



**IAEC**  
Idaho Advanced Energy Consortium

Proposal to:  
**Economic Development Administration, U.S. Department of Commerce**  
**Regional Technology and Innovation Hub Program Phase 2**

EDA-TECHHUBSPHASE2-2023

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**Commercialization  
and Policy**



**Accelerating Advanced  
Reactor Deployment**



**Supply  
Chain**



**Fuel Cycle  
Support**

## 1.0 Overarching Narrative

Nuclear energy provides unmatched stability to the utility grid with carbon-free, firm electricity. Nuclear offers alternative power and heat sources for traditionally difficult to decarbonize industries while offering national economic benefits. For that reason, it is presented as an essential component of the decarbonization strategy of countries around the world. To enhance U.S. global competitiveness as well as national and energy security, the Intermountain-west Nuclear Energy Corridor (INEC) Tech Hub (referenced throughout as also Tech Hub and Hub), enables projects to rapidly accelerate commercialization's across the advanced nuclear energy value chain.

### 1.1 Executive Summary

The INEC Tech Hub, led by the Idaho Advanced Energy Consortium (IAEC), intends to structure its priorities around advanced nuclear power generation, management of the nuclear fuel cycle, strengthening the advanced nuclear workforce, informing advanced nuclear policy, and expanding the domestic nuclear supply chain. The INEC geographical area includes the metropolitan statistical areas of Idaho Falls and Pocatello; micropolitan statistical areas of Laramie, Rock Springs and Blackfoot; Idaho counties of Caribou and Bear Lake, and Lincoln County, WY. The Corridor's main office will be in Idaho Falls, where IAEC is located. Satellite representation will be located at the University of Wyoming (UW) and in Kemmerer-Diamondville, WY. Idaho and Wyoming are EP-SCoR-eligible states, and Wyoming qualifies as a low population state.

### INEC Critical Outcomes

#### Advanced Nuclear Reactor Deployments

- Improves deployment processes with the first-ever domestic advanced nuclear reactor

#### Policy Improvements

- Modernizes policy framework to encourage growth

#### Enhanced Supply Chain and Workforce

- Matures supply chain capacity/develops workforce

#### Improved Domestic Fuel Cycle Management

- Addresses challenges with the production and disposition of nuclear material

### 1.2 Vision for Regional Economic Development, the Initiatives and Partners

The vision of the INEC Tech Hub is to enable the growth of the nation's advanced nuclear reactor deployments by identifying policy gaps and informing new regulations, growing a newly skilled workforce, building capabilities for a domestic supply chain, and supporting efforts to advance the domestic

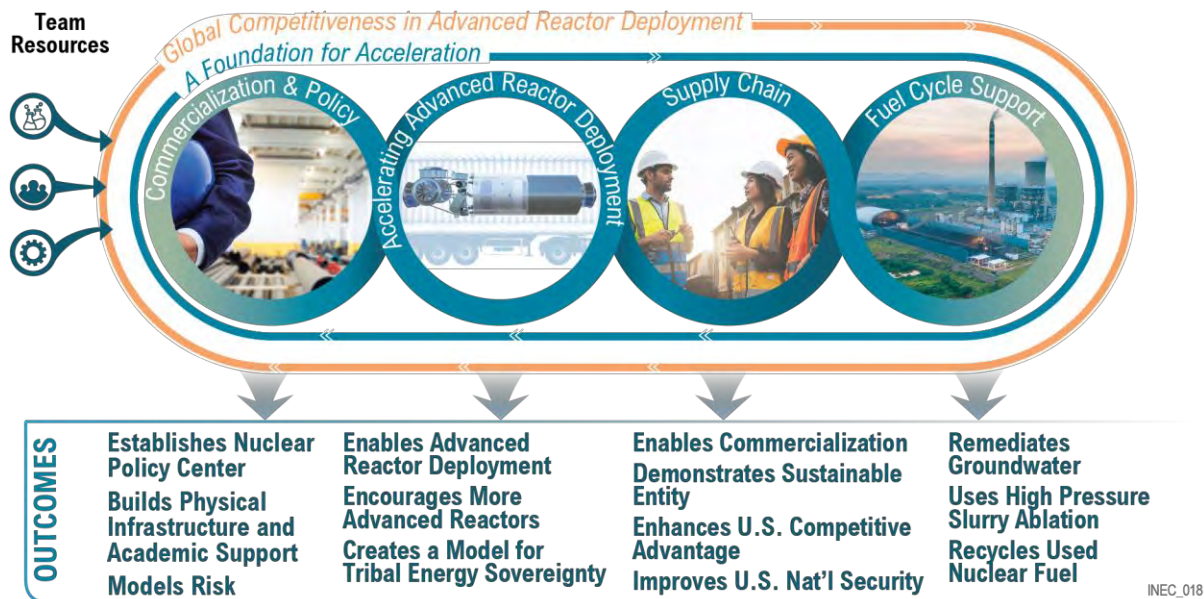


Figure 1-1: Overarching Vision. The INEC Tech Hub proposes highly integrated Component Projects developed to create the conditions for the establishment of America's advanced nuclear infrastructure.

nuclear fuel cycle. The Component Projects will work toward the expected outcomes shown in **Figure 1-1**.

