

05. Uranium Enrichment for Fresh & Reprocessed Uranium

A **co-located enrichment facility** within the Innovation Campus fenceline could directly benefit Campus-wide operations and innovation by **providing a direct source of inputs for the development of various nuclear fuels.** Utah is open to considering all manner of enrichment technologies and outputs but does recognize a notable market gap in the fabrication of HALEU-based fuels to meet the growing momentum behind SMRs and other advanced reactor technologies. As such, we anticipate a high likelihood that the Innovation Campus will be best leveraged for the enrichment and fabrication of LEU and HALEU-based fuels, among other types, and designed from the outset to meet stringent safeguards, security, and environmental requirements.

Utah currently supports an enrichment-focused ecosystem including experience in regulated uranium processing (e.g., White Mesa Mill in San Juan County), established hazardous-materials handling and emergency management planned operations (WGA), and planned uranium enrichment equipment manufacturing (General Matter). [23]



▲ *Salt Lake City*

06. Deconversion for Fresh & Reprocessed Material

Deconversion at the Innovation Campus would be **positioned primarily to support LEU and HALEU fuel pathways, while remaining open to other authorized fuel forms**, with fit-for-purpose chemical processing, secure UF_6 cylinder receipt, handling, and storage, reduction and conversion furnaces, powder processing, and waste treatment designed to meet safeguards, security, radiological safety, and environmental requirements. Integration can also improve by-product management. For example, some deconversion approaches recover hydrogen fluoride (HF) for reuse or sale, further strengthening the Campus value proposition. [24]

07. Data Center Construction & Operations

Utah recognizes that nationwide data center buildout is a primary driver of accelerating electricity demand and a key catalyst behind renewed interest in firm, clean energy generation, including nuclear. Utah **passed S.B. 132 in 2025, which establishes the State's policy on serving large energy users**, and addresses their needs while protecting ratepayers. We are **open to co-location of a data center** on the Innovation Campus, as it aligns with Operation Gigawatt's mission and can be implemented with separate permissions, access controls, and security perimeters while still benefiting from the availability of reliable, firm power from an on-site advanced reactor and the broader secure Campus environment. [25]

Utah **already hosts major data center operations near Tooele County**, underscoring regional suitability and market interest. Notably, the nearly 300 megawatt (MW) Meta data center in Eagle Mountain (Utah County) and the National Security Agency (NSA) Utah Data Center (UDC) in Bluffdale (Salt Lake County) are both near Tooele County. [26] These nearby examples **demonstrate Utah's existing operational footprint and experience with high-security, high-reliability digital infrastructure**, capabilities that can be leveraged to support nuclear-powered data center concepts if they are pursued in the Innovation Campus' vicinity. [27]

08. Advanced Reactors

Utah is already progressing multiple pathways for advanced reactor deployment and views the Innovation Campus as a **potential testbed and siting option that can pair firm nuclear generation and/or process heat with co-located energy-intensive uses** (e.g., fuel-cycle activities and data centers). Utah is advancing modern management approaches for advanced reactors by supporting a collaborative effort between INL and the University of Utah to develop a high fidelity digital twin of the University's TRIGA (Training, Research, Isotopes, General Atomics) research reactor. As the nuclear industry increasingly adopts digital tools to strengthen safety, improve operational efficiency, and enable predictive maintenance, this digital twin will provide a real-time virtual replica that enhances operational decision-making while expanding the reactor's value for education, research, and training.

In addition to the Valar Atomics Ward250 microreactor hosted at USREL in Emery County, Utah has **developed the permitting, stakeholder coordination, and project delivery capabilities** needed to support efficient implementation in partnership with DOE and qualified private developers. [28]

The vision for Utah's advanced reactor ecosystem, includes: fleet deployment of Holtec's SMR-300 at Brigham City, with affiliated manufacturing; NuCube Energy, which plans to test a fission microreactor concept at USREL; EnergySolutions' work with IPA and the State to explore advanced nuclear generation (including molten salt SMRs); and a State-supported effort with TerraPower to investigate potential sites for a Natrium® reactor and energy storage plant. **Collectively, these efforts position Utah to host one or more advanced reactors, potentially on the Innovation Campus itself, supported by a growing in-state workforce pipeline** (including the University of Utah's nuclear program) and an active State convening role to align public and private partners. [29] [30] [31] [32]

09. Uranium Mining & Milling

Utah is **uniquely positioned to operationalize and scale uranium mining and milling** as part of a domestic nuclear fuel supply chain, anchored by Energy Fuels' White Mesa Mill, **the only operating conventional uranium mill in the U.S. and a critical capability for producing triuranium octoxide (U_3O_8)** from mined ore. In addition to uranium milling, White Mesa has expanded into rare earth element processing including separation of monazite into rare earth oxides, further reinforcing Utah's role as a processing hub with an experienced workforce and established infrastructure. [2]

On the mining side, Utah has **active and permitted assets that can feed a sustained pipeline of ore** to in-state processing. Energy Fuels' La Sal Complex (including the Beaver and Pandora mines) restarted mining in late 2023, with ore stockpiled at the mine sites and transported to White Mesa for processing; the complex has a track record of operating in response to market conditions. [3] Utah also includes the past-producing, fully-permitted Daneros Mine in San Juan County, where Energy Fuels operates under a toll milling agreement to process ore at White Mesa, illustrating additional in-state optionality to expand supply as demand signals strengthen. [33] While the Innovation Campus may not share a fenceline with these assets, its **proximity to established mining and milling operations** can **reduce first-mover risk** and enable a pragmatic pathway to bring processed U_3O_8 (and/or intermediate materials, as authorized) into downstream conversion, enrichment, deconversion, and fuel fabrication activities as Innovation Campus capabilities come online.

▼ *White Mesa Mill in San Juan County*





▲ *Scientist working at Nusano, Inc.*

10. Isotope Production for Medical, Industrial, & National Security Applications

Utah has active, relevant isotope operations that the Innovation Campus can build on to stand up medical, industrial, and national security isotope production with lower execution risk. Commercially, Nusano has established a 190,000-square-foot accelerator-based radioisotope production facility in West Valley City designed to produce 40+ radioisotopes, demonstrating in-state experience with isotope-focused engineering, regulated radiological operations, and scale-up planning. [34] On the academic and clinical side, the University of Utah's Huntsman Cancer Institute operates cyclotron and radiochemistry laboratories (GE PETrace 890 cyclotrons) producing positron emission tomography (PET) radiopharmaceuticals for research and clinical applications. These activities are directly aligned to the radiochemistry, quality, and clinical-grade handling disciplines the Innovation Campus would need for medical isotope programs. [35]

Operationally, these capabilities provide **a foundational base of radiochemists, nuclear engineers, medical physicists, and production technicians with operational knowledge in hot-cell handling, radiochemistry, QA/QC, radiation protection, and time-sensitive distribution**. Leveraging this foundation, the Innovation Campus can more credibly host accelerator- or reactor-based isotope production supported by the requisite hot cells, radiochemistry labs, secure storage, and controlled packaging and distribution, helping to strengthen domestic resilience for priority isotope supply chains across civilian and defense needs.

11. Advanced Manufacturing & Other Support Industries

Utah has **demonstrated experience with the depth of advanced manufacturing and industrial clustering** required for the Innovation Campus. Utah has existing advanced manufacturing capabilities spanning precision aerospace structures, energetics, semiconductors, and specialty components across established hubs near Tooele County and beyond. In northern Utah, Northrop Grumman's Promontory facility is a major, long-running manufacturing site for large solid rocket motors and related energetics and pyrotechnics including development, testing, and hazardous-waste treatment capabilities, evidence of Utah's ability to sustain complex, regulated production at scale. [36] The Janicki Industries Layton facility provides precision composites machining, including large, complex carbon-fiber and aluminum structures, with specialized equipment, underscoring Utah's capacity for tight-tolerance component fabrication relevant to advanced energy systems supply chains. [37]

Additionally, Utah's **semiconductor manufacturing footprint adds a complementary backbone for controls, instrumentation, power electronics, and high-reliability components**. Texas Instruments' Lehi operations are undergoing a major expansion with a new 300mm wafer fab (LFAB2), positioning the State within critical domestic chip supply chains. [38] Finally, specialty component firms, such as National Laser Company in Salt Lake City, manufacturing and integrating laser and optoelectronic systems illustrate the presence of niche, high-precision suppliers that can support sensing, inspection, and advanced manufacturing processes tied to Innovation Campus needs. Collectively, these existing industrial anchors mean Utah can catalyze additional secondary and tertiary support industries regionally without requiring all manufacturing to sit inside a shared fenceline. The presence of these high-skill industries also means Utah has the associated **workforce and the infrastructure to meet the needs of broad secondary and tertiary industries needed to support the Campus**.

Utah is also specifically aware of the housing and support services necessary to operate industrial hubs. New housing developments are currently underway across Tooele County. The detailed infrastructure approach is addressed in *Question 4: Site Infrastructure Requirements*, and the workforce plan is detailed in sub-section *13* of this section.

12. Proliferation Resistance through Advanced Safeguards, Material Control, & IAEA Compliance

Utah is strongly equipped to support the Innovation Campus in implementing proliferation resistance through robust, state-level radioactive materials oversight and mature radiation-control capabilities. As an **NRC Agreement State, Utah has long-standing delegated authority to regulate a broad range of radioactive materials** within its borders, providing an established compliance framework and inspection capability that can align with DOE requirements and Campus-specific safeguards-by-design decisions. DEQ, through DWMRC, already licenses and inspects the use of byproduct, source, and certain quantities of special nuclear materials and oversees transportation of radioactive materials, creating a direct, relevant foundation for material control expectations in a co-located innovation environment. [39]

Building on its regulatory base, Utah will partner with DOE and private, academic, and research Campus tenants and operators to **establish an integrated approach that couples facility security and material protection, control, and accountability with a safety-and-regulatory backbone grounded in the Utah Radiation Control Act** best-practice exposure-minimization principles. [40] [41] Utah recognizes the ongoing efforts to revise federal nuclear standards, and stands prepared to efficiently enact whatever finalized requirements will apply to the Innovation Campus. DWMRC's program features permitting, licensing, and oversight that meet national standards along with a dedicated radiological incident response team compatible with federal guidelines. These elements suit a Campus model with multiple tenants, shared infrastructure, and increased security needs. While International Atomic Energy Agency (IAEA) safeguards are implemented at the national level, Utah's role is to provide the on-the-ground regulatory execution, inspection discipline, and incident readiness that enable DOE-led compliance and safeguard objectives to be operationalized at the Innovation Campus. Further details related to the State's security approach for the Innovation Campus are provided in *Question 12: Environmental & Safety Stewardship*.

▼ *USREL, located in Emery County*





Fabrication is part of Utah's industrial workforce

13. Workforce Development

Large-scale, cross-industry job creation is a primary economic benefit of hosting the Innovation Campus. Utah brings an existing highly skilled workforce, including deep construction, advanced manufacturing, engineering, and operations talent. The State is committed to supporting and facilitating the upskilling required to meet the Campus' requirements and development timeline. **Utah's workforce strategy builds capacity quickly while sustaining a long-term pipeline, ensuring local communities can access Campus jobs from initial construction through operations and eventual decommissioning.** Below is a summary of Utah's workforce strategy. Additional details are provided in *Question 21: Additional State Information*.

Workforce Needs & Availability

Utah estimates that a fully developed Innovation Campus could **create ~5,000-10,000 permanent jobs** to support ongoing operations spanning specialized nuclear science, engineering, and operations roles, as well as broad site functions including physical and cybersecurity, administration, and facilities services. Additionally, an estimated **~10,000 to 30,000 indirect jobs** could be created to support construction, supply chain, and community services, enabling new cross-industry opportunities for our citizens. For example, the creation of numerous full-time equivalent (FTE) construction positions may be met in part or in whole by **upskilling Utah's ~140,000-person construction workforce**. These high-level, preliminary estimates are informed by precedents from other complex nuclear and industrial projects, as well as subject matter input from partners like INL. While Utah's current nuclear workforce is small, analysis from Utah's Nuclear Energy Workforce Needs Assessment (NEWNA) performed for OED in 2025-2026 **identifies ~5,000 workers already in "nuclear priority occupations" who are positioned to transition into expanded nuclear and Campus-related roles**.

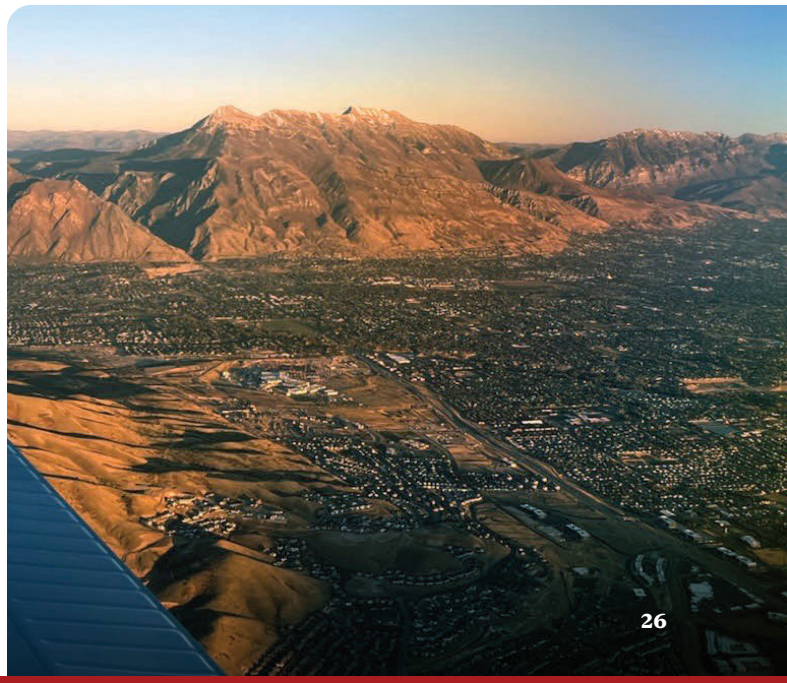
Vocational Training (Near-Term Pipeline)

Near-term workforce readiness will be driven by **rapid upskilling of existing trades** in coordination with the Utah Building and Construction Trades Council and construction unions, leveraging and expanding established union training facilities and programs. Utah will also partner directly with employers through USHE workforce platforms, particularly Utah Works and Custom Fit, which helps employers design and deliver short-cycle, job-specific training to quickly qualify or upskill workers for in-demand roles. In addition, Utah's MOU with HTS and Holtec includes **plans to develop a Center for Energy Research and Training (CERT) with local educational institutions, creating a dedicated pathway to build nuclear-relevant capabilities** (beginning with areas such as dry cask welding).

Higher Education & K–12 (Long-Term Pipeline)

In parallel, Utah is **expanding higher education pathways needed for advanced operations and R&D**, including assets such as a NRC-licensed TRIGA reactor at the University of Utah and the associated reactor digital twin for additional training opportunities, as well as nuclear-related research and energy workforce development initiatives at Utah State University, Brigham Young University, and Weber State University among others. The State is also accelerating collaboration with laboratories (including an MOU with INL) and evaluating additional training and test capacity at the USREL while investing in K–12 STEM outreach to build early energy and nuclear literacy and sustain a multigenerational pipeline that supports the Innovation Campus over decades.

Northern Utah County



14. Safety

Utah will support the Innovation Campus in meeting the DOE's safety expectations through a **layered approach** that combines **continuous radiological monitoring, strong regulatory oversight, and coordinated emergency preparedness and community engagement**. As an NRC Agreement State, DEQ, through DWMRC, provides an established capability to license and inspect radioactive material uses and enforce radiation protection requirements, creating a strong foundation for day-to-day safety governance. Utah will collaborate with DOE, Campus operators, and State and local partners, including the Utah Department of Public Safety (DPS) Division of Emergency Management (DEM) to align incident response plans, exercises, and public notification protocols and to maintain transparent communication with surrounding communities. Additional detail is provided in *Question 12: Environmental & Safety Stewardship*.

15. Environmental Stewardship

Utah will advance environmental and public health stewardship for an Innovation Campus by **pairing baseline characterization with continuous, multimedium monitoring and transparent community engagement**, distinct from emergency response-focused safety planning. Utah will work with DOE and Campus operators to establish pre-operational baselines and then deploy ongoing air, water, and (as applicable) soil and groundwater monitoring and radiation detection around key operational areas with defined sampling plans, QA/QC, and clear thresholds for investigation and corrective action. This approach will be implemented in compliance with applicable federal and State requirements (including DOE and National Environmental Policy Act (NEPA) processes, and DEQ permitting and oversight), and will incorporate secure, auditable data management to keep monitoring results reliable and decision-ready.

To build and maintain public trust, Utah will **support proactive public engagement** such as regular community briefings, accessible outreach channels, and, where appropriate, a community advisory mechanism, and encourage timely sharing of monitoring findings in plain language. Expected **infrastructure will include environmental monitoring stations, integrated radiological monitoring systems, and community-facing engagement capabilities**. The corresponding workforce would include environmental scientists, radiological and safety professionals, and



▲ *Utah's rail network connects urban centers to regional and national corridors*

community liaisons to ensure monitoring, compliance, and communication remain integrated over the Campus lifecycle. Additional detail is provided in *Question 12: Environmental & Safety Stewardship*.

16. Secure Transportation Networks

Utah recognizes that secure, compliant transportation of nuclear and radiological materials (e.g., UF_6, fresh fuel, UNF, isotopes, and LLW) is foundational to the Innovation Campus's long-term viability as a regional hub. **Utah and Tooele County have experience with compliant radioactive material transportation** through regular LLW shipments to the Clive disposal facility. Additionally, Utah has supported coordination on TRU shipments to WIPP in New Mexico. Utah will leverage this operating experience, together with established regional coordination practices reflected in the WGA Radioactive Materials Management resolution, to inform route selection and controls, stakeholder coordination, responder readiness, and consistent public communication for Innovation Campus-related shipments.

Building upon this foundation, Utah will work with DOE, U.S. Department of Transportation (DOT), NRC, regulated shippers and carriers, rail operators, and State and local partners to implement a transportation concept of operations tailored to the Innovation Campus. The concept of **operations will include designated routes and staging areas, vetted carrier and driver programs, shipment visibility (tracking and monitoring), coordinated incident response protocols and exercises, and security measures aligned to leading safeguards.** Utah will continue Corridor-level assessments of rail and roadway capacity and conditions to identify needed infrastructure upgrades, access controls, and operational constraints and will support the workforce required to execute safely at scale over the lifecycle of the Innovation Campus. Additional information related to transportation corridors near the Innovation Campus can be found in *Question 13: Transportation Corridors*.

17. Decommissioning & Site Remediation

Utah will require decommissioning, closure, and remediation obligations for Innovation Campus facilities to be planned, contractually defined, and fully funded from the start of the project lifecycle with **restricted, auditable financial assurance** sized to facility-specific cost estimates and refreshed on a regular cycle (initially every 2–3 years, moving to annual updates as decommissioning approaches). For NRC regulated facilities, Utah would expect private operators to meet all NRC decommissioning and financial assurance requirements such as segregated decommissioning trust funds and/or equivalent instruments, supplemented early as needed by surety bonds, letters of credit, escrowed reserves, or parent guarantees. For other Campus facilities (e.g., fuel cycle, hot cells, waste handling, test facilities), Utah would expect binding closure plans and assurance mechanisms calibrated to each facility's risk and regulatory structure. Utah does not intend to assume decommissioning liabilities or serve as a backstop; owners and operators remain responsible for performance and funding through closure.

For interim waste management, Utah will require that waste ownership, custody, and cost responsibility be clearly assigned in Campus governance and contracting, so obligations remain with the waste-generating party and are not shifted to other tenants or the public. Financial assurance should cover storage, monitoring, packaging, transfer, and disposition until waste is accepted by the appropriate counterparty. Where DOE-managed storage or federal disposition responsibilities apply, for example, long term waste, Utah would work with the appropriate federal authorities and provide a supportive coordination role on decommissioning and site remediation.

State-wide Economic Development

Utah **welcomes the Innovation Campus and recognizes it as a high-impact opportunity to strengthen the State's economy** through both direct activity and broader spillover activities (as illustrated in *Figure 1* on the next page). By building enabling infrastructure, roads, power interconnects, water systems, rail and transport interfaces, communications, and shared site services, the Innovation Campus can expand demand for Utah-based contractors, manufacturers, and professional services. This will help diversify and deepen local supply chains and create durable opportunities for small and mid-sized businesses across construction, skilled trades, fabrication, logistics, security, environmental services, and engineering. Over time, these repeatable procurement relationships and infrastructure upgrades can broaden the local tax base, create secondary job growth, and improve regional competitiveness for adjacent industries that value reliable energy and connectivity.

Utah also views the Innovation Campus as an anchor for a growing industrial and innovation cluster, attracting advanced manufacturers, engineering, procurement, construction (EPC) firms, and startups seeking to pilot and commercialize solutions across the nuclear and broader energy ecosystem. If managed well, this growth can accelerate community development in Tooele County and nearby areas, supporting housing, hospitality, retail, and expanded public services, while delivering quality-of-life benefits from shared transportation, energy, and digital infrastructure modernization. Additionally, we expect the Innovation Campus will drive advancements in the nuclear industry throughout the West. In parallel, Utah expects the talent needs of the Innovation Campus to spur sustained investment in education and workforce development, creating long-term career pathways for Utahns and building enduring training and research capabilities that benefit the State, region, and nation well beyond the initial buildout.

▼ *Northern Utah County*

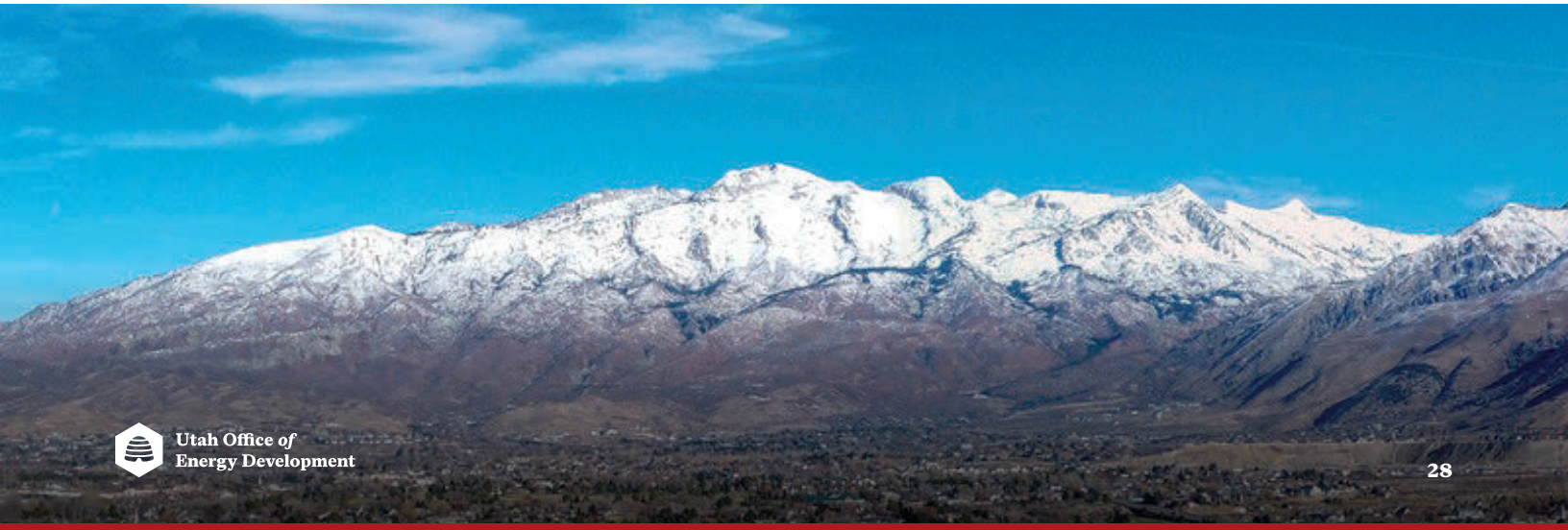
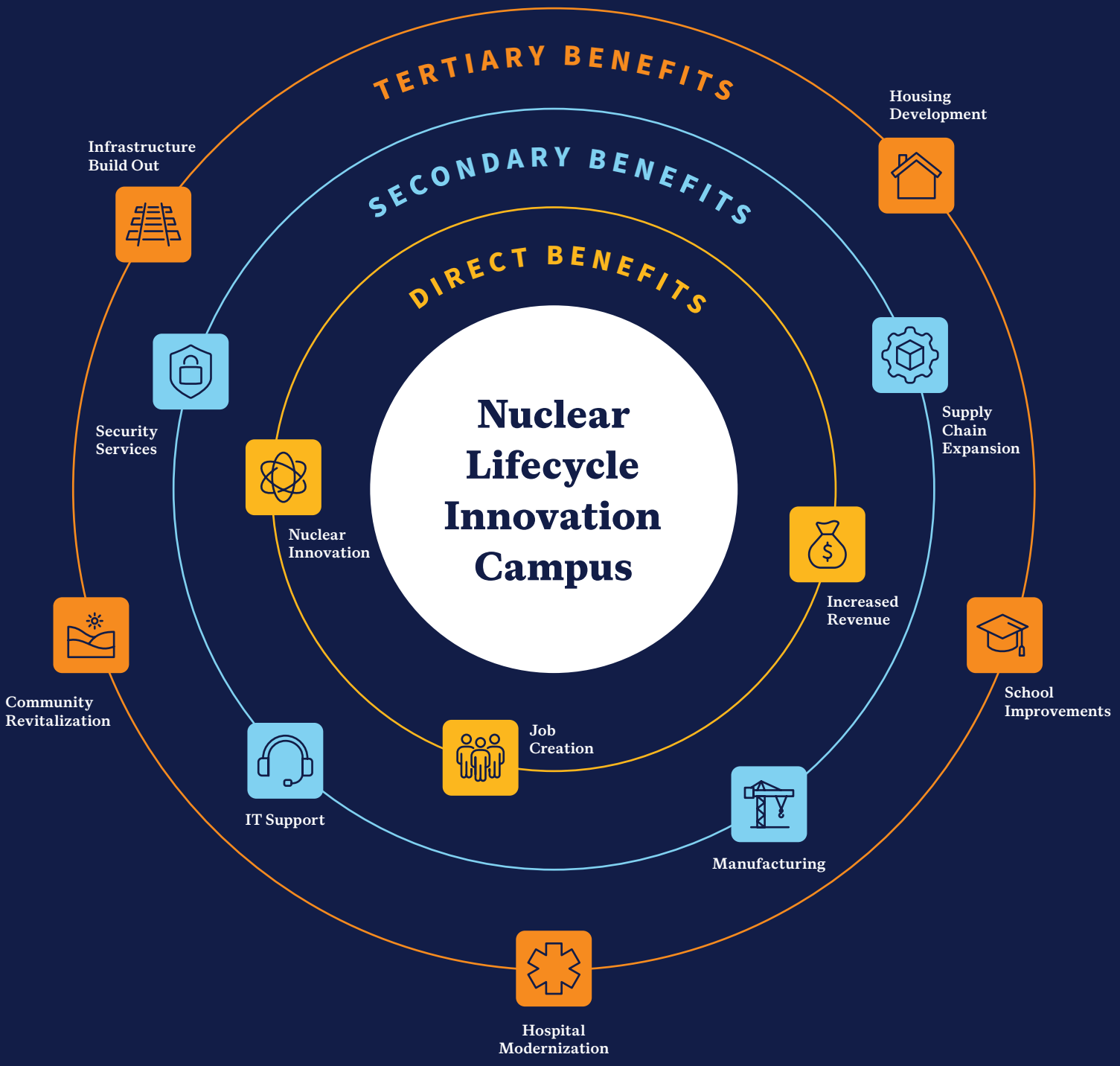


FIGURE 1 | ECONOMIC DEVELOPMENT BENEFITS OF A NUCLEAR LIFECYCLE INNOVATION CAMPUS





▲ *Salt Lake City*

Hosting Requirements

Utah recognizes that achieving our full vision for the Innovation Campus will require significant investment. In line with DOE guidance in the RFI, Utah **intends to prioritize private and State capital to fund the development of the Innovation Campus**. Several existing State financial mechanisms are available to support Campus development including tax credits, public infrastructure districts and bonding, and special nuclear innovation zones, as outlined in the recently passed S.B. 135. Additionally, we look forward to collaborating with the federal government on funding allocations for infrastructure and industrial activities such as fuel reprocessing. Utah is aware of certain federal regulatory frameworks, including 10 CFR Part 71 and 72 and the Nuclear Waste Policy Act (NWPA), that may encumber the development of a co-located Innovation Campus, but looks forward to collaborating with the federal government on efficient and safe solutions. Further details regarding the State's financial strategy for the Innovation Campus are available in *Question 14: Proposed Agreement Framework*, *Question 22: Financial Responsibility, Cost Sharing, & Assurances*, and *Question 23: Revenue Sources & Cost-Recovery Approaches*.

02

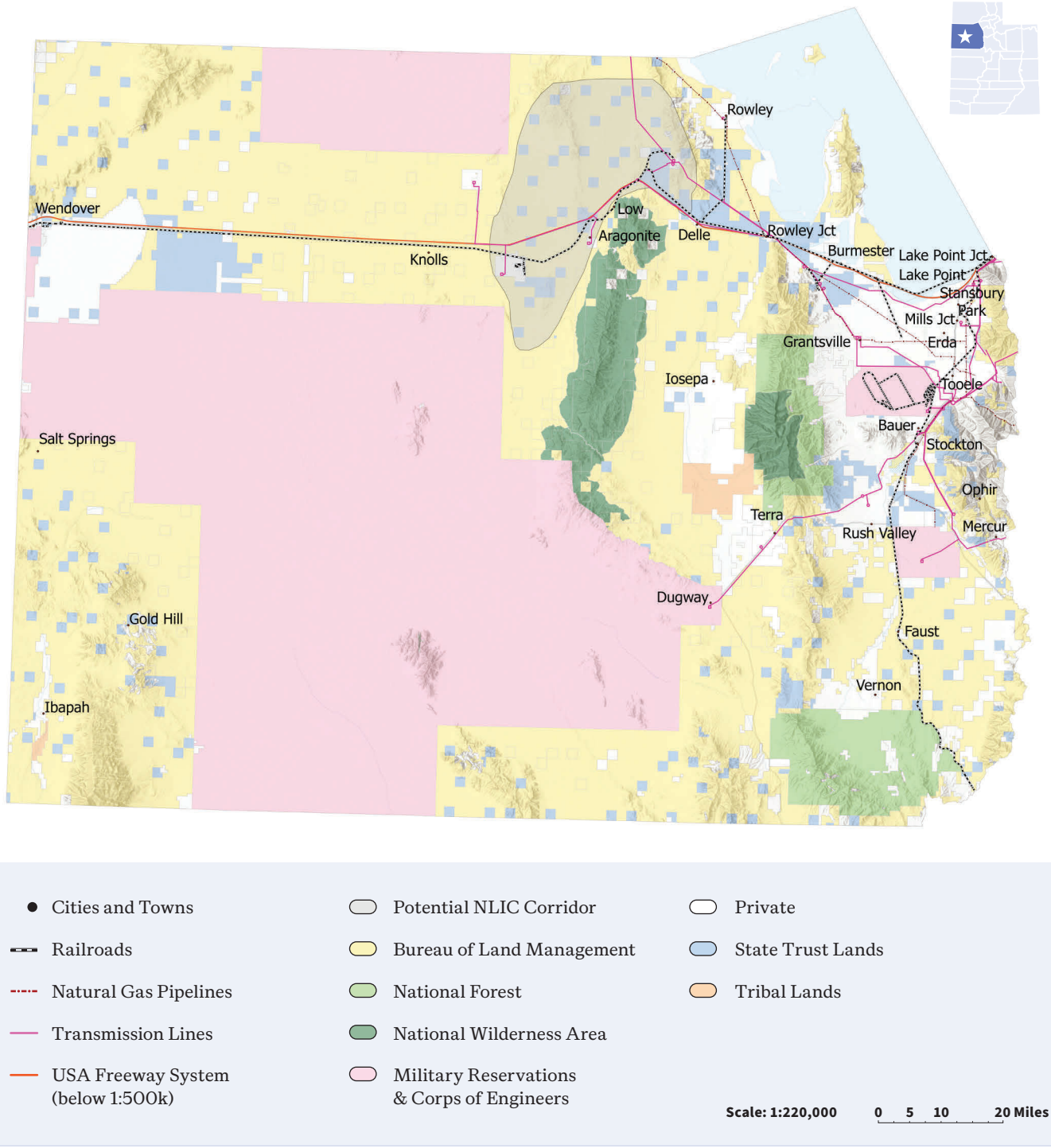
Proposed Sites Within the State

What specific sites within your state would you propose for hosting a Nuclear Lifecycle Innovation Campus, and why are they viable and suitable for the necessary functions? Please consider existing nuclear infrastructure, proximity to DOE sites, land availability, zoning, and environmental suitability. Include details on site characteristics, such as maps, geologic stability, access to utilities, and transportation networks.

Proposed Sites Within the State

Utah has identified the Corridor as a preliminary location of interest for the Innovation Campus and all related functions, including a long-term storage facility suitable for HLW and UNF. A representation of the lands included in the Corridor is mapped in *Figure 2*.

FIGURE 2 | TOOELE COUNTY CORRIDOR





▲ *Tooele County*

Few areas in the U.S. offer the combination of land availability, necessary storage climate, transportation access, and proximity to workforce required to support an Innovation Campus. Based on initial assessments, **the Corridor is strongly suited to support the necessary functions of the Innovation Campus given key land availability, community support, infrastructure, and environmental characteristics present in the region**. The Tooele Corridor enables Utah to serve as a regional hub for nuclear deployment across the Intermountain West, anchoring neighboring industry through shared capabilities and workforce development. While Utah is confident in the benefits associated with the site, the analysis is preliminary and not a final determination. Additional detailed characterization is necessary to define exact site locations. If necessary, Utah remains open to exploring additional options across the State and the benefits these alternative options may provide.

Land Ownership

The Corridor includes lands currently owned by the TLA that could potentially host all Innovation Campus functions, including a long-term storage site, if leased to the State or transferred to State ownership. TLA is an independent State agency that manages its lands solely for the purpose of maximizing economic return for its beneficiaries, such as Utah's public school system. **The TLA has an extensive history of facilitating purchase, sale, lease, or exchange agreements to enable high-priority projects while also maximizing return for its beneficiaries**. For example, in 2024 TLA issued major mineral rights leases to private operators for rare earth mining at Utah County's Silicon Ridge. [42]

The State and TLA have executed an MOU to explore the potential sale or lease of TLA lands within the Corridor to the State should DOE award an Innovation Campus to Utah (*Appendix 2: Governmental MOUs*). Currently, the State and TLA have not entered into any binding contracts or agreements for the sale or lease of any TLA land to the State for the purpose of establishing an Innovation Campus. Any agreement between the State and TLA to site an Innovation Campus on TLA land will ensure proper compensation to TLA's beneficiaries.

Size

The Corridor **covers a total of nearly 195,000 U.S. Survey Acres or just over 300 U.S. Survey Square Miles**. Of that land area, just under 30,000 U.S. Survey Acres, or approximately 50 U.S. Survey Square Miles, is controlled by TLA. Specific parcels of land within the Corridor that could be explored as potential Innovation Campus site candidates include two large parcels of grouped TLA lands, one in the central part of the Corridor along the eastern edge and another further southwest. Beyond these two groupings, the remainder of TLA land in the Corridor is distributed across a series of isolated plots approximately one square mile each.

Based on initial analysis in collaboration with our engineering partners, Utah estimates the behind the fenceline activities of the Innovation Campus, including generation, processing, reprocessing, R&D, and the data center, will require an area of less than ten square miles. Utah anticipates collaborating with DOE on the final size and requirements of the long-term storage site; however, **based on initial analysis there are sufficient State-held trust lands in the Corridor to support the site**. Further details are available at the end of *Question 4: Site Infrastructure Requirements*.

▼ *Ogden from Malans Peak*



Proximity to Existing & Potential Nuclear Infrastructure

Due to the differing requirements needed for the operations of the Innovation Campus and the long-term storage facility, it may be preferable to site them in close proximity, but not within the same fenceline. **Siting the facilities within 25 miles** minimizes travel time, **allows for greater security coordination and reduces the amount of necessary infrastructure expansions, thereby reducing costs and timeline delays**. Of the isolated TLA parcels mentioned above, initial analysis indicates there are multiple locations in the Corridor near (approximately 25 miles) the larger TLA blocks that could be explored for suitability as a long-term storage location.

Sites selected within the Corridor may **benefit from proximity to the Clive disposal facility**, including potential shared transport corridors, community familiarity with nuclear operations in the area, and leveraging lessons learned and best practices from the LLW facility's development to help jumpstart the Innovation Campus.

Community Support

Utah has been proactively engaging with local communities, including Tooele County, on civil nuclear energy well before the RFI announcement and views community support as a differentiating strength. As an indication of this support, the Tooele County Council has adopted a resolution expressing their support for hosting an Innovation Campus in Tooele County (see page *04* for Tooele County Resolution). The same resolution also expresses support for long-term storage facilities within Tooele County if long-term storage is built in conjunction with an Innovation Campus and its related community benefits. This support is shared by municipal leaders from Erda City, Grantsville, and Tooele City, the county's three largest cities, as well as Tooele Technical College, Tooele County School District, and the Tooele County Chamber of Commerce, all of whom have provided letters of support (available in *Appendix 1: Letters of Support*).

Strong public support for the Innovation Campus and its anchoring functions, such as long-term storage, is essential for both the immediate implementation and long-term success of the Campus. This support will help streamline development timelines by mitigating public-driven delays and litigation, which will in turn strengthen the confidence of regulators and potential private partners and sustain a social license to operate over time and across leadership changes. Utah's engagement with the local citizens began by studying public perception of nuclear activities in 2025 with initial county-level polling efforts to better understand community knowledge of and perspectives on nuclear energy. These studies have shown favorable sentiment toward nuclear development when communities are provided with clear information regarding safety, economic benefits, and environmental impacts. In a sample of over 200 community members surveyed in Tooele County, about 70% had a favorable perception of the value of nuclear energy as a resource for Utah today and in the future, and 88% had a favorable perception of the economic benefits nuclear activities can bring to their community and the State. Further detail on our community engagement plan for the Innovation Campus is outlined in *Question 9: Stakeholder Engagement Strategy & Cooperation Mechanisms*.



▲ *Train from the Jordan Narrows outside of Lehi*

Workforce Availability & Population Density

The location proposed for Utah's Innovation Campus strikes a balance between maintaining proximity to a skilled workforce and reasonable distance from areas of high population density for feasibility and regulatory compliance. *Figure 3* on the next page illustrates the population density of Tooele County mapped to permanent residents, including areas within the Corridor, according to 2020 census data. Based on an initial assessment, the Corridor appears to align with guidelines for population density and population center distance from nuclear activity as set forth in 10 CFR Part 50, 10 CFR 72 and 10 CFR 100. These distances are illustrated in the population density map in *Figure 3* on the next page as well as in *Appendix 5: Additional Maps*. The eastern end of the Corridor is within an hour's drive of nearby cities such as Grantsville and Tooele City, which are anticipated to serve as popular destinations for the recruitment and relocation of Innovation Campus employees.



