



IAEC
Idaho Advanced Energy Consortium

Annual Report Summary

2024

Meet the Idaho Advanced Energy Consortium

The Idaho Advanced Energy Consortium (IAEC) convenes industry stakeholders to identify, plan, and act to address needs across the advanced energy sector. These include the evolving and shared supply chain, workforce development, community, infrastructure, and security needs. These needs center around advancements in clean and nuclear energy and their related projects. IAEC will specifically support

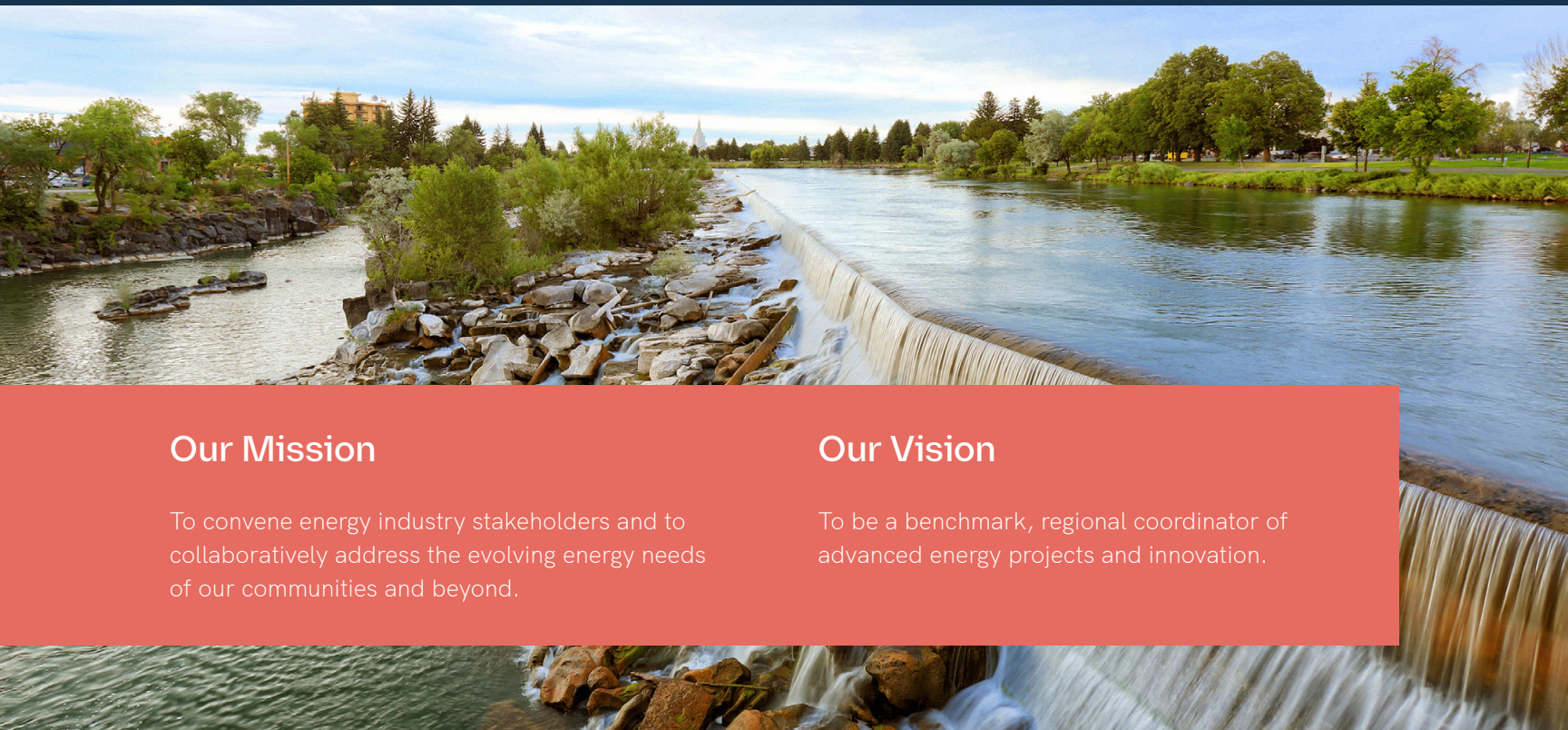
the deployment of clean energy technologies such as enhanced electrolysis for bulk hydrogen production, new generation efficiencies in hydropower, and commercializing advanced nuclear technologies including small modular reactors and microreactors. The advanced energy industries, which make up IAEC, can be described as industries that contribute to making energy cleaner, safer, more secure, and efficient.

Our Mission

To convene energy industry stakeholders and to collaboratively address the evolving energy needs of our communities and beyond.