**Policy Improvements.** The INEC Tech Hub will establish the Nuclear Policy Center (NPC) dedicated to fostering the regulatory and policy conditions necessary for rapid, efficient, and economically viable deployment of commercial advanced nuclear reactors. The NPC will identify regulatory policy gaps, develop policy recommendations, conduct targeted outreach to relevant stakeholders, and engage in regulatory support and education. The Tech Hub will also develop a commercialization resource entity, the Fission Fast Track (F2T). F2T is a joint development project between INL and UW which introduces a groundbreaking multi-tier modeling and simulation platform to accelerate nuclear deployment by addressing cost challenges and mitigating investment risks.

**Advanced Reactor Deployment.** The Project will enable successful small modular reactor (SMR) and micro-reactor (MR) deployments by advancing the domestic nuclear supply base, enhancing elements of domestic nuclear fuel cycle, while streamlining the reactor site licensing process, and addressing reactor fabrication, construction, and operation and workforce challenges. The combination of these ongoing efforts will further advance reactor deployment domestically.

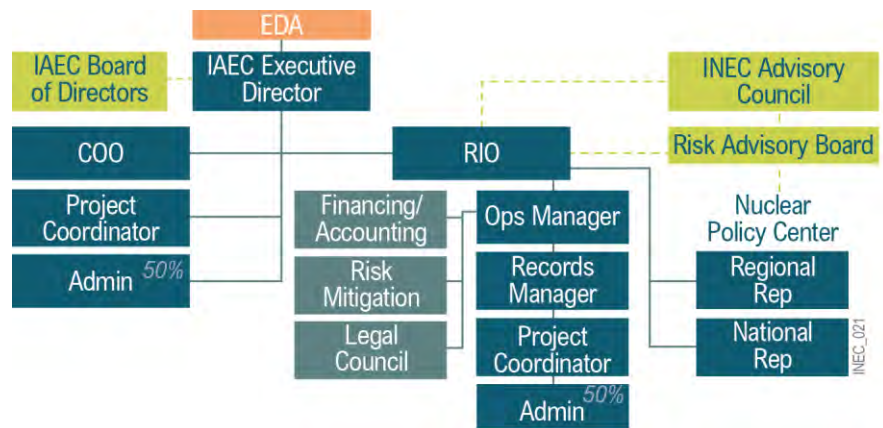
**Enhanced Supplier Ecosystem and Workforce.** Building on the physical infrastructure of the INEC Energy Institute (EI), the Tech Hub will designate a regional attraction model for manufacturing, fabrication, and construction and will support business expansion in the Rocky Mountain region. INEC will establish an education nexus focused on nuclear trades, technicians, engineers, and other related programming. The nexus will work with industry for the enhancement and growth of the workforce pipeline supporting the deployment and commercialization of SMR, MR, and related technologies.

**Improvements in Domestic Nuclear Fuel Cycle Management.** The Hub will advance the recycling of nuclear fuel and the front-end fuel cycle process. INEC will evaluate the regulatory risks associated with in-situ recovery (ISR) operations, identify, and implement technological advancements in groundwater remediation methods, and integrate additional processes into ISR operations to boost efficiency and generate co-products. INEC will conduct a commercialization demonstration project to recover residual uranium from waste uranium rockpiles through a High-Pressure Slurry Ablation (HPSA) process. The Hub will also address nuclear waste challenges by expanding a UNF recycling capability aligned with policy objectives and addressing concerns regarding recycling technologies.

**1.2.1 Consortium Members and Additional Partners**

The INEC Tech Hub is comprised of members from the following sectors: state and local governments, fuel suppliers, advanced reactor developers, leading university experts, private industry partners, as well as economic development organizations, labor unions and workforce councils, national laboratories, and industry associations. (see Section 1.2.3 for details).

**Governance.** The ability to achieve the INEC Tech Hub’s vision lies in its governance framework shown in **Figure 1-2**. IAEC as lead



**Figure 1-2: INEC Tech Hub Governance Structure.** The INEC Tech Hub Governance Structure ensures effective management across Component Projects.

organization is responsible for financial, administrative components (reported to EDA). Relating to the work of the INEC Tech Hub an Advisory Council will be established that consists of representation reflective of the Wyoming-Idaho partnership from key stakeholders, with seats specifically designated for: IAEC (Lead Organization), UW (WY Lead), one from each of the Component Projects, higher education institutions, Tribes, the Wyoming Business Council/Wyoming Energy Authority, the Idaho Department of Commerce, the Workforce Development Council(s), and Battelle Energy Alliance/INL. The bylaws governing the INEC Advisory Council establishes the mechanism for the advisory council to direct policy, procedure, and long-term planning for the consortium. The advisory council will be a representation of the larger benefit and influence of bringing together important industry partners including government entities, higher education, project representatives, the state of Wyoming and the state of Idaho to coalesce around a common goal of reactor development and deployment. Direction will flow down from the IAEC board of directors through the IAEC Executive Director and INEC Advisory Council to the RIO who will manage the project leads.