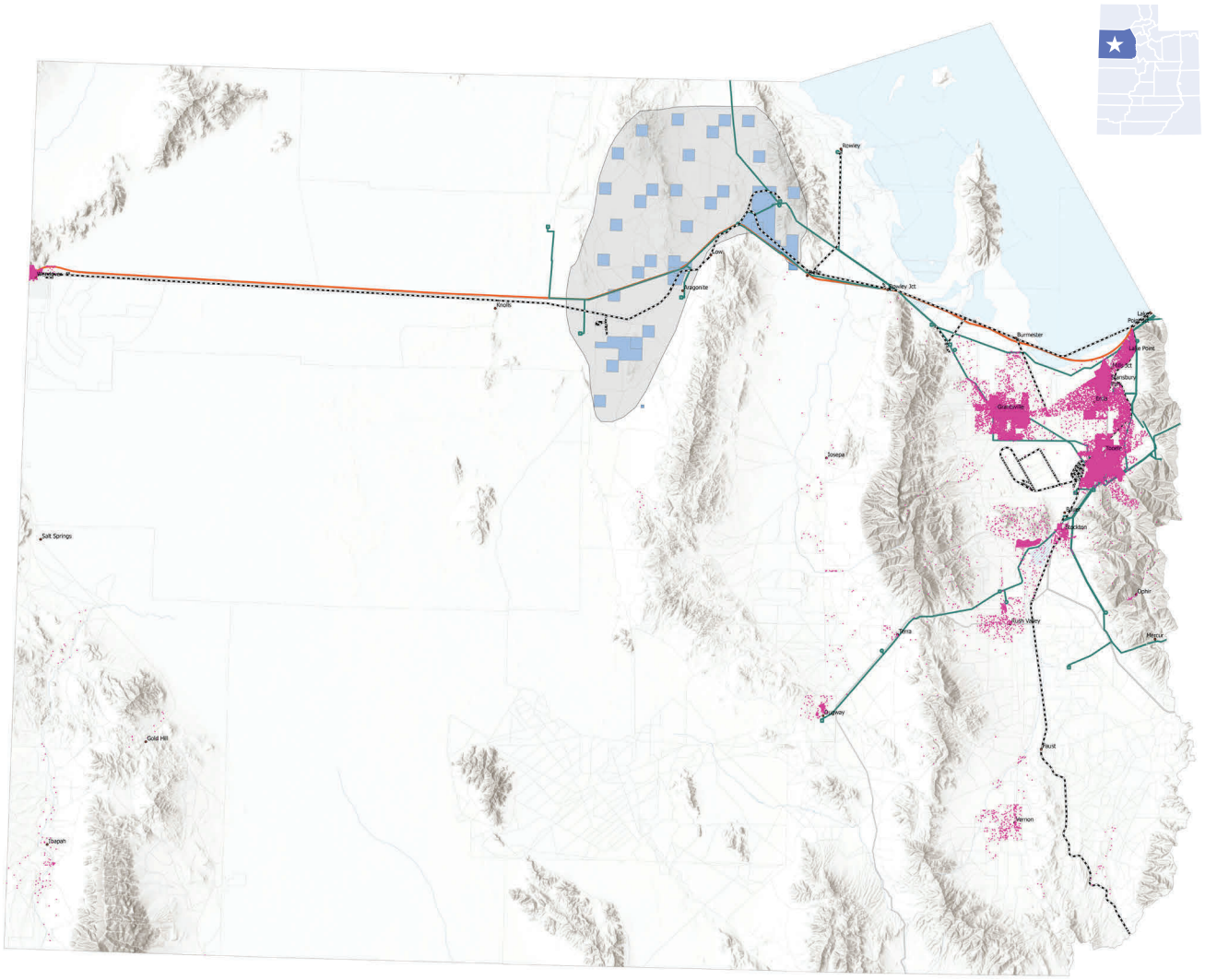
STEM Day on the Hill 2026

Since workers will move to nearby communities in response to opportunities created by the Innovation Campus, local facilities and amenities, particularly housing, must be able to accommodate the population influx. **Grantsville**, whose Mayor provided a letter of support for the Innovation Campus, is the **second largest city in Tooele County and also one of its fastest growing, with an average 4.48% population growth rate**. Grantsville has already shown openness to expanding housing availability, with multiple preliminary applications for subdivisions having been approved by the local Planning Commission in recent months. [43]

Tooele County



FIGURE 3 | TOOELE COUNTY POPULATION DENSITY (2020 CENSUS)



- City and Towns
- Railroads
- Transmission Lines
- USA Freeway System (below 1:500k)
- Potential NLIC Corridor
- SITLA land within NLIC Corridor

- *Population Density (2020 Census)*
  1 Dot = 1 Person

Scale: 1:220,000 0 5 10 20 Miles

Military Presence

Tooele County has an **established history with regulated industrial and defense activities** within and near its boundary, including the Tooele Army Depot, Wendover Air Force Base, Utah Test and Training Range (UTTR), and Dugway Proving Ground (DPG), the last of which conducts specific programs for chemical and biological defense training. Tooele County has also **previously hosted a chemical demilitarization program** at the Tooele Army Depot, which completed the safe elimination of the Depot's chemical weapons stockpile in 2012. [44] These activities have created **a community** baseline that is more familiar with federal oversight, hazardous material management, and large industrial employment than many rural Utah communities. It also creates expectations around transparency, direct community benefit, and honest communication about risk that the Innovation Campus developers will need to meet consistently.

Utah is aware that the presence of military operations, specifically a testing range, near the Corridor may introduce additional complexities and challenges. The State has engaged in initial conversations with representatives from the Department of War (DoW) to discuss the potential Corridor. The State will work cooperatively with DoW to resolve any operational concerns related to the Innovation Campus during the final site selection process.

Energy Grid

Reliable electrical supply is a critical requirement for all necessary functions of the Innovation Campus. **Utah's electrified grid is supported by a diversified generation fleet and a high-voltage transmission network** operated primarily by PacifiCorp and the State is **actively making ongoing investments** to continue strengthening this system through initiatives such as Operation Gigawatt.

There are multiple transmission lines that run through the Corridor that may provide a strong baseline for power availability, as illustrated in *Figure 4*. This includes 115 kV transmission lines running across the width of the Corridor, starting centrally and moving southward as it extends further to the west, as well as 69 kV transmission running nearer to the northeastern edge of the Corridor near the Lakeside Mountains. Multiple electrical substations rated between 70 kV and 345 kV are located along these transmission lines, with a higher frequency located along the 115 kV line.

Additional transmission corridors at higher voltages of 345 kV and 230 kV pass through northern Utah and Tooele County, connecting generation resources to the Western Interconnection with Wasatch Front load centers. While some level of new transmission buildout is likely needed to support the Innovation Campus, especially for facilities sited in the northwest portion of the Corridor, **access to existing transmission across the Corridor can potentially help reduce time, cost, and permitting complexity** of connecting new load and new generation to the grid. S.B. 132 also codified behind-the-meter generation and transmission. This legislative framework balances any future transmission buildout needs by introducing innovative grid designs to meet the speed-to-power expectations of generation and load looking to site at or near the Innovation Campus.

Tooele County

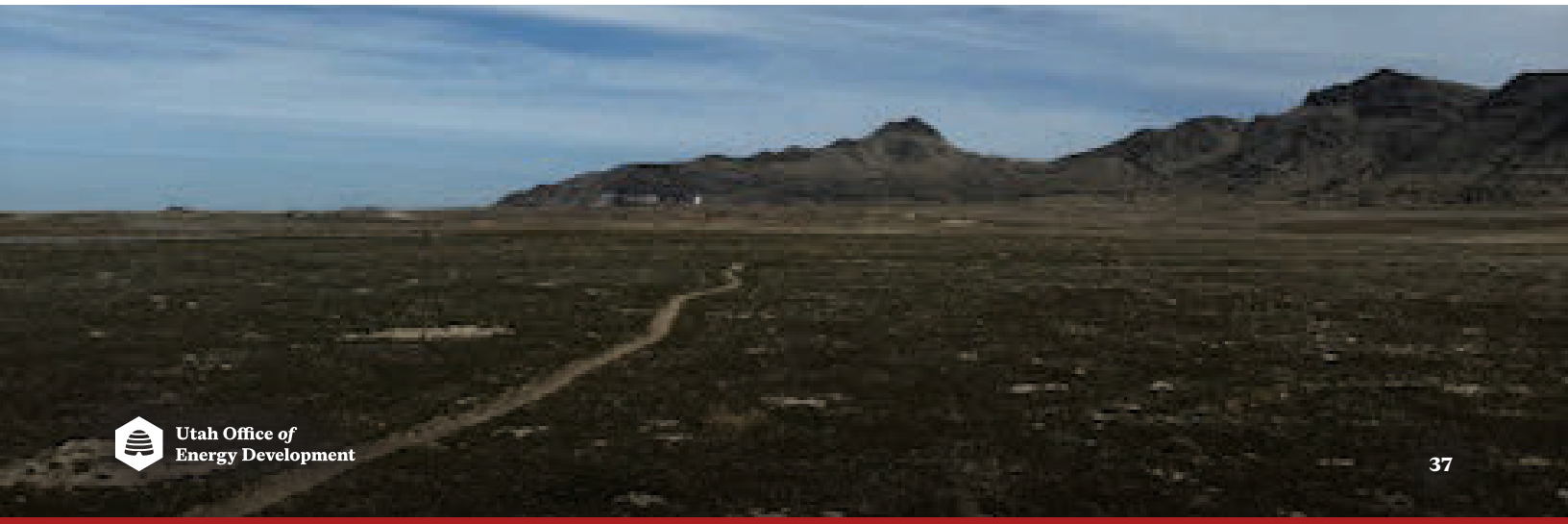
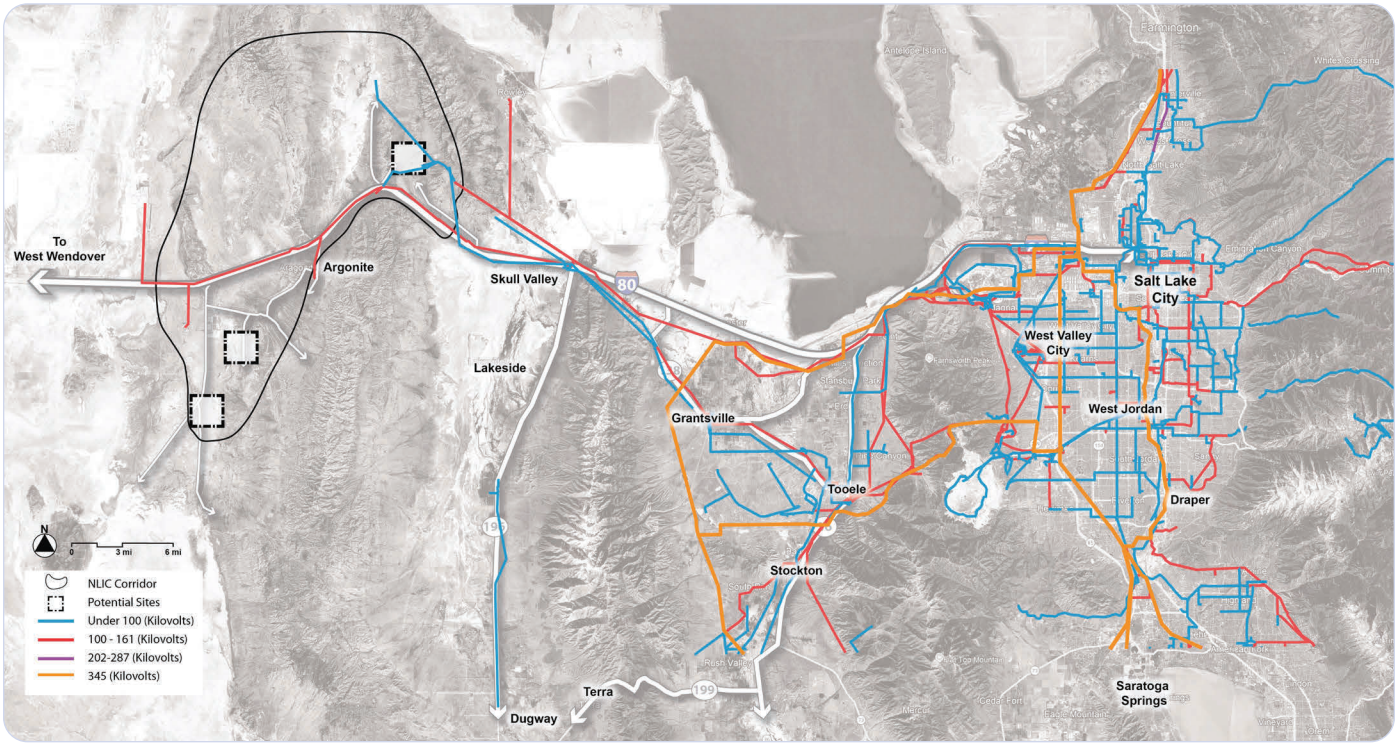


FIGURE 4 | TOOELE COUNTY TRANSMISSION INFRASTRUCTURE



Road

Utah's transportation network supports industrial logistics and heavy equipment transport with interstate and State highways, providing access routes for construction materials and industrial equipment, including an approved set of high load routes. The Corridor has direct access to this network through Interstate 80, which bisects the Corridor, entering centrally at the east end and moving southward as it progresses to the western end. The central location of Interstate 80 within the Corridor means that any potential sites for Campus functions will be within an approximate 20-mile radius of the highway, with some areas of interest, such as the two sizeable parcels of TLA land mentioned earlier, being within an approximate five-mile radius of the highway. The Corridor lies around 50 miles west of the major intersection of Interstates 80 and 15, providing rapid access to key Western markets, including Las Vegas, Nevada; Phoenix, Arizona; and Denver, Colorado, as well as the broader Midwest and Pacific Northwest regions. The Corridor's proximity to established road transport corridors, especially those set up for heavy haul and overweight permitting, can enable a number of additional benefits for construction (e.g., minimized routing constraints for construction, limited need for new road builds or upgrades) and eventual operation of the Innovation Campus (e.g., smoother workforce commuting, integration with existing emergency response).



Highway overlooking urban Wasatch Front at night

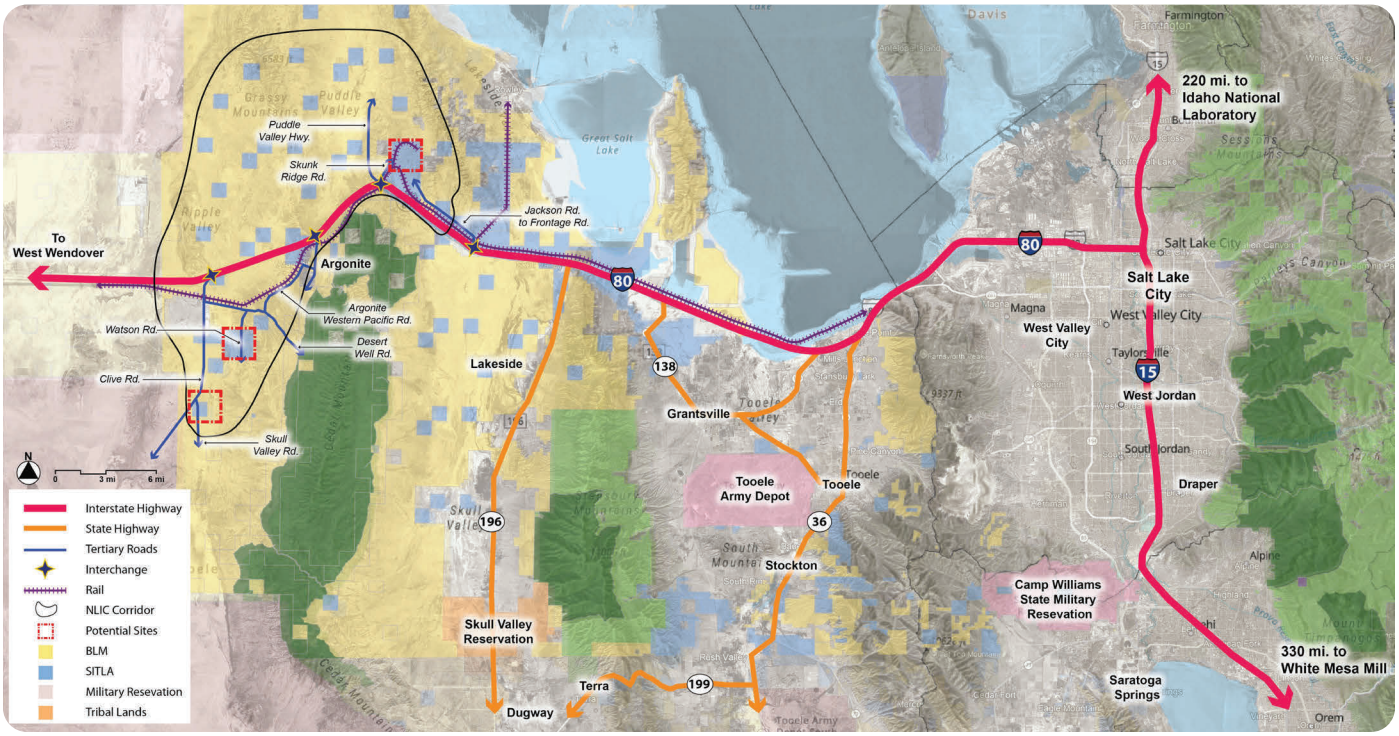
Rail

In a similar manner to existing road infrastructure, **the Corridor maintains strong access to existing rail infrastructure**. The Union Pacific railroad runs through the central and southern portion of the Corridor, courtesy of its Shafter Subdivision, following a similar route to Interstate 80. *Figure 5* maps how both transport corridors are routed across the Corridor and Tooele County more broadly. Union Pacific is a Class 1 railroad with extensive network coverage across 23 states. Trackage rights for the subdivision are also shared with BNSF Railway, the nation's biggest Class 1 railroad spanning 28 states as well as parts of Canada. Union Pacific's rail is built to heavy-haul standards and generally capable of supporting specialized shipments, with the portion running through the Corridor allowing for a gross weight of 315,000 pounds (lbs.). [45] Further analysis is needed to understand the full weight and capacity that will be required for completing each function of the Innovation Campus, but shipments of LLW waste received by the Clive disposal facility via the same rail system does indicate present suitability for at least some level of nuclear materials transport. **Rail transport is broadly recognized as the preferred mode for large nuclear components and used fuel shipments** because it allows secure movement using certified transport packages and minimizes the number of handling steps and reliance on long-haul trucking.

Utah's rail networks and highway systems also connect directly to California's port gateways, including the Port of Oakland in Northern California, and the Port of Los Angeles and the Port of Long Beach in Southern California, the largest container port system in the U.S. and the primary maritime gateway for trans-Pacific trade. Utah has **developed cooperative logistics relationships with California ports through the UIPA, helping ensure efficient movement of goods between Utah and coastal shipping hubs**.

Access to the Port of Los Angeles is particularly important for nuclear supply chains. Advanced reactors and nuclear fuel-cycle facilities often require specialized components, large industrial equipment, and internationally sourced materials that must move efficiently through maritime trade routes. Reliable access to the largest port complex in North America helps reduce supply-chain risk and enables rapid importation of critical components necessary for constructing and operating advanced nuclear facilities.

FIGURE 5 | TOOELE COUNTY TRANSPORTATION INFRASTRUCTURE (ROAD & RAIL)





Salt Lake City Airport with a view of downtown on the horizon

Airport

The Corridor is approximately an hour's drive from SLC airport. SLC serves as a major cargo gateway for the Mountain West, offering direct connections to major Western metropolitan areas and global cargo networks. The **airport's cargo capacity and geographic position can enable rapid distribution of advanced material and high-value components** across the region, as well as support the movement of highly time-sensitive materials such as medical radioisotopes. Many radiopharmaceuticals rely on isotopes with short half-lives that must be transported quickly after production in order to remain usable for medical procedures. In many cases, these materials must be transported within hours of production, often requiring same-day or overnight air transport. [21] Combined with Utah's rail, highway, and port connectivity, this **logistics infrastructure ensures that both inbound supply chains and outbound distribution networks operate efficiently, an essential capability for advanced energy technologies and sensitive materials**.

Telecommunications

Telecommunications infrastructure across northern Utah **provides high-capacity connectivity through multiple regional fiber backbones** serving the Wasatch Front and surrounding industrial areas. Tooele County and the Corridor connect directly into these networks through fiber corridors that link the county with the Salt Lake metropolitan area, providing **reliable data connectivity for operational systems and research activities**. This fiber is also a critical component for datacenter development, with the nearby Eagle Mountain area already housing many private developers utilizing this fiber backbone.

Climate

Utah's arid climate can provide an operational advantage for the predictable operations and maintenance of Innovation Campus functions. For long-term storage specifically, low humidity is one of the biggest degradation drivers in stored assets. Drier air helps slow corrosion on metals (by reducing the moisture film that enables electrochemical reactions), reduces the likelihood of rust and oxidation, and lowers the risk of mold, mildew, and microbial growth that can damage packaging, insulation, and organic materials. For sensitive equipment (electronics, instrumentation, motors, control cabinets), lower moisture also reduces condensation, which is a common cause of shorts, connector corrosion, and insulation breakdown. Arid climates often improve equipment reliability when it is placed into service after storage. Aridity can also reduce the need for constant dehumidification and moisture-control infrastructure, meaningfully lowering storage operating costs and simplifying preservation programs.

However, an arid climate is not without tradeoffs, so Utah plans to manage concerns related to dust and particulate, ultraviolet radiation (UV) exposure, and temperature swing. Examples include enclosed storage, filtration, proper wrapping, use of desiccants where needed, and periodic inspection and preservation routines.

Further characterization of site locations within the Corridor, including environmental reviews, is needed to understand the full range of climate implications on site activities, both for storage and other Campus functions. For additional information related to environmental suitability, please refer to *Question 12: Environmental & Safety Stewardship*.

Water

Aridity

Water resources in the region are supported by local water districts and statewide planning efforts led by DWRe. Water has a relatively limited presence across the Corridor. In a sample environmental screening of water features in the general area of the two sizable parcels of TLA land mentioned prior, riverine wetlands composed <1% of the total acreage of the assessed areas. Similarly, preliminary evaluations of 100-year floodplains were so limited as to be nearly indistinguishable when mapped at the county level. While further analysis is needed to confirm the full scope of water considerations, the limited presence of water indicated by this initial analysis may benefit the Campus in certain planning areas, such as **minimizing the scope of flood risk and potentially simplifying drainage planning and other environmental planning related to water**.

Water Access

Initial analysis indicates water rights in the Corridor are open to allocation for subsurface wells filings. Presently, there are no limitations on the allowable size of these allocations, though notably, any filings would be junior to other existing rights in the area. Though final water usage estimates require a confirmed Campus design for the number and scale of activities conducted, it is anticipated the Campus would consume large quantities of water on a daily basis.

Various entities in Utah have previously addressed water access challenges by building pipelines, reservoirs, and other infrastructure to transport water to dry regions of the State. Some facilities in particularly arid parts of Utah, such as the Clive disposal facility, truck in large quantities of water daily. Other businesses operating in Utah's arid West Desert, such as Clean Environmental Solutions, make the best possible use of brackish water wells. All known subsurface water in the Corridor is brackish and will require water treatment if pursued. Some alternatives for clean water access could be accessible through water rights purchased from holders in regions proximate to the Corridor.

Utah also has a **long and proud history of developing innovative infrastructure projects to store, transport, and conserve water resources to support industrial development**. For example, in Utah's extremely arid Millard County, the Delta, Melville, Abraham, and Deseret (DMAD) reservoir provides water to power the IPP power plant as well as irrigation to local areas. [46]

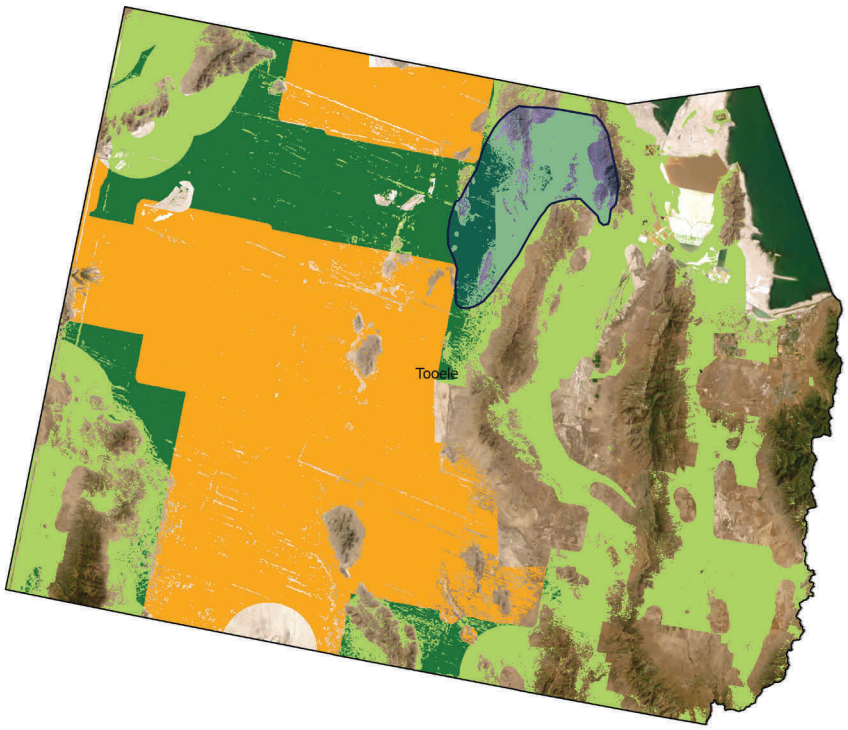
Water scarcity represents a significant constraint on Utah's industrial, commercial, and residential development. The Innovation Campus can address this issue by considering low-water and air-cooled technologies when possible, though it will likely remain a challenge. Based on preliminary geographic information systems (GIS) review from the Oak Ridge – Siting Analysis for power Generation Expansion (OR-SAGE) tool, as shown in *Figure 6*, **the Corridor does have suitable locations for water-efficient reactors, including potential co-location with both deep borehole storage and independent spent fuel storage installations (ISFSIs)**.

The **Innovation Campus in Tooele County could directly benefit the Great Salt Lake by serving as a location to test and deploy water-efficient technologies, such as air cooled data centers and water-efficient advanced reactors, helping reduce demand on scarce water supplies that ultimately affect the lake**. The Campus could also support air quality and dust monitoring by piloting networks of sensors that track wind, particulate matter, and shoreline conditions, providing earlier warning and better data to target dust reduction actions, while advancing salt and brine management solutions (reuse, treatment, and safe handling) that protect local environments and can be scaled for broader industrial and water management needs across Utah. Moreover, the development of an Innovation Campus could serve as a catalyst to enable a robust regional water supply plan that could provide service not only to Campus member facilities but also to other local businesses and communities in the Corridor.

▼ *Tooele County*

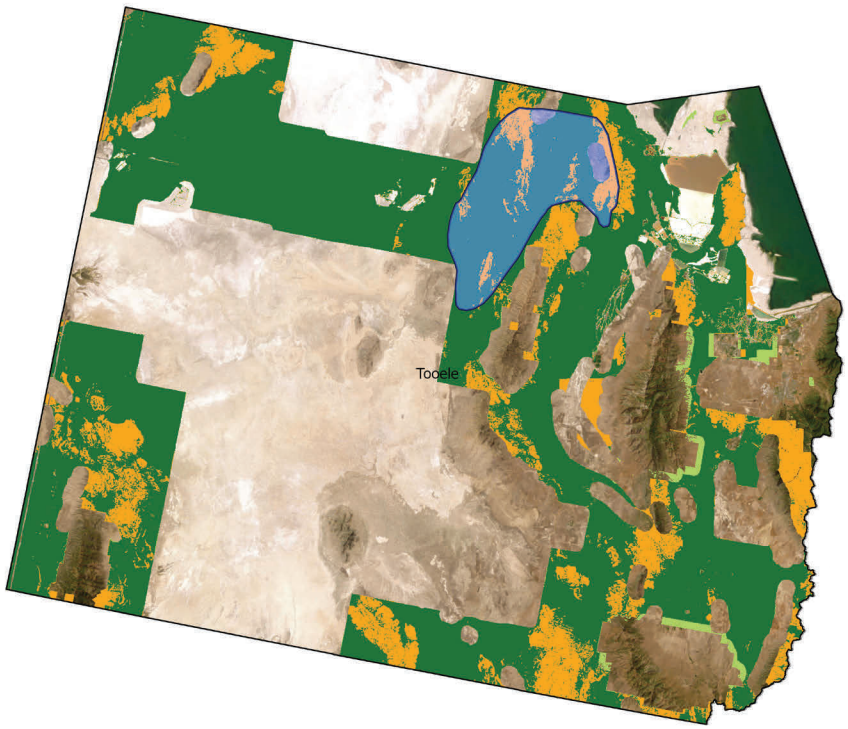


FIGURE 6 | CORRIDOR SUITABILITY FOR CO-LOCATED STORAGE & A WATER-EFFICIENT REACTOR (OR-SAGE)



Suitability for Co-located Deep Borehole Storage & Water-Efficient Reactor

- Reactor & Storage
- Reactor Only
- Storage Only
- Neither



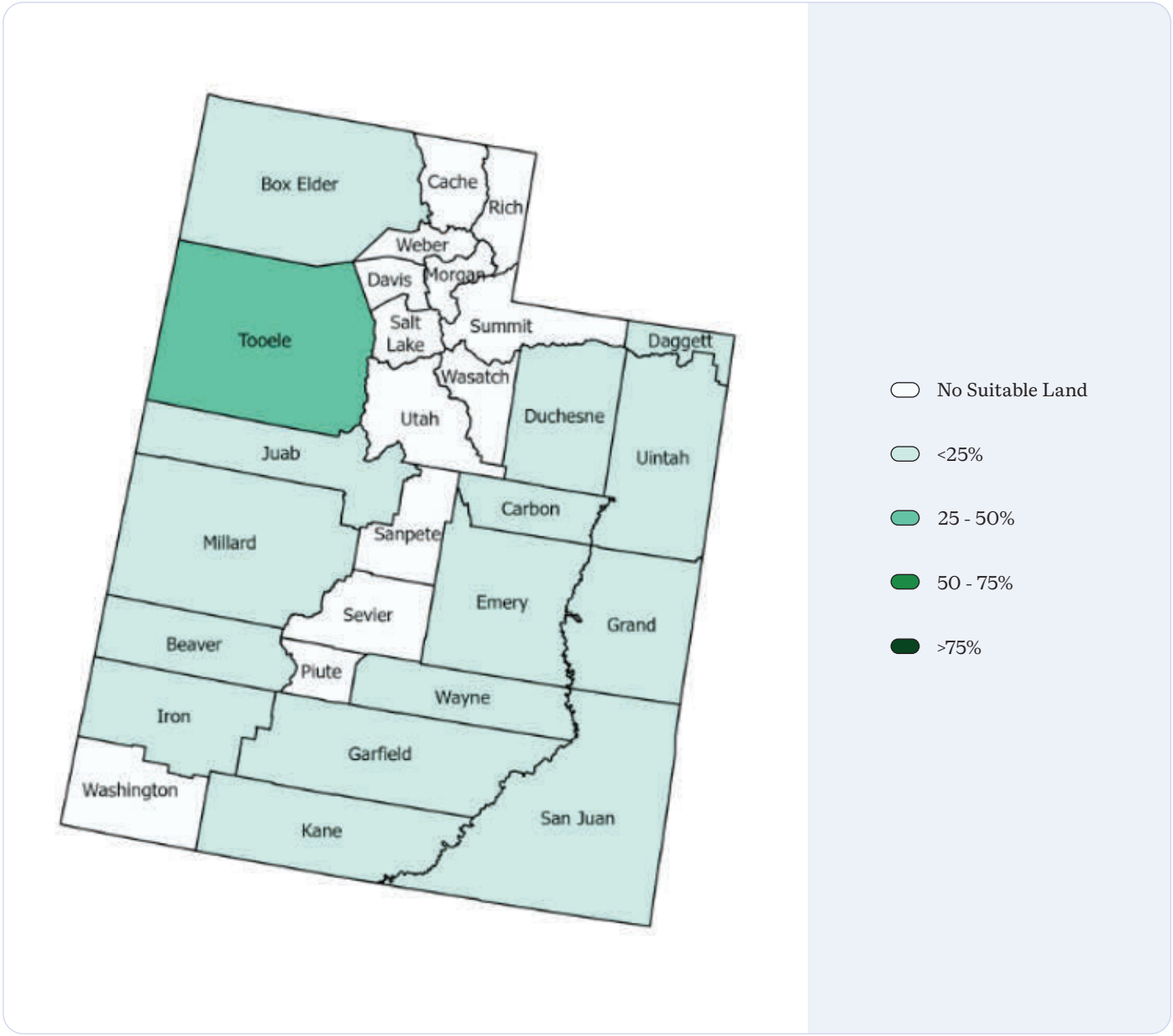
Suitability for Co-located ISFSI & Water-Efficient Reactor

- Reactor & Storage
- Reactor Only
- Storage Only
- Neither

Geological & Seismic Suitability

NRC provides specific guidance on geological features and criteria required for interim storage and permanent disposal of UNF, including methods such as deep geological repositories (DGR), including salt caverns, and deep boreholes. While detailed geological assessments are still needed to confirm final suitability, **preliminary GIS review conducted using the OR-SAGE tool indicates that potentially 25% to 50% of the land in Tooele County is suitable for deep borehole solutions**, the most of any county in Utah (as indicated in *Figure 7*). This includes portions of land within the Corridor, in particular, areas at the southwest edge of the region. Considerations informing this preliminary evaluation include slope of land, proximity to fault lines and volcanic activity, and peak ground acceleration. A preliminary OR-SAGE review applying the same criteria to evaluate interim storage possibilities determined that a similarly large area of the County—including much of the land within the Corridor—was appropriate for interim storage installations.

FIGURE 7 | DEEP BOREHOLE SUITABILITY IN UTAH BY COUNTY (OR-SAGE)



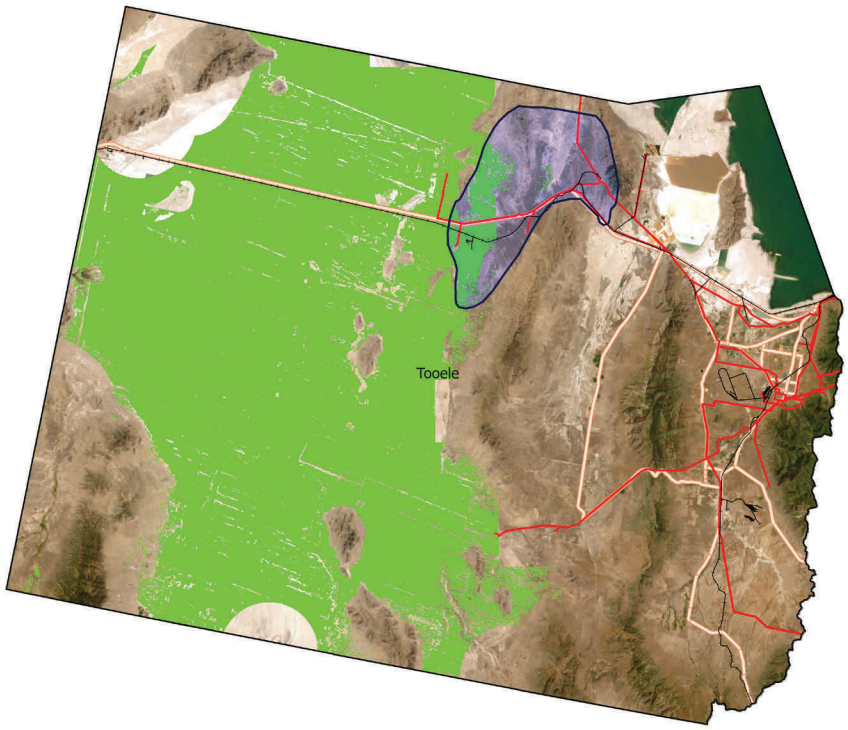


▲ *Governor Cox presenting at the 2025 Utah Nuclear Energy Summit*

Based on initial analysis, DGR viability is limited within the Corridor. However, if DGR-centered storage is preferred by DOE, Utah is open to working with DOE to explore an approach for siting long-term storage separate from other Innovation Campus functions. For example, Utah has potential options for salt cavern interment in multiple parts of Millard County, about 100 miles south of the Corridor.

Initial analysis of quaternary fault lines in Tooele County shows **relatively limited fault presence in the Corridor** with the most notable located in the northeast on the west side of the Lakeside Mountains. Further geological and seismic assessments are required for the final site, but current data indicate that seismic constraints are unlikely to significantly affect location options within the Corridor.

FIGURE 8 | CORRIDOR SUITABILITY FOR LONG-TERM & INTERIM STORAGE (OR-SAGE)



Suitability for Deep Borehole Storage

- Reactor & Storage
- Transmission Lines
- Major Roads
- Railroads



Suitability for ISFSI

- Reactor & Storage
- Transmission Lines
- Major Roads
- Railroads

The maps shown in *Figure 6*, *Figure 7*, and *Figure 8* present preliminary OR-SAGE suitability analyses identifying potential sites in the Corridor for long-term and interim storage, as well as options for co-locating these facilities with SMR generation. The OR-SAGE tool from Oak Ridge National Laboratory (ORNL) employs both GIS and spatial modeling techniques to examine siting options. Additional analysis on suitability is available in *Appendix 5: Additional Maps*. Of note, the SMR collocation presumes the use of an air-cooled or similarly water-friendly technology solution given water limits in the Corridor.

Tooele County. ***Photo by Ken Krahulec***



03

Potential Private Sector Partners

Which private sector partners does your state anticipate working with to develop these Nuclear Lifecycle Innovation Campuses? What roles will those partners play? Provide details on the process and timeline for selecting and engaging these partners.

Industry willingness to commit capital, enter long-term contracts, and share risk is foundational to the development of the Innovation Campus' facilities, supply-chain capacity, and workforce. Utah intends to issue a solicitation for operators interested in developing facilities on the Campus once DOE makes a final host-state selection. **We will leverage our existing nuclear and industrial supply base to support the effort, and have already begun engaging potential industry partners**. The limited number of U.S. companies operating across key segments of the nuclear fuel cycle makes early partnership essential to national deployment and Innovation Campus success. While we have not entered into formal commitments with Innovation Campus partners and we remain dedicated to a technology-agnostic approach, our existing relationships and established MOUs are evidence of our strong ecosystem and commitment to nuclear development in Utah (*Appendix 1: Letters of Support* and *Appendix 3: Nuclear Industry & Research MOUs*). **In March 2026, OED issued a preliminary RFI questionnaire to nuclear operators with an existing or planned presence in Utah to assess interest and capabilities** in developing the Campus. We are confident in our ability to attract ideal partners to the Campus, as evidenced by the strength of Utah's existing nuclear supply chain. Utah also has significant business incentives to facilitate private sector investment, which are further outlined in *Question 22: Financial Responsibility, Cost Sharing, & Assurances*.

Utah intends to release a full and open RFI to identify a qualified bidder list for the Innovation Campus (see *Question 7: Timeline for State Support*). The responsibility for securing Innovation Campus support services—including physical and cybersecurity personnel, back office management, food service, janitorial services, and other facilities staff—will follow the framework set by Utah and the DOE, as well as the final agreements made between private operating partners and the State (see *Question 14: Proposed Agreement Framework*). We are open to all feasible options for Campus operators and, in coordination with DOE, will support whichever partner(s) are best suited to meeting the missions of the Innovation Campus and Utah's development goals.

As site selection, characterization, and cooperative frameworks are finalized, Utah **will advance and execute contract terms for formal partnership agreements, including timelines for facilities construction and operation in alignment with the DOE's target of 2027**.

Emy Lesofski, Director of OED and Energy Advisor to the Governor, speaks at the HiTech Brigham City Nuclear Campus Announcement, November 2025



04

Site Infrastructure Requirements

What infrastructure and resources can your state provide or support at the proposed site(s) to meet the requirements of all Innovation Campus functions? Detail availability of power (e.g., grid reliability, capacity for enrichment plants, AI data centers), water (e.g., cooling for reactors and reprocessing), waste storage, secure transportation corridors, and physical/cyber security systems. Specify any state investments or upgrades needed (e.g., transmission lines, rail networks, cybersecurity infrastructure).

As established in *Question 2: Proposed Sites Within the State*, **the Corridor has direct or proximate access to much of the physical infrastructure necessary to support the development and operation** of the Innovation Campus. The combination of infrastructure access also positions Utah to support regional supply chains and nuclear developments across the West. While current infrastructure offers a baseline for development, **Utah will further analyze and consider targeted investments to ensure full, reliable infrastructure access for the Innovation Campus' operations**.

Energy Requirements

Utah will **continue to work with engineering and industry partners to better understand the continuous industrial loads that could be required** by advanced reactors, fuel cycle facilities, and other Innovation Campus operations. While a comprehensive estimate of energy requirements depends on the final Campus designs, directional estimates for individual functions—informed by historical examples and input from industry partners' experience—help provide a sense of magnitude for the potential power needed.

Enrichment is anticipated to be the most energy-intensive fuel cycle operation on the Campus with total demand driven by the required enrichment level (e.g., LEU or HALEU). Due to water constraints, a zero liquid discharge system may be favored despite greater energy requirements. Enriching natural uranium to 19.75% requires separative work units (SWU) ranging between 42–49 per kilogram (kg) of product with an energy intensity of 50 kilowatt-hours (kWh) per SWU. Therefore, the energy requirement ranges between 2100-2450 kWh/kg of 19.75% enriched uranium produced or 7 MW for 1 million SWU/year (*Table 1 Energy Demand by Nuclear Facility Type*). [47]

A mid-to-large MOX fuel fabrication facility, producing approximately 195 tons of heavy metal (tHM), requires an average of 510 MW per year, with variable output rates depending on fuel type (i.e., HALEU requiring more energy to produce than MOX). A traditional aqueous process for fuel reprocessing, like La Hauge, with an output capacity of 800–1,700 tHM/year requires between 20–25 MW of power; whereas, lower water consumption reprocessing technologies like pyroprocessing may more than double the power demand (40–60 MW). [47] Our industry advisors estimate that interim storage could require between 5 and 20 MW, depending on facility capacity. These estimates are summarized in *Table 1* below.