Our Vision

To be a benchmark, regional coordinator of advanced energy projects and innovation.



From the Executive Director

What a spectacular first year for the Idaho Advanced Energy Consortium (IAEC)!

Shortly after last year's Conference, the U.S. Department of Commerce's Economic Development Administration (EDA) announced the designation of the Intermountain-West Nuclear Energy Corridor (INEC) Tech Hub, as part of the EDA's Regional Technology and Innovation Hubs (Tech Hubs) Program. They also awarded INEC with a \$500,000 Strategy Development Award to coordinate planning activities for future opportunities. INEC's Idaho-Wyoming partnership aims to develop and deploy carbon-free, clean energy technologies. On August 6, 2024, INEC received its second \$500,000 grant. INEC will use this Consortium Accelerator Award to continue to promote its tech hub strategy focused on advanced nuclear reactor deployments, including technology advancements, workforce and supply chain development, and fuel support for the domestic nuclear industry.

I'm particularly pleased that the EDA sees the value of our efforts as the only nuclear energy Tech Hub in the country. We continue to share our vision of an Eastern Idaho advanced energy ecosystem, complete with micro and small-modular reactors and new renewable energy projects.

The world has never seen such focus and collaboration on reducing carbon emissions to respond to the energy demand.



Collaboration across the nuclear industry can accelerate the advancement of nuclear energy through joint investments in fuel and component manufacturing to support wider reactor deployment and strengthen the uranium mining and conversion sectors, ensuring a reliable fuel supply. Additionally, sharing technical knowledge and combining AI and digital simulations can optimize reactor design, performance, and safety, ultimately reducing costs and increasing efficiency. Furthermore, collaboration can drive innovation in new reactor designs, such as small modular reactors, which offer greater flexibility and lower costs. Finally, by working together to influence policy and regulations, companies can advocate for streamlined licensing processes and incentives that favor low-carbon energy sources like nuclear. By uniting our efforts, we can overcome barriers and ensure the future of nuclear energy as a clean and sustainable power source.

I'm excited and optimistic for the next year. With your help on IAEC initiatives, we'll keep this momentum going strong!

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kirt Marlow', with a large, sweeping flourish at the end.

Kirt Marlow
Executive Director
Idaho Advanced Energy Consortium

IAEC Leadership



Kirt Marlow
*Executive Director
Senior Vice President Nuclear Solutions
Boston Government Services*



Hope Morrow
*Co-Chair
Manager Workforce & Economic Development Programs
Idaho National Laboratory*



Dana Kirkham
*Co-Chair
Sr. Director of Regulatory & Strategic Affairs
Idaho Environmental Coalition*



Steve Laflin
*Chief Operating Officer
Retired-President
International Isotopes*



Elli Brown
*Board Member
Director State & Local Government Affairs
Idaho National Laboratory*



Eric Trotta
*Board Member
General Counsel
Idaho Environmental Coalition*



Kelly Galloway
*Board Member
President
Maxie Endeavors*



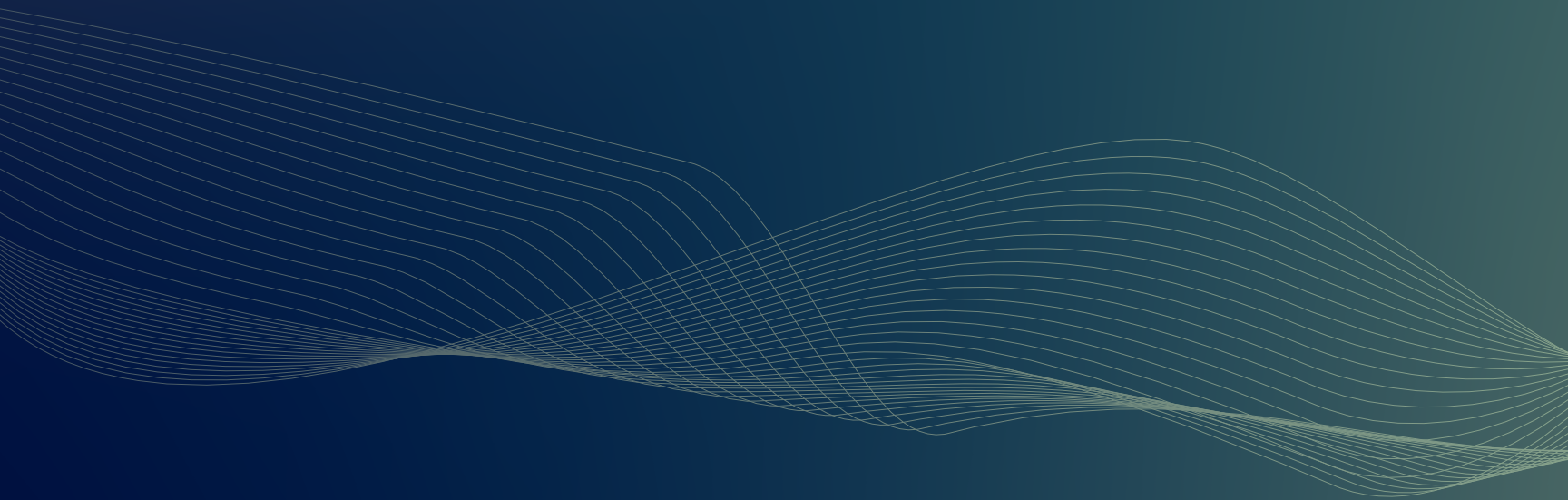
Valerie Christensen
*Board Member
I&C Product Line Sales Manager
Sciotech*