### 1.2.2 Component Projects

**Commercialization and Policy.** The INEC Tech Hub's Commercialization and Policy Component Project will address policy-induced barriers to sustainable growth with the establishment of the Nuclear Policy Center (NPC). For the first time in the region's history, policymakers, industry, academic institutions, and INL will unite to collaboratively address the most difficult challenges to an advanced nuclear clean-energy future. Additionally, the development of the Fission Fast Track (F2T) will complement the policy efforts by creating the conditions for growth by reducing investment risk in this domain.

**Accelerating Advanced Reactor Deployment.** SMRs and MRs are a primary focus of the clean energy industry. The INEC Tech Hub will play a pivotal role in the commercialization of these technologies. The Tech Hub will identify potential sites to attract future advanced reactor deployments to the region. The Hub will support technology prototyping (Aalo) and the development of a fuel fabrication facility (Oklo) to accelerate the deployment of advanced reactor designs. A feasibility study (Shoshone-Bannock Tribes) will inform a repeatable, streamlined process that can be used by communities to mitigate investment risk for their SMR or MR deployment efforts.

**Supply Chain Development.** The Supply Chain Component Project will address two of the seven key enablers identified by the Electric Power Research Institute (EPRI) and Nuclear Energy Institute (NEI) for successful advanced nuclear reactor deployments. It will advance domestic construction and manufacturing technology and capabilities while enhancing workforce skills to support a sustainable advanced nuclear energy production infrastructure. Protocols will be developed in collaboration with the Commercialization and Policy Component Project, ensuring that scientists, engineers, technicians, companies, and trades-people responsible for constructing, deploying, operating, and maintaining advanced reactor facilities are trained to the latest practices and standards.

**Fuel Cycle Support.** The INEC Tech Hub's Fuel Cycle Component Project aims to address constraints within the nuclear fuel cycle to pave the way for domestic growth in advanced nuclear energy production. This project targets three aspects of the nuclear fuel cycle: advancing technologies for groundwater remediation to enhance the economics of uranium production, developing innovative approaches to mineral processing and remediation to enable uranium extraction from waste rockpiles, and scaling a used nuclear fuel (UNF) recycling to demonstrate U.S. recycling.

#### 1.2.2.1 Component Projects Compliment Overall Success

INEC has developed a strategically aligned and integrated series of projects to accelerate the reactor deployment timeline, and enable the commercialization of SMRs and MRs within the next decade. Each project contributes to the success of the others and, ultimately results in a real-world reactor deployment best practices that are necessary to ensure replicability on a national scale. Successful deployment requires

informed policy, a capable workforce and vendor ecosystem, a viable domestic solution for the nuclear fuel cycle, and each Component Project has been carefully developed to address those foundational needs. Figure 1-3 illustrates this connectivity.