TABLE 1 | ENERGY DEMAND BY NUCLEAR FACILITY TYPE [47]

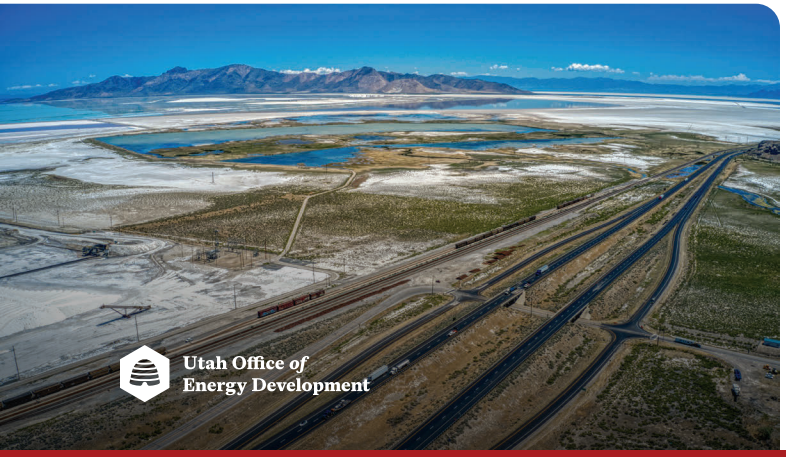
Facility Type	Output (Capacity)	Power Use	Main Driver
Reprocessing (La Hague)	800–1,700 tHM/year	20–25 MW	Ventilation, chemistry
MOX Fuel (MELOX)	195 tHM/year	5–10 MW	High-temp ovens
Enrichment (Centrifuge)	1 million SWU/year	~7 MW	Centrifuge motors
Enrichment (Diffusion)	1 million SWU/year	~285 MW	Compressors

Metric	Standard LEU (4.5%)	HALEU (19.75%)	Change Factor
SWU per kg product	~6.2	42–48	7–8× more
Annual mass output	~161,000 kg	~21,000 kg	87% less
Power per kg product	~0.04 kilowatt (kW)/kg	~0.33 kW/kg	8× more per kg

Generally, **the Corridor is anticipated to have sufficient power access for the lighter industrial loads** demanded by Innovation Campus operations. However, higher intensity activities such as enrichment, reprocessing, and potentially a co-located data center—which may require between 20 MW and 300 MW depending on available power—could necessitate onsite generation solutions.

Utah may seek to further evaluate the impact of co-locating on-site power generation via a local advanced reactor. **Local operation of one or multiple SMRs could present several benefits to the Campus ecosystem, including additional power generation reliability and resiliency** for Innovation Campus activities, cost savings from process and district heat harnessed from the reactor, and even revenue from private offtake of excess power. Most advanced non-microreactor designs produce more power than the Innovation Campus' lighter load fuel cycle activities require, making them well-suited for higher demands such as enrichment, grid supply, or co-locating data centers.

Initial screenings indicate that minimal expansion of existing transmission and substations will be required to connect the eastern and south-central parts of the Corridor to the grid. More significant transmission expansion and substation build-out will be needed if the Innovation Campus is located in the northwest part of the Corridor. Any on-site power generation such as an SMR will require further infrastructure expansion to reliably integrate into the bulk power system. Potential upgrades may include upgrading local transmission to 345 kV lines or higher, substation modifications to accommodate new lines, protection control integration, and bus expansions to enable N-1 (i.e., unexpected loss of a single system element, such as a transmission line) reliability or beyond. As planning advances and the scope of industrial load from the Campus becomes clearer, the **State will partner with Campus operators, local utilities, and where appropriate, DOE to assess power reliability, capacity, interconnection needs, queue times, and options to increase capacity via upgrades or new transmission**.



Interstate 80 near the Great Salt Lake

Road

The proposed site is located near I-80, which based on our industry subject matter experts' initial analysis, has an annual average daily traffic (ADT) of 8,700 vehicles per day with projected a future ADT of 13,000 by 2050. Access to the White Mill Mine is along US-191, which has an existing and future ADT of 3,300 and 4,400, respectively. Private logistics companies regularly and safely ship LLW to Clive on Tooele roads, including a recent delivery exceeding 1 million lbs. **Utah will continue to work with engineering partners and other State stakeholders such as Utah Department of Transportation (UDOT), to identify specific transport requirements needed to support Innovation Campus functions**.

In support of the development of the Innovation Campus, **Utah will conduct roadway and highway infrastructure analyses**, including evaluation of pavement structural capacity, bridge or culvert load ratings, and regulatory assessments. These assessments will encompass potential permitting constraints concerning oversized and overweight loads, as well as hazardous materials. Utah intends to conduct a comprehensive traffic impact assessment to analyze how the anticipated traffic from the Innovation Campus will influence current traffic patterns. This study will quantify the projected increases in vehicle and truck trips, develop plausible methodologies for trip distribution and assignment based on prevailing travel behaviors, and evaluate the impacts on intersection level of service and queue lengths. Furthermore, the analysis will address turn lane requirements and other road access considerations essential for efficiently integrating new traffic with existing roadway movements.

Anticipated infrastructure upgrades may include the construction of last-mile roads to connect the Innovation Campus to the interstate, as well as upgrades to the existing road network such as intersection radius adjustments, bridge or culvert reinforcements, and general widening and strengthening. For US-191 in rural Utah, the average cost to add a lane is approximately $3-5 million per mile or higher if there is a bridge or major culvert crossing. Given the heavy weight requirements needed for transporting key materials to the Campus, our engineering advisors estimate costs will be on par with US-191 additions.

Rail

Nuclear materials are already transported through Utah's rail network to the Clive disposal facility, demonstrating that the existing system may be suitable—at least in part—for Innovation Campus operations. As needed, Utah intends to support an analysis to confirm that the rail system meets NRC and DOE requirements for moving nuclear materials to the Corridor. Utah will coordinate with the UDOT and Union Pacific (a publicly traded company that owns and operates most freight rail infrastructure in Utah).

A **key priority is confirming rail weight and axle-load requirements for transporting materials such as UNF** for reprocessing and storage. For example, if activities require use of the DOE's Atlas railcar, the railcar's maximum gross weight (car plus payload) can be as high as 710,000 lbs. [48] The Atlas employs a novel weight distribution system designed to spread the load across the tracks. However, additional track reinforcement and structural enhancements may be necessary, as the maximum rail capacity in Utah, according to Union Pacific, currently stands at approximately 315,000 lbs. and could be further limited by track structure and railcar length. [45]

In addition to upgrading existing track, **developing a dedicated rail spur** connecting the Innovation Campus to nearby **Class 1 rail corridors** would likely be highly valuable. A spur could enable direct loading and unloading of heavy nuclear components and transport casks, reducing reliance on highway transport and lowering both logistical complexity and public exposure. Based on industry subject matter input and precedent projects in sparsely populated desert environments, a preliminary planning estimate for a rail spur is ~$10–$15 million per mile of track.



Utah railway

Telecommunication

Robust telecommunications infrastructure is critical to enable safe and reliable day-to-day business connectivity, operational technology monitoring and control, site access control and security systems, and resilient emergency communications as needed for the Innovation Campus.

As decisions on specific technologies, facility layouts, and cybersecurity protocols are finalized, additional analysis will be needed to confirm the availability and readiness of foundational telecommunications services (e.g., fiber routes and cellular coverage) and to define required cyber and network architecture. This should include bandwidth and latency targets, service-level agreements, and applicable cybersecurity compliance requirements.

Based on this assessment, we **may identify upgrades to harden telecommunications and cyber infrastructure** within the Corridor. Potential measures include expanding regional fiber capacity; establishing a physically diverse, dedicated fiber path to the Innovation Campus; extending Wi Fi coverage and deploying private wireless networks for field operations; and strengthening telecom shelters with uninterruptible power supplies and generator-backed power. If a data center is co-located, additional investments, such as a hardened fiber backbone and self-sufficient power, could also support secure computing services for military users in the Tooele region and neighboring communities.

Train passing through Tooele County





Ogden from Fort Buenaventura Park

Water

Water requirements for cooling and operational systems will depend on the number and scale of activities hosted at the Innovation Campus and the specific technologies deployed. A preliminary State assessment of water supply and wastewater demand—based on input from industry partner subject matter experts—indicates that fuel and power-cycle activities may require approximately 15,000 gallons per day (GPD). Adding a roughly 300 MW data center could increase demand by an additional ~100,000–200,000 GPD.

These figures reflect total water demand, not net consumption, as water may be evaporated, discharged, or recycled back into the process. The estimates also assume the Campus uses water-saving technologies to the greatest extent practicable and does not include incremental demand associated with anticipated residential growth to support the workforce. As with other preliminary analyses, these estimates are subject to change as final Campus design decisions are made.

Utah will continue to work with developers, industry, and community partners to evaluate anticipated water requirements and identify viable options to secure water access. This will require a deeper understanding of water-rights ownership dynamics and local negotiation processes, along with technical analysis to determine the most feasible and cost-effective approach to delivering water to the site.

In parallel, Utah will work with engineering partners and government stakeholders to address permitting considerations that could affect infrastructure development. A preliminary review suggests a limited presence of mapped streams, wetlands, and other jurisdictional waters that could trigger permitting requirements, including under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act, both administered by the U.S. Army Corps of Engineers (USACE). Infrastructure development that crosses federally managed land may also require coordination with the U.S. Bureau of Land Management (BLM) and other agencies to support permitting and approvals.

One option to support the Innovation Campus' water needs is to establish a dedicated water treatment facility that treats brackish water within the Corridor to serve the Campus and surrounding area. Rough initial estimates place the facility cost at $40–$50 million, with an additional ~$20 million for pipeline development (assuming ~50 miles).

Waste Storage

As additional Innovation Campus planning is executed, Utah and our operating partners **will conduct analyses to understand the requirements and site feasibility for interim storage systems for UNF and other radioactive materials, including capabilities consistent with NRC licensing frameworks for ISFSIs and Consolidated Interim Storage Facilities (CISFs),** subject to applicable federal policy and licensing requirements. Existing dry storage technologies which provide secure containment of UNF using sealed multi-purpose canisters may be one option that adheres to the region's limited water access. Other areas of analysis could include deeper research into the potential benefits of co-locating interim storage with other anticipated Innovation Campus functions, namely reprocessing or long-term storage to inform Campus layout decisions.

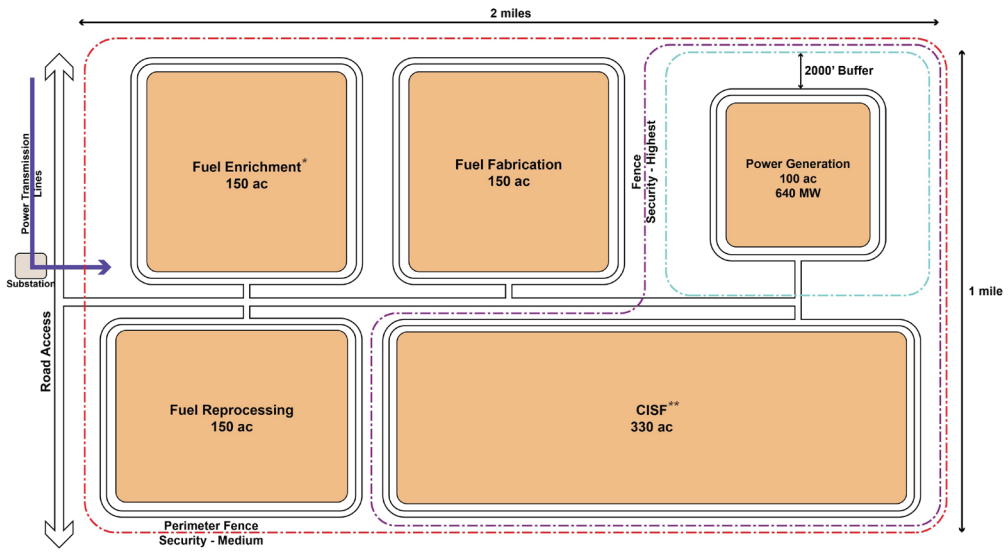
In parallel, **Utah has already begun preliminary analysis to identify requirements and strategies for final disposition of waste** such as UNF. Full site-specific characterization is still needed to determine geological composition suitability and is dependent on finalization of the nuclear material type to be received, processed, and stored at the Innovation Campus. Additional information related to Utah's willingness to host HLW, and initial approach is available in *Question 10: HLW Management, Treatment, Storage & Disposal*.

Security

Key security infrastructure for the Innovation Campus will include site access protections and secure communications systems to support nuclear, industrial, and digital operations. Physical infrastructure planning may include identifying controlled site access points, perimeter security systems, operational support infrastructure, and communications networks required to support reactor facilities, fuel cycle infrastructure, and associated industrial operations.

Utah plans to **deploy a regulatory-compliant cybersecurity architecture aligned to NRC requirements** under 10 CFR § 73.54 and incorporate industry standards developed by the Nuclear Energy Institute (NEI) to protect the Innovation Campus. Potential elements of this approach may include separate segmentation of safety-related systems and operational technology networks from enterprise IT environments, authenticated virtual private network (VPN) gateways and other access point controls, and continuous threat monitoring for critical assets. Implementation of these systems is expected to be executed by the private partners selected to operate the Innovation Campus' cross-management functions, which include security and IT.

FIGURE 9 | ILLUSTRATIVE CAMPUS DIAGRAM



Total Area – min. 2 mi^2, 1280 ac with potential to expand

*inclusive of conversion activities
**potential deconversion co-location

Figure 9 represents an illustrative view of what an initial Innovation Campus layout may entail in terms of facilities and supporting infrastructure. This does not represent a formal decision about related facilities or co-location plans to be discussed with DOE and other stakeholders as planning progresses. Acreage is available for a co-located data center.

05

Regulatory Framework & Licensing Support

How would your state approach regulatory oversight for the Nuclear Lifecycle Innovation Campus? What regulatory streamlining and expedited permitting can your state offer (e.g., RCRA), while ensuring compliance with federal standards? In areas where DOE assumes ultimate safety responsibility, how would your state partner with DOE to exercise oversight?

Utah is committed to supporting the development of the Innovation Campus through a **regulatory framework that aligns State programs with the federal authorities responsible for nuclear safety and security**. Utah recognizes that nuclear licensing, oversight, and safeguards remain the jurisdiction of federal regulators. Accordingly, Utah's approach is to align State regulatory processes with federal frameworks administered by DOE, NRC, and other applicable agencies.

Development of the Innovation Campus will **involve coordination across multiple federal and State regulatory agencies governing nuclear safety, environmental protection, radioactive material management, land access, and infrastructure development.** *Appendix 4: Additional Regulation, Policy, & Legislation Information* summarizes the principal federal regulations and permitting policy applicable to Campus activities and provides a brief description of each. This summary is illustrative and not exhaustive; additional federal, State, and local requirements may apply depending on specific facility configurations and activities.

This regulatory framework governs nuclear facility licensing, environmental protection, radioactive materials management, and transportation safety applicable to an Innovation Campus. **Utah's existing Agreement State programs enable Utah to administer several of these authorities directly, while coordinating closely with federal regulators where federal jurisdiction remains applicable**.

Agreement State Programs & Federal Coordination

Utah has actively pursued the full scope of authorities available under the NRC Agreement State program established under Section 274 of the AEA. Utah administers regulatory requirements for byproduct, source, and certain special nuclear materials, subject to NRC oversight for program compatibility and adequacy. NRC retains authority over reactor licensing, fuel cycle facilities, and other activities not delegated to Agreement States. DOE maintains authority over DOE-owned or operated facilities and certain research, development, and demonstration activities conducted under federal jurisdiction. **Utah's regulatory programs operate in coordination with these federal authorities, with clearly defined jurisdictional boundaries and established processes for consultation and oversight.**

State Regulatory Capacity & Existing Programs

Utah maintains established regulatory programs governing materials management, uranium milling, and LLW disposal through DEQ, specifically DWMRC. These programs operate under authorities granted through the AEA and NRC Agreement State program, under which Utah administers compatible regulatory requirements for specific categories of radioactive materials and uranium milling byproduct activities.

Within this framework, DWMRC maintains regulatory authority over Title II uranium milling facilities pursuant to the Uranium Mill Tailings Radiation Control Act (UMTRCA) and implementing regulations under 40 CFR Part 40, Appendix A. DWMRC regulates the White Mesa uranium mill in San Juan County, and provides oversight, licensing, environmental monitoring, tailings management requirements, and performance assessments (PA) addressing long-term radiological and chemical hazards associated with uranium recovery operations.

DWMRC administers regulatory oversight of the Clive disposal facility which performs commercial LLW disposal in Tooele County. The facility operates under State regulatory authority consistent with NRC compatibility requirements for LLW disposal under 10 CFR Part 61. Through oversight of this facility, DWMRC evaluates site PAs, long-term disposal stability analyses, and radiological environmental monitoring programs designed to enable the protection of public health and groundwater resources.

In addition to day-to-day oversight of Utah's nuclear activities, DWMRC has deep technical experience in the evaluation of site-specific PAs, the modeling of radionuclide transport through engineered and natural barriers, and long-term monitoring of disposal cell stability. These technical activities require the application of probabilistic modeling, hydrogeologic analysis, and radiological risk assessment methodologies that are directly relevant to oversight of broader nuclear fuel cycle infrastructure. **Utah's regulatory oversight of the Clive disposal facility places Utah among a small number of jurisdictions in the U.S. responsible for direct regulation of commercial LLW disposal operations**.

Northwest Interstate Compact on Low-Level Radioactive Waste

Utah is a member of the Northwest Interstate Compact (NWIC) on Low-Level Radioactive Waste Management. The Compact is a cooperative effort of eight states to share the responsibilities of low-level radioactive waste management. The Compact Committee includes government officials from Alaska, Hawaii, Idaho, Montana, Oregon, Utah, Washington, and Wyoming and is charged with considering matters relating to the management of LLW in the party states, including review and comment on regulations adopted by the party states. The Compact authorizes the Committee to enter arrangements with states, provinces, individual generators, or regional entities outside of the Compact for access to facilities in the region on such terms and conditions as the Committee may deem appropriate, subject to requirements set forth in the Compact. For example, the Compact Committee recently authorized the Clive disposal facility to accept Class A LLW from Ontario, Canada for disposal.

Strategic Interagency Regulatory Coordination

Utah's nuclear regulatory programs operate within a coordinated inter-agency structure that includes DEQ, OED, and relevant federal agencies including NRC, DOE, and the U.S. Environmental Protection Agency (EPA).

DEQ coordinates with federal regulators through existing interagency consultation mechanisms associated with NRC Agreement State program oversight, DOE project engagement, and environmental permitting review processes. Existing coordination mechanisms include interagency consultation during licensing reviews, technical coordination during environmental monitoring evaluations, and federal-State consultation on regulatory compatibility requirements under the NRC Agreement State program.

Information Security & Data Protection

Regulatory oversight of nuclear materials requires management of sensitive technical and security-related information. Utah administers information protection requirements under the Utah Records Access and Management Act (GRAMA), codified in Utah Code Section 63G-2. [49]

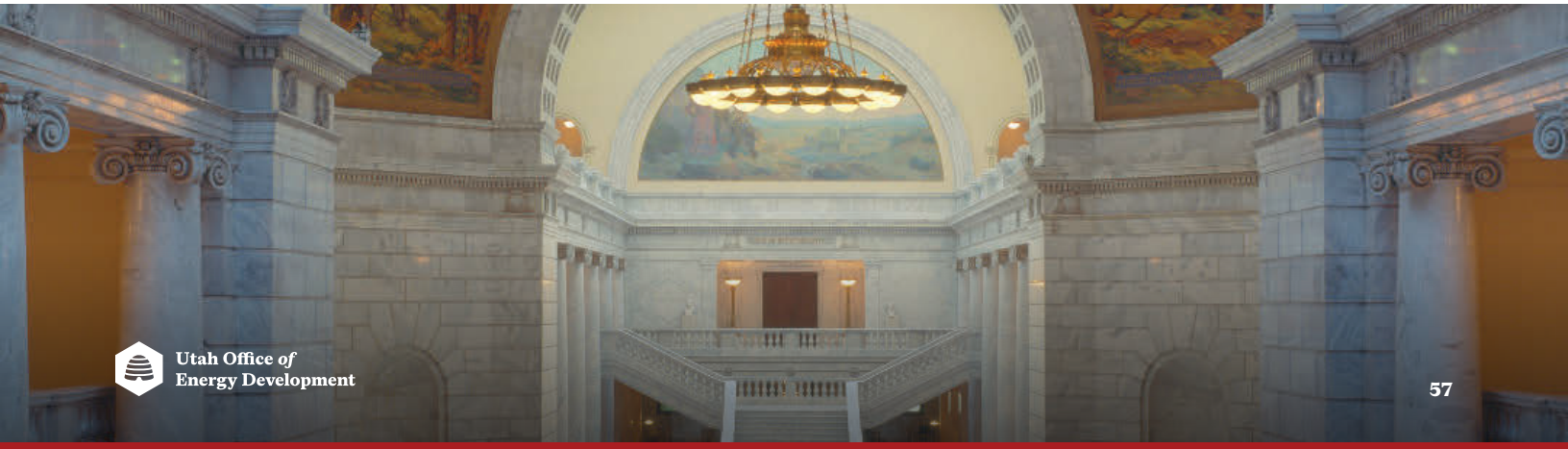
Under this framework, DWMRC restricts disclosure of sensitive information associated with nuclear facility operations including Safeguards Information (SGI) as defined under NRC regulations, information governed by 10 CFR Part 37 relating to Category 1 and Category 2 quantities of radioactive material, and security-sensitive information that could affect facility safety, transportation security, or emergency response operations. **These statutory provisions allow the State to maintain appropriate confidentiality protections while supporting regulatory transparency and federal information-sharing requirements**.

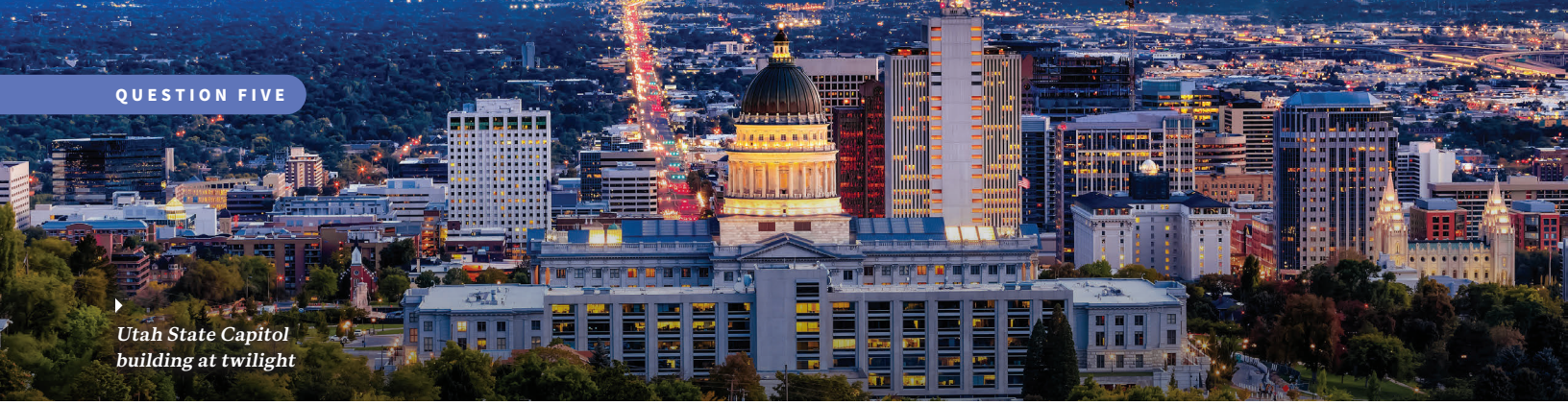
Agreement State Programs & Federal Coordination

Utah's nuclear regulatory framework is distinctive among states because it has actively pursued the full scope of authorities available under the NRC Agreement State program established under Section 274 of the AEA. Utah administers regulatory requirements for byproduct, source, and certain special nuclear materials, subject to NRC oversight for program compatibility and adequacy.

NRC retains authority over reactor licensing, fuel cycle facilities, and other activities not delegated to Agreement States. DOE maintains authority over DOE-owned or operated facilities and certain research, development, and demonstration activities conducted under federal jurisdiction. **Utah's regulatory programs operate in coordination with these federal authorities, with clearly defined jurisdictional boundaries and established processes for consultation and oversight**.

▾ *Utah State Capitol building*





Utah State Capitol building at twilight

Regulatory Streamlining & Permitting Support

Utah has implemented administrative mechanisms designed to support efficient review of technically complex licensing actions while maintaining regulatory independence. DWMRC utilizes outside technical consultants to support the review of large or technically complex license applications, with the outside consultants performing technical analyses or reviews of specialized documentation while remaining under DWMRC direction. This approach allows DWMRC to augment internal technical capacity when reviewing large-scale projects and maintaining regulatory timelines consistent with statutory requirements.

For Innovation Campus development, associated environmental and infrastructure approvals may include water quality certification under CWA Section 401, wastewater and stormwater permitting under Section 402, wetlands and water permitting under Section 404, groundwater discharge and underground injection control permitting, air permitting under Prevention of Significant Deterioration (PSD) and Title V programs, and federal consultation or review under NEPA, National Historic Preservation Act (NHPA) Section 106, the Fish and Wildlife Coordination Act, and the Migratory Bird Treaty Act (MBTA). **DEQ would coordinate these reviews in parallel with NRC and DOE processes where permissible to reduce duplication and support efficient project delivery**.

Where development occurs on or adjacent to federal lands, Utah may also coordinate with BLM and the U.S. Bureau of Reclamation (USBR) regarding right-of-way authorizations, land use approvals, and related federal access requirements, as referenced in *Question 2: Proposed Sites Within the State*.

The DWMRC utilizes an administrative process to expedite permitting and, under H.B. 437 (Environmental Permitting Amendments), has established procedures to formalize and further streamline permit review. [50]

Joint Regulatory Framework for the Nuclear Lifecycle Innovation Campus

Utah will coordinate with DOE and NRC to govern activities located within the Innovation Campus. While we discuss specific agreement framework considerations in our response to *Question 14: Proposed Agreement Framework*, a relevant model for regulator coordination may be NRC Management Directive 5.2 (MD 5.2), "Cooperation with States at Commercial Nuclear Power Plants and Other Nuclear Production or Utilization Facilities." This directive establishes procedures through which states may participate in federal regulatory activities, including inspection, observation, information exchange, and participation in regulatory meetings.

Coordinated Oversight Structure

Utah recognizes the importance of coordinating closely with federal agencies including DOE, NRC, and if applicable the National Nuclear Security Administration (NNSA), and will designate a primary coordinating entity for engagement with federal agencies regarding Innovation Campus development and oversight following down selection by DOE. DEQ will continue administering State regulatory programs related to radioactive materials licensing, environmental permitting, and radiological monitoring.

Utah also anticipates engaging subject matter advisors within federal programs where appropriate, including consultation with DOE technical programs addressing risk assessments, fire protection standards, and natural phenomena hazard evaluation for nuclear facilities.

Tooele County



06

Legislative & Policy Requirements

Are there any federal or state statutes, regulations, or policies that need to be amended or enacted to facilitate the development and operation of a Nuclear Lifecycle Innovation Campus in your state? Provide specific examples of legislative barriers (e.g., restrictions on nuclear waste storage or disposal, reprocessing bans, or zoning laws) and propose strategies to address them, including timelines for legislative changes.

Utah is **enacting several statutes that establish a policy and institutional framework supporting advanced nuclear development within the State**. Recent legislation provides both policy direction and institutional capacity for advanced nuclear technology, critical mineral processing, fuel-cycle activities, and energy innovation. Federal nuclear statutes and regulatory programs also shape the development of nuclear lifecycle infrastructure. Together, **these authorities establish the legal context within which the Innovation Campus can develop safely and responsibly**.

Federal and Utah policies also provide a suite of financial and programmatic mechanisms that may support Innovation Campus development, including tax incentives, loan guarantees, and workforce development programs authorized under recent federal energy legislation. Additional information related to these topics can be found in *Question 22: Financial Responsibility, Cost Sharing, & Assurances*.

Appendix 4: Additional Regulation, Policy, & Legislation Information summarizes the principal federal and State statutory authorities relevant to the development of the Campus. This summary is illustrative and not exhaustive; additional federal, State, and local requirements may apply depending on specific facility configurations and activities.

Utah's Existing Legislative Framework for Advanced Nuclear Development

Legislation adopted in 2024 and 2025 established an initial foundation for nuclear policy development in Utah. These **measures support advanced nuclear manufacturing, research, and fuel cycle activities while directing State agencies to evaluate regulatory frameworks necessary to support future nuclear infrastructure**.

The most notable of these measures include H.B. 241, passed in 2024, and H.B. 249, passed in 2025. H.B. 241 modified Utah's State code to explicitly include nuclear energy as a clean energy resource within Utah's broader energy policy framework by changing all mentions of "renewable" to "clean" energy. [51] Recognition of nuclear energy as a clean energy technology supports integration of advanced nuclear systems into long-term energy planning and strengthens the policy basis for nuclear energy development. H.B. 249 created the Utah Energy Council to advise the State on investments in energy infrastructure, as well as the Nuclear Energy Consortium to specifically develop industry best practice recommendations to shape nuclear energy policy and inform the Council about advancements in nuclear technology.

The bill also established a process for designating energy development zones (EEDZ) and created the Energy Development Investment Fund. Additionally, the bill created the Advanced Nuclear and Energy Institute which coordinates advanced energy research and pursuit of federal grants between industry, Utah-based universities, and INL. The intended focus of these efforts is to commercialize promising technologies, and the Institute has received investment from the State to use for matching funds for grants to accelerate these projects. These efforts support workforce development, technology research, and the broader innovation ecosystem required to sustain the Innovation Campus. Related considerations—including workforce constraints, environmental and radiological stewardship, and funding and cost-recovery mechanisms—are addressed in *Question 12: Environmental & Safety Stewardship*, *Question 21: Additional State Information*, and *Question 23: Revenue Sources & Cost-Recovery Approaches*.

In the 2026 legislative session, Utah enacted S.B. 135, establishing a statewide program to evaluate nuclear fuel recycling and associated advanced fuel cycle infrastructure. The legislation directs OED to coordinate with federal agencies, private sector developers, and local governments to assess the feasibility of nuclear fuel recycling facilities. **S.B. 135 also authorizes OED to evaluate development of an Innovation Campus and to identify regulatory, statutory, and infrastructure requirements necessary to support co-location of nuclear lifecycle activities**. The legislation also includes provisions for reviewing portions of Utah Code Title 19-3, which governs radiation control and radioactive materials regulation. Utah is committed to modernizing its statutory framework to enable Innovation Campus development and oversight. We are prepared to continue this process in coordination with all relevant federal partners as Campus ownership finalizes.

Advanced nuclear technologies are also increasingly being considered in regulatory and policy discussions. Legislative initiatives are evaluating how emerging technologies such as molten salt reactors and other advanced reactor concepts should be incorporated into existing regulatory frameworks. These discussions aim to **enable policy to remain adaptable to evolving nuclear technologies while maintaining safety and environmental protection**.

Legislative & Regulatory Barriers Affecting Development & Operation of the Innovation Campus

Utah has identified potential State- and federal-level barriers impacting development of the Innovation Campus and has initiated mitigation strategies, which can be found in the following sub-section of this question response.

At the State level, Utah Code Title 19-3 was initially developed to regulate discrete facilities rather than a fully integrated nuclear fuel cycle. As a result, provisions governing radioactive materials management and nuclear waste storage may constrain co-location of multiple nuclear lifecycle activities within a single campus configuration. In addition, S.B. 135 requires a review of Utah Code Title 19-3 and directs OED to proactively assess any other State codes or regulations that may interfere with efficient Innovation Campus design and operation.

Additionally, NWIC requirements governing LLW disposal may restrict the geographic origins of waste that Utah may accept for storage or disposal, unless specific authorization is granted under the Compact or by the Governor. **Unless special approval is granted by NWIC, the compact requires that all LLW generated in Utah be disposed of at the compact facility in Richland, Washington**, Utah can pursue authorization under the compact to dispose of LLW in another facility. [52] Utah's commitments to the NWIC are codified in Utah Code Title 19-3 and will be included in OED's review due to the Legislature in October 2026.

At the federal level, the NWPA (42 U.S.C. § 10101 et seq.) establishes a disposal-centered framework that conditions interim storage on progress toward a permanent repository. While the NWPA initially allowed for multiple repository sites, it was amended in 1987 to designate Yucca Mountain, Nevada, as the sole, permanent repository for commercial nuclear waste. Due to the suspension of the Yucca Mountain repository, the NWPA's statutory framework remains unfulfilled. Without further legislative action, the current framework limits development of alternative permanent storage options, including those that could support the Innovation Campus. As a result, federal policy does not provide a fully implemented pathway for consolidated interim storage or permanent disposal of UNF and HLW, constraining the range of fuel-cycle activities that may be co-located within the Innovation Campus.



▲ *Utah State Senate chamber*

More broadly, **legislative and regulatory constraints** affecting Innovation Campus development **fall into two categories: structural limitations embedded in statutory authorities and implementation constraints arising from existing regulatory frameworks**, as described in greater detail in *Question 5: Regulatory Framework & Licensing Support*.

Regulatory jurisdiction remains distributed across federal and State entities, limiting the ability to permit an integrated Innovation Campus under a single regulatory construct. The AEA, including Section 274 establishing the Agreement State framework, allocates regulatory authority across NRC, DOE, and Agreement State programs based on material type and activity. This structure prevents a single entity from exercising unified oversight across all Innovation Campus activities and requires coordinated, multi-agency review for co-located facilities. We also recognize the recent federal mandates to modernize nuclear regulation in the U.S. We expect that the ongoing re-evaluation driven by the ADVANCE Act of 2024 and 2025 executive orders may lead to new standards within which the Innovation Campus will operate. Utah stands ready to work with federal partners as those frameworks develop.

Due to the variety and scope of the activities anticipated on the Innovation Campus, existing licensing requirements may introduce implementation constraints affecting Campus operationalization. Further streamlining of the licensing and regulatory oversight frameworks may be beneficial due to the various timelines of Innovation Campus activities. The State looks forward to working with DOE and NRC, as applicable, on licensing revision to successfully operate the Innovation Campus.

Federal radiation regulations are established according to ALARA (As Low As Reasonably Achievable) standards and can impose significant financial challenges for the nuclear industry. The Linear No Threshold model, which underlies these regulations, assumes any dose of ionizing radiation carries a proportional risk of harm, effectively implying there is no safe dose of radiation. Recent research suggests this model is not fully accurate. [53] In practice, this results in over-engineering and increases cost without meaningful safety gains, such as facilities designed to reduce radiation levels far below natural background radiation. Radiation protection requirements, including application of ALARA principles, are implemented at the facility level and do not fully account for integrated configurations involving co-location of multiple operations on one campus. This creates additional complexity in demonstrating compliance across shared infrastructure, overlapping operational zones, and intra-site material movement.

In addition, existing regulatory frameworks reflect a historically siloed approach to nuclear facility oversight, which does not fully align with the Innovation Campus model of integrated, co-located lifecycle activities. This structural limitation, combined with distributed regulatory authority and evolving federal policy direction, creates uncertainty in permitting pathways, operational integration, and long-term governance of Campus activities.

▼ *Utah State Capitol building in Salt Lake City*



Legislative Actions & Statutory Alignment Strategies to Enable Innovation Campus Development

During the 2026 legislative session, the Utah State Legislature directed a full review of restrictions on nuclear waste storage contained in Utah Code Title 19-3. **S.B. 135 directs the State to evaluate these policies comprehensively and identify statutory, regulatory, and infrastructure modifications necessary to support advanced nuclear development, including co-location of nuclear lifecycle activities**, with a specific focus on resolving constraints associated with waste management pathways, co-location of fuel cycle activities, and alignment with federal regulatory frameworks.

H.B. 78 complements this effort by establishing additional regulatory capacity within State government. The legislation strengthens Utah's ability to administer nuclear regulatory programs and prepares the State to assume additional responsibilities should federal authorities grant expanded Agreement State Authority in the future. This expanded capacity **enables Utah to address jurisdictional fragmentation under the Agreement State framework by strengthening coordination with NRC and DOE and positioning the State to assume additional delegated authorities where appropriate**.

At the federal level, policy development related to UNF management, consolidated interim storage, and long-term disposal directly affects nuclear lifecycle planning and Utah is coordinating with federal agencies and industry stakeholders to monitor these developments and evaluate implications for the Innovation Campus. This engagement includes participation in federal discussions related to disposal pathways and interim storage policy with the objective of reducing constraints associated with current implementation of the NWPA.

In parallel, **Utah is evaluating administrative and regulatory approaches to address implementation constraints associated with existing federal regulatory frameworks**. These efforts include development of coordinated licensing pathways across facility types, clarification of intra-site material transfer requirements, and use of existing permitting authorities to support integrated Campus operations.

07

Timeline for State Support

What is your state's proposed timelines for providing regulatory approvals, infrastructure development, and community agreements to support the Nuclear Lifecycle Innovation Campus? Include key milestones, such as site selection, permit reviews and issuance, infrastructure upgrades, workforce training program launches, and community engagement initiatives.

We have **assembled an integrated, multi-workstream timeline that sequences supporting infrastructure** (e.g., road, rail, transmission line, substation, water, and waste improvements), **community engagement and outreach**, and **workforce development and training** to bring the Innovation Campus to fruition. The plan aligns early federal–State and State-local actions (including DOE selection, site control, and regulatory alignment) with private-partner activities such as operator procurements and Campus design. Central to the schedule is meeting the **2027 target for initial operations** set forth in the RFI; **pending DOE award, Utah is positioned to execute the timeline immediately beginning day one** with the pre-site selection, procurement, and enabling-work steps already mapped in the plan. Meeting an initial operations deadline of 2027, our illustrative timeline, in *Figure 10*, assumes DOE selection of the Innovation Campus occurs in Quarter 2 of 2026 and we codify the agreement framework by Quarter 4 of 2026.

Policy Alignment & State Readiness

Utah will **continue advancing the policy and institutional framework necessary to support nuclear energy development and associated fuel cycle activities**. Recent legislation establishes a foundation for regulatory readiness, including evaluation of advanced nuclear technologies, fuel cycle infrastructure, and co-location of nuclear lifecycle activities. State agencies will coordinate with OED, DEQ, and other entities to assess regulatory capacity, identify permitting authorities applicable to Innovation Campus development, and establish interagency coordination mechanisms aligned with federal regulators, including NRC and DOE, so State regulatory programs are prepared to support subsequent permitting and licensing actions.

Utah has existing, appropriated funds available to support early-stage development activities, including site characterization and preliminary permitting, with the potential to leverage additional State funding mechanisms as needed to support regulatory and infrastructure readiness. Regulatory and legislative actions described in *Questions 5: Regulatory Framework & Licensing Support* and *Question 6: Legislative & Policy Requirements* establish the policy environment required to support Campus development.

Final Site Selection

Utah will confirm the final Innovation Campus location within the Corridor through a **structured site selection process conducted in coordination with project developers and engineering partners**. Site evaluations will incorporate land overlap, water resources, and environmental constraints identified through desktop analysis, including presence of National Hydrography Dataset (NHD) flowlines and waterbodies; presence of National Wetlands Inventory (NWI) wetlands; extent of federal land ownership, including by BLM, USBR, and the National Parks Service (NPS); and existing infrastructure access and constructability. Utah is already initiating early engagement with local governments and surrounding communities and will continue these efforts.

In parallel with site characterization, **Utah will initiate an RFI to identify a qualified bidders list for private operators of the Innovation Campus**. Final operator selection and Campus development structure will be informed by DOE consultation and the ultimate management framework selected for the Innovation Campus.

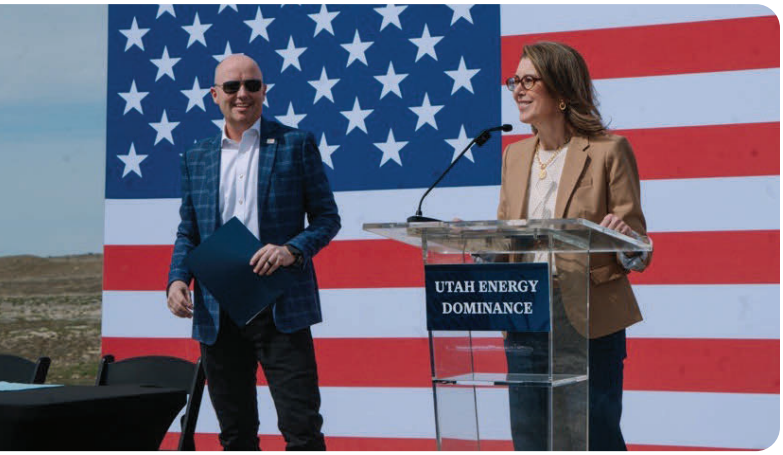
Innovation Campus response announcement in Tooele County



Permitting & Regulatory Review: Infrastructure

Following site confirmation, the project will enter regulatory review. **Permitting activities, engineering design, and interconnection studies will proceed concurrently and will be sequenced to align with infrastructure readiness and federal licensing timelines**. If the supportive infrastructure for the Innovation Campus triggers federal permitting requirements under the State's oversight and facilitation, Utah will engage the appropriate federal permitting authorities. Utah is already collecting site-specific data and actively advancing site characterization across candidate locations, as aforementioned.

▼ *Lieutenant Governor Deidre Henderson at Nuclear Innovation Campus response announcement in Tooele County*



These activities include evaluation of land ownership, water availability, environmental constraints, and infrastructure access conditions. This work is currently underway and directly informs permitting pathway identification, environmental review scope, infrastructure design, and sequencing of approvals, and will continue in parallel with federal coordination and private operator engagement activities.

Permitting activities will be determined based on site-specific conditions identified through the characterization work. Where NHD flowlines, waterbodies, and wetlands are present, the project will initiate coordination under the Fish and Wildlife Coordination Act with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Association (NOAA). This coordination will inform impact avoidance and mitigation requirements.