Rinaldo Hunt
*Board Member
Executive Director, Business Development & Strategic
Partnerships, Purdue Applied Research Institute*

2024

Accomplishments Spotlight



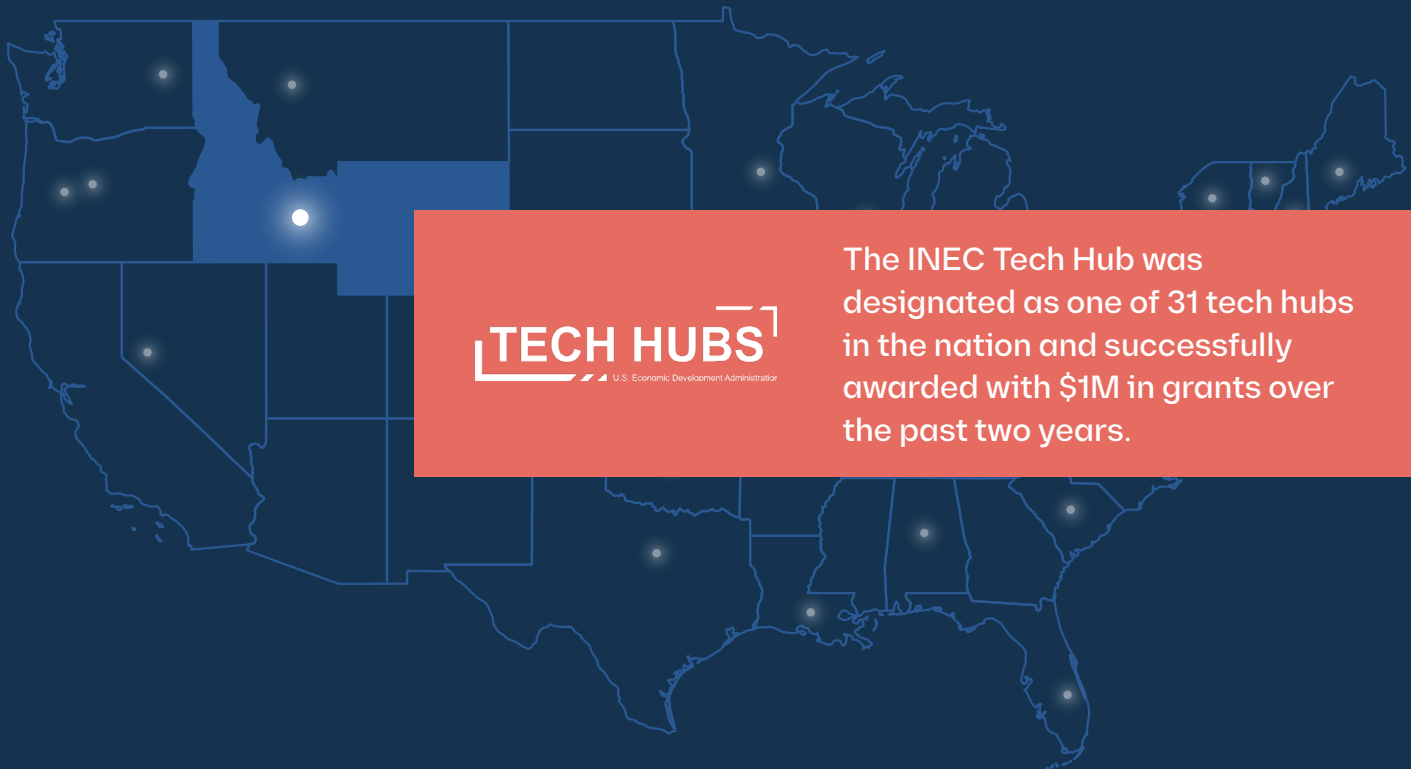
INEC Tech Hub

Establishment of New EDA-Sanctioned Tech Hub

The Intermountain-West Nuclear Energy Corridor (INEC) was established as one of 31 designated Tech Hubs (out of over 400 applicants) in the U.S by the Economic Development Administration (EDA). This first-of-its-kind nuclear-focused Tech Hub solidifies our region's leadership in advanced nuclear energy.