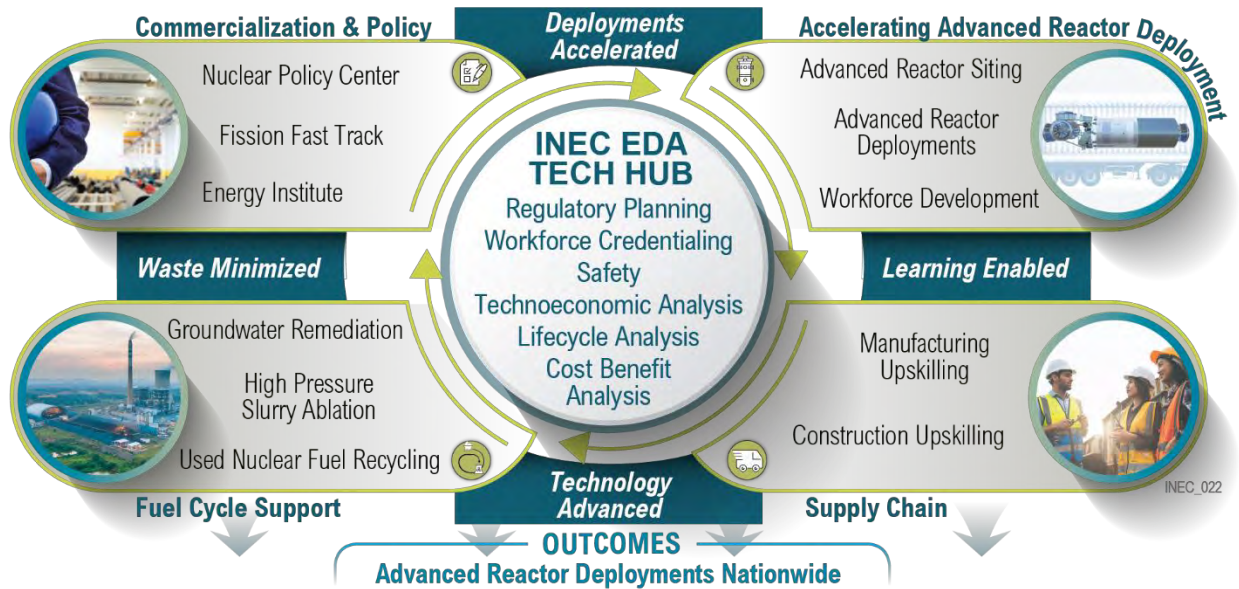


Figure 1-3: Connectivity and Complimentary of Component Projects. Our holistic approach enables the advanced reactor deployments nationwide.

### 1.2.3 Other Investment, Policy, or Relevant Commitments

**Relevant Commitments.** Idaho and Wyoming will host the nation’s advanced nuclear epicenter. The Tech Hub partners demonstrate their commitment to the INEC Tech Hub’s success through meaningful capital investments and resource contributions totaling \$36,881,851 see commitment index attached.

**Policy.** Senate Concurrent Resolution 113, which declares legislative support for the development of clean and safe nuclear advanced energy technologies, is currently making its way through the 2024 Idaho legislative session. The resolution shows the Idaho Legislature's strong support for the historical, current, and future regional impacts of the INL. In addition, the legislature recognizes the newly formed IAEC and its potential contributions to clean energy innovation and regional economic development. Correspondingly, cities and counties within the INEC Tech Hub region are passing resolutions in support of advanced energy. The governors of both states are actively supporting the INEC proposal. The active participation of the Shoshone-Bannock Tribes represents a unique partnership exploring the growth of abundant, clean-energy production- marking a significant step towards energy sovereignty. By integrating advanced nuclear technology within a framework that respects Tribal heritage and values, the Tribes are setting a precedent for sustainable and culturally sensitive energy development, a model that could be replicated for Tribes across the nation.

**Other Investments.** Federal programs are in place to assist with financial and business development include INL small business mentor protégé program, SBDC & SBA loans, USDA Rural Development loans, STEP grants, IGEM grants, SBIR & STTR federal grants for technology commercialization, DOE loan program, GAIN vouchers, and ARPA-E programs.

State investments showcase strong support of the INEC Tech Hub and the advanced nuclear industry. The Idaho Department of Commerce has a newly developed Project Complete, a competitive business expansion program supporting the advanced nuclear energy industry. Combined with INEC Tech Hub support, Project Complete will allow the State of Idaho to leverage performance-based existing incentives with an estimated value of \$1,685,000 over the next five (5) years. Wyoming is spurring innovation

through several funding opportunities including Wyoming's GBeta Generator, Energy Matching Funds (up to \$200 million), Jackson Hole Center for Global Affairs' Jackson Hole Investor Group along with a matched an EDA grant totaling \$342,000 and Wyoming Venture Capital will support the growth of Wyoming entrepreneurs up to \$5 million. The Idaho LAUNCH program provides grants to Idahoans who seek opportunities in in-demand careers. Applications are currently being accepted and the preliminary analysis shows that interest in careers related to the INEC Tech Hub represent 1,331 Idaho 2024 graduates with a total estimated investment of \$10,648,000.

By connecting federal programs, Idaho and Wyoming state initiatives, large businesses, and institutions of higher education/training the INEC Tech Hub facilitates bringing developed technology to market. The nuclear industry has historically struggled with successful technology deployment because of the lack of access to private capital. The INEC Tech Hub will create a foundation for venture capital investment firms and other interested partners to support the industry and small development companies/entrepreneurs in their endeavors to advance nuclear technology. In addition, the F2T project will help eliminate investment risk by creating cost transparency.

#### **1.2.4 How Component Projects Will Lead to Global Competitiveness in a Decade**

Developing the INEC Tech Hub will serve as the foundation for economic growth in the two-state region and beyond. The region has a 75-year history steeped in nuclear through the resources and advancements of INL. The NPC is set to address regulatory opportunities across the nuclear industry while working with partners to make sound recommendations to regulators and policymakers. The workforce and supply chain programs developed to support this hub can be scaled across the nation to ensure abundant labor force and suppliers. The integration of the component projects directly advances the commercialization of SMR and MR deployment, enabling developers to market their technology domestically and internationally. Investing in the front end of the uranium fuel cycle and closing the back end of uranium recycling will secure a domestic supply of nuclear material and provide global competitiveness for decades to come. The foundation built by these projects will accelerate domestic and foreign opportunities.