Federally governed approvals including CWA permitting based on identified aquatic resources. Section 404 permitting for impacts will apply where impacts to waters of the U.S., NEPA review (environmental assessment (EA) or environmental impact statement (EIS)), typically 12–30 months depending on scope), Section 106 review under NHPA (typically six to 18 months, conducted in parallel with NEPA), federal land access approvals such as BLM right-of-way or USBR use authorizations (typically 3–18 months depending on routing and land ownership), and Rivers and Harbors Act Section 10 permitting where applicable. These processes will be initiated based on site conditions and proceed in coordination with engineering design. A Nationwide Permit (NWP) from USACE may be applicable, with an estimated duration of approximately 3 months, subject to project-specific impact thresholds. Section 401 water quality certification may be required in conjunction with Section 404.

Utah operates federally authorized permitting programs through DEQ, including DWMRC, DWQ, and the Division of Air Quality. These include CWA Section 401 water quality certification, which is required for Section 404 actions; CWA Section 402 stormwater and discharge permitting, which typically requires 1–12 months depending on discharge characteristics; and Clean Air Act (CAA) permitting (Approval Orders and Title V), which typically requires 3–18 months depending on facility design. Where applicable, groundwater discharge permitting and Underground Injection Control (UIC)-related oversight will also be administered at the State level. Section 402 permitting under the CWA may be required for construction stormwater and may be required for operational discharges. Analysis indicates a duration of approximately 1–12 months, depending on discharge characteristics.

In addition to delegated programs, **Utah retains authority over State-controlled approvals that are independent of federal permitting**. These include water rights administration through the Utah Division of Water Rights under the prior appropriation doctrine, as well as local land-use zoning, grading, and infrastructure approvals required for roads, transmission corridors, water systems, wastewater systems, and other enabling infrastructure. Water rights will be evaluated during site selection and infrastructure planning and represents a State-controlled constraint independent of federal environmental review.

Federal and State permitting processes operate concurrently with defined areas of interdependence. Section 404 permitting cannot proceed without State-issued Section 401 certification. NEPA analysis incorporates State-provided data related to water quality, environmental constraints, and infrastructure feasibility. Federal land access decisions depend on State and local infrastructure routing, utility planning, and permitting feasibility. As a result, State permitting is integrated into federal decision-making rather than occurring sequentially. Utah will coordinate these interactions through OED to align federal approvals with State-administered permits and avoid delays associated with disjointed or sequential review processes.

Supportive infrastructural permitting activities align with the broader project schedule, with site characterization and early permitting initiation occurring in the 2026–2027 timeframe, followed by concurrent federal and State review processes, including NEPA, Section 404, and air permitting, during the 2027–2028 period. Permit finalization, infrastructure construction, and facility deployment will proceed thereafter based on approval timelines and federal licensing milestones.

Permitting activities will proceed in coordination with engineering design. Early regulatory coordination will inform design constraints, and final permit applications will reflect detailed engineering design, including infrastructure layout, transmission routing, and facility configuration.

Infrastructure Development

Initial infrastructure development will proceed during the regulatory review and will continue as permits and approvals are obtained. Engineering partners will advance design and construction planning for infrastructure required to support Innovation Campus operations. This work will include transmission and substation development, transportation access improvements, water and wastewater systems, and site preparation activities.

Infrastructure construction described in *Question 4: Site Infrastructure Requirements* will begin for components that have received required approvals. Construction sequencing will depend on permit issuance, land access approvals, and completion of interconnection studies. Right-of-way acquisition, easement approvals, and federal land access approvals will continue during this period, as well. These approvals will depend on final routing and infrastructure design and will be coordinated with federal environmental review and permitting requirements.

Utah will coordinate enabling infrastructure development at the State level, including roads, utilities, and site access, even where facility-level licensing is federally controlled or operator-led.

▼ *Utah desert*



Construction & Facility Deployment

Construction of Campus facilities will proceed following advancement of regulatory approvals and supporting infrastructure. Construction activities will be sequenced based on facility type, infrastructure availability, and permit conditions. Initial activities will include site preparation and integration of supporting infrastructure. Subsequent activities will include installation of major facility systems, utility integration, and commissioning.

Construction sequencing will align with permitting requirements, infrastructure readiness, and federal licensing milestones. For privately operated Innovation Campus components, sequencing will also depend on DOE consultation, operator selection, final management arrangements, and the timing of facility-specific federal licensing actions.

Workforce Training & Operational Preparation

Workforce development activities will occur throughout the project lifecycle. **Utah will support workforce development through programs that advance both long-term workforce sustainability and near-term staffing requirements** for Innovation Campus operations.

Workforce development efforts will continue through project construction to support a sustained pipeline of skilled labor across engineering, construction, and technical disciplines. In parallel, Utah will undertake targeted efforts during early project phases to enable workforce availability for initial Campus operations. These efforts will focus on identifying required roles, aligning training with facility-specific needs, and coordinating with educational and training institutions to support operational readiness.

Workforce training programs will expand during construction and continue through facility operations. Utah will coordinate with universities, technical colleges, and national laboratory partners to support workforce development across engineering, construction, operations, and technical disciplines associated with Campus facilities. Please see *Question 21: Additional State Information* for our workforce development strategy.



Governor Cox visits USREL



UT OED at a STEM event

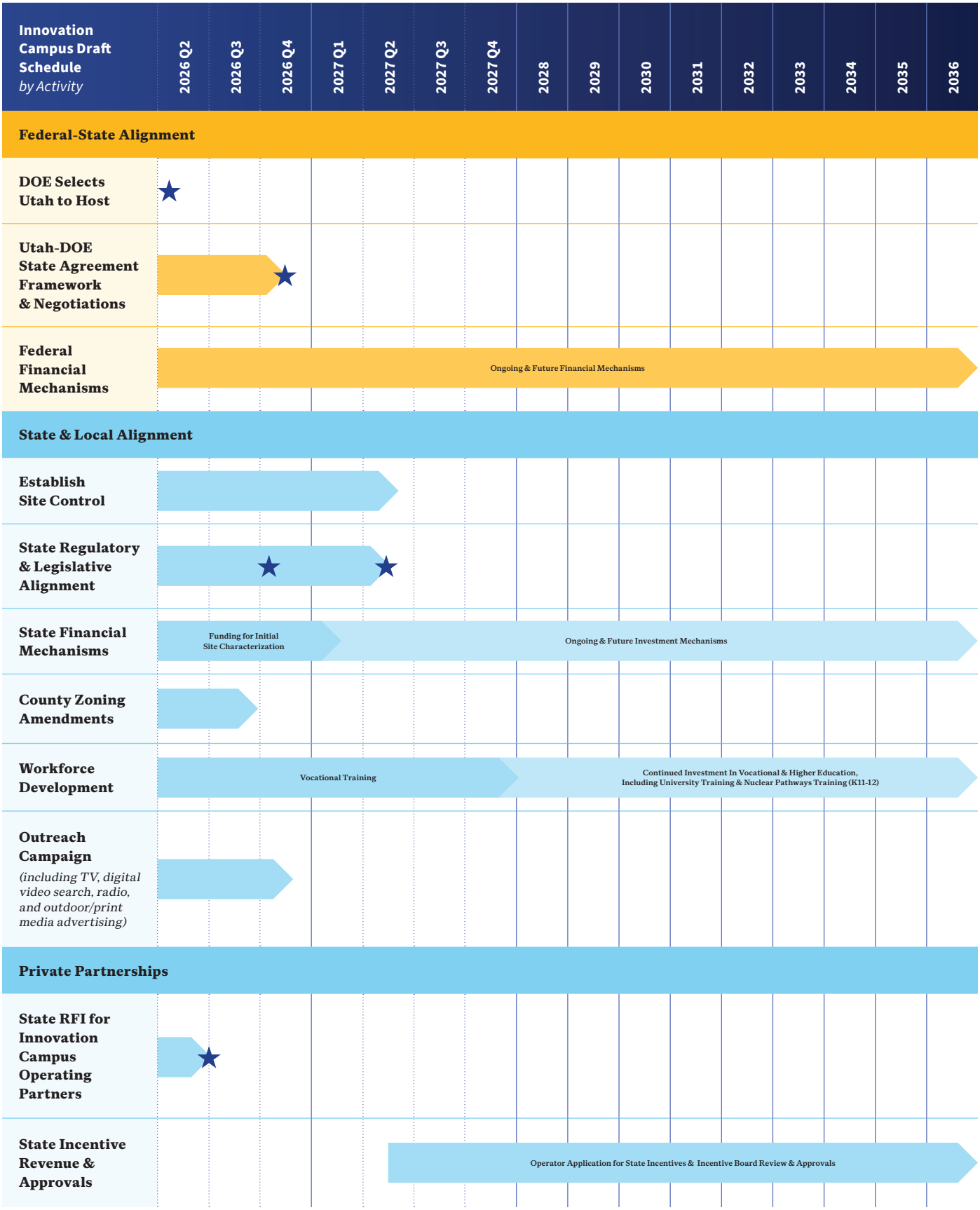
Nuclear Fuel Cycle Facility Sequencing

Based on the responses to the RFI, **Utah in coordination with the DOE as appropriate, may release a formal solicitation for the final selection of the Innovation Campus' operating partners**. The proposals and designs of the selected operating partners, as well as guidance provided by DOE, will define the scope of the nuclear fuel cycle the Innovation Campus will host. The nuclear lifecycle facilities will be sequenced following initial infrastructure development and will depend on federal approvals, industry participation, and national policy direction.

Utah is committed to coordinating across State agencies and interfacing with DOE, NRC, and other federal entities to support, and where possible, expedite permitting for private operators of the Innovation Campus. Where feasible the State intends to support our private operators on early site permitting engagement with NRC to accelerate permit application submission timeframes.

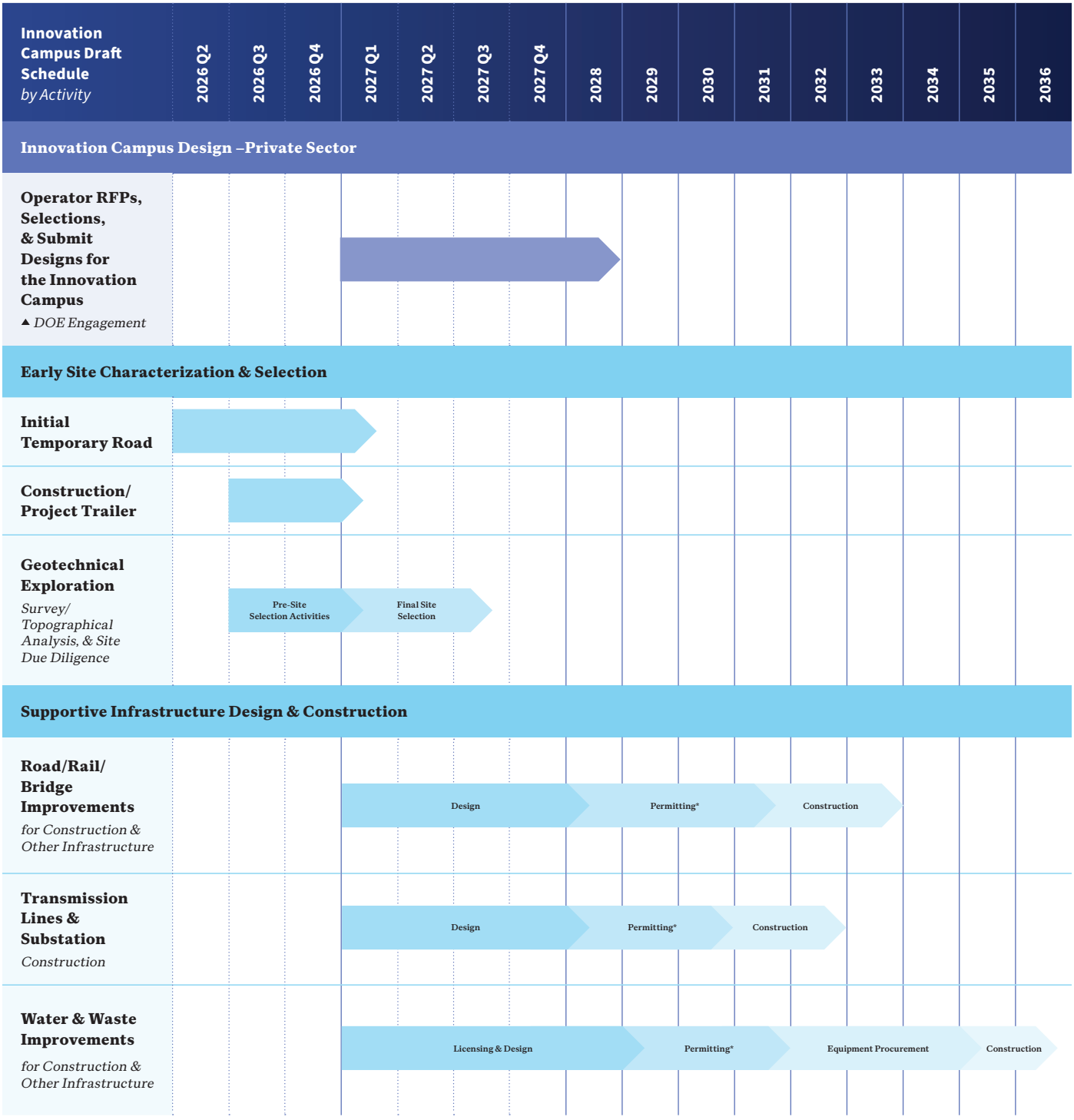
Federal-led Action · State-led Action · Private Operator-led Action · ★ Milestone Event · ▲ Dependency

FIGURE 10 | TIMELINE FOR STATE SUPPORT & ILLUSTRATIVE DEVELOPMENT ACTIVITIES



Federal-led Action · State-led Action · Private Operator-led Action · ★ Milestone Event · ▲ Dependency

FIGURE 10 | TIMELINE FOR STATE SUPPORT & ILLUSTRATIVE DEVELOPMENT ACTIVITIES *(cont.)*



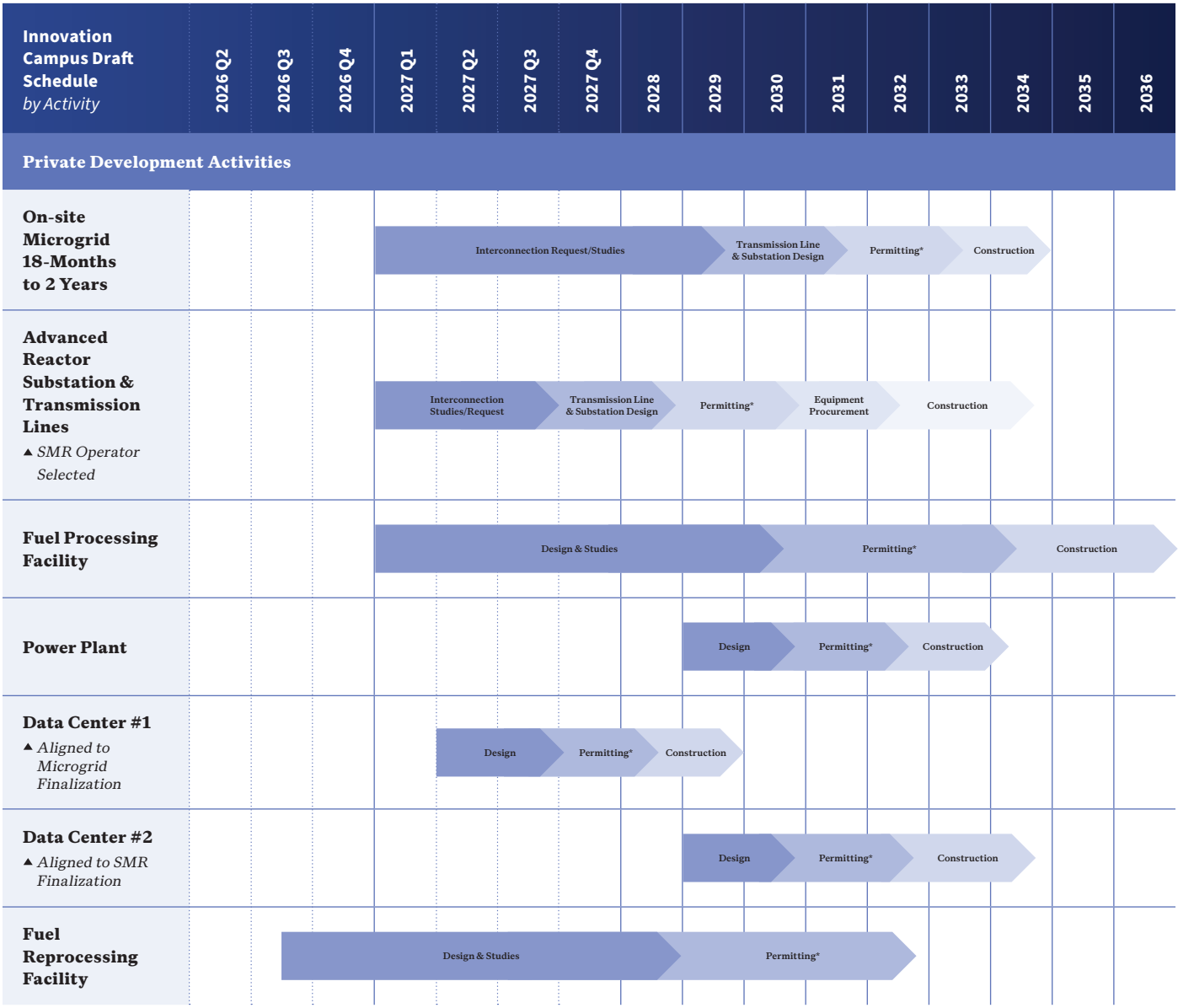
*Permitting consists of easement/ROW and land acquisition.

▼ *Sunset in Salt Lake City*



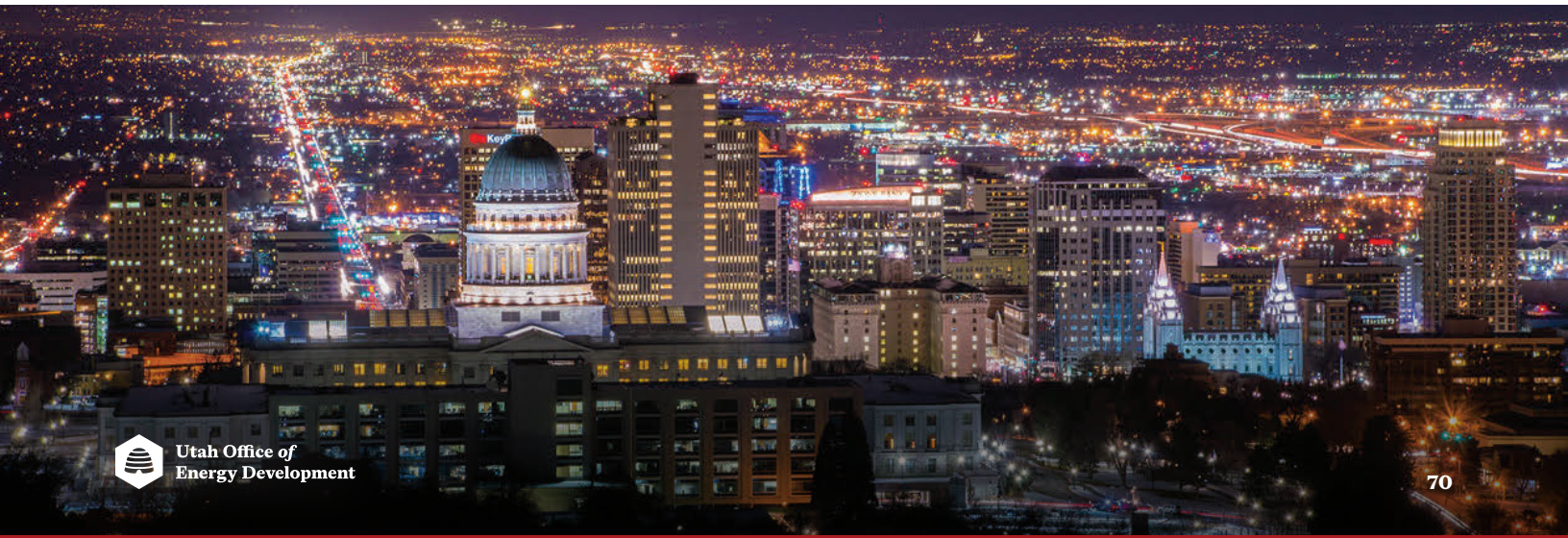
● Federal-led Action ● State-led Action ● Private Operator-led Action ★ Milestone Event ▲ Dependency

FIGURE 10 | TIMELINE FOR STATE SUPPORT & ILLUSTRATIVE DEVELOPMENT ACTIVITIES *(cont.)*



*Permitting consists of easement/ROW and land acquisition.

▼ *Utah State Capitol building at night*



08

Anticipated Public & Stakeholder Concerns

What challenges do you anticipate within your state to any of the Nuclear Lifecycle Innovation Campus functions (e.g., from environmental groups, local communities, Tribal nations, or political entities), particularly for sensitive activities such as reprocessing, plutonium handling, or waste disposal?

Tooele County Council has declared its support for hosting the Innovation Campus. Utah has a strong working relationship with the County through ongoing collaboration on the Clive disposal facility and the 2025 DOE Test Bed Initiative demonstration at the site. Utah does anticipate public concerns about the Innovation Campus proposal from a contingent of Utah-based non-governmental organizations (NGOs), as well as Tribal entities with whom the State has an established history of engaging on nuclear topics.

NGO response to the Innovation Campus proposal may include concerns related to the community and ecosystem impacts of potential toxic and radioactive exposures, particularly those linked with the nuclear fuel supply. Additional NGO-organized concerns raised in relation to previous nuclear projects include:

- Public health concerns
- Environmental impact risks related to contamination and waste management
- Economic considerations, including potential cost burdens on taxpayers
- Concerns around siting nuclear facilities near economically vulnerable communities

Public acceptance remains one of the most significant factors in nuclear facility deployment, and Utah's early engagement provides a proactive foundation for addressing community concerns. As part of Utah's integrated strategy to expand nuclear energy in the State, **OED has established a Civil Nuclear Public Education and Community Outreach Campaign to proactively engage communities** throughout 2026. Among its engagement efforts, the campaign is already engaged in active and ongoing dialogue with these NGOs to discuss the realities of civil nuclear energy. For further details on this campaign's efforts to engage and educate Utahns statewide, reference ***Question 9: Stakeholder Engagement Strategy & Cooperation Mechanisms***.

The State anticipates additional concerns from Tribal Nations, in line with their historical response to nuclear fuel cycle-related activity. Operations from the White Mesa Mill in southeastern Utah have previously been subject to public comment from local Tribes. A Biden-era decision by the EPA led to pausing all shipments of waste from other EPA superfund sites to the mill when it was found that the mill did not appropriately cover large amounts of radioactive waste. Tribal response to the White Mesa Mill further derives from concerns about health risks to Tribal members, proximity to ancestral lands, and waste management. In Tooele County, the Skull Valley Band of Goshute attempted to partner with Private Fuel Storage in the mid-1990s to 2006 to host a private interim storage facility for commercial HLW. Significant engagement with the Tribe is anticipated and OED has met with Skull Valley Band Tribal leadership to discuss opportunities for the Band to benefit from the proximal location of the Innovation Campus.

Nuclear-related legislation in the Utah State Legislature has received strong support overall, with only some individual members having expressed uncertainty with past considerations for Utah's nuclear history. This is most immediately evidenced by the multiple nuclear energy-related bills passed in Utah's March 2026 legislative session, including S.B. 135 and H.B. 78. Additionally, a recent proposal by EnergySolutions to accept LLW from Canada at the Clive disposal facility provoked very limited response from both the legislature and the general public and recently announced nuclear projects have received broadly positive public sentiment. Our Public Education and Community Outreach Campaign has documented the following categories of nuclear concerns from the general public:

- Earthquakes/fault lines and siting/regulatory approvals concerning seismic suitability
- Water consumption/usage/contamination
- Financial burden to Utahns
- Safety referencing legacy incidents (e.g., Three Mile Island, Chernobyl, and Fukushima)
- Uncertainty about federal and State regulation
- Distrust of State and federal government entities
- Concern about attacks on nuclear infrastructure; nuclear non-proliferation

Given the current success of Utah's campaign on this topic and the absence of significant public response to recently announced projects in the State, particularly to the shipment of Canadian LLW to the Clive disposal facility, **Utah is confident that anticipated stakeholder concerns can be met and addressed**.

Downtown Logan



09

Stakeholder Engagement Strategy & Cooperation Mechanisms

What is your state's plan to engage stakeholders- including political entities, local communities, Tribal nations, environmental groups, industry partners- to ensure timely public acceptance and compliance with regulatory frameworks for all Nuclear Lifecycle Innovation Campus functions? Provide a conceptual strategy, including community outreach programs, public hearings, Tribal consultations, and partnerships with local organizations. Include examples of successful stakeholder engagement from past nuclear, industrial, or infrastructure projects in your state.

As referenced throughout this response, **Utah has a strong existing foundation as a nuclear hub across a mix of legacy operations and emerging partnerships and advancements**. This foundation includes a relationship with DOE as a beneficiary of its past nuclear-related engagement programs.

The DOE's Gateway for Accelerated Innovation in Nuclear (GAIN) program first engaged with Carbon and Emery Counties in early 2023, visiting USREL and meeting with the Southeastern Regional Development Agency (SERDA). In December 2023, in partnership with Brigham Young University's Dr. Andrew Fry and the Utah Office of Energy Development's Dr. Jeremy Pearson, **SERDA was selected for the inaugural Capacity Building for Repurposing Energy Assets Program**, receiving a $100,000 grant from DOE to assess the economic impact of coal power plant closures and explore nuclear energy's potential in Southeastern Utah. This study identified four key opportunities for Carbon and Emery Counties: 1. Nuclear Energy Development, 2. Carbon Capture and Sequestration, 3. Redevelopment of Energy Assets, and 4. Microgrid Development.

SERDA was also selected as an awardee for the Communities Local Energy Action Plan program to develop a comprehensive transition strategy and joined the program's State cohort in Spring 2024. Leveraging national expertise, SERDA explored siting of nuclear energy in Emery County, research into alternative energy technologies, and planning for workforce development and community engagement. More recently, **Utah was supported by DOE's Collaborative-Based Siting program**. In August 2025, North Carolina State University, Mothers for Nuclear, and Native Nuclear hosted both a public and invite-only event in San Juan County. The conversations at the meetings highlighted the region's legacy of uranium milling and radiation exposure.

For years, active consideration of community sentiment and proactive engagement with key community stakeholders has been core to Utah's nuclear strategy. As the State charts an accelerated course in nuclear energy, **Utah believes it is imperative to also accelerate efforts to educate and engage Utahns on nuclear technology, its benefits, and the role it can play in providing reliable, clean, and secure energy for decades**.



▲ *Governor Cox speaks with Colonel Brian A. Sansom, Commander, U.S. Army Dugway Proving Ground, in Tooele County*

OED launched the Civil Nuclear Public Education and Community Outreach Campaign to proactively engage communities throughout 2026. The campaign's primary objective is to deepen public understanding of nuclear energy through public outreach and community engagement events in all 29 counties while providing strategic communication and education through mass communications platforms. As part of its Public Education and Community Outreach Campaign, OED has been actively engaged in relationship-building activities with local community stakeholders across the State. As of this submission, **OED has coordinated with all eight associations of governments (AOGs), county commissioners in 12 counties, 19 city councilors and mayors, and seven economic development departments**. Local stakeholders core to the campaign's outreach efforts include, but are not limited to:

- County Commissioners
- City Councilors
- City Mayors
- City/County Planners
- Economic Development Departments/entities
- AOGs
- Chambers of Commerce
- Private Developers
- Sustainability Offices
- School Districts
- Utah Tribal Leadership Meetings
- Tribal Council Meetings
- NGOs



These engagements serve as introductory meetings to the Public Education and Community Outreach Campaign, informing OED's regional efforts and **ensuring they are tailored to local priorities while providing opportunities to share informational materials about nuclear energy**. Additionally, OED has connected with academic, environmental, and industry stakeholders to address inquiries and identify collaborative opportunities regarding community engagement events.

From October to December of 2025, we **completed a pilot campaign in three counties: Millard (rural), Tooele (rural), and Weber (urban)**. OED conducted a series of in-person, interception-based surveys to assess public attitudes and familiarity with nuclear energy. Surveyors administered the survey in high-traffic public locations using a convenience sampling approach. As a result, the respondent pool is not fully representative of the county's demographic composition; however, the findings provide valuable directional insights into community perceptions and barriers to public nuclear understanding and acceptance. Respondents (n = 608) represented below provided valid Utah zip codes and were at least age 18.

The pilot poll found that the county residents surveyed were generally supportive of nuclear energy's potential to meet energy goals and saw nuclear energy as a valuable resource (*Figure 11* and *Figure 12*). In Tooele County, 70% of respondents agreed that nuclear energy was a valuable resource for Utah today and in the future, and 64% of respondents from Tooele agreed that nuclear energy can help Utah meet its energy goals.

FIGURE 11 | SURVEY RESPONSE: "NUCLEAR ENERGY CAN HELP UTAH MEET ITS ENERGY GOALS"

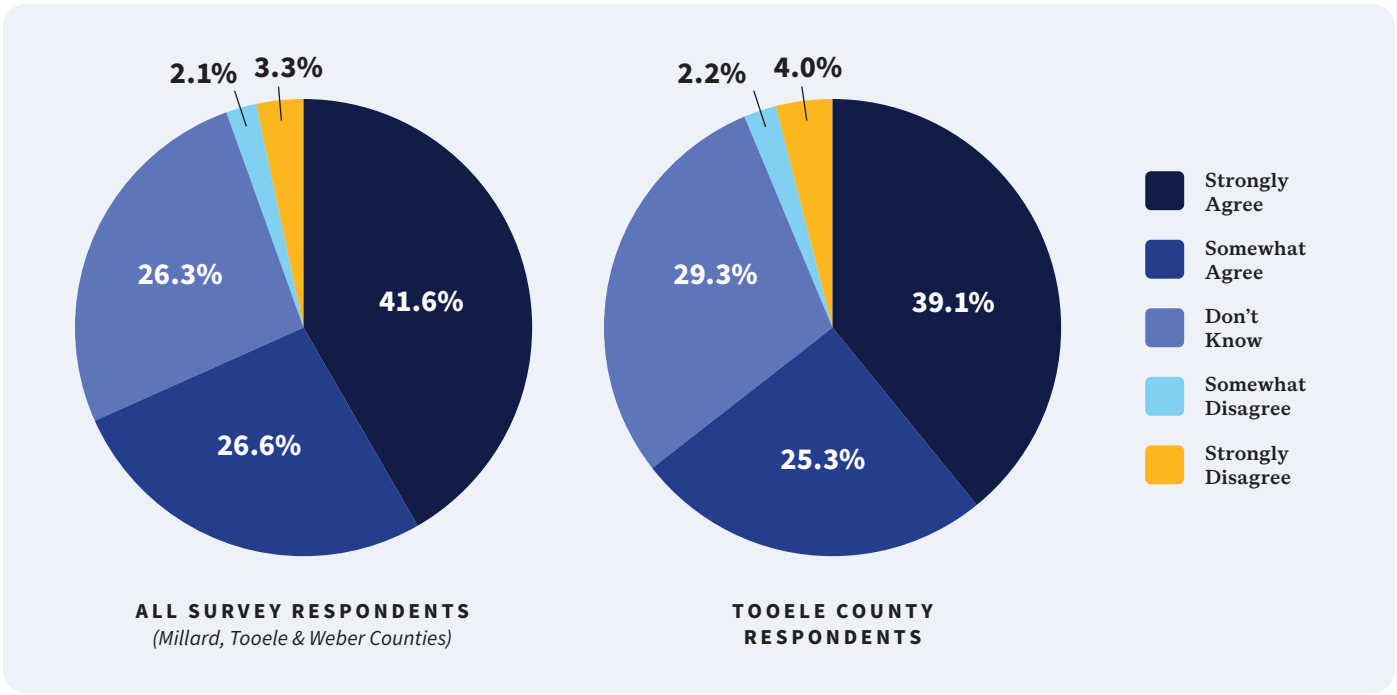
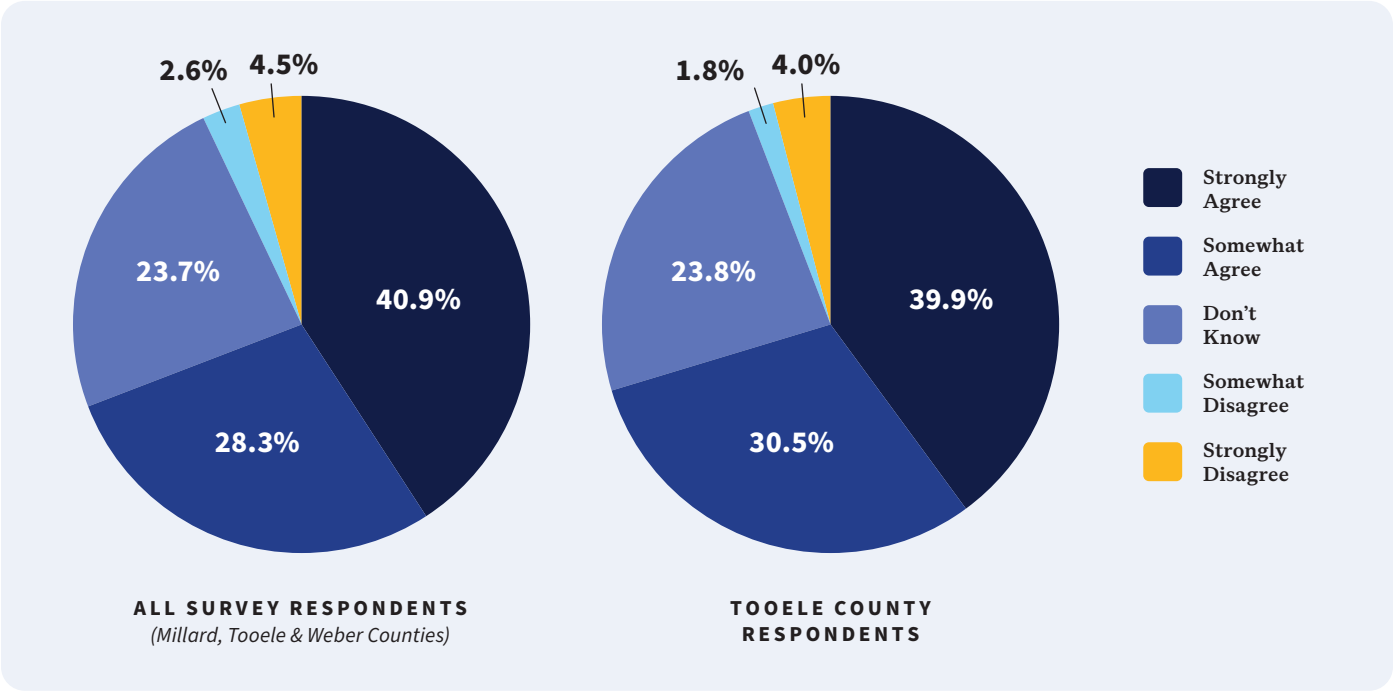
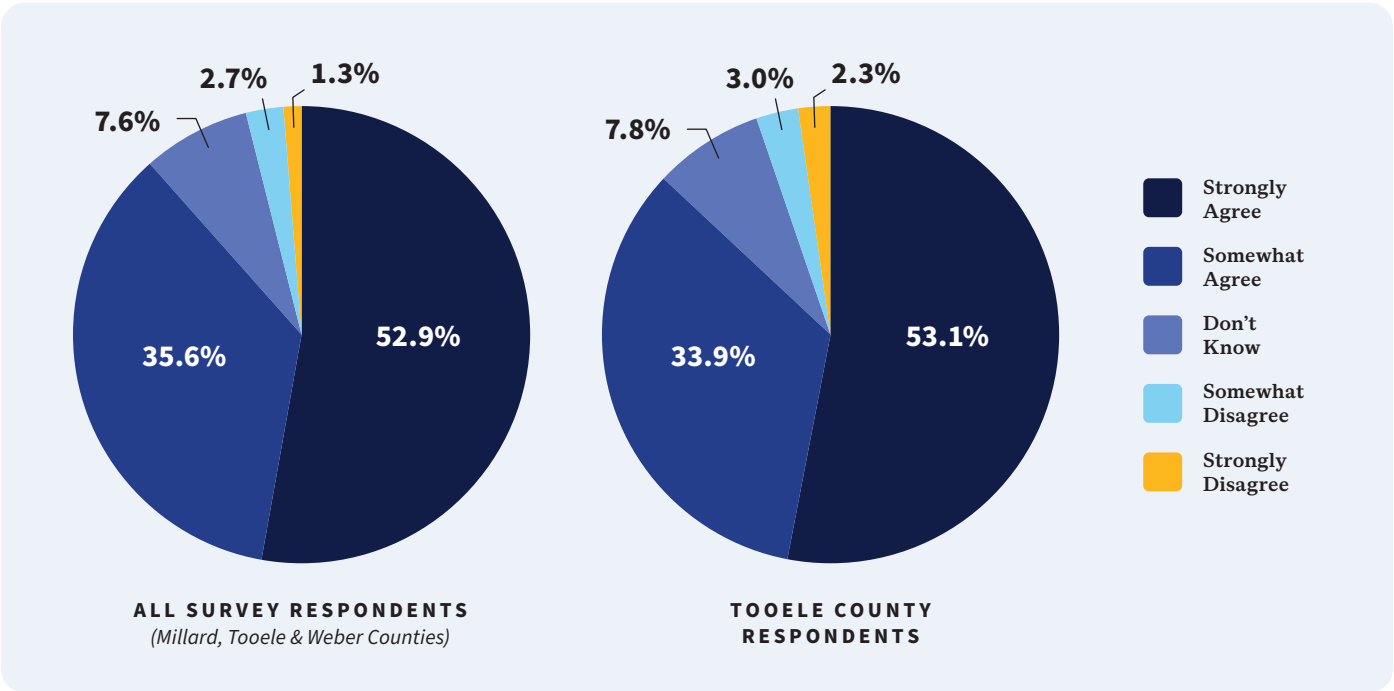


FIGURE 12 | SURVEY RESPONSE: "NUCLEAR ENERGY IS A VALUABLE RESOURCE FOR UTAH TODAY & IN THE FUTURE"



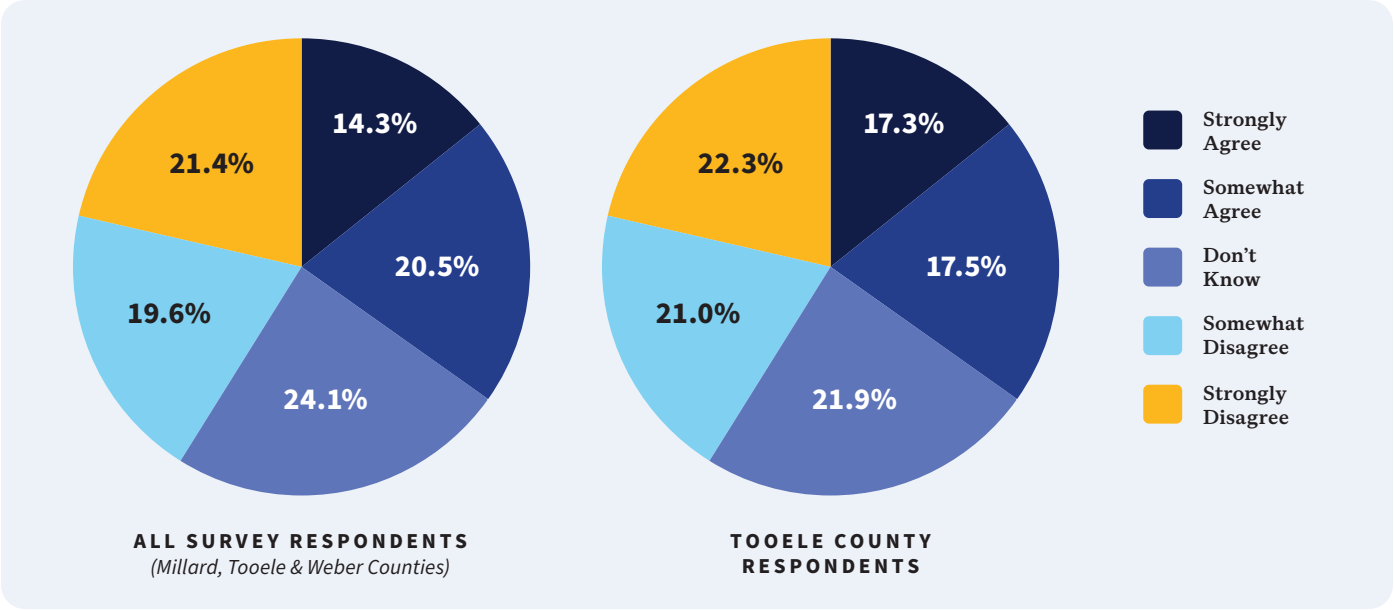
Survey respondents were especially optimistic about nuclear energy as a job creation and economic driver as indicated in the responses in *Figure 13*, including 88% of respondents from Tooele County.