#### **1.2.5 How the Consortium Addresses Climate and Environmental Responsibility**

Nuclear energy is a net-zero emissions technology and is the very core of the INEC Tech Hub's vision. INEC is the nation's only nuclear Tech Hub and is committed to enabling a made-in-America pathway to abundant clean energy. The Tech Hub's proposed activities have been developed to support net zero emissions by 2050. It is for this focus that INL along with Idaho Environmental Coalition (IEC) are principal members of the INEC Tech Hub, and bring more than 50-years of experience working to develop technologies to work towards a closed fuel cycle.

#### **1.2.6 Embedding Equity in Our Approach**

INEC initiatives are designed to drive social, economic, and environmental equity across INEC's members and underserved communities. Critical to providing quality jobs and accessibility to economic opportunities, the Tech Hub has developed an equity-focused framework to create a pathway for diverse and underrepresented community-owned small-to-medium sized businesses (SMBs) as part of the supply chain upskilling initiative. This will provide access to the resources that enable suppliers to participate in the advanced nuclear energy transition. The education nexus will democratize access to credentialing and education opportunities to rural and underserved populations as outlined in the Accelerating Advanced Reactor Deployment Component Project. We track, measure, and report data across all areas to ensure the Tech Hub's continued commitment to promoting shared prosperity and minimizing negative impacts to marginalized communities.

#### **1.2.7 Specific Outcomes**

Metrics, measures, and qualitative means to determine progress are detailed in Section 1.10.

#### **1.2.8 General Timeline**

Figure 1-4 provides the overarching timeline with key milestones listed by Project.

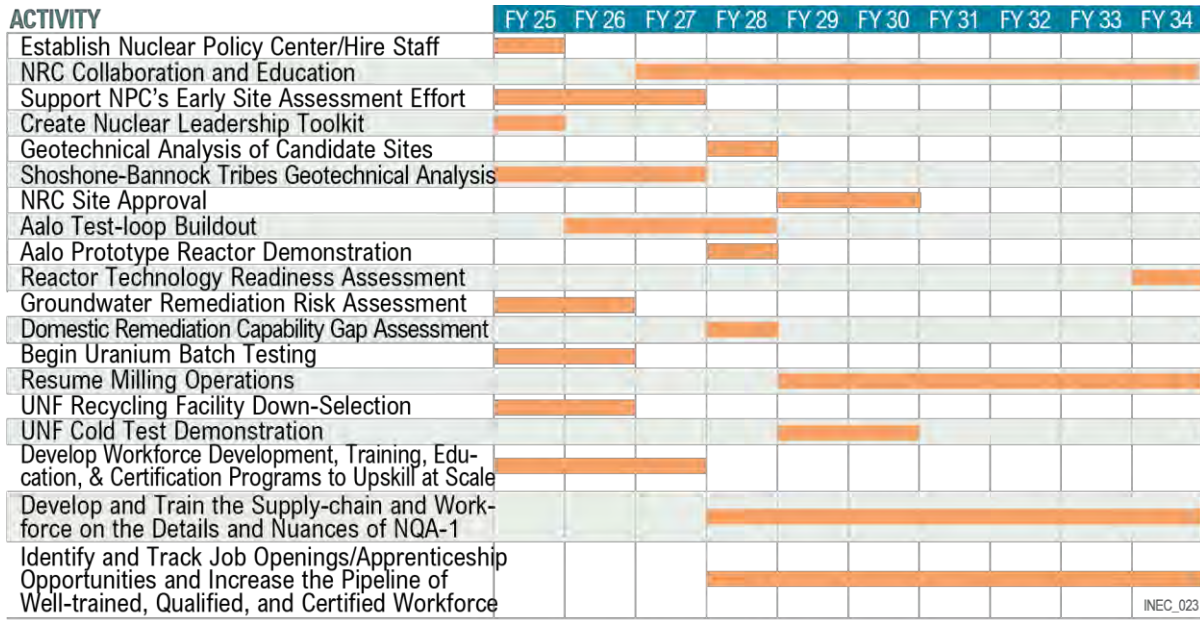


Figure 1-4: General Timeline of Activities.

### 1.3 The Technology Challenge

Advanced reactors cannot be deployed without a qualified and capable manufacturing base, construction workforce, a robust fuel supply, or trained operators. INEC’s proposed projects will establish a comprehensive foundation upon which the U.S. advanced nuclear infrastructure can thrive. Sustainable deployment of advanced reactors is contingent on several peripheral technical, commercial, and logistic factors. These factors include establishment of a robust nuclear supply chain, upskilling the workforce, addressing permitting and regulatory barriers, and cultivating domestic capacity to manage the nuclear fuel cycle. The pursuit of one or another component of the system will, by itself, not solve the deployment problem.

### 1.4 Technology Nexus

INEC represents an unrivaled concentration of subject matter expertise in reactor deployment projects, energy-centric local and state government representation, a well-informed public with a high “energy IQ,” world-class energy education institutions, and a highly-trained workforce. INEC’s success in domestic uranium production capability secures critical domestic resources that will create a pathway for America’s global competitiveness in SMR and MR deployment. Long-term production and control of manufacturing capabilities reduces the dependence on unstable foreign markets. Key elements that will contribute to the INEC’s success include proximity to INL, uranium mining sites, and advanced reactor deployment sites, and an ecosystem that already exists in the region to support the nuclear industry.