FIGURE 13 | SURVEY RESPONSE: "NUCLEAR ENERGY COULD HELP CREATE JOBS & ECONOMIC BENEFITS IN MY COMMUNITY"



Further **opportunity exists to educate communities on the benefits of nuclear energy**, as significant portions of the population incorrectly conflate nuclear weapons with civil nuclear energy (*Figure 14*), and are simply unaware about the U.S. nuclear regulatory regime and safe practices around nuclear waste. In Tooele specifically, almost one-third of respondents answered "Don't Know" to the statement "I believe there is strong oversight over nuclear plants, waste, and mining" and 39% responded "Don't Know" to the statement "Spent fuel and waste from nuclear plants are managed properly/responsibly."

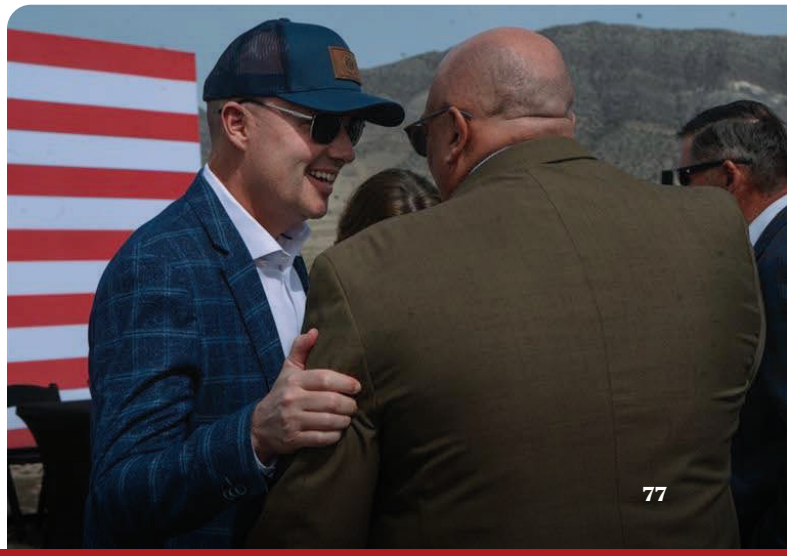
FIGURE 14 | SURVEY RESPONSE: "NUCLEAR WEAPONS & NUCLEAR ENERGY CARRY SIMILAR RISKS"



OED will continue to build community relationships to lay the groundwork for events that involve relevant stakeholders and address local priorities in a beneficial manner. **At least one community engagement event will be held in all 29 counties** by the end of 2026 to address nuclear technology, fuel cycle, supply chain, and workforce development. To support these efforts, **OED has launched an updated website for the campaign which includes fact sheets in English, Spanish, and Tribal languages**. The campaign is striving to increase public awareness of publicly available nuclear energy informational resources through a branded marketing campaign for social media, TV, radio, and billboard and print media to run strategically throughout 2026.

Special attention will be paid to engagement with Tribal Nations. Each Tribal entity located within Utah's borders has its own unique history and relationship with different parts of the nuclear fuel cycle. Utah recognizes that while interactions with these sovereign nations have traditionally been a government-to-government interaction led by federal representatives, the RFI places the onus of engagement on the State with respect to the Innovation Campus. Utah is already engaged in this work, both broadly across energy topics through OED and the Utah Division of Indian Affairs and specifically as a special and intentional part of its Public Education and Community Outreach Campaign. Looking to the future, it is **Utah's intention to maintain strong, ongoing, and respectful dialogue across energy topics with Tribal Nations through a dedicated Tribal liaison** official within OED. Moreover, OED expects to fund specific Tribal outreach and engagement efforts on topics across the nuclear fuel cycle as part of its Public Education and Community Outreach Campaign to support deployment of an Innovation Campus in the State.

Governor Cox speaking to Jared Hamner, Tooele County Council Chair



In addition to building relationships with residential stakeholders and community organizations, coordination with local public safety and emergency planning stakeholders is a crucial part of community engagement. **Utah plans to establish an integrated community response effort that brings together local law enforcement, fire departments, emergency medical services, and other professional emergency personnel alongside other community members involved in emergency efforts** such as the Tooele Local Emergency Planning Committee. Leveraging the experience and relationships of DPS and DEM in particular, the State will work to provide these key stakeholders with unified messaging, essential safety and emergency information, and facilitate roles and responsibilities so they are positioned to plan and respond as a unified front.

Other stakeholders to be involved in these discussions at the State level will include DEQ, which contributes representatives to the State's Emergency Response Commission alongside the DPS, as well as State law enforcement and relevant military personnel such as the Utah National Guard. Full details related to Utah's Campus safety and emergency management planning approach are available in *Question 12: Environmental & Safety Stewardship*.

OED's initial Public Education and Community Outreach Campaign is laying an excellent foundation for literacy across nuclear fuel cycle topics. However, continued and sustained efforts will be necessary to ensure community understanding, which is critical for acceptance. **A special focus in counties—particularly Tooele—hosting Innovation Campus components and transportation corridors will be necessary to provide appropriate educational information and address community specific questions**. This special focus will include in-person engagement at community events, hosted informational sessions and town halls, regular updates on OED's nuclear website and social media platforms, and continued educational efforts. A full lifecycle Campus requires State coordination and education across multiple stakeholders and jurisdictions to guarantee robust support. A continued, broader campaign to keep counties apprised of progress on the Innovation Campus, and nuclear energy topics more generally, will ensure the citizens fully understand the economic and environmental benefits of nuclear energy. Utah's goal is nothing short of having the most nuclear literate population in the country.



View of downtown from Ensign Peak, in Salt Lake City

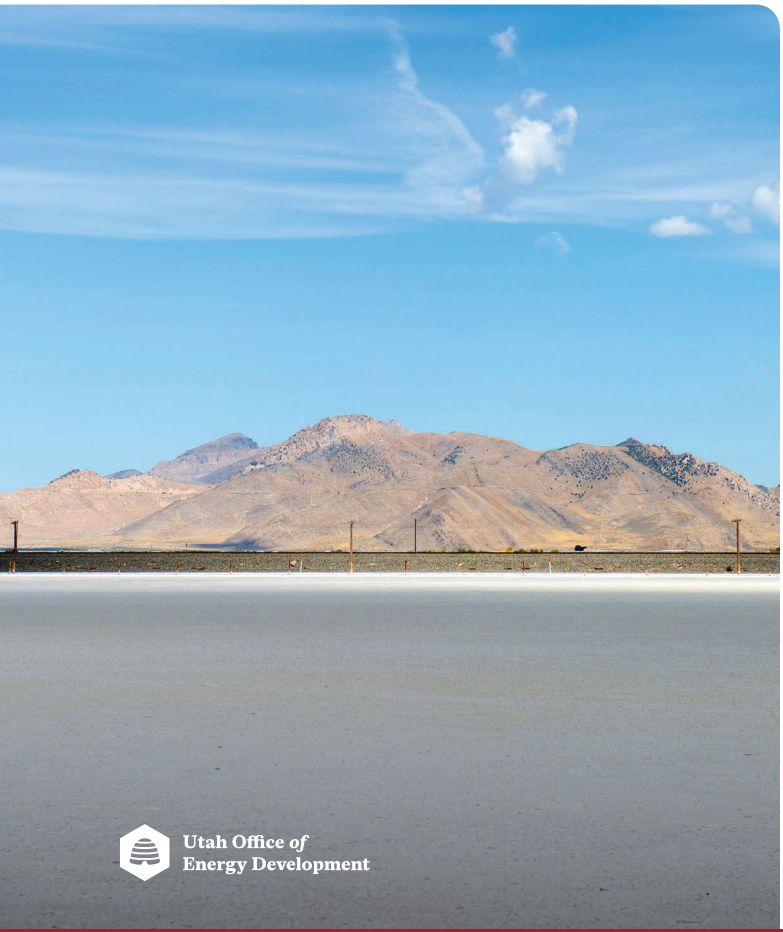
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HLW Management, Treatment, Storage & Disposal

How would your state implement the management of material requiring long term management? Describe proposed infrastructure (e.g., interim storage facilities, reprocessing options, deep geologic disposal facilities including boreholes) and compliance with state and federal environmental regulations. Specify any existing capabilities (e.g., licensed storage sites).

Utah sees nuclear waste reception, reprocessing, and storage as an economic opportunity. We therefore **seek to host the responsible management of nuclear materials, fuel and isotope extraction, reprocessing from UNF, interim storage, and final disposal**. Utah is strongly positioned to serve as the nation's leader in UNF storage with demonstrated commitment from government, academia, and private industry. To help manage long-term storage, Utah is prepared to support DOE in advancing a safe, secure, and compliant approach to managing the first-ever long-term storage solution for HLW and UNF. As described in the opening letter, State leadership has documented its support for pursuing storage and reprocessing pathways, and Tooele County Leadership has communicated an understanding that **the Campus may include reprocessing and storage of UNF subject to robust safety, security, and environmental protections**. Due to the challenges outlined in *Question 6: Legislative & Policy Requirements*, further refinements to the federal regulatory and statutory framework are required to operationalize permanent storage in Utah. The State is committed to coordinated planning with DOE and relevant institutions to inform an integrated waste management strategy.

Railroad in Tooele County





The EnergySolutions facility in Clive

Disposition Plans Across Nuclear Waste Types

The **Innovation Campus will be set up to receive national federal and commercial nuclear materials for interim storage, processing, and final disposal**. Furthermore, it is anticipated that Innovation Campus activities, even after recovery of valuable materials where possible, will include, or produce, all types of waste from Class A, B, C, depleted uranium, and greater than Class C, to HLW. The Innovation Campus will **accommodate a full spectrum of nuclear waste storage needs, spanning both interim and long-term disposition, with operations specific to each waste classification and storage type**. For permanent disposition of HLW, Utah anticipates deep geologic disposition solutions which could include participation in DOE repository programs or deep borehole solutions. As detailed in *Question 2: Proposed Sites Within the State*, preliminary site reviews of geological and seismic conditions in the Corridor suggest several locations may be suitable to support deep boreholes. If mined geologic repositories are determined to be necessary for long-term storage and not a viable option within the Corridor after further evaluation and site characterization, the State is open to evaluating other locations for a mined geologic repository as needed. The Corridor could also serve as an interim storage option, including UNF and HLW from other states, to support national disposition objectives. Separately, Utah anticipates potential development of one or more Nuclear Spent Fuel Recovery and Recycling (NSFRR) facilities at the Innovation Campus itself or elsewhere in the Corridor.

Benefits of Recycling Co-Location with Storage

At the government level, Utah's recently enacted S.B. 135 (2026), codifying State support for nuclear recycling, reflecting durable political will. **In academia, Utah has one of the highest concentrations of nuclear reprocessing experts in the nation, anchored by leading researchers at the University of Utah and Brigham Young University** who are actively advancing reprocessing science and isotope recovery. In the private sector, investment is already underway: Nusano's Plasma Energy Pyrolysis (PEP) unit pilot holds transformative potential for how the nation captures value from and manages nuclear waste and Curio's COLD pilot is advancing separations chemistry at USREL using uranium and UNF surrogate materials, a critical step toward commercial-scale reprocessing without handling fuel. There are many advanced recycling technologies available for piloting and deployment, including aqueous to pyroelectrochemical approaches. As stated previously, Utah will evaluate all options that demonstrate safety, security, environmental compatibility, and technoeconomic viability before selecting a commercial path for implementation. Taken together, **Utah's legislative commitment, world-class research talent, and active private-sector investment establish the State as a credible and capable partner** on fundamentally advancing how the nation approaches and innovates in nuclear waste storage and reprocessing.

While interim storage and NSFRR can be located independently within the Innovation Campus based on DOE direction, co-location of UNF and an NSFRR facility could present unique efficiencies by creating an operational inventory for reprocessing, resulting in a seamless pathway for material custody and title transfer procedures prior to deposition in the long-term storage site. An NSFRR is also advantageous because it could reduce the volume requiring long-term storage by 80% or more and shorten required isolation timeframes from millennia to centuries, improving long-term storage footprint, feasibility, and potential cost. As an option, the NSFRR facility may be located on the same site as the long-term disposal site to further reduce the cost and risk associated with transportation and packaging. [54]

Expansion & Addition of LLW Capacity

Under the state compact system, LLW waste generated from the Innovation Campus would be required to be stored at the **NWIC disposal facility** in **Hanford, Washington**, unless the NWIC otherwise approves. Utah would likely **pursue NWIC authorization** to dispose LLW generated at the Campus at a **licensed disposal facility in Utah**. This may include the existing site in Tooele County, which already manages approximately 90% of the nation's Class A LLW, demonstrating that Utah is not an aspirant in long-term disposal but an established national leader. Disposal of Classes B, C, greater than Class C, and depleted uranium LLW may be addressed through the NRC's Part 61 requirements and the DOE's requirements (as to federal facility waste), at an appropriate location within the Corridor.

Compliance with State & Federal Regulations

Appropriate State agencies will coordinate, where applicable, with DOE to implement a framework for material requiring long-term management through a **coordinated, multifaceted approach that integrates federal and State regulatory compliance, robust infrastructure planning, and clear implementation mechanisms for HLW and UNF**. For UNF and HLW requiring NRC oversight, applicable requirements under 10 CFR Part 72 govern the licensing of ISFSIs and CISFs, including safety analyses, security plans, environmental reports, training and QA programs, emergency preparedness, and radiological protection standards. Utah's implementation framework would reference State environmental statutes, in accordance with DWMRC management and oversight, and integrate with federal mandates under NEPA and NRC regulations at 10 CFR Part 51, and enable thorough environmental review, public comment, and agency consultation for potential facilities. NRC may need to develop a regulatory framework for the creation and governance of a long-term storage solution.



Utah State Capitol building

11

State-Specific Limitations

What state-specific limitations - regulatory, political, environmental, geologic, or community-based - might hinder the development of any of the Nuclear Lifecycle Innovation Campus functions outlined in Section II of this RFI?

Presently, there are a few notable State-specific regulatory, environmental, and technical barriers that may hinder the development of some potential Innovation Campus functions that Utah is **actively working to address through coordinated policy, infrastructure, and engagement strategies** laid out in this and other sections.

Regulatory Limitations

The most significant regulatory limitation relates to Utah's ability to legally accept UNF from the national inventory. A full description of State regulatory constraints and planned mitigation is presented in *Question 5: Regulatory Framework & Licensing Support*.

Environmental Limitations

Environmental constraints, including water availability considerations and associated mitigation strategies, are addressed in *Question 2: Proposed Sites Within the State* and *Question 12: Environmental & Safety Stewardship*.

Workforce Limitations

Utah is not currently home to any commercial nuclear power reactors and thus lacks NRC-licensed commercial reactor precedent and institutional muscle memory to leverage when building out new capabilities. There are select NRC-licensed projects active in Utah in limited capacities in adjacent applications, including training programs and research at the University of Utah's NRC-licensed TRIGA test reactor, a reactor digital twin-based training program under development, and NRC-licensed waste operations at the Clive disposal facility.

In addition to working with the stakeholders leading these capabilities, Utah is seeking further opportunities to build relevant institutional knowledge, including through engagements with INL and private sector partners with deep industry experience aimed at developing and growing the reach of training, upskilling, and academic program offerings. We may also consider bringing in expertise from out of state or out of country to further accelerate initial development. Full details related to Utah's multifaceted workforce development plan are available in *Question 21: Additional State Information*.



Governor Cox announces the Innovation Campus pictured with Senator Scott Sandall in Tooele County

12

Environmental & Safety Stewardship

What strategies will your state employ to ensure environmental stewardship and radiological safety across all Nuclear Lifecycle Innovation Campus functions, particularly for activities such as enrichment, reprocessing, and waste disposal? Provide conceptual plans for environmental monitoring systems, safety protocols, emergency response capabilities, and compliance with federal and state regulations.

Utah brings a **uniquely mature, NRC-reviewed regulatory foundation to environmental stewardship and radiological safety**. As an Agreement State across three programs—LLW (10 CFR Part 61), UMTRCA (Title II / 40 CFR Part 40, Appendix A), and radioactive materials—Utah regulates to protect public health and the environment under compatible State law subject to rigorous NRC oversight for compatibility. [55] Utah is one of only two states overseeing an independent LLW disposal facility (EnergySolutions, Clive) and is the only state regulating a conventional uranium mill (EFRI, White Mesa), reflecting **deep capability in managing integrated radiological and chemical risks.** Utah and DOE are also advancing a discrete Federal Cell at the Clive disposal facility for DOE Federal Facility Waste, including depleted uranium, further demonstrating **practical, performance-based stewardship in partnership with federal stakeholders**.

Utah's arid climate will provide advantages for certain nuclear lifecycle functions, including storage applications, but will introduce constraints for Campus functions that require sustained water availability for operations. The State will assess water availability and coordinate with Tooele County and regional stakeholders to confirm long-term resource sufficiency. Water management will be addressed in part through technology selection and system design. Utah will **prioritize reactor and facility configurations that reduce freshwater dependence,** including air-cooled, hybrid-cooled, and alternative coolant systems. These approaches will reduce operational water demand while maintaining safety and performance requirements.

Utah will evaluate how water availability influences technology deployment and facility configuration across the Innovation Campus to enable alignment with regional resource constraints. Additional detail on water availability and mitigation strategies is provided in *Question 2: Proposed Sites Within the State* and *Question 4: Site Infrastructure Requirements*.

To deliver environmental stewardship and radiological safety across all functions of an Innovation Campus, we plan to implement a multi-layered strategy anchored in rigorous regulatory compliance, strong safety culture, and proactive workforce and training investments. Building upon established frameworks such as NRC expectations for a positive nuclear safety culture, which emphasize core values and behaviors that prioritize safety and environmental protection over competing objectives, Utah will require that all Campus partners adopt similar culture principles that encourage hazard recognition, continuous learning, and empowerment of personnel to raise safety or environmental concerns without reprisal.

Managing the entire nuclear value chain in one location demands that environmental and safety controls are engineered into facility designs rather than applied retroactively. **Utah offers a path forward from reactive compliance to proactive, engineered stewardship with our proposal that every point of the nuclear value chain, from feedstock to final disposition, is physically, cybernetically, and administratively secured**.

▼ *Antelope Island*



Environmental Stewardship & Radiological Safety Strategies

Utah **proposes to co-develop a Joint Regulatory Framework with NRC and DOE modeled on MD 5.2**, which affirms cooperative federalism to protect public health, safety, and the environment and emphasizes full and timely disclosure to the public. The framework would formalize:

- Structured information exchanges between federal and State regulators
- State observation of NRC public meetings
- State observation and participation in inspections and entrance/exit meetings through formal instruments of cooperation
- Attendance by qualified State representatives at pre-decisional enforcement and regulatory conferences

While not tailored for a Campus spanning NRC, DOE, and State authorities, these MD 5.2 mechanisms provide a vetted blueprint for transparent, efficient, and environmentally protective co-regulation.

Advanced Technology

Traditional enrichment has historically been a highly energy-intensive process. Our Campus may deploy advanced technology with lower baseload requirements to generate HALEU needed for the new generation of advanced reactors, given 5–20% enrichment is needed to achieve smaller designs that provide more power per unit of volume. These methods generally require less baseload energy compared to traditional enrichment methods and can potentially allow the usage of remnant U-235 from existing stockpiles of depleted UF6 to be utilized, **lessening the reliance on uranium mining**.



Ceremonial signing of nuclear related bills in 2025



DEQ personnel inspecting a facility

Incentivizing Best Practices

Utilizing Operation Gigawatt and our Nuclear Regulation Plan, **Utah has a formal process to designate EEDZs and economic incentives for nuclear development** through the Electrical Energy Development Investment Fund established by H.B. 249. The newly established Utah Energy Council will make these incentives for these designated EEDZs contingent upon commercial operators formally agreeing to adopt the IAEA best practice of the Safeguards-by-Design framework. Additionally, operators of Innovation Campus facilities will implement specialized equipment and procedures for the safe management of radioactive waste streams, including radiological monitoring equipment, engineered waste containers, certified transportation systems, and storage systems designed to maintain containment and protection during handling and transport.

State Regulatory Oversight & LLW Disposal

Campus oversight will align functions to the appropriate lead regulator while ensuring seamless interfaces. As discussed in *Question 5: Regulatory Framework & Licensing Support*, under Utah's NRC Agreement State authority for LLW disposal and uranium recovery, the NRC has delegated primary regulatory responsibility to the State; Utah regulates these activities under compatible State law, subject to ongoing NRC oversight and program-compatibility reviews. For other domains (e.g., NRC licensed facilities), are the primary regulatory authority NRC and DOE, and Utah's oversight could be structured through the MD 5.2 modeled framework for information exchange, inspection observation and participation, and public engagement. DOE remains a key stakeholder in Utah's Agreement State programs through the federal disposal cell hosted at the Clive disposal facility and long-term stewardship responsibilities under UMTRCA Title II, **supporting integrated environmental protection across agencies**.

Utah's LLW oversight is grounded in rigorous, performance-based analysis. DWMRC applies complex PAs and related technical standards to demonstrate long-term protection of the public and environment and to inform clear, enforceable permit conditions and monitoring requirements. This PA driven approach, paired with routine NRC compatibility reviews and active DOE stakeholder engagement, provides a tested pathway for defensible environmental stewardship at campus-scale.

While NRC preempts State statute over HLW and reactor operations, DEQ will leverage the Resource Conservation and Recovery Act (RCRA) in regard to the issuance, denial, and revocation of groundwater quality discharge permits and CAA approvals, coordinated by DWMRC and DWQ, for all non-radiological and mixed-hazardous waste streams generated by the Innovation Campus. **Environmental stewardship will be enforced through alignment with applicable federal and State environmental regulations**, including NEPA for campus-scale federal decisions, EPA and State water and air quality standards, and NRC licensing requirements tailored to specific activities (e.g., enrichment facility materials oversight, reprocessing radiological controls, and waste storage under 10 CFR Part 72).

In March 2026, **Utah passed targeted legislation to de-risk and accelerate environmentally sound deployment**. H.B. 78 establishes a Nuclear Energy Regulatory Office within DWMRC to centralize nuclear policy, act as the principal liaison with NRC, enable formal cooperative agreements, and authorize joint inspections and collaborative enforcement to improve predictability while maintaining rigorous safety oversight.

Environmental Monitoring Systems

Interagency Baseline Coordination

DEQ will coordinate directly with EPA's RadNet program and DOE's Federal Radiological Monitoring and Assessment Center (FRMAC) to deploy advanced mobile detection assets to establish a comprehensive baseline of the region's current radiological, atmospheric, and hydrological signatures. The State will **integrate routine radiological and environmental monitoring, enforce a requirement to maintain exposures within safe limits, and require transparent public reporting** of emissions or releases consistent with international best practices for environmental release and radioactive protection.

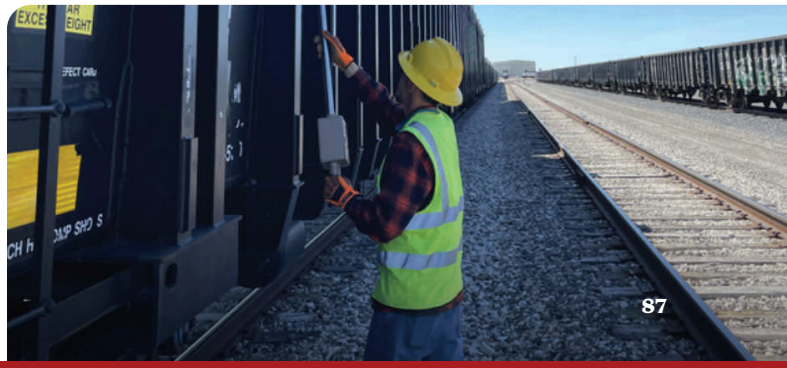
To strengthen situational awareness and early detection capabilities, Utah will support **risk-based monitoring strategies that evaluate natural, environmental, and operational hazards** across facilities and surrounding ecosystems, enabling continuous assessment of environmental conditions and rapid identification of anomalies.

Permitting-Required Monitoring Integration

As a requirement of an entity obtaining a DEQ permit, Innovation Campus **operators will be required to install continuous, automated sensor monitoring systems** that feed data directly into DEQ's track protocol and EPA's RadNet.

These monitoring systems will **support layered environmental oversight** by integrating facility-level sensor networks, automatinged reporting, and periodic site inspections to evaluate monitoring system performance, environmental control effectiveness, and compliance with permit conditions. Additional information related to permitting can be found in *Question 5: Regulatory Framework & Licensing Support*.

▼ *Railcar being surveyed*



Safety Protocols, Emergency Response, & Workforce Integration

Utah will **align training, exercises, and field response** with the MD 5.2 modeled Joint Regulatory Framework **to enable interoperable planning, communications, and execution across State, local, tribal, NRC, and DOE partners,** thereby reinforcing environmentally protective outcomes during both routine operations and abnormal events.

We will also support structured facility preparedness reviews that evaluate operational readiness across environmental, safety, and security scenarios relevant to Campus activities. Findings from these assessments may inform emergency planning updates, mitigation strategies, and coordination between operators and regulators.

State Radiological Response Team

We will actively expand our emergency response capabilities by **establishing a specialized Radiological Response Team** housed within DPS. The State plans to coordinate with DOE's Nuclear Emergency Support Team (NEST) and cross-train to enable immediate, independent response capabilities for any off-site transportation or operational incident.

Mandated Joint Emergency Drills

Utah will require **all Campus operators to participate in annual emergency drills** conducted by DPS. These exercises will integrate local emergency management services, county fire departments, Tribal Nation liaisons, and federal HAZMAT teams.

Education & Outreach

We anticipate we will **facilitate the creation of a State-supported, Campus-integrated training center focused on environmental health and safety (EHS), radiation protection, and nuclear operations**. The training center will provide standardized curricula in radiological control, emergency preparedness, environmental monitoring, waste handling, and advanced manufacturing quality assurance to create a deep bench of qualified professionals capable of implementing best practices in stewardship across all Campus functions. Operators will coordinate with Utah universities and trade schools to formalize workforce development pipelines, enabling the necessary engineering, radiological safety, and manufacturing roles to be filled by the local community.



Utah Western desert

Emergency Planning & Response

Utah understands an Emergency Response Plan will be created in full alignment with applicable federal requirements and oversight expectations. The plan should be **grounded in a risk assessment that defines credible scenarios and the associated mitigation measures**. After the specific scope of the Innovation Campus is confirmed, and fuel cycle activities, materials, and quantities are defined, a risk-informed approach will determine the full set of stakeholders to engage, potentially including, among others, Tooele County, State, military, DOE, NRC, and the Federal Emergency Management Authority (FEMA).

Emergency planning should emphasize **integrated coordination** with, and provisioning of key equipment to, local first responders, including private site emergency response personnel, local law enforcement, medical personnel, and fire departments. The plan is expected to also **establish a clear communications plan** (roles, responsibilities, and methods). In addition to creation of a plan, the State expects routine scenario-based training and drills on a quarterly or annual cadence as well as periodic monitoring and readiness audits to ensure personnel proficiency and equipment operability over time.



NSA Data Center

Cyber & Physical Security

Utah is also **well-equipped to manage the sensitive security data inherent in nuclear operations**. Under GRAMA, Utah Code Section 63G-2, DWMRC enforces stringent protections for:

- SGI
- Information governed by 10 CFR Part 37 (Category 1 and 2 quantities of radioactive material)
- Sensitive data that, if disclosed, could jeopardize individual life or safety or violate federal protection mandates
- Utah will collaborate with industry partners and DOE to develop a cyber framework specific to the needs of Innovation Campus which includes:
  - » Establishing physical security controls
  - » Employing the necessary Federal Risk and Authorization Management Program (FedRAMP) High controls for on-premises and cloud models given nuclear data and high value asset classifications
  - » Providing a robust governance structure to encompass policies across all physical and cyber domains
  - » Instituting the appropriate Interconnection Security Agreements (ISAs) and MOUs based on the entities involved in utilizing, processing, and transmitting data safety and proliferation resistance through advanced safeguards, material control, and IAEA compliance

By combining regulatory rigor, a strong and shared safety culture across Campus partners, and a dedicated training infrastructure that produces competent EHS and operations professionals, Utah will achieve **assured stewardship of technology operations from enrichment through waste disposition while safeguarding environmental quality and public health**.

13

Transportation Corridors

What intrastate and interstate transportation corridor challenges exist in your state for the secure movement of nuclear materials (e.g., UF6, fuel assemblies, UNF, isotopes, HLW)? Identify existing infrastructure (e.g., rail lines, highways, ports), regulatory requirements (e.g., state DOT approvals, federal transport regulations), and potential public acceptance challenges. Propose solutions to enhance transportation networks, including infrastructure upgrades or stakeholder engagement plans.



Road and rail infrastructure in Tooele County

The Innovation Campus is anticipated to both intake and output a significant amount of nuclear material as part of its operations. Back-end lifecycle materials, including UNF and potentially HLW for reprocessing and final disposal, are anticipated to be transported to the Campus from across the country. The Innovation Campus may also export materials such as enriched uranium, fuel assemblies, and produced isotopes. As such, the **availability of secure and weight-capable transportation corridors is crucial to enabling the full utility of the Innovation Campus**.

State Transport Infrastructure

Utah's proposed Innovation Campus Corridor sits within the broader logistics network of the Wasatch Front, a growing economic hub in the Mountain West region, strengthened by recent multimodal investments supporting industrial supply chains and operations. **Utah's existing rail, roadway, and logistics infrastructure provides established pathways for the secure movement of nuclear materials**, and the Corridor location will facilitate rapid Innovation Campus construction.

Utah's rail infrastructure includes nearly **1,400 miles of freight rail across eight different railroads**. [56] This footprint is primarily composed of rail from Union Pacific, with the Class 1 railroad making up over 1,000 of those miles, some of which share trackage rights with a fellow Class 1 railroad in BNSF. [57] The freight network is supplemented by regional short track railroads that provide local logistics as well as interchange and rail switching services. These regional railroads include Utah Railway, Utah Central Railway, Salt Lake, Garfield and Western Railway, Salt Lake City Southern Railroad, Savage Tooele Railroad, and Savage Bingham and Garfield Railroad.

Complementing this rail infrastructure is over **900 miles of interstate highway infrastructure, spanning five highways that run across the State**: I-15, I-215, I-70, I-80, and I-84. These interstates, in addition to thousands of miles of State highways, enable a robust network of industrial and commercial transport across the country. The Innovation Campus can benefit from an extensive network of designated high-load routes approved for the transportation of overweight and oversized cargo, encompassing nearly all interstate mileage as well as numerous State highways. [58]

Beyond facilitating industry in the Mountain West, **Utah's rail networks and highway systems connect local industries to multiple California port gateways.** Through UIPA, the State has developed cooperative agreements with the Port of Long Beach in Southern California and the Port of Oakland in Northern California to enhance cargo flow and logistics in the regions, including goals to optimize rail systems and reduce congestion to improve the speed of goods moving between Utah and California. [59] [60]



***BNSF Railway**, one of North America's largest freight transportation providers, recently announced the **official opening** of a new **intermodal facility in Salt Lake City** as part of a new intermodal service between California and Salt Lake City. The site, located approximately five miles from SLC International Airport, was developed in partnership with UIPA and Patriot Rail and is poised to **enhance Utah's intermodal capacity, create jobs, and reduce transportation costs**. [61]*

Nuclear Materials Transport Experience

Utah has **extensive experience moving nuclear materials, including waste, through the State**. The Clive disposal facility receives over 11,000 shipments per year of LLW for storage at its facilities and an additional 1,800 shipments per year by truck. [62]

Additionally, as a member of the NWIC, Utah has gained **significant experience working within a multi-state governance model** to shape and enforce procedures related to LLW movements across State lines, including packaging and inspection. Utah has gained further experience advancing interstate coordination for the transportation of nuclear waste through involvement with WIPP and in shaping the best practices outlined in the WGA Radioactive Materials Management resolution.

This history strongly positions the State to set and credibly enforce its own best-practice standards for safe, well-coordinated nuclear material transport to and from the Innovation Campus and demonstrates the presence of strong underlying infrastructure to enable this transport.

Regulatory Considerations

Utah's regulatory posture for nuclear material transport is defined by **coordinated adherence to federal and State regulatory regimes.** Transportation of nuclear materials in Utah will operate within a comprehensive federal regulatory framework.

Shipments will comply with NRC requirements under 10 CFR Part 71, governing packaging, certification, and operational controls for radioactive material transport, as well as DOT hazardous materials regulations (49 CFR) governing labeling, routing, and carrier requirements. Where appropriate, operations will align with regulatory requirements delegated to Utah for enforcement through its Agreement State status.

In addition to alignment with federal regulations, transportation of nuclear material to and from the Campus will also **adhere to Utah's own regulations, as defined by the Radioactive Material Transportation Program** administered by DWMRC. This includes compliance with DWMRC radioactive materials licensing, inspection rules, and directives under Utah's Code 19-3.

Further coordination with State actors, including the UDOT and State emergency management agencies, will inform routing approvals, emergency preparedness, and local jurisdiction engagement directives.



▲ *Groundbreaking ceremony for the Savage Tooele Railroad*

Safety & Security Considerations

As the volume and frequency of nuclear transport increases in the region, more opportunities are created for potential risk events. Safety and security challenges may include maintaining consistent regulatory compliance across a growing volume and variety of shipment types and carriers, enabling sufficient inspection and emergency response capacity to meet increased demand, and coordinating routing to minimize downtime that could increase public exposure to radiation or leave shipments more vulnerable to interference.

Utah already has robust protections in place to protect the safety and security of nuclear materials moving through the State. This includes coordination with a network of key stakeholders at the local, State, and federal levels to monitor, prepare for, and respond to emergencies related to the transportation of nuclear materials, including local emergency services professionals, cleanup contractors, the Utah Highway Patrol's Hazardous Materials (HAZMAT) Team, and DWMRC, DOE, NRC, and FEMA. DWMRC specifically supports on-scene responders for emergencies related to nuclear transport by helping define the problem, recommending clean-up strategies, assisting in evaluating package integrity, and assisting in surveying and decontaminating responders and victims. Utah is **prepared to work diligently to enhance its systems and procedures** to meet the new demands of the Innovation Campus' transport requirements, reduce exposure, and prevent proliferation.

One potential contribution, referenced in *Question 4: Site Infrastructure Requirements*, could be the development of a dedicated rail spur connecting the Innovation Campus to the existing Class 1 rail corridor. In addition to reducing logistical complexity, a dedicated spur would enable direct loading and unloading of nuclear components and transport casks, reduce downtime and transition points that could be open to interference, and lessen public exposure through reduced reliance on highway transport.

Public Acceptance

As referenced in *Question 8: Anticipated Public & Stakeholder Concerns*, recent activity in Utah related to the nuclear fuel cycle, including the transport of materials through the State, has generally received limited direct public concern. This includes the recent proposal for the Clive disposal facility to receive shipments of LLW from Canada, providing a useful corollary for anticipating public response to nuclear materials transportation. However, there is a possibility that the multifunctional nature of the Innovation Campus and the associated increase in regional transport of nuclear material may raise additional public concern that diverges from the current attitude.

Another factor that may influence public response is increased traffic in the vicinity of the Innovation Campus. Increased heavy-haul transport of nuclear material to and from the facility, compounded by additional commuter traffic from new workers at the Innovation Campus, could have a meaningful impact on traffic patterns and could prompt concern among long-time community members.

To proactively address any public concerns, Utah may consider a more **targeted transportation safety communication plan as part of its ongoing nuclear Public Education and Community Outreach campaign**. Such a plan would likely include targeted, transparent communication with communities along major corridors. These targeted communications could be combined with broader awareness initiatives, such as the distribution of plain-language information on federal transportation safety standards and packaging robustness and the publicizing coordinated emergency preparedness exercises involving State agencies and federal regulators to validate comprehensiveness.



Utah State Capitol building with cherry blossoms

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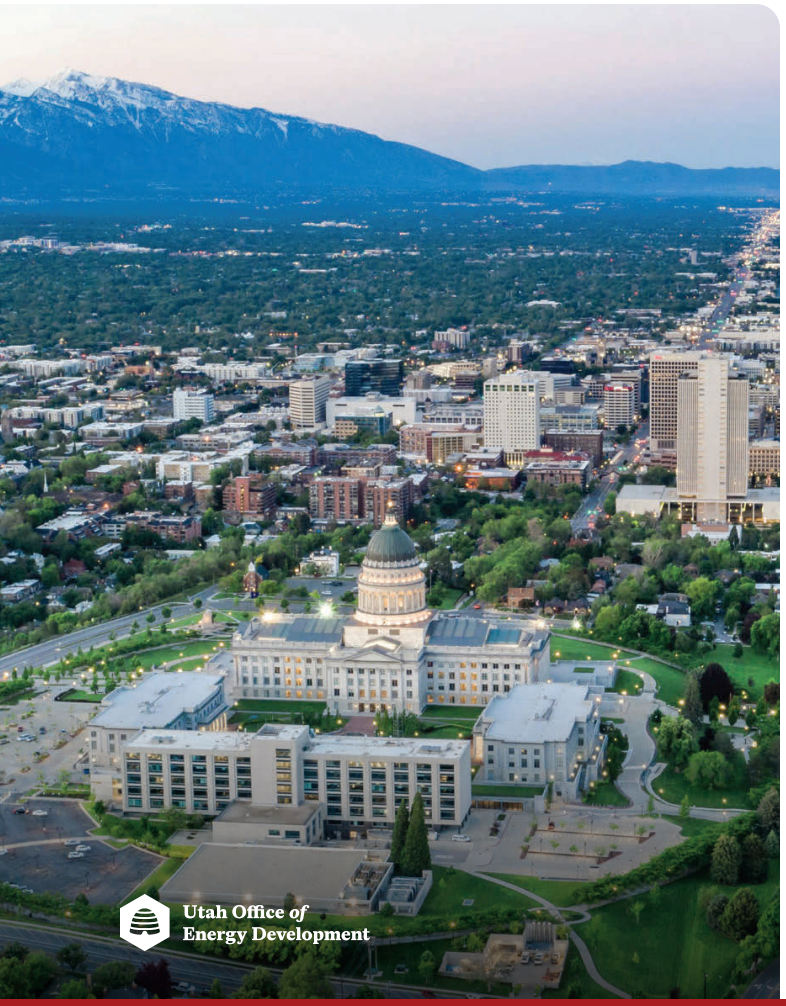
Proposed Agreement Framework

What type of agreement should be employed to support the development and operation of the Nuclear Lifecycle Innovation Campus - such as cooperative agreements, contracts, financial assistance mechanisms, loan guarantees, or voluntary agreements under the DPA? Limit suggestions to contractual authorities already granted to DOE (e.g., under the Atomic Energy Act of 1954, Energy Policy Act of 2005, or DPA). Describe how these agreement frameworks will facilitate partnerships and align with private funding and operational needs across enterprise functions.

Utah **recommends a multi-faceted agreement framework that codifies the relationship between the State and DOE** on the management and oversight of the Innovation Campus and **provides a supportive financial framework to drive advancements in the American nuclear industry**. To develop a framework, Utah will require federal guidance to clarify the DOE's intended role relative to NRC and the State, which includes DOE's ownership preferences for the storage facility and any aspects of the Innovation Campus DOE may desire. Utah is willing to craft a unique ownership and oversight framework that enables the Innovation Campus but recognizes federal primacy as applicable for Campus activities.

Utah is **open to a variety of ownership structures**, including State ownership, private ownership, and, where required, federal ownership. We **recognize that the ownership structure for the Innovation Campus and that of the storage repository may differ**; the following section outlines potential ownership structures for both. Utah seeks to collaborate with DOE on the final structuring and is willing to facilitate any necessary community, State, or public-private partnerships.

▾ *Salt Lake Valley*



Campus Ownership

One potential model for Campus-specific ownership structure is a State-owned industrial park-like model similar to the Virginia Economic Development Partnership, where the State of Virginia owns and leases the lands to private enterprises. [63] Under this form of ownership model the State could retain ownership of the land where the Innovation Campus will be located and establish appropriate lease agreements with industry tenants (e.g., long-term ground lease, build-to-suit leases, or master leases with sublease optionality). Alternative potential Innovation Campus ownership structure includes those similar to the various DOE national labs such as the Government-Owned, Contractor-Operated (GOCO) model. [64] However, given the objective of catalyzing private sector investment and innovation, a model that provides the government with operational directive authority may constrain industrial R&D and reduce tenant flexibility. Utah is **committed to collaborating with DOE and private partners to ensure the most effective Campus ownership structure**, including any required State and State-federal coordination.

Storage Repository Ownership

Utah is considering storage options within the proposed Corridor, but initial assessments suggest that a permanent repository may not be suitable for direct co-location with the Innovation Campus facilities. Utah expects the Innovation Campus will lead to novel waste profiles and requisite repository facilities. We are **committed to engaging in any necessary research activities that will enable safe and responsible permanent interment, while facilitating efficient Campus and national nuclear activities**. Utah is willing to proactively engage in initial site feasibility studies but assumes long-term engineering and design work will be necessary to complete repository design. Depending on waste facility land requirements (see *Question 10: HLW Management, Treatment, Storage & Disposal*) Utah may seek to coordinate with DOE on potential storage locations outside of the Corridor, among other solutions. Additionally, specific types of nuclear waste materials, including those potentially stored at the permanent facility may require DOE waste site ownership under existing regulations. Therefore, unless otherwise directed, Utah assumes the permanent repository would be federally owned and operated, with a potential lease agreement for the chosen State-controlled land host site, and is ready and willing to engage DOE, NRC, and other federal parties as necessary to allow repository siting, construction, and long-term operation and oversight.