### 1.5 Participation from Private Sector Entities

The INEC Tech Hub is comprised of a variety of private sector entities that are committed to advancing the region’s position as the nation’s advanced nuclear technology hub. INEC dedicates resources to conducting broad outreach initiatives for maximum private sector participation to ensure the INEC Tech Hub benefits from resources the private sector has to offer. Robust private sector participation also encourages maximum competition for the Tech Hub’s subcontracting activities, ensuring every effort executed under the INEC Tech Hub proposal carries fair and reasonable costs based on an evaluation across multiple bids for each solicitation. Private entity commitment to the Tech Hub is demonstrated in the cost share commitments as outlined in the relevant supporting

documentation. (see the commitment index attached).

## **1.6 State, Local, or Other Government; Non-Profits; and Federal Investments**

UW commits over \$2 million to the INEC project, in addition to personnel and training investment by the Wyoming Department of Workforce Services, Wyoming Business Council, Western Wyoming Community College, and the City of Kemmerer. The Idaho Office of Energy and Mineral Resources commits a \$1 million dollar capital investment into the INEC Tech Hub's operations upon award. In addition to the State's capital investment, the Idaho Department of Commerce will also create a new position, an Economic Development Specialist, to serve as the primary liaison between the INEC Tech Hub and the State government. INEC's membership has a variety of non-profit organizations, state and local agencies that have pledge in-kind support that will significantly bolster the Tech Hub initiative. Demonstrative of the region's deep commitment to advanced nuclear technology, is also Idaho's sponsorship of the "Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy (ADVANCE) Act of 2023 which... "will make the kind of clean and reliable nuclear power being developed at the Idaho National Lab available to the nation" - U.S. Senator Jim Risch (R-Idaho). Another example is Wyoming's sponsorship of the Nuclear Fuel Security Act, a component of the 2024 National Defense Authorization Act making the United States "stronger and safer as a nation when our nuclear fuel supply chain starts and ends here at home" - U.S. Senator John Barrasso (R-Wyoming).

## **1.7 How the Consortium Will Become Self-Sustainable**

The funds sought through this Tech Hub proposal will give the region the critical mass it needs to draw a sustained influx of industry participation which will ensure this effort's continued economic viability. The core of the INEC Tech Hub's economic sustainability stems from its development of impactful IP that can be used to inform decision-making for advanced nuclear reactor efforts, both nationally, and world-wide. White papers, analytic models, and lessons learned will be made available to policy makers, communities, and developers, with a fee structure that supports not only the Tech Hub's continued operations but serves as a gateway to ensure the preservation of America's critical infrastructure security. The IAEC currently operates with a membership fee revenue model that supports the administration of the consortium's activities. The membership will drive continued investment in regional workforce development, marketing to suppliers/developers, and promoting public education around clean energy.

## **1.8 Labor Union Engagement**

The INEC Tech Hub recognizes the critical role unions play in creating quality jobs and increasing economic benefits for workers. INL's Site Stabilization Agreement supports the INEC Tech Hub's commitment to unionized labor with required union participation levels. The nuclear industry in Idaho has been built with unionized labor over its 75-year history. Idaho and Wyoming are statutory right-to-work states which provide protections for works who choose to unionize.

### **1.8.1 Strong Labor Standards**

Working with communities and our labor partners, INEC will promote initiatives to support economic development and ensure that the benefits of clean energy are equitably shared. INEC Tech Hub members maintain above-average compensation for their employees and will emphasize local hiring. The Tech Hub will invest in certification programs, apprenticeships, and on-the job training for craft and operations positions to build a pipeline of qualified personnel for the project and future construction projects. The Tech Hub will partner with regional education institutions and union training centers which, in combination, offer multiple apprenticeships across electrical, HVAC, plumbing, welding, construction and jobsite readiness, and OSHA safety programs.



### 1.8.2 Project Labor Agreements and Community Benefit Agreements

The INEC Tech Hub is committed to improving the communities within the Tech Hub region. This commitment is demonstrated by INEC’s support of INL’s membership in CHIPS Communities United (CCU). CCU is a coalition comprised of labor, environmental, social justice, civil rights, and community organizations; it represents millions of workers and community members nationwide. CCU’s objective is to ensure the CHIPS Act safely benefits workers and communities. CHIPS Communities United seeks to establish a new standard of accountability in line with current Administration priorities. The coalition calls upon companies benefiting from CHIPS Act subsidies to commit to comprehensive community benefit agreements (CBAs) addressing concerns such as DEIA, workers’ rights, and health and safety.