DOE-State Administrative Framework

Utah is amenable to various forms of agreements between DOE and the State. The **exact form and needs of the agreement would be predicated on collaborative decision making between the State and DOE** on any specific requirements for the Innovation Campus facility and storage sites. One option DOE can consider is an **intergovernmental agreement** similar to the Consultation and Cooperative Agreement between the State of New Mexico and DOE for WIPP, with modifications such as greater State oversight and specific allowance for State-tenant lease agreements due to the potential use of State-owned land [65]. The Utah-DOE level agreement would outline the:

- Goals, objectives, and scope of the Innovation Campus
- Roles and responsibilities of DOE and the State, including regulatory and permitting coordination
- Waste management ownership, management, and oversight responsibilities
- Mechanisms for information sharing and dispute resolution
- Coordination of responsibilities on transportation of nuclear materials and emergency planning
- Commitments to community benefits and workforce development.

In addition to an overarching agreement between the State and DOE, DOE could consider exploring specific agreements between DOE and State agencies for coordination on specific Innovation Campus activities. **Utah intends to expand and adequately resource any State agencies needed to support Innovation Campus activities**. For example, Utah foresees value in an agreement framework similar to DOE cooperative agreement supporting the New Mexico Energy, Minerals and Natural Resources Department (NMEMNRD) for WIPP, which funds transportation monitoring, emergency response planning, training exercises, emergency response equipment and supplies, public outreach, and participation in transportation safety program activities. [66]

A similar agreement between DEQ and DOE may be beneficial for the safety and emergency preparedness of the Innovation Campus. To support the secure transportation of HLW and other nuclear products across impacted states, Utah foresees a potential need to either expand or form a cooperative agreement similar to the



▲ *Governor Cox speaking at the Western Governors' Association Summer Meeting 2025*

WGA which funds and coordinates the WGA WIPP Transportation Technical Advisory Groups across nine Western states for the shipment of TRU waste. [67] Such a framework would support consistent regional protocols for inspection, routing coordination, shipment notification, and emergency preparedness.

Within this structure, participating states could assume defined roles in shipment inspection, real-time condition reporting, establishment of safe staging and parking procedures, advance shipment notification, and coordination of emergency response preparedness, including medical response capabilities and response plan development. These **activities align with existing federal frameworks governing radiological emergency preparedness and transportation safety**, including NRC emergency planning guidance and DOE radiological monitoring and assessment capabilities, and can be supported through established fundings mechanisms such as FEMA's Radiological Emergency Preparedness (REP) Program under 42 U.S.C. 2011, which enables cost recovery and capability development through agreements with regulated entities.

Utah may seek to engage DOE on additional federal opportunities for infrastructure improvements discussed in *Question 4: Site Infrastructure Requirements*. While Utah recognizes funds for infrastructure upgrades may require interagency coordination, where feasible, the State would seek support from DOE to engage appropriate agencies for applicable funding support, including with DOT.

Development Funding

As noted in *Question 4: Site Infrastructure Requirements*, Utah recognizes that certain infrastructure enhancements may be necessary to support the safe, secure, and reliable operation of an Innovation Campus. These potential upgrades could include improvements to transportation systems, telecommunications networks, and transmission and grid infrastructure. The State is **interested in exploring opportunities to collaborate with DOE to identify existing federal and departmental funding mechanisms that could amplify State infrastructure investments**. In particular, the State is aware that funding authorized under the Commerce, Justice, Science; Energy and Water Development; and Interior and Environment Appropriations Act, 2026 (H.R. 6938) may provide avenues that could help facilitate these upgrades within the DOE's framework for engagement with the State. [68] [69] Strategic infrastructure investments of this type could demonstrate a shared commitment between State and federal partners, which will help reduce project risk and signal to private sector participants that the Innovation Campus represents a credible and supportive environment for potential investment and long-term operations.

Utah also recognizes that the Innovation Campus could potentially provide broader national benefits, including offering a secure location for certain activities and opportunities for innovation with regional and nationwide applications across areas such as energy security, medical advancement, and industrial development. Over time, the research, innovation, and economic activities occurring at the Innovation Campus may contribute to broader economic growth, including possible export-related revenues, benefiting the U.S. at large.

Innovation Funding

Utah intends to support siting and facility infrastructure, utilizing existing and potential new funding mechanisms. We **recommend DOE facilitate access to financial mechanisms for private industry to help the Innovation Campus attract private capital and enable private operations across the nuclear lifecycle**, while keeping federal participation targeted to the highest-risk or least-bankable elements. The intent is for DOE tools to reduce specific barriers (e.g., technical uncertainty, FOAK execution risk, and early revenue ambiguity) to allow private developers and operators to commit capital with clear economics and execution pathways. Utah will continue to invest in its education, workforce development, and nuclear-relevant research activities, including continuing to attract private developers to the State and locations like USREL.

For early-stage and FOAK activities, Utah agrees with the mechanisms outlined in the RFI including cost-sharing and cooperative agreements as the primary de-risking instruments. Utah **encourages DOE to structure cost-sharing around clear milestones** (e.g., design maturity, safety basis deliverables, regulatory submissions, commissioning gates) that ties federal participation to measurable risk retirement and provides inflection points for the entrance of private financing. Where appropriate, Utah recommends **aligning demonstration-oriented tenants to partnership approaches** similar to the DOE's Advanced Reactor Demonstration Program (ARDP) to focus demonstrations on driving reusable Campus capabilities rather than one-off assets. In addition to ARDP program, Utah encourages DOE to provide funding through R&D grants, like those outlined in Section 31 of the AEA 42 U.S.C. § 2051 and from the Advanced Research Projects Agency-Energy (ARPA-E), for expanded laboratory research, university research, and demonstration projects on experimental and early-stage nuclear technology, which could be co-located on the Innovation Campus.

As projects become financeable industrial facilities, Utah **recommends encouraging the DOE's Energy Dominice Financing Program (EDF) to support eligible Innovation Campus assets through Title XVII loan guarantees**, including pathways commonly associated with Sections 1703 and 1706. [70] Loan guarantees could be most relevant for discrete, revenue-backed facilities such as fuel recycling plants, component manufacturing, and power generation, where lowering the cost of debt can improve bankability and accelerate deployment. Utah also recommends early integration of federal financing readiness requirements (including applicable labor and compliance expectations) into project planning to avoid late-stage schedule or cost impacts.

As the Innovation Campus spans the nuclear lifecycle, **Utah recommends that DOE help strengthen fuel availability**, particularly HALEU, **by using federal funding pathways that support advanced fuel availability** and advanced reactor demonstrations, including mechanisms aligned to 42 U.S.C. § 16281 and 16279a. [71] [72] Utah encourages DOE to prioritize projects that demonstrate near-term ability to provide usable HALEU, or near-term credible demand, with strong regulatory and operational readiness, so funding translates into deployable capacity rather than prolonged pre-development.

For national-security-relevant segments of the lifecycle, Utah **recommends that DOE facilitate Defense Production Act (DPA) voluntary agreements to coordinate industry participation, accelerate capacity expansion, and strengthen demand signals**. [73] [74] These voluntary agreements could help reduce coordination friction across producers, processors, fabricators, and end users, and could be paired with purchase commitments or other revenue-stabilizing constructs to make critical capabilities more attractive to private investment.

Table 2 outlines some of the mechanisms DOE could consider leveraging in support of the Innovation Campus.

TABLE 2 | POTENTIAL FINANCIAL MECHANISMS

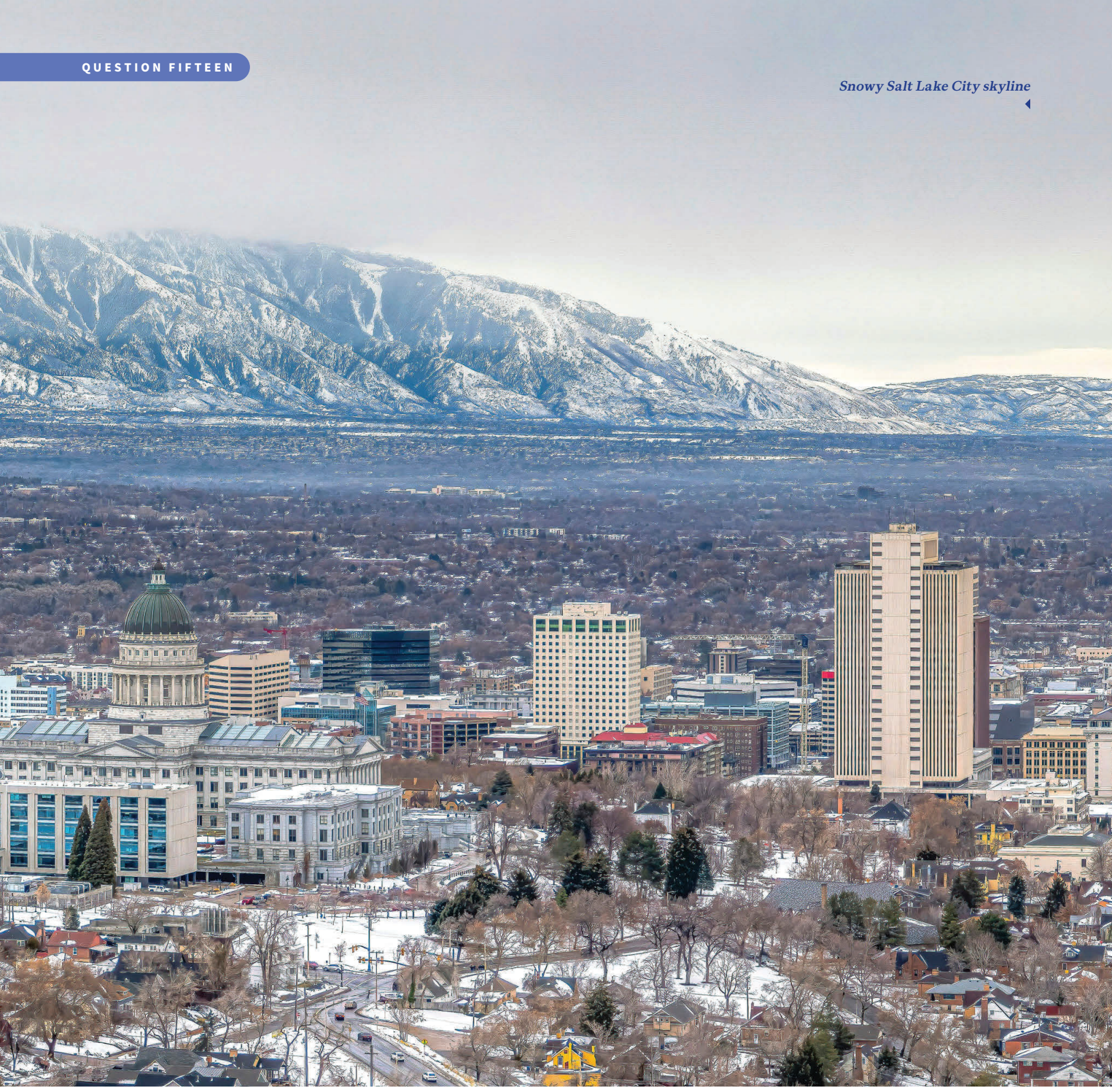
Funding Mechanism Type	Official Name (Program / Authority)	Use Case
Cost sharing (DOE–industry)	ARDP (42 U.S.C. 16279a)	Cost-shared partnerships to accelerate advanced reactor demonstrations (licensing, construction, operations risk reduction) and move designs toward deployment. [75] [76]
Fuel availability / purchase agreements (supply-side market making)	HALEU Availability Program under Advanced Nuclear Fuel Availability (42 U.S.C. 16281) + HALEU Consortium	Establishes/accelerates domestic supply of HALEU (5%–20% U-235) via DOE actions such as acquiring HALEU through agreements with domestic industry and producing initial quantities from DOE assets. [77] [78]
Loan guarantees (project finance de-risking)	DOE EDF— Title XVII (Energy Policy Act of 2005) Section 1703	Loan guarantees for innovative and significantly improved energy technologies that avoid, reduce, or sequester air pollutants and greenhouse gases—intended for commercial-scale deployment (vs. early R&D). [79]
Loan guarantees (repowering / retooling infrastructure)	DOE EDF Title XVII Section 1706 — Energy Infrastructure Reinvestment (EIR) Program	Loan guarantees to retool, repower, repurpose, replace retired energy infrastructure (or improve existing infrastructure efficiency). [80]
Grants (university research pipeline)	Nuclear Energy University Program (NEUP)	Federal support to align and fund university nuclear energy research consistent with DOE Office of Nuclear Energy mission and goals. [81]
Large multi-year R&D awards (within NEUP)	Integrated Research Projects (IRPs) under Consolidated Innovative Nuclear Research (CINR) (NEUP component)	Multi-year, multi-partner projects to address specific technical gaps (often multidisciplinary; may include universities, industry, national labs). [82]
"Service grants" / lab support (non-cash to company)	GAIN Nuclear Energy Voucher Program	Vouchers that fund DOE national labs to provide technical support to companies (not a direct cash award to the business). [83]
Milestone-based payments (pay-for-performance)	Milestone-Based Fusion Development Program	Federal funding structured as payments upon validated milestones, intended to accelerate development while reducing taxpayer risk (noted in DOE context as a prominent milestone-based model). [84]
Industrial base prioritization agreements (statutory, not a DOE "grant"	DPA voluntary agreements	Enables voluntary agreements to prioritize and expand production of critical materials and components; can be paired with incentives like purchase commitments and price supports (mechanism-level framing). [73]
Appropriated funding (mechanism category)	Congressionally appropriated DOE funding (program-by-program)	Annual or periodic appropriations that fund DOE programs (e.g., ARDP funding levels depend on appropriations). [85]

Finally, Utah recommends exploring complementary alignment with DoW for mission-relevant infrastructure needs such as advanced reactor testing and demonstration, where applicable, to further support private financing and operational sustainability for select Innovation Campus functions.

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Technology & Industry Partnerships

What experience, interest, or concern does your state have regarding specific technologies for the Nuclear Lifecycle Innovation Campus- such as advanced reactor designs, reprocessing methods, or AI-driven systems for data centers and operations? Describe existing nuclear industry collaborations, state incentives to attract private-sector partners, and proposed partnerships to support all enterprise functions, including manufacturing, R&D, and isotope production.



Snowy Salt Lake City skyline

Utah brings a **strong, credible foundation of nuclear collaborations and nuclear operations spanning the full nuclear lifecycle**, including leading R&D activities for fuel reprocessing and advanced reactor development. Utah has **established partnerships across many nuclear lifecycle components**, positioning the State as a natural convergence point for national nuclear technology deployment. The State is eager to expand its experience though additional partnerships with leading academic institutions, research labs, and private-sector innovators, as illustrated in *Table 3*, to build capabilities to enable an Innovation Campus and further enhance Utah's nuclear industry.

TABLE 3 | ILLUSTRATIVE LIST OF UTAH'S NUCLEAR TECHNOLOGY & INDUSTRY PARTNERSHIPS

	Partner	Activity	Status
Private Nuclear Operations & Partnerships	Anfield Energy	Re-opening Velvet-Wood uranium mine	In Development
	Blue Castle Holdings	Enabling construction and operation of a two-unit nuclear power plant	In Development
	Energy Fuels	Operates White Mesa Mill for uranium processing	Operating in State
		Operates La Sal Complex including Beaver and Pandora uranium mines	Operating in State
	EnergySolutions	Operates Clive disposal facility for LLW	Operating in State
		Exploring early site permitting opportunities for a new nuclear power plant at the IPP	MOU Signed
	General Matter	Exploring development of advanced manufacturing of nuclear components and an enrichment facility	In Development
	HTS / Holtec	Establishing nuclear training and workforce development center, positioning Utah as a location for component manufacturing and SMR deployment	MOU Signed
	Nuclea Energy	Planning to assemble prototype reactor for one of their advanced reactor designs at USREL	MOU Signed
	NuCube Energy	Siting a micro fission reactor at USREL	MOU Signed
	Nusano	Operates radioisotope production facility with reservations and supply agreements underway	Operating in State
	TerraPower	Exploring potential siting of a Natrium® reactor and energy storage plant in Utah, along with Flagship Companies	MOU Signed
	Terrestrial Energy	Collaborating with EnergySolutions via MOU to site and deploy integral molten salt reactor at the EnergySolutions site	In Development
	Valar Atomics	Activating of a nuclear test reactor and TRISO fuel fabrication at USREL	MOU Signed / In Development
	Westinghouse Electric Company	Operates Western zirconium facility producing zirconium and hafnium used in nuclear fuel assemblies	Operating in State
Academic & R&D Partnerships	Brigham Young University (BYU)	Advancing research across advanced reactor development, fuel cycle economics, and more	Operating in State
	Curio	Working with USREL on potential development of three-stage recycling process pilot	In Development
	INL (Battelle Energy Alliance)	Advancing R&D across nuclear fuel cycle, including hosting DOE Center for Used Fuel Research;	State Partner
		Collaborating with Utah and university partners to progress advanced nuclear research, technology deployment and workforce development	MOU Signed
	Natura Resources	Contracting with the State for USREL to perform molten salt chemistry research and other research for its molten salt reactor	Operating in State
	Nusano	Explore potential application of plasma enrichment process to separate isotopes for Curio recycling project	In Development
	University of Utah	Providing nuclear engineering programs, reactor operations training, and research across the nuclear fuel cycle, medical isotopes, nuclear safeguards, and more	Operating in State
	Utah State University	Advancing nuclear research across reactor component design, materials characterization, and more	Operating in State

As discussed in the response to *Question 22: Financial Responsibility, Cost Sharing, & Assurances*, Utah has **proactively designed a pro-business economic environment supported by a highly competitive tax structure, streamlined regulatory regimes, and specialized incentives for infrastructure and energy projects**. This environment, in tandem with other State-specific advantages such as climate and population density, presents an attractive option for new business development at large and energy infrastructure.

For example, multiple data center developers have delivered ambitious announcements indicating intent to establish multi-gigawatt capacity 'gigacampuses' in the State to power the AI revolution. One of these campuses—planned for 4,000 acres, with a 4-gigawatt (GW) capacity—has already received approval for rezoning and has broken ground in Millard County. [86]



Delivery of a Valar Atomics Next-Generation 5MW SMR at Hill Air Force Base

A Leader in Advanced Microreactor Development

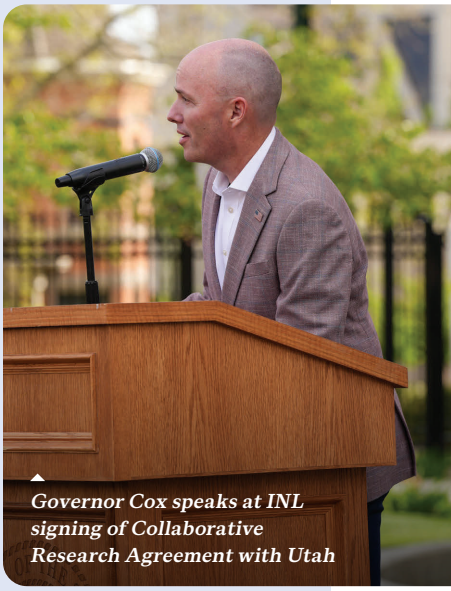
Utah is establishing itself as a **national leader in microreactor development** and a **prime destination for energy-sector R&D**, through a series of partnerships pursued by the state-owned USREL. Nuclear start-up **Valar Atomics** recently broke ground on a project to deploy a **pioneering gas-cooled nuclear test reactor** powered by **TRISO fuel** at the lab to support crucial **reactor component validation, personnel training,** and **regulatory process** research goals.

USREL has also signed an MOU with lead cooled graphite moderate microreactor startup **Nuclea** to **site**, **deploy**, and test their unique technology, Morpheus.

Harnessing the Power of AI for Reactor Design & Operation

With the right advancements, AI has the potential to revolutionize nuclear energy development end-to-end. A few of Utah's close research partners are on the front lines of efforts to make this potential a reality. **As a core member of the ambitious PROMETHEUS project, INL is conducting research into how AI modeling can be used to inform long-term reactor design and operations, including optimized approaches for capital, supply chain, manufacturing, workforce, and operational planning.**

Additionally, Dr. Matthew Memmott and his colleagues at Brigham Young University have produced research showing how **replacing portions of key simulations in the reactor design process with a trained machine learning model can help optimize nuclear reactor design at a fraction of the computational expense required by traditional design methods**. [87]



Governor Cox speaks at INL signing of Collaborative Research Agreement with Utah

16

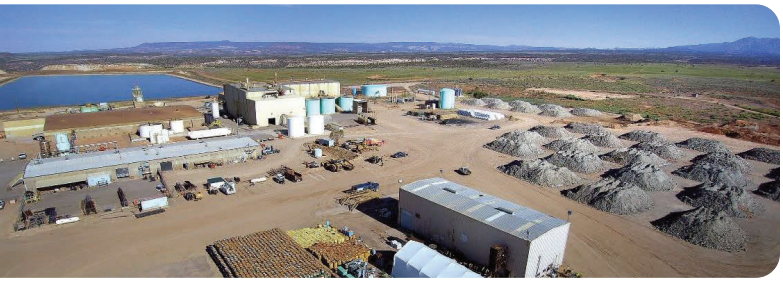
Secondary Waste Management

How would your state assist in managing, storing, and disposing of secondary waste streams generated by Nuclear Lifecycle Innovation Campus activities? Describe compliance with state environmental regulations, access to existing commercial LLW disposal sites, and any proposed state investments in waste management infrastructure.

Utah may provide oversight of secondary waste streams generated by Innovation Campus activities through existing regulatory programs administered by DEQ, specifically DWMRC. As discussed in *Question 5: Regulatory Framework & Licensing Support*, Utah operates as an Agreement State under the AEA, and NRC has delegated authority to the State to regulate specific categories of radioactive materials and related waste management activities. These delegated authorities include programs governing LLW management, uranium recovery activities, and radioactive material regulation. [55] **Utah has operational experience overseeing facilities that manage radioactive materials and associated waste streams**. This includes our regulation of the Clive disposal facility and the White Mesa uranium mill.

Secondary waste streams generated by Campus operations will include materials produced during routine facility operations, filtration and coolant purification systems, equipment maintenance, decontamination processes, and laboratory activities associated with nuclear research and fuel cycle technologies. Operators will classify these materials according to applicable radioactive waste categories and manage them through established handling procedures that include radiological characterization, engineered containment, secure packaging, and transportation to licensed disposal facilities.

▼ *White Mesa Mill in San Juan County*



The Clive disposal facility may provide an established disposal pathway for Class A LLW streams generated by Innovation Campus activities. The facility operates under Utah regulatory oversight and maintains infrastructure for waste acceptance, characterization verification, transportation coordination, and engineered disposal systems designed to isolate radioactive materials from the environment. Because this facility already receives waste from commercial nuclear operations across the U.S. and Canada, it has the potential to be an existing and scalable disposal capability for Class A LLW generated by Campus facilities.



▲ *White Mesa Mill in San Juan County*

Utah is **currently coordinating with DOE regarding the licensing of a Federal Cell at the Clive disposal facility** to support disposal of federal facility waste streams, **demonstrating Utah's capacity to coordinate waste management activities involving State regulatory authority and federal responsibilities**. Similar coordination mechanisms will support disposal pathways for secondary waste generated by Innovation Campus operations when federal waste streams or federal authorities are involved.

Utah will **coordinate regulatory oversight with federal agencies where regulatory jurisdiction overlaps**. In areas governed by Agreement State authority, DWMRC will administer licensing and regulatory review consistent with NRC compatibility requirements. [55] Federal agencies will retain jurisdiction over activities regulated directly under federal law. The State will coordinate with both NRC and DOE when facility operations intersect with federal regulatory authority or federal waste management programs. Additional information regarding nuclear waste management strategies is presented in *Question 10: HLW Management, Treatment, Storage & Disposal*.

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Government Furnished Data, Technology, & Equipment

What government-furnished data, technology, or equipment (e.g., reactor designs, reprocessing technologies, safeguards systems) would your state require to support the Nuclear Lifecycle Innovation Campus functions? Specify whether your state currently holds rights or licenses for such data or technology, and if not, outline how you would pursue acquiring them through DOE, DOW, or other federal entities.

Utah does not anticipate seeking ownership or control over specific nuclear technologies to support the Innovation Campus. Instead, **we will coordinate with federal agencies, national laboratories, and private sector partners to make available data, technology, and regulatory frameworks for Innovation Campus operations**. Utah is prepared to align State and Campus activities with federal innovation priorities, integrating the Innovation Campus into the national nuclear supply chain.

Development and operation of the Innovation Campus will require technical research, data, and licensing frameworks typically developed through federal laboratories and associated research institutions. We **anticipate coordinating closely with national laboratories, including INL and ORNL, as well as private sector partners that hold relevant research capabilities or licensing experience**. These institutions provide essential technical resources related to reactor systems, fuel cycle technologies, safeguards implementation, and other specialized nuclear infrastructure required to support Campus activities.

Utah is **well positioned to leverage its existing partnerships with INL** to access technical expertise across the full nuclear innovation lifecycle. We hold an MOU with INL establishing a formal, long-term collaboration on advanced energy research, workforce development, and technology deployment, with a particular emphasis on nuclear innovation. INL has further deepened its ties to Utah's higher education community through Strategic Understanding for Premier Education and Research (SUPER) agreements with the University of Utah and Brigham Young University, **creating direct pathways for research collaboration, talent development, and technology transfer**.

Because most nuclear facilities operate under federal licensing authorities, sustained federal engagement will be essential to the successful development and operation of the Innovation Campus. Federal agencies maintain primary regulatory authority over many of the technologies and activities the Innovation Campus is envisioned to support, and the State is committed to actively engaging federal stakeholders, including DOE, NRC, and relevant national laboratories, throughout the Campus planning, development, and deployment process. **Rather than treating federal participation as a background condition, Utah views proactive federal engagement as a strategic priority and will pursue the partnerships, agreements, and coordination mechanisms necessary to ensure the Innovation Campus achieves its full potential as a nationally significant nuclear innovation hub**.

Technical needs for the Innovation Campus may include specifications related to advanced reprocessing technologies, including pyroprocessing or aqueous reprocessing systems. For these systems, Utah proposes use of technologies identified as most viable by DOE and its newly created Used Fuel Center at INL. Close partnership with INL and its reprocessing R&D activities will allow us to move towards a complete Campus solution more effectively for UNF, including interim storage, recycling, and final HLW repository. Utah is committed to providing space for technology development by private companies but believes **it will be paramount for DOE to provide direction on a national-level fuel recycling strategy, including long-term technology selection**.

Additional requirements may include safeguards system specifications associated with nuclear material control and accountability to enable compliance with federal regulatory and non-proliferation requirements. As an NRC Agreement State, Utah can capably coordinate with NRC and DOE on criticality and proliferation safety for nuclear materials, as well as providing independent oversight for material control and accountability.

▾ *Provo*



18

International Export Capabilities

How will your state support the development of infrastructure and policies to support international exports of advanced reactors, nuclear fuels, isotopes, and technologies from the Nuclear Lifecycle Innovation Campus? Describe existing or proposed export infrastructure (e.g., ports), state policies to support global partnerships, and strategies to ensure compliance with export control laws and IAEA regulations.

QUESTION EIGHTEEN

Utah is engaged in significant efforts to elevate our global positioning from a regional U.S. leader to a proactive hub for global nuclear innovation. Recent trade missions to countries that are global nuclear leaders (the United Kingdom, Canada, and South Korea) have allowed our State leaders to study sophisticated regulatory frameworks and nuclear lifecycle best practices while opening the door to economic opportunity beyond direct energy investments. These missions, alongside the other ongoing work of World Trade Center Utah (WTC Utah) to connect Utah companies and institutions with global partners across the nuclear and advanced energy value chain, have generated significant potential for us to attract international export agreements. [88] For example, during an October 2025 trade mission to Australia, Utah signed a strategic critical minerals agreement to help stabilize Australia's nuclear supply chain. [89] The **establishment of the Innovation Campus would further accelerate this momentum by generating additional critical commodities likely to be the subject of international interest**.

As mentioned in *Question 13: Transportation Corridors*, Utah's transport infrastructure does include direct access to multiple California port gateways, including the Port of Oakland and the Port of Long Beach, with cooperative logistics agreements managed through UIPA to ensure efficient movement of goods between Utah and coastal shipping hubs. Reliable access to the largest port complexes in North America helps not only bolster access to critical component and supply-chain imports but also presents the opportunity to reach an international market for potential distribution of civil nuclear materials and technologies produced by the Innovation Campus. Utah's transportation infrastructure also supports the movement of highly time-sensitive materials such as medical radioisotopes, which can require same-day or overnight transport to remain usable for procedures. [21] **Utah's logistics and transportation infrastructure, coupled with domestic and international trade relationships, position the State to support export of nuclear fuels, components, and technologies**.



Governor Cox, leading a 2024 trade mission to South Korea



Governor Cox meeting with Australian Consul-General Bennett

Utah is aware of the multifaceted regulatory regimes involved in the international export of nuclear materials and equipment, including NRC export licensing under 10 CFR Part 110, DOE/NNSA Part 810 authorizations for transfers of certain unclassified nuclear technology and assistance to foreign atomic energy activities, the roles of the U.S. Department of State (DOS) in evaluating non-proliferation implications, DoW in assessing national security risks, and the U.S. Department of Commerce's (DOC) Export Administration Regulations along with other safeguards/non-proliferation obligations aligned with the IAEA framework. We recognize our limited regulatory authority regarding international exports but are dedicated to supporting industry in meeting export requirements where we can.

While Utah has limited export control authority, any event in which the State does have the opportunity to engage in cooperative agreements or MOUs will feature close adherence to both U.S. federal and IAEA regulations.

Utah proposes that any additional national security or economic strategy concerns related to international exports of Campus outputs be discussed and resolved via the processes recommended in *Question 14: Proposed Agreement Framework* to support coordination as needed with DOS and DOC.

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Constraints & Inhibiting Factors

What potential barriers or impediments could affect the successful siting and operation of a Nuclear Lifecycle Innovation Campus in your state, considering all nuclear functions? For example, what resources, information, or expert assistance would be necessary to ensure that potentially interested communities have adequate knowledge and support to address concerns related to mining, reprocessing, waste disposal, or supporting industries?



Salt Lake Valley cityscape

Constraints relevant to siting and operating an Innovation Campus are addressed in other sections of this response. This section is intended only to direct the reader to those discussions. **Utah does not believe these constraints are disqualifying and is actively addressing them through ongoing mitigation, coordination, and planning efforts**.

Interstate Stakeholder Constraints

Development of an Innovation Campus will require coordination across neighboring states and federal partners for transportation, materials handling, and market access. Interstate transportation considerations are addressed in *Question 13: Transportation Corridors*. Federal-State coordination mechanisms are detailed in *Question 14: Proposed Agreement Framework*. Regulatory and legislative considerations can be found in *Question 5: Regulatory Framework & Licensing Support* and *Question 6: Legislative & Policy Requirements*.

Community Knowledge Constraints

Public understanding and acceptance may affect project timelines, particularly among local communities, Tribal Nation stakeholders, and environmental organizations. Stakeholder engagement considerations are addressed in *Question 9: Stakeholder Engagement Strategy & Cooperation Mechanisms*. Public and stakeholder concerns are outlined in *Question 8: Anticipated Public & Stakeholder Concerns*. Environmental considerations, including water-related constraints, are addressed in *Question 12: Environmental & Safety Stewardship*.

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Unaddressed Considerations

What additional issues should DOE consider in implementing a successful Nuclear Lifecycle Innovation Campus in your state? Provide insights on state capabilities, policies, or prior experience with nuclear, industrial, or large-scale infrastructure projects that reinforce your state's suitability as a host.

We will enable the successful implementation of our Innovation Campus through **coordinated planning across federal regulators, State authorities, and private sector participants**. Utah's regulatory readiness, infrastructure capabilities, and stakeholder strategies are addressed in *Question 4: Site Infrastructure Requirements*, *Question 5: Regulatory Framework & Licensing Support*, *Question 6: Legislative & Policy Requirements*, and *Question 9: Stakeholder Engagement Strategy & Cooperation Mechanisms*. The following considerations are additive.

Federal-Level Considerations

Utah **recommends DOE consider the strategic value of incorporating interim UNF storage capability as part of a phased Campus development strategy.** Interim storage can serve as an early operational anchor function that enables near-term activity while functions with a longer lead time such as enrichment, fuel fabrication, or recycling facilities, are developed and licensed.

As described in *Question 7: Timeline for State Support* and *Question 10: HLW Management, Treatment, Storage & Disposal*, incorporating interim storage into a phased development strategy may reduce early project risk, enable staged infrastructure investment, and support gradual build-out of additional Campus functions while reinforcing public familiarity and confidence.

▾ *Utah State Capitol building in the fall*



Prior Experience: EnergySolutions

EnergySolutions' Clive disposal facility is a long-operating, remote desert complex that manages the **treatment, storage, and disposal of certain regulated radioactive and hazardous waste streams under state and federal oversight**. As one of the most visible examples of a safety- and compliance-intensive facility in Utah, the Clive disposal facility demonstrates, at full scale, Utah's ability to **site, permit, oversee, and sustain** operations that require stringent controls, specialized workforce practices, and long-term environmental stewardship in a secure setting.

The facility also showcases our **infrastructure and operating discipline** in a nuclear-adjacent context. The facility depends on consistent, secure logistics (e.g., controlled access, shipment verification, and repeatable material-handling procedures) and a governance model that coordinates across operators, regulators, and emergency management stakeholders. Those capabilities translate well to any advanced energy campus that must manage sensitive materials, maintain high reliability, and meet continuous inspection, documentation, and performance requirements over decades and not just during initial siting and construction.

Finally, the Clive disposal facility underscores Utah's **social license and long-horizon stewardship posture**. Operating a facility of this nature requires sustained attention to environmental monitoring, transparent compliance reporting, and constructive engagement with key stakeholders over time. The Clive disposal facility serves as evidence that we can host complex, tightly regulated facilities with durable oversight, predictable operations, and an established ecosystem of public-sector coordination, reducing execution risk for any future large-scale nuclear lifecycle activities. ***Question 12: Environmental & Safety Stewardship***; and ***Question 16: Secondary Waste Management***

Financial Assurance & Entity Structuring

Financial assurance and entity structuring requirements present additional limitations to Innovation Campus activity. Utah's radiation control regulations, aligned with NRC requirements under 10 CFR Parts 30, 40, and 72, require licensees to demonstrate financial assurance for decommissioning through mechanisms such as prepayment into segregated accounts, surety bonds, letters of credit, or parent company guarantees. A parent company guarantee based on a financial test cannot be used when the applicant or licensee has a parent company holding majority control of the voting stock and a guarantee by the applicant or licensee itself cannot be combined with other financial assurance methods. These restrictions have direct implications for Innovation Campus entity structuring. If private sector partners propose to operate Campus functions through limited liability companies or special purpose entities, as is common in project finance structures, those entities may lack the balance sheet depth to satisfy financial assurance requirements independently and may be unable to rely on parent company guarantees depending on the corporate ownership structure.

Regulatory requirements underpinning these constraints are detailed in *Question 5: Regulatory Framework & Licensing Support*. The State will work with DOE and private partners to identify financial assurance mechanisms that satisfy both NRC and DEQ requirements while accommodating the project finance structures that private capital will demand.

Project-Specific Considerations

Implementation of a multi-function nuclear Innovation Campus **requires clear governance structures that define regulatory responsibilities, land ownership models, and oversight coordination across federal and State agencies**. Early alignment between Utah, DOE, NRC, and will be necessary to enable environmental review, permitting, and licensing processes to proceed efficiently. Coordination mechanisms supporting alignment are described in *Question 5: Regulatory Framework & Licensing Support*, *Question 6: Legislative & Policy Requirements*, and *Question 14: Proposed Agreement Framework*.

National Security Agency's Utah Data Center

Utah's support on the development of the NSA's UDC at Camp Williams near Bluffdale demonstrates that we can host and enable a mission-critical, highly secure federal campus with demanding infrastructure requirements.

A central success factor was our ability to stand up fit-for-purpose governance and delivery mechanisms through the Military Installation Development Authority (MIDA) [90]. In March 2010, MIDA established the "Utah Data Center Project Area," encompassing 235 acres at Camp Williams, to coordinate the development and supporting services needed for sustained operations. This structure enabled streamlined coordination across jurisdictions and supported investments in enabling infrastructure, such as steps to secure reliable water for cooling, helping convert federal requirements into buildable, permitted, and supportable reality [91].

The UDC also demonstrates Utah's capacity to support scale and longevity: the data center is approximately one million square feet (including substantial technical and administrative space) and was designed with significant power capacity. More recently, federal planning documents indicate continued investment in UDC's campus footprint (e.g., additional administrative and support facilities projected to begin construction in 2027), reinforcing the enduring viability of the site and the host state partnership model.

Technology Readiness & Design Uncertainty

Potential technologies for deployment within the Innovation Campus, including enrichment technologies, advanced fuel fabrication systems, recycling processes, and advanced reactors, vary significantly in technical maturity and licensing readiness. We therefore recommend DOE consider technology readiness levels (TRLs) when sequencing Campus development and structuring federal program support. Maintaining **flexibility in Campus design will allow infrastructure planning to adapt as technologies mature, regulatory requirements evolve, and commercial deployment strategies are finalized enabling efficient development**.

Relevant deployment pathways and facility sequencing considerations are addressed in *Question 1: State Interest* and *Question 7: Timeline for State Support*.

Infrastructure & Facility Requirements

Our approach to **integrated Innovation Campus design will employ coordinated planning for shared infrastructure systems that support multiple facilities**. Core infrastructure dependencies—including transportation, energy, water, waste management, and monitoring systems—are detailed in *Question 4: Site Infrastructure Requirements* and *Question 12: Environmental & Safety Stewardship*. Early planning for these shared systems will reduce long-term costs and support safe, efficient Campus operations as additional facilities come online.

Regional Hub Potential

We recognize that the concentration of complementary activities, such as fuel cycle services, advanced manufacturing, isotope production, and research partnerships, can create network effects that strengthen the broader regional and national nuclear ecosystem. Utah's positioning within the national nuclear ecosystem, including partnerships and supply-chain considerations, is further described in *Question 15: Technology and Industry Partnerships*.

Utah's geographic location, partnerships with neighbor states, existing transportation corridors, and proximity to national laboratories, including INL, positions us to serve as a regional node connecting Western energy markets, research institutions, and emerging nuclear technology developers. Transportation and logistics enablers are addressed in *Question 13: Transportation Corridors*.



Transmission lines in Utah

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Additional State Information

Please provide any additional information about your state's capabilities, policies, or prior experience with nuclear or related projects (e.g., energy, defense, industrial development) that supports its suitability to host a Nuclear Lifecycle Innovation Campus. Include details on existing infrastructure, economic development programs, or community support initiatives that enhance your state's readiness to support the desired nuclear innovation.



Creek City Mall

To further demonstrate Utah's qualifications as a leading candidate to host an Innovation Campus, we share below additional context not discussed in detail elsewhere in this response.

Economic Development Ecosystem

As outlined in *Question 15: Technology & Industry Partnerships*, **Utah possesses a range of business-friendly policies and financial mechanisms to attract investment and new business development** across the State. In addition to these incentives, we provide a range of government functions and peer organizations that are well positioned to help the State further maximize the wealth of new opportunities the Innovation Campus would attract, including:

GOED: GOED serves as the State's lead economic development agency responsible for **implementing statewide strategies to promote business growth, attract investment, create jobs, and support long-term economic competitiveness**. The office works directly with industries, regional partners, local communities, and nonprofit organizations to recruit new companies to Utah while supporting the retention and expansion of existing businesses. GOED administers a range of programs including business incentives, rural development initiatives, and entrepreneurial support services designed to cultivate economic prosperity.

Economic Development Corporation of Utah (EDCUtah): EDCUtah is a statewide nonprofit public-private partnership focused on attracting new business investment and facilitating corporate relocation and expansion projects. Founded in 1987, the organization works closely with State and local governments to promote Utah as a competitive location for business operations and to catalyze capital investment that creates quality jobs. EDCUtah **provides site selection support, market intelligence, and coordination with community and industry partners** to help companies establish or expand operations in Utah. Through these activities, EDCUtah plays a critical role in translating economic development strategy into concrete investment and job creation outcomes.

WTC Utah: WTC Utah serves as the State's primary global business integrator and supply-chain connector. Through its international network, trade missions, foreign direct investment (FDI) recruitment, and business advisory services, WTC Utah helps identify and attract companies, technologies, and capital needed to strengthen Utah's energy supply chains. In addition to its previously mentioned role supporting stakeholder coordination and workforce development efforts, these capabilities enable WTC Utah to **connect Utah companies and institutions with global partners across the nuclear and advanced energy value chain, support market entry and supply-chain analysis, and facilitate strategic partnerships that accelerate industry development**.

Land Use Authorities: Utah has a **history of creating special use authorities to catalyze large-scale economic development**. For example, UIPA and MIDA function as complementary "super-authorities" by streamlining the transition from planning to construction. While UIPA acts as the State's primary logistical engine utilizing its "Project Area" status to capture tax increment financing (TIF) for critical infrastructure like rail spurs, heavy-haul roads, and transloading facilities, MIDA serves as an independent regulatory "one-stop shop" that can bypass traditional municipal zoning to fast-track projects with a clear nexus to State or national security.

These authorities create a specialized development environment where UIPA manages the long-term industrial supply chain and multimodal transport needs, while MIDA provides the land-use authority to rapidly approve building permits and master plans without the delays of local jurisdictional layers. This model allows Utah to rapidly pursue high-impact commercial and industrial projects by offering developers both financial tools for infrastructure and administrative agility to meet compressed market timelines. Examples of these projects include the Falcon Hill Aerospace Research Park near Hill Air Force Base which leases out to top aerospace and defense tenants and the Verk Industrial Park under development in Spanish Fork City. [92] [93] If selected, we will **consider establishing a unique land use authority for the Innovation Campus to leverage similar capabilities and permissions**.

Utah Department of Workforce Services (DWS): DWS is the State's primary agency responsible for workforce development, employment services, and labor market support programs that strengthen our economy. Created to integrate employment and social service programs, the department connects job seekers with employers, administers workforce training programs, and provides economic data and labor market analysis to inform policy and business decisions. DWS works closely with employers across Utah to align workforce skills with industry needs through training programs, recruitment services, and job matching tools. **By ensuring a strong pipeline of skilled workers and supporting employment stability, the department plays a central role in sustaining our economic growth and competitiveness**.



Construction team working

Workforce Development: Challenges, Opportunities, & Strategy

Utah is establishing a comprehensive, industry-aligned workforce pipeline to support development and long-term operations of the Innovation Campus. This pipeline begins at the K-12 level and extends through postsecondary education, technical training, and registered apprenticeships, enabling a continuous supply of skilled workers across the nuclear lifecycle.

The initial Innovation Campus build will create substantial opportunities for our construction industry, the sixth biggest industry in Utah according to the latest data from DWS. While development will require a sizable workforce with specialized capabilities equipped for nuclear-specific applications, there will be ample opportunity for our conventional construction workforce to apply their skillsets as well. An indicative list of relevant occupations needed to establish the base infrastructure of the Innovation Campus may include: brickmasons and blockmasons, carpenters, cement masons and concrete finishers, structural iron and steelworkers, and other construction equipment operators and laborers.

Completion and operation of these facilities will **drive a second wave of job creation as permanent, high-paying positions are opened to fulfill the day-to-day operations of the Innovation Campus' range of nuclear lifecycle functions**. Examples of these more specialized, nuclear-specific jobs include: nuclear, industrial, environmental, and health and safety engineers, nuclear power reactor operators, chemists, environmental scientists and specialists, hazardous material removal workers, millwrights, and other installation, maintenance, and repair occupations with nuclear-specific knowledge. In addition to positions at individual facilities, there will be a diverse range of adjacent job opportunities essential to the broader functioning of the Innovation Campus including: physical and cybersecurity positions, back-office and administrative staff, food service, janitorial, and other facilities managers. Utah is already advancing innovation in nuclear workforce training through the development of a high-fidelity digital twin of the University's TRIGA research reactor in collaboration with INL. **This virtual reactor can be used directly for workforce training, from student learning and internships to operator and technician upskilling, through safe, realistic simulation of reactor operations**.

Developing a stronger nuclear economy is not only a strategic priority, it is mandated by Utah's energy legislation. Among other initiatives to bolster our nuclear ecosystem, H.B. 249 modified the Utah Energy Research Board and established specific policies for the Board to engage industry partners to develop workforce programs and make recommendations to the council regarding funding allocations for nuclear programs. It also established the Electrical Energy Development Investment Fund, which includes funding for workforce programs as a key priority. Additionally, H.B. 157 established an Energy Education and Workforce Development Advisory Group and set a statutory mandate for workforce development coordination. [94]

Establishing the workforce required for the range of functions envisioned for the Innovation Campus presents multiple exciting opportunities. We recognize that there will also be potential challenges given the expected development timeline. Our **nuclear workforce development strategy**, built on a strong base of energy-related training and education initiatives, **is designed to grow capacity quickly while promoting energy proficiency and nuclear interest across the State to sustain a long-term pipeline that ensures local communities can access jobs over the full lifespan of the Innovation Campus**.



▲ *Governor Cox at Seek Lab*

Estimated Campus Workforce Requirements

We estimate a fully operational Innovation Campus is likely to require a workforce in the range of ~5,000–10,000 employees. This high-level estimate is informed by a preliminary review of workforce demands from existing nuclear energy and industrial campus projects as well as subject matter input from partners such as INL. **Further analysis will be necessary to determine a more precise workforce requirement projection once the size and number of Innovation Campus facilities is decided**.

Table 4 below presents an indicative list of workforce requirements typical of several proposed Innovation Campus functions, informed by examples from existing facilities.

TABLE 4 | ILLUSTRATIVE LIST OF CAMPUS FACILITIES & WORKFORCE ESTIMATES

Campus Ecosystem Function	Permanent Workforce Estimate
Uranium Mining & Milling*	40 to 60 jobs/mine [95] + ~150 jobs/mill [2]
Uranium Conversion	~200 to 400 jobs/facility [96]
Enrichment	500 to 600 jobs/facility [97]
Fuel Fabrication	500 to 1,000 jobs/facility [98]
Advanced Reactor	~100 to 300 jobs/reactor [99]
Waste Storage	~1000 jobs/facility [100]
Spent Fuel Reprocessing	~1000 to 5000 jobs/facility [101]

While uranium mining and milling will not be within the direct fenceline of the primary Innovation Campus location, Campus activity is anticipated to drive a notable increase in operations.

In addition to the staff operating nuclear facilities, the **Innovation Campus will require permanent staff across a broader set of supporting roles to enable day-to-day operations**. As a site of great strategic and national security importance, the Innovation Campus will require significant physical security to protect the Campus grounds and cybersecurity to protect technological systems from external interference. Other positions may include facility services and operations such as food staff and janitorial support, computing and information systems workers, and back-office management and business services.

This **workforce estimate aligns with comparable government-supported R&D campus initiatives**. For example, INL is supported by a full campus workforce of ~6,000 and this number is projected to grow to ~7,000 employees in the coming years. Similarly, the planned Pacific Northwest Hydrogen Hub, awarded funding as part of the Office of Clean Energy Demonstrations (OCED) Regional Clean Hydrogen Hubs Program, was estimated to create around 10,000 jobs before development paused. [102]

For projecting the creation of FTE construction jobs specifically, review of previous nuclear and industrial development can provide additional directional understanding of new opportunities Innovation Campus development may enable. Facility-level references for nuclear projects in the U.S. include the recently completed Vogtle Units 3 & 4, two AP-1000 reactors from Southern Nuclear that featured 9,000 construction workers at its peak. [103] The expansion of Centrus Energy's uranium enrichment plan in Piketon, Ohio announced September 2025 is expected to create 1,000 construction jobs. [104] While a commercial advanced SMR has yet to be built, construction workforce estimates generally range around 2,000 workers. [99] Other energy related projects of similar complexity that may serve as a helpful reference include recent construction of liquefied natural gas terminals, which can feature up to 20,000 on-site workers at their peak, though in the U.S. projects have trended closer to ~5,000 workers. [105] [106]

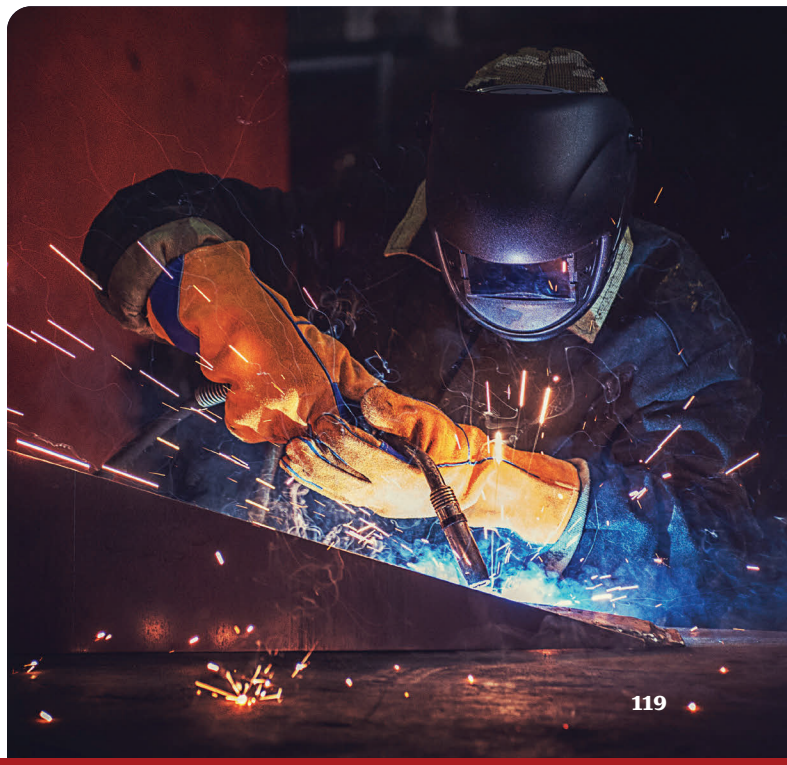
Based on DOE's estimated multiplier, provided in the Nuclear Lifecycle Campus RFI document, of two to three indirect jobs per direct job, **Utah estimates that Innovation Campus development could create an additional ~10,000–30,000 indirect jobs in construction, supply chain, and community services**. Once the Innovation Campus designs are finalized, we will conduct a detailed workforce analysis to refine our development strategy.

Utah Workforce Overview

Initial assessment indicates that **we are well-positioned to meet the demand of Innovation Campus construction**, with the latest data from DWS measuring Utah's construction industry at over 140,000 employees. [107] Tooele County will likely be unable to contribute the full workforce needed on its own, providing opportunity to adjacent counties including Cache, Davis, Salt Lake, and Weber which boast a combined construction industry workforce over 80,000 employees. [107] A more detailed analysis of precise construction requirements for each Innovation Campus facility is needed to fully assess workforce preparedness and availability, but based on current understanding, the pure volume of construction workforce will likely not be a limiting factor. Rather a more significant challenge will be addressing workforce shortfalls tied to nuclear-specific credentials and site-readiness required by industry. **We are already in the process of building nuclear education and workforce pipelines which can mitigate this possibility**.

Utah does not currently have any operating commercial nuclear reactors or facilities and as such possesses a modest active nuclear sector workforce of less than 200 workers, with less than 50 working directly on nuclear electric power generation. [108] This limited availability of an active nuclear workforce may be a challenge given the rapid timeline desired for Innovation Campus development, but it is one that Utah is already activating solutions to address.

▼ *Utah's skilled workforce will support the Innovation Campus*



In 2025, OED contracted the NEWNA, identifying nuclear workforce trends as part of a broader energy workforce needs assessment. The NEWNA identified a set of 17 "nuclear priority occupations" encompassing ~5,000 employees within Utah's existing energy employment that were positioned to support the growth and expansion of nuclear energy within Utah (*Table 5*). [109]

TABLE 5 | UTAH ENERGY EMPLOYMENT FOR "NUCLEAR PRIORITY OCCUPATIONS"

Occupation Title	Utah Energy Employment	Utah Average Annual Wage*
Plumbers, Pipefitters, & Steamfitters	2,691	$62,600
Industrial Machinery Mechanics	639	$71,880
Maintenance and Repair Workers, General	631	$51,980
Industrial Engineers	411	$104,130
Nuclear Engineers	142	$129,500
Electrical & Electronics Repairers, Powerhouse/Substation/Relay	110	$101,770
Environmental Engineers	93	$102,690
Security Guards	83	$43,130
Environmental Scientists & Specialists, Including Health	77	$85,140
Power Distributors & Dispatchers	44	$104,990
Chemists	43	$82,530
Millwrights	42	$63,050
Health & Safety Engineers	29	$104,440
Nuclear Technicians	27	$92,200
Nuclear Power Reactor Operators	16	$125,800
Stationary Engineers & Boiler Operators	11	$72,940
Hazardous Materials Removal Workers	7	$52,460

**Bureau of Labor Statistics (BLS) Occupational Employment and Workforce Statistics 2024. JobsEQ, 2025Q used when unavailable (nuclear engineers, nuclear power reactor operators, and nuclear technicians).*

The occupational mix for these occupations is divided across skilled trade workers and science and engineering professionals. Those occupying the trades and operations positions are commonly comprised of workers with a high school diploma, some college experience, or an associate degree. These roles often require specific vocational training and on-the-job learning to perform the needs of specific nuclear-adjacent tasks. In contrast, engineering and science roles are overwhelmingly comprised of workers with a four-year degree or an advanced degree, with more than half of nuclear engineers, environmental engineers, health and safety engineers, industrial engineers, chemists, and environmental scientists and specialists holding a bachelor's degree.

Nuclear priority occupations skew largely toward working-age adults, with the largest shares consistently concentrated in the 25–44 age range. Entry-level youth participation (ages 16–19) is minimal across nearly all roles, and several safety-critical roles (e.g., millwrights, hazardous materials removal workers) have elevated shares of workers aged 55–64, signaling potential near- to mid-term retirements and replacements needs, further emphasizing need for an expanded nuclear labor force development efforts.

Scaling Utah's Existing Workforce to Meet Initial Innovation Campus Needs

Meeting the timeline expressed by DOE of having some portion of the Innovation Campus built and operational by 2027 will require a rapid scaling of Utah's nuclear-ready workforce. **To help accelerate this process, we will engage various workforce, education, and industry partners to support planning and implementation efforts**.

▼ *Utah State Capitol building in autumn*



Upskilling & Union Collaboration

The most immediate opportunity to bolster Utah's nuclear workforce is by upskilling our existing trade workers to apply their skillset to nuclear-specific needs. A significant portion of the occupations positioned to support nuclear development are unionized, and unions can play a central role in catalyzing workforce development and expansion. In coordination with Utah Building and Construction Trades Council, we are actively working to build relationships and define collaboration opportunities with Utah's unions including United Association (UA) Local 140 (pipefitters and welders), International Brotherhood of Electrical Workers (IBEW) Local 354 (electricians), and Operating Engineers Local 3. [110] Such efforts will likely include exploration of new opportunities to expand the reach and impact of existing union-owned and operated training facilities and programs such as UA Local 140's Tungsten Inert Gas (TIG) welding training for nuclear-grade welds on stainless steel. Additional opportunities to enhance the existing training ecosystem include expanding the offerings available via USHE training platforms including Utah Works and Custom Fit, which are intended to be customizable to meet business training needs. [111] [112]

Private Sector Training Programs

Utah is also engaging private partners to co-build additional opportunities to accelerate the development of a nuclear-ready workforce. Utah's willingness and investment to progress these solutions is underscored by our partnership with HTS and Holtec to build a regionally anchored nuclear energy ecosystem across Utah and the Mountain West. A centerpiece of that commitment is the planned CERT campus in the Brigham City area. The **CERT is an industry-led, multimillion dollar regional nuclear training center designed in collaboration with Utah universities, technical colleges, and trade schools with permanent-facility construction targeted for 2027–2028**. HTS will serve as a key operational lead, creating a credible pathway to rapidly upskill Utah workers to nuclear safety and quality expectations. These programs will be informed by HTS' experience across 85+ reactor sites and deep capabilities across outage execution, fuel handling, dry cask storage, plant modifications, decommissioning, and nuclear-grade welding and fabrication, augmented by subsidiaries Reactor Services Inc. (RSI) and Nuclear Repair Services (NRS).

CERT is structured as a practical earn-credentials and build-experience pipeline that demonstrates near-term workforce capacity while building toward long-term in-state operations. Starting summer 2026, HTS and Holtec plan to launch dry cask canister welding training (training ~100 welders) using HTS' proprietary welding systems, integrating local education partners and DoW's SkillBridge veteran transition pathway, with a mission-driven commitment to hiring over 1,000 veterans through the program, allowing service members to participate in workforce training during their final months of service to jumpstart civilian careers. [113] In parallel, HTS, Holtec, and INL are pursuing an academic pathway with Weber State University for a Nuclear Uniform Curriculum Program (NUCP)-aligned Associate of Applied Science in Nuclear Engineering Technology. **This effort will position Utah to present workforce development as a sequenced continuum from construction and fabrication skills, to commissioning disciplines, to sustained operations rather than a single milestone**.

International Workforce

In parallel with these near-term workforce development efforts, we may explore bringing in additional temporary support from partners out of state or even out of country to fill critical workforce gaps as development pathways evolve. Leveraging our strong international relationships built through multiple trade missions in countries such as India, Australia, and the UK, alongside other efforts from groups like WTC Utah to elevate Utah's global status, we have the potential to bring in experts to accelerate technical training and supervise key activities needed to move the Innovation Campus forward. An example program might pair international experts with local partners for direct training and help bridge knowledge gaps and share best practices, building institutional knowledge that can be passed along through additional Utah-centered mentorship and training initiatives.

WTC Utah can also **support broader stakeholder coordination and workforce development efforts by convening industry, academia, and government partners to align economic development, innovation, and talent pipelines, complementing broader State and federal initiatives focused on energy innovation, advanced materials, and critical minerals supply chains**, helping position Utah as a leading hub for next-generation energy technologies.

Cultivating Education & Interest to Build Utah's Future Nuclear Workforce

As the Innovation Campus establishes a central role in Utah's growing nuclear energy industry, we will aim to **cultivate expanded educational pathways and other opportunities to instill a deep-rooted multigenerational interest in energy and civil nuclear energy** to ensure a continued pipeline of passionate, energy-knowledgeable Utahns are equipped and available to support the Innovation Campus throughout its lifespan.

Higher Education

Utah will continue to explore opportunities to promote the size and reach of higher education programs essential to developing technical engineering and science roles critical for nuclear operations. **Our higher education institutions have made significant investments in recent years to expand engineering and technical programs** along with research opportunities which will prepare students to meet nuclear workforce needs. For example, as mentioned in ***Question 15: Technology & Industry Partnerships***, we are home to several universities on the front lines of nuclear R&D.

University of Utah: The University of Utah's Nuclear Engineering Program provides academic programming at the undergraduate minor, M.S. and Ph.D. level. [114] The program's curriculum has been designed to fill critical educational and competency gaps for studying engineers and scientists to prepare for future involvement in nuclear power, radioactive waste, nuclear medicine, radiation safety, and nuclear materials detection industries. The highlight of the University's offerings is its NRC-licensed 100 kW TRIGA which provides research and NRC-licensed operator training opportunities. [115] As indication of the University's commitment to expanding the reach of its nuclear programming, the University is currently in the hiring process to bring on additional tenure-track faculty. Among its faculty, Dr. Michael Simpson received a $1.5 million ARPA-E grant to develop new molten salt recycling methods for spent nuclear fuel, and Dr. Tara Mastren was awarded a DOE Early Career Research Award for her work on improved radionuclide generator systems for targeted cancer therapies.

Utah State University: Utah State University is building a comprehensive Energy Engineering program, which will support degree and credential programs to prepare engineering experts to lead the development of clean and sustainable energy for our rapidly growing State. Supported by the Statewide Energy Engineering Education and Workforce Initiative, which was approved by the Utah State Legislature in 2024, the program is hiring nine new professors and anticipated to work closely with URSEL to collaborate on research and piloting opportunities. Utah State University also collaborates closely with OED through the recent Gigawatt Fellowship, a strategic two-year partnership dedicated to providing high-quality research to support evidence-based decision-making in how best to advance the goals of Operation Gigawatt.

Brigham Young University: Expert faculty in Brigham Young University's Chemical and Biological Engineering Program are leading significant nuclear research efforts across reactor technologies and the nuclear fuel cycle. Highlights of research efforts include research work from Dr. Matt Memmott that focuses on enhancing the passive safety of current and advanced nuclear reactor technology while improving the economics, fuel utilization, and grid adaptability of current plants as well as Andrew Fry who has conducted high value research projects at USREL. [116]

Each of these universities has a legacy of grant-funded nuclear research work, including multiple projects supported by the NEUP, and are actively engaged in projects with State and national research labs. They also are continuing to grow student-led nuclear interest through activities like American Nuclear Society Student Sections. [117]

Contributions to Utah's nuclear workforce readiness extends well beyond the highest funded research institutions. Weber State University, in addition to developing an associate degree program in nuclear engineering technology (as mentioned in the Private Sector Training Program subsection above), also provides nuclear-adjacent programming through its School of Radiologic Sciences, and critical non-nuclear specific workforce through an upcoming energy engineering program. [118] There is also potential for future collaboration with technical colleges to augment technical programs such as Davis Technical College's Welding Technology program, to integrate nuclear-specific applications. [119]



Governor Cox speaking at a ceremonial bill signed at Davis Technical College

K-12 Engagement & Apprenticeship

In addition to establishing career pipelines in higher education and with our industry partners, we are **making significant strides in promoting energy competency and career pathways to our K-12 students**. Starting at the elementary school level, OED has prioritized extracurricular STEM outreach efforts statwide to generate student interest in STEM fields and energy specifically. These efforts include supporting Utah STEM Fest, which engages 10,000+ students a year, the Utah STEM Expo, and a host of STEM nights at local schools. [120] These outreach efforts engaged just over 20,000 students in the previous academic year and have already reached over 25,000 students in the current academic year, with multiple events still on the horizon.

Utah is also **investing significantly in initiatives to connect students directly to the energy industry**. Active efforts include Utah's support of Career and Technical Education (CTE) pathways, in particular the Energy and Natural Resources Cluster (ENR), under Advance CTE's modernized framework. [121] CTE programs provide secondary students with relevant and rigorous learning experiences aligned to local workforce needs, with curricula often varying by state or even county. Example ENR cluster programs include hands-on experiences in areas such as energy grid management and environmental engineering. The program has been adopted by the Utah State Board of Education (USBE) and is currently in various stages of adoption across school districts. [122] The program has also received industry buy-in through the Energy Education and Workforce Development Advisory Group. Recently, OED has engaged in conversations with the Jordan School District about having input on ENR-related lessons and curricula and plans to replicate this collaborative approach with other districts over time.

▼ *Energy Trivia Wheel, sponsored by the Utah Office of Energy Development*



Beyond these educational efforts, we are actively building our own robust nuclear apprenticeship program tied directly to industry partners and employers. The Utah Aerospace Pathway program from Talent Ready Utah, an initiative supported by USHE and GOED among others, is a proven model of success for building a new, specialized workforce. [123] The program provides high school juniors and seniors with the opportunity to complete specialized coursework and participate in work-based externships and is designed in direct collaboration with Utah's top aerospace employers to be tailored to their specific talent needs. At the conclusion of the program, participating students earn a certificate guaranteeing them a job interview with each participating company. Credentials earned through participation are also stackable, allowing graduates to pursue further degrees and certifications with support from employer tuition reimbursement.

We will seek to replicate this model by working closely with partners directly involved with the Innovation Campus and in the broader nuclear industry to co-design a new pathway program to prepare students for career opportunities across the nuclear lifecycle. Other employer connection and apprenticeship platforms that may supplement these efforts include the apprenticeships available via DWS, which directly assists employers in designing, building, and registering apprenticeship programs with the U.S. Department of Labor. [124]

By reaching Utahns across all education and career levels and providing a multitude of pathways for involvement in the nuclear industry, we are strongly positioned to support the core functions of the Innovation Campus and to attract interest from new employers looking to leverage a growing, well-equipped nuclear and energy workforce.



Potash evaporation ponds and plant looking north from Little Mountain

Access to Critical Minerals

Our State possesses diverse geological resources that include a wide variety of critical minerals. According to the Utah Geological Survey (UGS), **50 of the 60 critical minerals identified on the U.S. Geological Survey's most recent list have a connection to Utah**. This includes ten critical minerals that are currently mined and at least partially processed in Utah as well as another ten that have been mined within the past five years or that have significant, known resources still available. [125] Notably, we produce the majority of the global supply of beryllium at Spor Mountain. Fourteen commodities, known as rare earth elements, are processed at White Mesa, although the raw ore is from out of state. We are also home to one of only two active copper smelters in the U.S. [125]

Perhaps the most notable of our critical mining operations is the Kennecott Copper Mine in Bingham Canyon, operated by Rio Tinto. While the main commodity produced at the mine is copper, there are several additional critical mineral byproducts produced there including silver, tellurium, platinum, palladium, and lead. As such, **the mine produces six of the ten critical minerals currently mined in Utah**. Other notable operations include a cluster of uranium mines at deposits in the southeast, which in addition to uranium also produces a significant amount of vanadium. [125]

Utah's State Legislature has **recently passed two bills that aim to capitalize on this unique wealth of resources and establish our State as the nation's critical minerals hub**. Senate Concurrent Resolution (S.C.R.) 9 proposes the establishment of a Utah Minerals for Industrial, National, and Economic Security Center (MINES Center) and encourages Utah's Congressional delegation to pursue support for the center as a critical minerals national lab. S.B. 254 accelerates this mission by authorizing $25.8M in funding for the MINES Center and a Critical Minerals Council as well as establishing critical mineral zones and parallel-track processing initiative to streamline permitting processes. [126] [127]

22

Financial Responsibility, Cost Sharing, & Assurances

Describe how your state would approach cost sharing and risk allocation for the development, operation, and closure of a Nuclear Lifecycle Innovation Campus. In particular, how would your state expect private entities to fund capital costs, operations, decommissioning, and long term waste management (for example, decommissioning funds, closure funds, insurance, and other financial assurances)? What state or local contributions, if any, would be contemplated, and how would they be conditioned (for example, performance based incentives, claw back provisions)?

Attracting New Partners & Investment

Utah has proactively shaped its policy environment to emphasize a business-friendly, pro-growth posture across all industries and sectors. In addition to the financial mechanisms targeted specifically toward accelerating Utah's energy sector (detailed in *Question 14: Proposed Agreement Framework*), these **cross-sector incentives can help attract investment and partnership interest from the private sector by materially improving project economics through reduced upfront capital and accelerated project timelines enabled by reduced administrative complexity**.

Table 6 on the following page details select policy areas that establish Utah as a reliable, competitive location for new and expanding developers and employers.

▼ *Governor Cox leading a 2023 trade mission to Canada*



TABLE 6 | UTAH'S BUSINESS-FRIENDLY FRAMEWORK

Policy Area	Key Policy Features	Description	Implications for Businesses
Tax Structure	Flat corporate and individual income tax; moderate sales tax	Utah applies a flat corporate income tax rate as well as a flat individual income tax rate of 4.5%. [128] The statewide sales and use tax rate is 4.85% with additional local rates varying by jurisdiction. [129] Utah's gross receipts tax is under 1% for amounts under one billion dollars. [130]	Provides a predictable and comparatively low tax environment, simplifying long-term financial planning and reducing effective tax burdens for many firms.
Economic Development Incentives	Performance-based tax credits and investment incentives	Utah offers programs such as EDTIF, which can provide refundable tax credits tied to new State tax revenue generated by a project over time. [131] Utah's High-Cost Infrastructure Tax Credit is a performance-based, non-refundable tax credit tied to qualifying infrastructure-related State revenue. Additional incentives include job-creation and capital investment tax credits in designated enterprise zones and a number of sales-tax exemptions for business inputs. [132] [133]	Encourages business expansion and relocation while aligning incentives with verified job creation and capital investment. Reduces upfront capital costs for major projects.
Regulatory Environment & Government Coordination	Centralized economic development coordination	Utah uses a coordinated economic development structure—historically through GOED and related boards—to manage incentives and recruit investment. Large projects often work through a centralized approval process that coordinates across State agencies.	Creates clear points of contact and streamlined engagement with government, reducing administrative complexity for companies seeking permits, incentives, or expansion support.
Regulatory Relief	Business experimentation outside of regulatory environment	The Office of Regulatory Relief (under GOED) provides a regulatory sandbox, allowing businesses to experiment with products, methods, and services outside of the State's normal regulatory environment for one year. [134]	Provides entrepreneurs latitude to test concepts in real markets before pushing for regulatory change to enable it; also gathers insights to inform future regulatory change.
Permitting for Critical Infrastructure	Expanded and improved permitting efficiency	Executive Order 2025-01 from Governor Cox directs departments responsible for permitting to streamline permitting processes and reduce unnecessary regulatory burdens to enable critical infrastructure. [135]	Enables more efficient development timelines for key infrastructure projects, de-risking and closing time to operation.
Financial & Banking Policy	Industrial bank charter framework	Utah allows for the establishment of Utah-chartered, FDIC-insured industrial banks that allow corporations to set up a depository 'banking' platform without being subject to certain Bank Holding Company Act and other constraints. [136]	Enables diversified corporate structures (e.g., bank subsidiary under a commercial parent) and lower costs to capital as well as advantaged equipment financing.
Infrastructure & Trade Development	Coordinated logistics and trade infrastructure planning	Initiatives such as UIPA's project areas support the development of logistics hubs, rail connectivity, and industrial development designed to enhance freight movement and international trade access. [137]	Improves supply chain efficiency and logistics capacity, particularly for manufacturing, distribution, and export-oriented industries.
Special Development Zones	Preferential treatment within defined geographic area	H.B. 507, **Regionally Significant Economic Development Zones Act** allows certain allocations (e.g., tax increment or personal property tax and a contemplated energy excise tax mechanism) to be reinvested in-zone, subject to statutory requirements. [138] **Energy Infrastructure Service District** (H.B. 514) gives the Utah Energy Council the ability to create a special service district for the IPP, with some associated bonding opportunities. [139]	Accelerate localized investment and development
Bonds Issuance	Funding for supportive infrastructure	Under Utah's State Bonding Commission, the State can issue bonds to raise funds for the requisite supportive infrastructure. Utah's AAA credit score makes bond issuance more attractive, including lower interest rates, longer pay-back periods, and a great pool of investors.	Expedited financing of critical infrastructure to de-risk Campus development.



Salt Lake City skyline at sunset

State & Local Conditions

Utah will consider State and local contributions selectively, primarily to support enabling infrastructure or to reduce risk for components of non-federal cost-share that are not readily financeable in early phases. We will structure any such contributions with verified performance requirements protected through enforceable conditions, with explicit limits on public exposure and clear non-assumption of private liabilities.

Our approach will be to **condition incentives using a performance-based structure** that may include milestone gating (e.g., licensing progress, financial close, construction commencement, commercial operation, sustained performance), recapture and clawback provisions for failure to deliver agreed outcomes, caps and sunsets to limit long-term exposure, and ongoing covenants requiring maintenance of insurance and financial assurance funding schedules, etc. We will also expect transparency provisions, including periodic reporting and audit rights to confirm continued adequacy of decommissioning, closure, and waste-management financial assurance.

Cost Sharing & Risk Allocation

Utah's objective is to deliver community and statewide economic benefits while maintaining clear allocation of construction, operational, and end-of-life risks to project sponsors, owners, and operators. In alignment with the provisions in the RFI, **we expect the private sector to remain the primary source of capital and to retain primary responsibility for delivery and performance** of the Innovation Campus. However, as noted in the response to *Question 14: Proposed Agreement Framework*, Utah views federal participation (e.g., cost-share programs, grants, and cooperative agreements, and/or debt support) as a critical catalyst to the development and risk-reduction of private sector capital. We assume DOE will carry the risk, financial responsibility, and all other financial assurances associated with the long-term storage facility. For any areas where federal partners retain primacy, **we will work together to ensure appropriate long-term oversight**.

Development & Capital Costs of the Innovation Campus

Utah anticipates private entities will fund the majority of capital costs through sponsor equity, commercial and project finance debt, and contracted revenue arrangements that support bankability. DOE cost sharing, where applicable, would be used to reduce FOAK risk and accelerate schedule, but would not replace the expectation of substantial private capitalization.

Risk allocation during development and construction will be addressed through standard commercial contracting and security packages. We expect project companies to allocate cost and schedule risk through well-structured EPC arrangements and performance, with security mechanisms appropriate to the maturity of the technology and delivery model. As a general principle, construction cost and schedule risk should remain with the project company and its contracting chain, and technology and performance risks should be managed through vendor commitments, reserves, warranties, and financing covenants.

Operations & Long-term Oversight of the Innovation Campus

Operating costs should be covered by operating revenues. Private operators will be responsible for staffing, training, security, maintenance, regulatory compliance, and environmental monitoring throughout the operating life of the Innovation Campus.

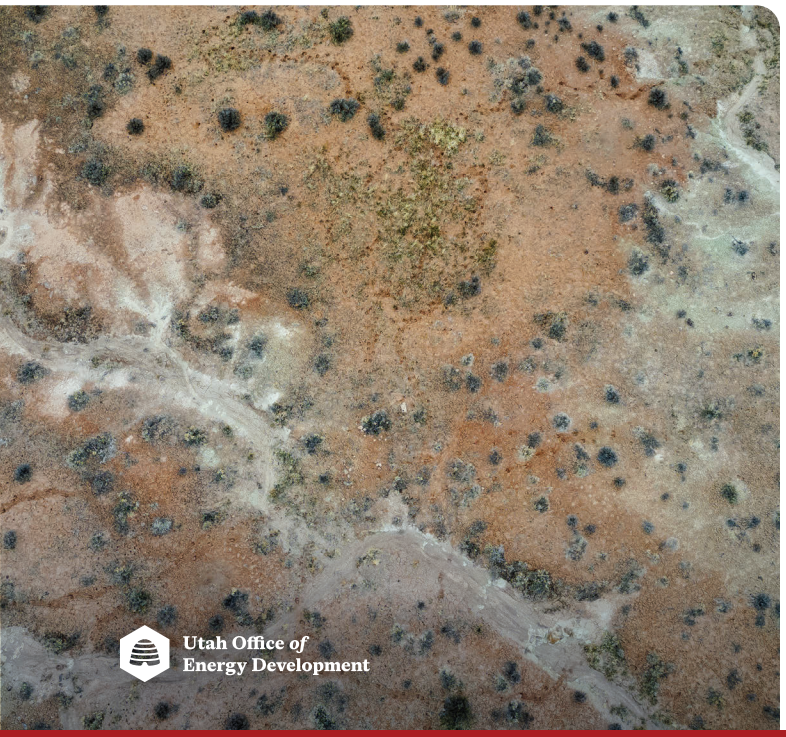
A key consideration is the sustainability of long-term oversight. State or local involvement will be required for the potential multi-decade Innovation Campus program including administration support, coordination on emergency planning interfaces, or ongoing environmental monitoring. As noted in the response to *Question 14: Proposed Agreement Framework*, we may seek to collaborate with DOE for funding support on certain coordination and environmental monitoring aspects of the Innovation Campus. However, we anticipate **operator-funded mechanisms, such as lease fees, county-level royalty agreements, and increased tax revenue, would support long-term State and county support services**.

Decommissioning & Closure of the Innovation Campus

We will **require that end-of-life obligations be planned and funded from the beginning of the project lifecycle**. Utah expects restricted, auditable financial assurance mechanisms sized to facility-specific cost estimates that are updated periodically to reflect changes in assumptions, scope, and inflation (e.g., every 2–3 years depending on the facility, moving to annually closer to decommissioning completion).

For nuclear facilities subject to NRC requirements (e.g., reactors and ISFSIs), we will require private operators to comply with NRC financial assurance requirements, where applicable, as well as industry-standard practices, including dedicated, segregated, externally managed decommissioning trust funds or equivalent instruments consistent with 10 CFR Parts 50 and 72. For non-reactor lifecycle facilities at the Innovation Campus (e.g., fuel cycle, hot cell, waste handling, test facilities), closure funding should be supported by binding closure plans and financial assurance instruments appropriate to the risk profile and regulatory structure.

Where needed, particularly in early years before trust balances accumulate, we expect additional financial assurance instruments for adequacy and continuity such as surety bonds, letters of credit, escrowed reserves, and/or parental guarantees. Utah does not intend to assume decommissioning liabilities or serve as a backstop for closure obligations. Rather, the owners of each facility on the Innovation Campus should remain responsible for funding and performance through closure.



Aerial photograph of Utah scrubland

Interim Waste Management

As appropriate, private entities should remain financially and operationally responsible for safe waste management for as long as waste remains under their custody, particularly given the uncertainty that can exist around ultimate disposition pathways and timing.

For a multi-tenant Campus, we will **require that Campus governance and contracting clearly assign waste ownership, custody, and cost responsibility so obligations remain with the waste-generating party, or the appropriate federal entity if applicable, and are not shifted to the site, other tenants, or the public**. We also expect financial assurance to cover storage, monitoring, packaging, and transfer and disposition activities until waste is accepted by the appropriate counterparty under applicable law and contracts. For the permanent storage repository, Utah, as noted in response to *Question 14: Proposed Agreement Framework*, proposes collaborating with DOE on long-term management responsibilities. As mentioned in the same response, we request DOE facilitate the safe transport of UNF under a framework similar to that of the WGA for WIPP transports.

Insurance & Liability

Liability risk will be managed under the federal Price–Anderson Act framework, where applicable, alongside robust construction and operational insurance and contractual flow-downs. Utah does not intend to assume decommissioning liabilities or serve as a backstop for closure obligations; rather, our expectations are that owners and operators remain responsible through closure and private entities, or the federal government if applicable, remain financially and operationally responsible for waste management while waste remains under their custody. We further recognize that ultimate disposition pathways for certain waste streams (particularly HLW and UNF) are federal responsibilities. Therefore, federal programmatic clarity and funding commitments for consolidated storage, advanced fuel cycle demonstration, and/or repository development are critical to reduce stranded-asset risk and underpin Innovation Campus investment decisions, as referenced in *Question 10: HLW Management, Treatment, Storage & Disposal* and *Question 16: Secondary Waste Management*.

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Revenue Sources & Cost-Recovery Approaches

What approaches would your state consider to ensure that beneficiaries of the Nuclear Lifecycle Innovation Campus (for example, reactor operators, fuel cycle companies, data center operators, utilities) contribute appropriately to the costs of long term waste management, decommissioning, and environmental monitoring (for example, user fees, surcharges, host community agreements)?

Utah intends to **establish a model by which the private operators of the Innovation Campus fund the long-term obligations associated with waste management, decommissioning, environmental monitoring, and emergency management preparedness**. We will emphasize durable, transparent mechanisms that are predictable over decades, scale with activity and risk, and avoid shifting long-term liabilities to State and local taxpayers or the federal government.

We recognize the importance of bankability, including evidence of project profitability and stable revenue streams, for both securing private sector commitments and the long-term sustainability of the Innovation Campus. Independent power-purchase agreements, federal offtake contracts, defense-related fuel services, isotope supply contracts, or DOE demonstration agreements would improve debt capacity and help underwrite shared Innovation Campus infrastructure; merchant electricity revenues alone may require additional credit enhancement. One option may be leveraging the data center as a long-term offtaker for any on-site advanced reactor. The data center could be located behind the secure perimeter fence, creating potential value for federal government entities that require a highly secure facility while also supporting a stable revenue stream for both the data center and the advanced reactor. Anchoring the Innovation Campus with one or more revenue-stable, federally supported enterprises capable of underwriting shared infrastructure and contributing to closure funding may contribute to the long-term success of the Campus.

Campus-wide Cost Recovery Model

Utah would consider **a layered model that combines tenant-level financial assurance for each facility with Campus-level funding streams for shared monitoring and community impacts**. This approach recognizes that some costs can be directly assigned to an operator (e.g., decommissioning of a specific facility), while other costs are shared (e.g., site-wide environmental monitoring, emergency management interfaces, host community impacts). Mechanisms that could be activated to execute this approach include user fees, surcharges, host community agreements, and land-lease revenues, structured so that contributions reflect the scale of benefit and the risk and impact profile of each tenant class (e.g., reactor operators, fuel cycle companies, data center operators, utilities, and related manufacturers and service providers).