### 1.9 How the Consortium Will Ensure Benefits are Equitably Shared

The White House Equity Action Plan Progress Report (February 2024), states that: “Advancing racial equity and support for underserved communities—including rural communities, communities of color, Tribal communities, LGBTQI+ individuals, people with disabilities, women and girls, and communities impacted by persistent poverty will require sustained leadership and responsibility from the entire Federal Government.” As evidenced by the involvement of Native American Tribes in formulated plans, the INEC Tech Hub is committed to meeting the objectives put forth in the White House Equity Action Plan and will continue to ensure that all activities undertaken promote this agenda.

**Family-Sustaining Wages and Benefits.** The Tech Hub members offer comprehensive benefits programs designed to promote employee health, wellness, and financial security. The Tech Hub will use the U.S. Equal Employment Opportunity Commission recommendations to provide laborers and operations personnel with a competitive base salary equal to or greater than the area median income. Apprentices will receive compensation equal to or greater than the appropriate Davis-Bacon Act prevailing wage for the impacted counties. The Tech Hub will also leverage salary surveys to ensure that wages exceed market compensation when combined with benefits.

**Upgrading Basic Skills for Higher Pay and Advancement Opportunities.** Industry partners will offer extensive learning and development resources and opportunities, as provided by the INEC Tech Hub, so that workers can enhance their knowledge, skills, and abilities and explore new career paths. Employee training incentives, certification and technical instruction goals will include raises and promotion options.

### 1.10 Expected Outcomes

INEC’s overarching objective is to build a nexus to support development and deployment of nuclear technology. The INEC Tech Hub has structured its priorities around advanced nuclear power generation, management of the nuclear fuel cycle, strengthening the advanced nuclear workforce, informing advanced nuclear policy, and expanding the domestic nuclear supply chain. Expected outcomes are shown in **Figure 1-5**.

### 1.11 Managing Growth Impacts

The INEC Tech Hub activities will increase demand on existing infrastructure in the surrounding communities. INEC will monitor and consult with project developers on infrastructure impacts and serve as the conduit to community leaders, giving them data and insights, with appropriate lead time, to prepare for regional growth.

Project Name	Outcomes
Commercialization and Policy Component Project	<p data-bbox="488 1671 894 1698"><b>Nuclear Policy Center of Excellence</b></p> <ul data-bbox="488 1698 1154 1755" style="list-style-type: none"> <li data-bbox="488 1698 992 1726">• Understanding of regulatory misalignment</li> <li data-bbox="488 1726 1154 1755">• Effective education and outreach to influence new policy</li> </ul> <p data-bbox="488 1755 748 1782"><b>Community Education</b></p> <ul data-bbox="488 1782 1057 1810" style="list-style-type: none"> <li data-bbox="488 1782 1057 1810">• Improved leadership and community “Energy IQ”</li> </ul> <p data-bbox="488 1810 797 1837"><b>Model Based Risk Analysis</b></p> <ul data-bbox="488 1837 1284 1892" style="list-style-type: none"> <li data-bbox="488 1837 1284 1864">• Lowers deployment and investment risks for commercial developers</li> <li data-bbox="488 1864 1357 1892">• Enables communities to assess risk associated with potential deployments</li> </ul>

Project Name	Outcomes
Advanced Reactor Deployment Component Project	<ul style="list-style-type: none"> <li>Provides hard data to drive NPC recommendations</li> </ul> <p><b>Enables Advanced Reactor Deployment</b></p> <ul style="list-style-type: none"> <li>Reduced investment risk for deployment in the Tech Hub’s region</li> <li>Repeatable siting process enables national scalability</li> </ul> <p><b>Encourages More Advanced Reactors</b></p> <ul style="list-style-type: none"> <li>Reduced investment risk for deployment in the Tech Hub region</li> <li>Repeatable siting process enables national scalability</li> </ul> <p><b>Creates a Model for Energy Equity</b></p>
Fuel Cycle Component Project	<p><b>Groundwater Remediation</b></p> <ul style="list-style-type: none"> <li>Improved uranium production economics</li> <li>Scalable model for national adoption</li> </ul> <p><b>HPSA</b></p> <ul style="list-style-type: none"> <li>Significant additional Uranium Source (500M+ lbs.)</li> <li>Remediate the 15,000 Abandoned Uranium Mines in Western U.S.</li> </ul> <p><b>UNF Recycling</b></p> <ul style="list-style-type: none"> <li>Enhance U.S. economic competitiveness</li> <li>Improved national security</li> </ul>
Supply Chain Component Project	<p><b>Construction Supply Chain Upskilling</b></p> <ul style="list-style-type: none"> <li>Level-set industry standards</li> <li>Ability to leverage new products and technologies for the construction of advanced reactors</li> </ul> <p><b>Manufacturer Supply Chain Upskilling</b></p> <ul style="list-style-type: none"> <li>Create nuclear-grade supplier development programs</li> </ul> <p><b>Workforce Development</b></p> <ul style="list-style-type: none"> <li>Level-set industry standards ability to leverage new products and technologies for the construction of advanced reactors</li> </ul>

Figure 1-5: Component Projects. The INEC Tech Hub proposes four highly integrated Component Projects that result in a sustainable domestic advanced nuclear infrastructure.