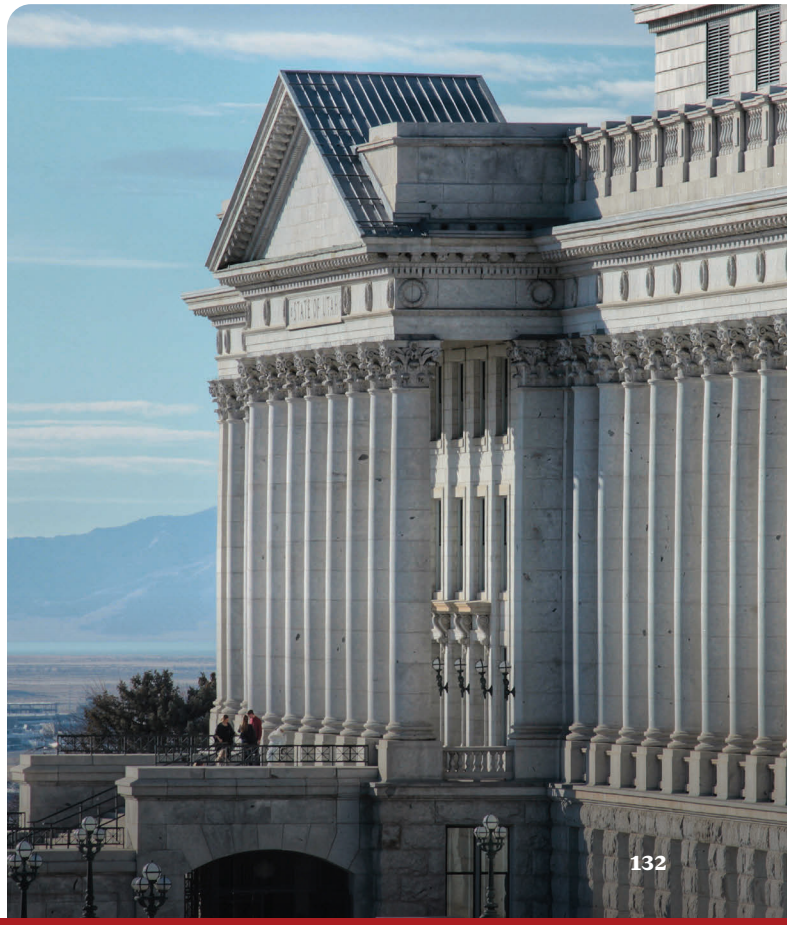
User Fees

We may consider applying user fees to site tenants to fund shared, ongoing obligations that persist across the lifecycle, including environmental monitoring and long-term oversight. These **fees would be designed to be stable over time and adjustable as site activity and monitoring needs change**. Such fee designs under consideration are:

- **Baseline tenant fee** to support Campus-wide oversight functions (monitoring programs, reporting, emergency management coordination, and administrative costs)
- **Risk- and throughput-based fees** tied to categories such as thermal capacity, electrical output, material throughput, waste volumes, or hazard category, so higher-impact operations contribute proportionately
- **Dedicated fee funds** that are restricted to specified uses such as environmental monitoring, emergency management interfaces, independent audits, and public reporting

Where appropriate, we will require that these fees be placed into restricted accounts with clear governance, audit rights, and multi-year funding visibility, so long-term monitoring does not depend on annual appropriations.

Utah State Capitol building



Host Community Agreements & Local Reinvestment Commitments

Utah views host community benefit agreements as a central tool to provide local governments and residents with shared benefits and predictable resources for impacts that accompany a multi-decade nuclear Campus. Current nuclear operators in Tooele County have similar royalty-based agreement frameworks. These agreements for the Innovation Campus would be designed with local government partners and could fund:

- Local infrastructure upgrades (roads, water, public safety facilities
- Emergency management readiness and training interfaces
- Community health and environmental transparency programs
- Workforce pipelines and local supplier development

We generally expect such agreements to be performance-based with clear triggers tied to operational milestones (e.g., commencement of construction, fuel load, commercial operations) and enforceable provisions to ensure continuity of funding overtime.

Land Lease Revenues

Where the Innovation Campus uses land managed by TLA, or the State government, **Utah would consider using land-leasing revenues as a stable funding stream that can support long-term stewardship-related needs**. In concept, this provides a durable and predictable revenue source linked to the Innovation Campus' continued operation and land use while maintaining clear separation from operator-specific decommissioning obligations.

▼ *Utah State Capitol building at dusk*



Leveraging Existing State Programs & Local Taxation Tools

Utah would also **evaluate how existing tools could be used to support community benefit and long-term fiscal self-sufficiency while keeping operator-specific liabilities with operators**. Tools we will consider (as applicable to location and statutory eligibility) include:

- **EEDZ** (Utah Code 79-6-1104)
  - » Allows a county, municipality, or land authority to create a zone for baseload electrical energy development; the Utah Energy Council administers EEDZs and collects a property tax differential. Revenues flow into a State-held fund and could be structured to support eligible Innovation Campus-related purposes. [140]
- **Electrical Energy Investment Fund** (S.B. 135; creating Utah Code 79-6-1504 and 79-6-1505) *(passed)*
  - » Creates and authorizes an investment fund administered by the Utah Energy Council; could support project financing and matching grants for participating entities and would establish rules for handling DOE-related deposits associated with the Innovation Campus.
- **Energy Infrastructure Enterprise Fund** (Utah Code 17B-2a-1408) (enrolled)
  - » Houses the proceeds of any bonds, operating contracts, and power purchase agreements from Energy Infrastructure Service Districts.
- **Excise Energy Tax concept** (Utah Code 59-35-201) *(passed, currently in rulemaking)*
  - » Will allow a county to impose an excise energy tax on energy delivered to a high-impact consumer, subject to the presence of such a consumer in the county (which may be location-dependent).
- **Nonrefundable Rural Job Creation Tax Act** (Utah Code 63N-4-304; eligible recipient provision referenced as 59-10-1038)
  - » Overseen by GOED; supports rural investment structures that can strengthen the surrounding community economy (indirectly supporting local capacity and resilience), even if not a direct Campus job-creation tool. [141]

Bonding for Enabling Infrastructure

For large enabling infrastructure that benefits multiple tenants (e.g., interconnect, shared utilities, roads, site services), Utah would consider bonding approaches where repayment is tied to project revenues within an EEDZ or other dedicated revenue streams. This can **accelerate buildout while maintaining the beneficiary-pays principle**.

Operator Obligations Versus Shared Obligations

We will pair Campus-level beneficiary funding (fees, agreements, surcharges, lease revenues) with operator-specific requirements so the State does not inadvertently socialize liabilities. In practice, Utah would expect:

- Each reactor/fuel-cycle tenant to maintain its own decommissioning and closure financial assurance (e.g., trust funds, bonds/letters of credit as appropriate)
- Campus-wide mechanisms to fund shared monitoring and oversight, not to replace operator-specific end-of-life responsibilities
- Transparent allocation rules so that data centers, utilities, and other beneficiaries contribute appropriately to the shared costs they drive (e.g., grid/stability needs, water use, emergency planning interfaces, monitoring scale), even if they do not directly operate nuclear facilities



Utah railway

References

Works Cited

Abbreviations Table

Table of Figures & Tables

Works Cited

[1] U.S. News, "Best States Rankings," 2026. [Online]. Available: https://www.usnews.com/news/best-states/rankings.

[2] Energy Fuels, "White Mesa Mill," [Online]. Available: https://www.energyfuels.com/white-mesa-mill.

[3] Energy Fuels, "La Sal Complex," [Online]. Available: https://www.energyfuels.com/la-sal-complex.

[4] Stone & Webster, "Zirconium and Hafnium Specialty Metals Aerospace Industry," 2021. [Online]. Available: https://stoneandwebster.com/media/appn0wqi/sw_flysheet_-_zr_and_hf_specialty_metals_aerospace.pdf.

[5] Nusano, "West Valley City, Utah," [Online]. Available: https://nusano.com/company/utah.

[6] Natura Resources, "Natura Resources Leases Utah San Rafael Energy Lab to Advance Commercial-Stage Molten Salt Reactor Development," 19 November 2025. [Online]. Available: https://www.naturaresources.com/natura-resources-leases-utah-san-rafael-energy-lab-to-advance-commercial-stage-molten-salt-reactor-development.

[7] Utah State Legislature, "H.B. 249 Nuclear Power Amendments," 2025. [Online]. Available: https://le.utah.gov/~2025/bills/static/HB0249.html.

[8] Utah State Legislature, "H.B. 78 Nuclear Regulatory Amendments," 2026. [Online]. Available: https://le.utah.gov/~2026/bills/static/HB0078.html.

[9] Utah State Legislature, "S.B. 135 Nuclear Reprocessing Amendments," 2026. [Online]. Available: https://le.utah.gov/~2026/bills/static/SB0135.html.

[10] U.S. Bureau of Economic Analysis, "Gross Domestic Product by State and Personal Income by State, 4th Quarter 2024 and Preliminary 2024," 28 March 2025. [Online]. Available: https://www.bea.gov/news/2025/gross-domestic-product-state-and-personal-income-state-4th-quarter-2024-and-preliminary.

[11] Pew Charitable Trusts, "Utah - Fiscal 50," [Online]. Available: https://www.pew.org/en/research-and-analysis/data-visualizations/2014/fiscal-50/state-page?state=ut.

[12] Office of the Governor, "Moody's Affirms Utah's AAA Credit Rating, Citing Strong Fiscal Governance and Resilience," 10 June 2025. [Online]. Available: https://governor.utah.gov/press-release/moodys-affirms-utahs-aaa-credit-rating-citing-strong-fiscal-governance-and-resilience.

[13] Northrop Grumman, "Northrop Grumman in Utah," [Online]. Available: https://www.northropgrumman.com/careers/northrop-grumman-in-utah.

[14] Goldman Sachs, "Office Locations," [Online]. Available: https://www.goldmansachs.com/our-firm/locations#americas.

[15] Utah Governor's Office of Economic Opportunity, "Edwards Lifesciences to bring over 500 jobs to Utah," 11 July 2024. [Online]. Available: https://business.utah.gov/tax-credits/edwards-lifesciences-to-bring-over-500-jobs-to-utah.

[16] Utah Governor's Office of Economic Opportunity, "Adobe: Over a Decade of Meeting America's Software Needs," 24 March 2021. [Online]. Available: https://business.utah.gov/where-are-they-now/adobe-over-a-decade-of-meeting-americas-software-needs.

[17] C. Martinez, "States With High Median Ages May Not be as Uniformly Old as You Think," U.S. Census Bureau, 26 June 2025. [Online]. Available: https://www.census.gov/library/stories/2025/06/young-old-counties.html.

[18] Utah System of Higher Education, "Higher Ed Day on the Hill," 18 February 2026. [Online]. Available: https://ushe.edu/higher-ed-day-on-the-hill-2026.

[19] Utah System of Higher Education, "USHE enrollment grows at degree-granting colleges and universities," 15 October 2024. [Online]. Available: https://ushe.edu/ushe-enrollment-2024.

[20] University of Utah Kem C. Gardner Policy Institute, "Outdoor recreation number-one factor for tech sector employees to live and work in Utah, new survey finds," 13 July 2021. [Online]. Available: https://gardner.utah.edu/news/outdoor-recreation-number-one-factor-for-tech-sector-employees-to-live-and-work-in-utah-new-survey-finds.

[21] U.S. Nuclear Regulatory Commission, "Radiopharmaceutical," 15 February 2023. [Online]. Available: https://www.nrc.gov/reading-rm/basic-ref/glossary/radiopharmaceutical.

[22] Converdyn, "Explore Honeywell's Metropolis Works," [Online]. Available: https://converdyn.com/facility/.

[23] Nuclear Newswire, "A busy week in Utah for nuclear development," American Nuclear Society, 27 August 2025. [Online]. Available: https://www.ans.org/news/2025-08-27/article-7326/a-busy-week-in-utah-for-nuclear-development.

[24] Urenco, "ChemPlants Flyer," [Online]. Available: https://www.urenco.com/cdn/uploads/supporting-files/ChemPlants_Flyer_300519.pdf.

[25] Utah State Legislature, "S.B. 132 Electric Utility Amendments," 2025. [Online]. Available: https://le.utah.gov/~2025/bills/static/SB0132.html.

[26] Mortenson, "Eagle Mountain Data Center," [Online]. Available: https://www.mortenson.com/projects/eagle-mountain-data-center.

[27] Data Center Map, "Utah Data Centers," [Online]. Available: https://www.datacentermap.com/usa/utah.

[28] Nuclear Newswire, "Ward250 reactor rides cargo to Utah," American Nuclear Society, 18 February 2026. [Online]. Available: https://www.ans.org/news/2026-02-18/article-7764/ward250-reactor-rides-cargo-to-utah.

Works Cited *(cont.)*

[29] Utah San Rafael Energy Lab, "NuCube Energy," [Online]. Available: https://energylab.utah.gov/nuclear-energy/nucube-energy.

[30] EnergySolutions, "EnergySolutions Announces New Nuclear Power Initiative," 23 April 2025. [Online]. Available: https://www.energysolutions.com/energysolutions-announces-new-nuclear-power-initiative.

[31] EnergySolutions, "EnergySolutions and Terrestrial Energy sign MOU to site IMSR plants," 04 December 2024. [Online]. Available: https://www.utahbusiness.com/press-releases/2024/12/04/energysolutions-terrestrial-energy-mou.

[32] Utah Office of Energy Development, "Utah Office of Energy Development, TerraPower and Flagship Companies Sign MOU to Explore Siting of Advanced Nuclear Reactor," 25 August 2025. [Online]. Available: https://energy.utah.gov/wp-content/uploads/OED-TerraPower-and-Flagship-Nuclear-Reactor-Press-Release_20250825.docx.pdf.

[33] Energy Fuels, "International Consolidated Uranium Enters the U.S. Uranium Sector with Transformational Acquisition and Strategic Alliance with Energy Fuels," 15 July 2021. [Online]. Available: https://investors.energyfuels.com/2021-07-15-International-Consolidated-Uranium-Enters-the-U-S-Uranium-Sector-with-Transformational-Acquisition-and-Strategic-Alliance-with-Energy-Fuels.

[34] Nusano, "Nusano Cuts Ribbon on State-of-the-Art Radioisotope Production Facility," 21 August 2025. [Online]. Available: https://nusano.com/nusano-cuts-ribbon-on-state-of-the-art-radioisotope-production-facility.

[35] University of Utah Huntsman Cancer Institute, "CQCIT Cyclotron / Radiochemistry," [Online]. Available: https://uofuhealth.utah.edu/huntsman/shared-resources/cqcit/radiochemistry.

[36] Utah Department of Environmental Quality, "Promontory Hazardous Waste Facilities: Northrop Grumman Systems Corporation," 23 February 2026. [Online]. Available: https://deq.utah.gov/businesses-facilities/northop-grumman.

[37] Janicki, "Facilities in Washington and Utah," [Online]. Available: https://www.janicki.com/capabilities/facilities.

[38] Texas Instruments, "Lehi, Utah: 300mm wafer fabs," [Online]. Available: https://www.ti.com/about-ti/company/ti-at-a-glance/manufacturing/lehi.html.

[39] Utah Department of Environmental Quality, "Category: Waste Management and Radiation Control," [Online]. Available: https://deq.utah.gov/category/waste-management-and-radiation-control/page/7.

[40] Utah Department of Environmental Quality, "Radiation Control Rules: Waste Management and Radiation Control Laws and Rules," 05 June 2025. [Online]. Available: https://deq.utah.gov/waste-management-and-radiation-control/radiation-control-rules-waste-management-and-radiation-control-laws-and-rules.

[41] U.S. Centers for Disease Control, "Guidelines for ALARA – As Low As Reasonably Achievable," 26 February 2024. [Online]. Available: https://www.cdc.gov/radiation-health/safety/alara.html.

[42] Ionic Mineral Technologies, "Ionic Mineral Technologies Announces Major U.S. Discovery of Rare Earth and Critical Technology Metals at Utah's Silicon Ridge," 12 December 2025. [Online]. Available: https://ionicmt.com/press/ionic-mineral-technologies-announces-major-u-s-discovery-of-rare-earth-and-critical-technology-metals-at-utahs-silicon-ridge.

[43] City of Grantsville, "Development Applications," [Online]. Available: https://grantsvilleut.gov/departments/community__economic_development/subdivision_applications.php.

[44] Program Executive Office Assembled Chemical Weapons Alternatives, "Tooele Chemical Agent Disposal Facility: End of Operations Anniversary," 21 April 2016. [Online]. Available: https://www.peoacwa.army.mil/2016/04/21/tooele-chemical-agent-disposal-facility-end-of-operations-anniversary.

[45] Union Pacific, "Gross Weight Map," [Online]. Available: https://www.up.com/about-us/maps/allowable-gross-weight.

[46] Utah Division of Wildlife Resources, "Gunnison Bend and DMAD Reservoirs," [Online]. Available: https://dwrapps.utah.gov/fishing/fStart?NA=Gunnison%20Bend%20and%20DMAD%20Reservoirs.

[47] D. S. Phongikaroon, "NUCL 7110-001 Spring 2026 NUCL Environmental Eng (Nuclear Fuel Cycle)," in University of Utah, Salt Lake City, 2026.

[48] U.S. Department of Energy, "Atlas Railcar Fact Sheet," [Online]. Available: https://www.energy.gov/documents/ne-atlas-railcar-fact-sheet-112724pdf.

[49] Utah State Legislature, "Utah Code 63G-2 Government Records Access and Management Act," [Online]. Available: https://le.utah.gov/xcode/Title63G/Chapter2/63G-2.html.

[50] Utah State Legislature, "H.B. 437 Environmental Permitting Amendments," 2026. [Online]. Available: https://le.utah.gov/~2026/bills/static/HB0437.html.

[51] Utah State Legislature, "H.B. 241 Clean Energy Amendments," 2024. [Online]. Available: https://le.utah.gov/~2024/bills/static/HB0241.html.

[52] Utah State Legislature, "Utah Code 19-3 Interstate Compact on Low-Level Radioactive Waste," [Online]. Available: https://le.utah.gov/xcode/Title19/Chapter3/C19-3-P2_1800010118000101.pdf.

Works Cited *(cont.)*

[53] B. A. Ulsh, "A critical evaluation of the NCRP COMMENTARY 27 endorsement of the linear no-threshold model of radiation effects," NIH, 7 August 2018. [Online]. Available: https://pubmed.ncbi.nlm.nih.gov/30138826.

[54] Utah Office of Energy Development, "Development Considerations: Spent Fuel Recovery and Recycling. Utah's Strategic Nuclear Energy Pathway, Document 3," August 2024. [Online]. Available: https://energy.utah.gov/wp-content/uploads/Nuclear-Pathway-Series_Spent-Fuel-Recovery-and-Recycling_Document-3.pdf.

[55] U.S. Nuclear Regulatory Commission, "Agreement Between the United States Nuclear Regulatory Commission and the State of Utah for Discontinuance of Certain Commission Regulatory Authority and Responsibility Within the State Pursuant to Section 274 of the Atomic Energy Act of 1954, as Amended," 1984. [Online]. Available: https://www.nrc.gov/sites/default/files/documents/utagreements.pdf.

[56] GoRail, "UT Fact Sheet," 2023. [Online]. Available: https://gorail.org/state/utah.

[57] BNSF Railway, "The History of BNSF: A Legacy for the 21st Century," [Online]. Available: https://www.bnsf.com/bnsf-resources/pdf/about-bnsf/History_and_Legacy.pdf.

[58] Utah Department of Transportation, "Approved High Load Routes up to 15' High," 2019. [Online]. Available: https://connect.udot.utah.gov/docs/approved-high-load-routes-map.

[59] Utah Inland Port Authority, "Utah Inland Port Authority Signs Deal with Port of Long Beach to Improve Goods Movement," [Online]. Available: https://inlandportauthority.utah.gov/all-news/utah-inland-port-authority-signs-deal-with-port-of-long-beach-to-improve-goods-movement.

[60] Utah Inland Port Authority, "Utah Inland Port Authority Signs Deal with Port of Oakland to Improve Goods Movement," [Online]. Available: https://inlandportauthority.utah.gov/all-news/utah-inland-port-authority-signs-deal-with-port-of-oakland-to-improve-goods-movement.

[61] Utah Inland Port Authority, "BNSF Railway opens new Salt Lake City intermodal facility," 31 July 2025. [Online]. Available: https://inlandportauthority.utah.gov/all-news/bnsf-railway-opens-new-salt-lake-city-intermodal-facility.

[62] Utah Department of Environmental Quality, "Radioactive Material Transportation Program," 22 December 2025. [Online]. Available: https://deq.utah.gov/waste-management-and-radiation-control/radioactive-material-transportation-program.

[63] Virginia Economic Development Partnership, "Virginia Economic Development Partnership," [Online]. Available: https://www.vedp.org.

[64] Sandia National Laboratories, "Sandia's Government Owned/Contractor Operated heritage," [Online]. Available: https://www.sandia.gov/about/goco.

[65] U.S. Department of Energy, "C&C Agreement," 30 November 1984. [Online]. Available: https://wipp.energy.gov/Library/Information_Repository_A/Class_3_Permit_Modifications/TID%20References/U.S.%20DOE.%201981a..pdf.

[66] U.S. Department of Energy, "DOE Awards Cooperative Agreement to New Mexico Energy, Minerals and Natural Resources Department," 29 June 2016. [Online]. Available: https://www.energy.gov/management/articles/doe-awards-cooperative-agreement-new-mexico-energy-minerals-and-natural.

[67] U.S. Department of Energy, "DOE Renews Western Governors' Association Cooperative Agreement," 29 June 2016. [Online]. Available: https://www.energy.gov/management/articles/doe-renews-western-governors-association-cooperative-agreement.

[68] U.S. House of Representatives, "H.R. 6938: Commerce, Justice, Science; Energy and Water Development; and Interior and Environment Appropriations Act, 2026," GovTrack, 21 January 2026. [Online]. Available: https://www.govtrack.us/congress/bills/119/hr6938/text/enr#link=B_III_~T5&nearest=idF99ADB7BF-97F417A98F7041AC79C5139%20.

[69] The White House, "Congressional Bill H.R. 4323 and H.R. 6938 Signed into Law," 23 January 2026. [Online]. Available: https://www.whitehouse.gov/briefings-statements/2026/01/congressional-bill-h-r-4323-and-h-r-6938-signed-into-law.

[70] U.S. Department of Energy, "Loan Guarantees for Clean Energy Projects," Federal Register, 30 May 2023. [Online]. Available: https://www.federalregister.gov/documents/2023/05/30/2023-11104/loan-guarantees-for-clean-energy-projects.

[71] U.S. Code, "42 U.S. Code § 16281 - Advanced nuclear fuel availability," U.S. House of Representatives, [Online]. Available: https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section16281&num=0&edition=prelim.

[72] U.S. Code, "42 U.S. Code § 16279a - Advanced reactor demonstration program," Cornell Law School, [Online]. Available: https://www.law.cornell.edu/uscode/text/42/16279a.

[73] U.S. Department of Energy, "Implementing Voluntary Agreements Under the Defense Production Act," Federal Register, 25 August 2025. [Online]. Available: https://www.federalregister.gov/documents/2025/08/25/2025-16235/implementing-voluntary-agreements-under-the-defense-production-act.

[74] U.S. Department of Energy, "Defense Production Act Consortium," [Online]. Available: https://www.energy.gov/ne/defense-production-act-consortium.

Works Cited *(cont.)*

[75] U.S. Department of Energy, "Advanced Reactor Demonstration Projects," [Online]. Available: https://www.energy.gov/ne/advanced-reactor-demonstration-projects.

[76] U.S. Department of Energy, "Advanced Reactor Demonstration Program," [Online]. Available: https://www.energy.gov/ne/advanced-reactor-demonstration-program.

[77] U.S. Department of Energy, "HALEU Availability Program," [Online]. Available: https://www.energy.gov/ne/haleu-availability-program.

[78] U.S. Department of Energy, "U.S. Department of Energy HALEU Allocation Process," [Online]. Available: https://www.energy.gov/ne/us-department-energy-haleu-allocation-process.

[79] U.S. Department of Energy, "Office of Energy Dominance Financing," [Online]. Available: https://www.energy.gov/EDF.

[80] U.S. Department of Energy, "Energy Infrastructure Reinvestment Financing," [Online]. Available: https://www.energy.gov/edf/energy-infrastructure-reinvestment-financing.

[81] Nuclear Energy University Program, "Research & Development," [Online]. Available: https://neup.inl.gov/rd.

[82] Nuclear Energy University Program, "Integrated Research Projects," [Online]. Available: https://neup.inl.gov/irp.

[83] Gateway for Accelerated Innovation in Nuclear, "GAIN NE Vouchers," [Online]. Available: https://gain.inl.gov/industry-support/gain-ne-vouchers.

[84] Fusion Industry Association, "Department of Energy Announces Milestone Public-Private Partnership Awards," 31 May 2023. [Online]. Available: https://www.fusionindustryassociation.org/department-of-energy-announces-milestone-public-private-partnership-awards.

[85] X-energy, "Advanced Reactor Demonstration Program," 1 March 2021. [Online]. Available: https://x-energy.com/news/x-energy-signs-department-of-energys-advanced-reactor-demonstration-program-ardp-cooperative-agreement.

[86] A. Hart and A. Hobson, "Groundbreaking held for country's largest data center in Millard County," ABC 4, 6 November 2025. [Online]. Available: https://www.abc4.com/news/central-utah/groundbreaking-millard-county-data-center.

[87] T. Hollingshead, "BYU engineering research finds key to quicker nuclear power: artificial intelligence," Brigham Young University, 29 July 2024. [Online]. Available: https://news.byu.edu/intellect/byu-engineering-research-finds-key-to-quicker-nuclear-power-artificial-intelligence.

[88] World Trade Center Utah, "Events," [Online]. Available: https://www.wtcutah.com/events.

[89] World Trade Center Utah, "Utah deepens partnerships across during trade mission across New Zealand and Australia," October 2025. [Online]. Available: https://www.wtcutah.com/mediastories/nzaus-mission-series.

[90] Military Installation Development Authority, "Utah Data Center Project Area," [Online]. Available: https://www.midaut.org/utah-data-center-project-area.

[91] Data Center Knowledge, "Annexation Boosts Cooling for NSA Data Center," [Online]. Available: https://www.datacenterknowledge.com/cooling/annexation-boosts-cooling-for-nsa-data-center.

[92] Military Installation Development Authority, "Falcon Hill Project Area," [Online]. Available: https://www.midaut.org/falcon-hill-project-area.

[93] Utah Inland Port Authority, "Verk Industrial Park," [Online]. Available: https://inlandportauthority.utah.gov/verk.

[94] Utah State Legislature, "H.B. 157 Energy Education Amendments," 2025. [Online]. Available: https://le.utah.gov/~2025/bills/static/HB0157.html.

[95] A. Christiansen, "Velvet-Wood uranium mine construction begins," The Salt Lake Tribune, 7 November 2025. [Online]. Available: https://www.sltrib.com/news/2025/11/07/velvet-wood-uranium-mine.

[96] Cameco, "Cameco Port Hope Conversion Facility Workers Accept New Collective Agreement," 8 July 2016. [Online]. Available: https://www.cameco.com/sites/default/files/2024-04/16_07_08_PHCF_Collective_Agreement.pdf.

[97] Urenco USA, "Our Impact," December 2025. [Online]. Available: https://urencousa.com/our-impact.

[98] T. Beaver, "Framatome enters recruitment mode with future expansion on horizon," Tri-Cities Area Journal of Business, 14 April 2025. [Online]. Available: https://www.tricitiesbusinessnews.com/articles/framatome.

[99] L. M. Larsen, J. Kim, S. Richards, T. K. Kim, E. Davidson, M. Asgari, J. Bae and A. Abou-Jaoude, "Infrastructure and resource development needs to support a significant expansion of US nuclear capacity," November 2025. [Online]. Available: https://www.sciencedirect.com/science/article/pii/S2211467X25002391.

[100] F. deSousa, "Bechtel Company Assumes Responsibility of Waste Isolation Pilot Plant," Bechtel, 10 February 2023. [Online]. Available: https://www.bechtel.com/press-releases/bechtel-company-assumes-responsibility-of-waste-isolation-pilot-plant.

[101] Orano, "La Hague," [Online]. Available: https://www.orano.group/en/nuclear-expertise/orano-s-sites-around-the-world/recycling-spent-fuel/la-hague/unique-expertise/expertise_implantations_lahague__650collaborateurs.

Works Cited *(cont.)*

[102] U.S. Office of Clean Energy Demonstration, "Pacific Northwest Hydrogen Hub (PNWH2) Awardee Fact Sheet," July 2024. [Online]. Available: https://www.energy.gov/sites/default/files/2024-07/H2Hubs%20PNW%20Booklet_Factsheet_7.23.24.pdf?_hsenc=p2-ANqtz--1tU942FEmnMQumvuFQhhEjSpnNCHne0wpGuRb-wMiLUIudW5KFZ3uVmpYAQRuvM_mwVSs.

[103] Georgia Power, "Building Vogtle," [Online]. Available: https://www.georgiapower.com/about/energy/plants/plant-vogtle/units-3-4/building-vogtle.html.

[104] Centrus Energy, "Centrus Details Plans to Add At Least 300 New Jobs in Southern Ohio With Multi-Billion-Dollar Investment," 25 September 2025. [Online]. Available: https://investors.centrusenergy.com/news-releases/news-release-details/centrus-details-plans-add-least-300-new-jobs-southern-ohio-multi.

[105] Thunder Said Energy, "LNG plant footprints: compaction costs?," [Online]. Available: https://thundersaidenergy.com/downloads/lng-plant-footprints.

[106] R. Nostrant, "Cheniere Energy launches $2.9B Corpus Christi LNG expansion, boosting jobs," Houston Chronicle, 24 June 2025. [Online]. Available: https://www.houstonchronicle.com/business/energy/article/cheniere-corpus-christi-lng-expansion-20391621.php.

[107] Utah Department of Workforce Services, "Industry Employment Profile," 2025. [Online]. Available: https://jobs.utah.gov/wi/data/library/laborforce/qwi.html.

[108] U.S. Department of Energy, "2025 United States Energy & Employment Report," 2025. [Online]. Available: https://www.energy.gov/documents/2025-useer-state-reports.

[109] BW Research Partnership, "Nuclear Energy Workforce Needs Assessment," 2026.

[110] Utah Building and Construction Trades Council, "Utah Building and Construction Trades Council," [Online]. Available: https://www.utahbuildingtrades.org.

[111] Utah System of Higher Education, "Utah Works," [Online]. Available: https://talentready.ushe.edu/utah-works.

[112] Utah System of Higher Education, "Custom Fit," [Online]. Available: https://ushe.edu/custom-fit.

[113] DoW SkillBridge, "DoW SkillBridge," [Online]. Available: https://skillbridge.osd.mil.

[114] University of Utah, "Utah Nuclear Engineering Program (UNEP)," [Online]. Available: https://www.civil.utah.edu/nuclear.

[115] E. Lerner, "U of U's Nuclear Reactor Celebrates 50 Years," University of Utah, 15 December 2025. [Online]. Available: https://www.research.utah.edu/research-impact/u-of-us-nuclear-reactor-celebrates-50-years.

[116] BYU Chemical & Biological Engineering, "Nuclear Research," [Online]. Available: https://cbe.byu.edu/research/nuclear.

[117] American Nuclear Society, "Student Sections," [Online]. Available: https://www.ans.org/membership/communities/student.

[118] Weber State University, "School of Radiologic Sciences," [Online]. Available: https://www.weber.edu/radsci.

[119] Davis Technical College, "Welding Technology," [Online]. Available: https://www.davistech.edu/programs/welding-technology.

[120] Utah Stem Fest, "Utah Stem Fest," [Online]. Available: https://www.utahstemfest.com.

[121] Advance CTE, "Energy & Natural Resources," [Online]. Available: https://careertech.org/career-clusters/energy-natural-resources.

[122] Utah State Board of Education, "Energy and Natural Resources," [Online]. Available: https://schools.utah.gov/cte/energy.

[123] Utah System of Higher Education, "Utah Aerospace Pathway," [Online]. Available: https://talentready.ushe.edu/aerospace-pathway.

[124] Utah Department of Workforce Services, "Apprenticeship Opportunities," [Online]. Available: https://jobs.utah.gov/jobseeker/career/apprent.html.

[125] S. Mills and A. Rupke, "Critical Minerals - Basic Facts for Utah," Utah Geological Survey, 2026. [Online]. Available: https://doi.org/10.34191/PI-109.

[126] Utah State Legislature, "S.C.R. 9 Concurrent Resolution Regarding Critical Minerals Development and Funding," 2026. [Online]. Available: https://le.utah.gov/~2026/bills/static/SCR009.html.

[127] Utah State Legislature, "S.B. 254 Extracted Natural Resource Amendments," 2026. [Online]. Available: https://le.utah.gov/~2026/bills/static/SB0254.html.

[128] Utah State Legislature, "H.B. 106 Income Tax Revisions 2025 General Session State of Utah," 7 May 2025. [Online]. Available: https://le.utah.gov/~2025/bills/static/HB0106.html.

[129] Utah State Tax Commission, "Sales & Use Tax Rates," [Online]. Available: https://tax.utah.gov/business/sales-tax/sales/rates/#info.

[130] Utah State Tax Commission, "Gross Receipts Tax," [Online]. Available: https://tax.utah.gov/business/other-taxes/gross-receipts.

[131] Utah Governor's Office of Economic Opportunity, "Business Recruitment and Expansion," [Online]. Available: https://business.utah.gov/recruitment.

[132] Utah Governor's Office of Economic Opportunity, "Enterprise Zone Tax Credits," [Online]. Available: https://business.utah.gov/rural/enterprise-zone-tax-credits.

Works Cited *(cont.)*

[133] Utah State Legislature, "Utah Code 59-12-104 Sales and Use Tax Exemptions," [Online]. Available: https://le.utah.gov/xcode/Title59/Chapter12/59-12-S104.html.

[134] Utah Governor's Office of Economic Opportunity, "Office of Regulatory Relief," [Online]. Available: https://business.utah.gov/regulatory-relief.

[135] Governor Spencer J. Cox, "Executive Order 2025-01," 7 January 2025. [Online]. Available: https://rules.utah.gov/wp-content/uploads/Utah-Executive-Order-No.-2025-01.pdf.

[136] Utah Department of Financial Institutions, "What is a Utah Industrial Bank?," [Online]. Available: https://dfi.utah.gov/financial-institutions/industrial-banks/what-is-a-utah-industrial-bank.

[137] Utah Inland Port Authority, "Project Areas," [Online]. Available: https://inlandportauthority.utah.gov/project-areas.

[138] Utah State Legislature, "H.B. 507 State Coordination of Regional and Local Economic Development Projects Amendments," 2026. [Online]. Available: https://le.utah.gov/~2026/bills/static/HB0507.html.

[139] Utah State Legislature, "H.B. 514 Utah Energy Council Amendments," 2026. [Online]. Available: https://le.utah.gov/Session/2026/bills/static/HB0514.html.

[140] Utah State Legislature, "Utah Code 79-6-1104 Electrical energy development zones - Property tax differential," [Online]. Available: https://le.utah.gov/xcode/Title79/Chapter6/79-6-S1104.html?v=C79-6-S1104_2025050720250507.

[141] Utah State Legislature, "Utah Code 59-10-1038 Nonrefundable rural job creation tax credit," 2022. [Online]. Available: https://le.utah.gov/xcode/Title59/Chapter10/59-10-S1038.html?v=C59-10-S1038_2022050420220504.



Deer Valley Ski resort

Table of Abbreviations

Acronym	Definition
ADT	Average Daily Traffic
AEA	Atomic Energy Act
ALARA	As Low As Reasonable Achievable
AOG	Association of Governments
ARDP	Advanced Reactor Demonstration Program
ARPA-E	Advanced Research Projects Agency-Energy
BEA	U.S. Bureau of Economic Analysis
BLS	U.S. Bureau of Labor Statistics
BLM	U.S. Bureau of Land Management
CAA	Clean Air Act
CERT	Center for Energy Research and Training
CINR	Consolidated Innovative Nuclear Research
CISF	Consolidated Interim Storage Facilities
The Corridor	Proposed NLIC Corridor in Tooele County
CTE	Career and Technical Education
CWA	Clean Water Act
DEQ	Utah Department of Environmental Quality
DEM	Utah Division of Emergency Management
DGR	Deep Geological Repository
DOC	U.S. Department of Commerce
DOE	U.S. Department of Energy
DOS	U.S. Department of State

Table of Abbreviations *(cont.)*

Acronym	Definition
DOT	U.S. Department of Transportation
DoW	U.S. Department of War
DMAD	Delta, Melville, Abraham, and Deseret
DPA	Defense Production Act
DPS	Utah Department of Public Safety
DPG	Dugway Proving Ground
DWMRC	Utah Division of Waste Management and Radiation Control
DWQ	Utah Division of Water Quality
DWRe	Utah Division of Water Resources
DWS	Utah Department of Workforce Services
EA	Environmental Assessment
EDCUtah	Economic Development Corporation of Utah
EDF	DOE Energy Dominance Financing Program
EDTIF	Economic Development Tax Increment Financing program
EEDZ	Electrical Energy Development Zone
EHS	Environmental Health and Safety
EIR	Energy Infrastructure Reinvestment Program
EIS	Environmental Impact Statement
ENR	Energy and Natural Resources Cluster
EPA	U.S. Environmental Protection Agency
EPC	Engineering, Procurement, and Construction
FDI	Foreign Direct Investment

Table of Abbreviations *(cont.)*

Acronym	Definition
FDIC	Federal Deposit Insurance Corporation
FedRAMP	Federal Risk and Authorization Management Program
FEMA	Federal Emergency Management Agency
FLPMA	Federal Land Policy and Management Act
FOAK	First-of-a-Kind
FRMAC	Federal Radiological Monitoring and Assessment Center
FTE	Full-time Equivalent
GAIN	Gateway for Accelerated Innovation in Nuclear
GDP	Gross Domestic Product
GIS	Geographic Information Systems
GOCO	Government-Owned, Contractor Operated
GOED	Utah Governor's Office of Economic Development
GPD	Gallons Per Day
GRAMA	Utah Records Access and Management Act
GW	Gigawatt
HALEU	High-Assay Low-Enriched Uranium
HAZMAT	Hazardous Materials
H.B.	House Bill
HF	Hydrogen Fluoride
HLW	High-Level Radioactive Waste / High-Level Waste
Holtec	Holtec International
HTS	Hi Tech Solutions

Table of Abbreviations *(cont.)*

Acronym	Definition
IAEA	International Atomic Energy Agency
IBEW	International Brotherhood of Electrical Workers
Innovation Campus	Nuclear Lifecycle Innovation Campus
INL	Idaho National Laboratory
IPA	Intermountain Power Agency
IPP	Intermountain Power Project
IRP	Integrated Research Project
ISA	Interconnection Security Agreements
ISFSI	Independent Spent Fuel Storage Installations
IT	Information Technology
kg	Kilogram
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt-hour
lbs.	Pounds
LEU	Low-Enriched Uranium
LLW	Low-Level Radioactive Waste / Low-Level Waste
MBTA	Migratory Bird Treaty Act
MD 5.2	NRC Management Directive 5.2
MIDA	Military Installation Development Authority
MINES Center	Utah Minerals for Industrial, National, and Economic Security Center
MOU	Memoranda of Understanding

Table of Abbreviations *(cont.)*

Acronym	Definition
MOX	Mixed Oxide
MW	Megawatt
NEI	Nuclear Energy Institute
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NEST	U.S. Department of Energy Nuclear Emergency Support Team
NEUP	Nuclear Energy University Program
NEWNA	Nuclear Energy Workforce Needs Assessment
NGO	Non-governmental Organization
NHD	National Hydrography Dataset
NHPA	National Historic Preservation Act
NMEMNRD	New Mexico Energy, Minerals and Natural Resources Department
NNSA	National Nuclear Security Administration
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	U.S. National Park Service
NRC	U.S. Nuclear Regulatory Commission
NRS	Nuclear Repair Services
NSA	National Security Agency
NSFRR	Nuclear Spent Fuel Recovery and Recycling
NUCP	Nuclear Uniform Curriculum Program
NWI	National Wetlands Inventory

Table of Abbreviations *(cont.)*

Acronym	Definition
NWIC	Northwest Interstate Compact on Low-Level Radioactive Waste Management
NWP	Nationwide Permit
NWPA	Nuclear Waste Policy Act
ORNL	Oak Ridge National Laboratory
OCED	U.S. Office of Clean Energy Demonstrations
OED	Utah Office of Energy Development
OR-SAGE	Oak Ridge – Siting Analysis for power Generation Expansion
PA	Performance Assessment
PEP	Plasma Energy Pyrolysis
PET	Positron Emission Tomography
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assurance/Quality Control
R&D	Research and Development
RCRA	Resource Conservation and Recovery Act
REP	Radiological Emergency Preparedness Program
RFI	Request for Information
RSI	Reactor Services Inc.
S.B.	Senate Bill
S.C.R.	Senate Concurrent Resolution
SERDA	Southeastern Regional Developmental Authority
SGI	Safeguards Information
SHPO	State Historic Preservation Office

Table of Abbreviations *(cont.)*

Acronym	Definition
SLC	Salt Lake City International Airport
SMR	Small Modular Reactor
SUPER	Strategic Understanding for Premier Education and Research
SWU	Separative Work Units
tHM	Tons of Heavy Metal
TIF	Tax Increment Financing
TIG	Tungsten Inert Gas
TLA	School and Institutional Trust Lands Administration
TRIGA	Training, Research, Isotopes, General Atomics
TRISO	Tri-structural Isotropic
TRL	Technology Readiness Level
TRU	Transuranic
UA	United Association
UDC	Utah Data Center
UDOT	Utah Department of Transportation
UF_6	Uranium Hexafluoride
U_3O_8	Triuranium Octoxide
UGS	Utah Geological Survey
UIC	Underground Injection Control
UIPA	Utah Inland Port Authority
UMTRCA	Uranium Mill Tailings Radiation Control Act
UNF	Used Nuclear Fuel

Table of Abbreviations *(cont.)*

Acronym	Definition
U.S.	United States
USACE	U.S. Army Corps of Engineers
USBE	Utah State Board of Education
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Services
USHE	Utah System of Higher Education
USREL	Utah San Rafael Energy Lab
UTTR	Utah Test and Training Range
UV	Ultraviolet Radiation
VPN	Virtual Private Network
WGA	Western Governors' Association
WIPP	Waste Isolation Pilot Plant
WTC Utah	World Trade Center Utah

Aerial view of Salt Lake City, Utah at sunset



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