### 1.11.1 Steps to Prevent Displacement

Preventing displacement is a critical concern when it comes to community development and investment. Whether the issues are gentrification, housing affordability, or disaster-induced displacement, there are strategies that can help protect vulnerable populations. In order to preclude displacement, INEC will support the following localized Anti-Displacement Policies:

- Encouraging the development of Community Land Trusts:** These ensure that land remains affordable by separating ownership of land from buildings. It prevents speculative buying and keeps housing costs stable.
- Supporting Community Benefits Agreements:** These agreements negotiate community benefits (such as affordable housing) with developers in exchange for project approvals.

### 1.11.2 Jobs Created for Existing Low-Income Residents and Residents of Assisted Housing

The INEC Tech Hub addresses job creation throughout the region through the Supply Chain Component Project which will attract new companies to the region to support the development of the advanced nuclear power infrastructure while simultaneously implementing a comprehensive workforce development program to upskill workers in the region to meet this emerging demand. A collaborative effort among academic institutions across the INEC Tech Hub will see the development of a unified training and credentialing program to lower the barriers to a skilled workforce specifically trained in disciplines that support the advanced nuclear energy production domain. These training initiatives will be supplemented by the development of full-scale construction mockups to provide hands-on training and experience, complementing classroom training, workshops, and certifications while also stress testing the regional supply chain vendors (and determining their retooling/upgrading needs).

### 1.12 Post Phase 1 Activities

### **1.12.1 Relevant Activities between Phase 1 and Phase 2 Application Submission**

Upon Phase 1 award, the INEC leadership team was confirmed, and the IAEC reengaged all parties within the INEC Tech Hub region, across industry, academia, government, and Tribal communities. The IAEC subcontracted with a grant management firm, expanded a marketing subcontract, developed marketing material for the designation, and began sharing that across partners and the region.

Since the designation, IAEC has subcontracted with a COO and a Project Coordinator who will be instrumental in the execution of the INEC Tech Hub's activities for Phase 2. After Phase 1 was award, more than 40 institutions convened over 15 working group sessions to identify the four imperatives which comprise the proposed Component Projects. INEC leadership continues to meet two to four times a week to coordinate all application activities. The IAEC leadership continues to meet bi-weekly to support both consortium activities and provide direction to the INEC Tech Hub activities. Idaho and Wyoming have met with their respective delegations, sharing the work of the INEC Tech Hub initiatives highlighting partnerships and industry success opportunities.

### **1.12.2 Any Changes to the Vision of the Tech Hub Since the Phase 1 Designation**

The vision of the Tech Hub remains consistent since the Phase 1 designation. The priority is to accelerate deployment of SMRs and MRs across the U.S. in the next decade.

### **1.12.3 New Commitments or Investments Secured**

For the Phase 2 application, INEC and IAEC have secured several new commitments and investments. These new commitments include those from large industry participants, communities within the Tech Hub region, and academia partners. Outreach activities focused on expanding commitments of in-kind contributions to the work proposed in Phase 2. The members of this consortium are eager to demonstrate their commitment to the INEC Tech Hub, evident in the cost share and in-kind contribution commitments.

### **1.12.4 Any Changes to Consortium Membership**

IAEC/INEC's membership list has grown since the Phase 1 designation was awarded. Additional reactor developers have joined, indicative of the significance of the INEC Tech Hub's proposal. A host of suppliers, mining associations, policy focused organizations like NEI have also joined in response to the Tech Hub's momentum. INEC expanded their partnerships with Gateway for Acceleration in Nuclear (GAIN) and the National Reactor Innovation Center (NRIC) to support these efforts and to further encourage new partnerships.

### **1.12.5 Any Refinements in the Approach to the Selected Core Technology Area**

INEC made refinements based on the feedback from the EDA on the Phase 1 approach to include a major focus on policy activities. INEC expanded the approach to successfully accomplish the goals set in Phase 1 for the key technology focus area by making sure to include critical components (e.g., supply chain and fuel cycle support). Otherwise, INEC's commercialization and deployment of SMR and MRs in the U.S. in a 10-year time frame.

### **1.12.6 Lessons Learned that Informed the Changes**

The deployment of advanced nuclear reactors is only possible when the conditions for sustained viability are created – the policy framework, a viable supply chain, and the ability to manage the fuel cycle.

## **1.13 Consortium Member Review**

Each consortium member has read the Overarching Narrative and is committed to executing the components of the Tech Hub for which that consortium member is responsible.

## **1.14 Updated Letters of Support**

Letters of support are attached in Letters of Commitment/Matching Share/Commitment Forms.

## **1.15 Lead Member Change**

The lead member for the INEC Tech Hub has not changed since submission of Phase 1.