INEC was also awarded a Strategic Development Grant from the Phase 1 proposal. Only 11 Tech hubs were awarded both a designation and a grant.

IAEC spearheaded the submission of the INEC Tech Hub's Phase 2 proposal for a \$70 million implementation grant with \$37 million in matching funds from our partners. The proposal aimed to reinforce the region's role in the national advanced nuclear reactor deployment strategy.



The INEC Tech Hub was designated as one of 31 tech hubs in the nation and successfully awarded with \$1M in grants over the past two years.

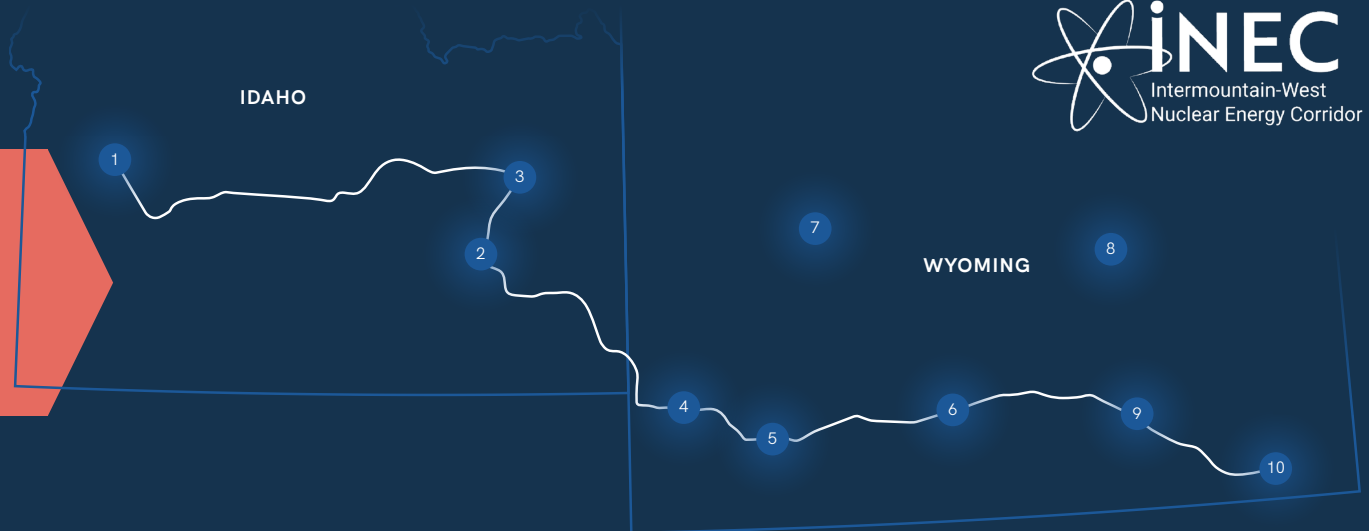
The Intermountain-West Nuclear Energy Corridor

From the Phase 2 application, INEC received another \$500,000 in the form of an Accelerator award. This funding is aimed at a few hubs that EDA hopes to strengthen as they look towards funding a third phase of this program.

Re-establishing a nascent industry requires a massive effort to connect federal programs, state initiatives, local communities, educational institutions, and businesses of all sizes. With its network of these organizations, IAEC has been instrumental in applying for funding and facilitating the growth of advanced energy

development and deployment through coordination and collaboration of policy, supply chain, fuel cycle, and workforce development.

These partnerships span a corridor of 685 miles between Idaho and Wyoming, seven Tribal Nations, and include over 2 million people, ranging from rural communities to national policy, and from community colleges to labor unions. This establishes the region not only as a nexus for advanced nuclear energy but as a showcase for catapulting disadvantaged areas into global technology leaders.



- 1 Idaho Tech Help
Boise State University
- 2 Shoshone-Bannock Tribes

- 3 Idaho National Laboratory
MARVEL, Aalo, Oklo Reactors
Idaho State Univ/Univ of Idaho
College of Eastern Idaho
IAEC

- 4 Future home of Natrium Reactor
- 5 Western Wyoming Community College
- 6 Sweetwater Mine and Mill
- 7 HPAIRI/Wind River Indian Reservation
- 8 Disa Technologies

- 9 Univ of Wyoming
WY Manufacturing Works
- 10 Wyoming Mining Association

Increased Community Awareness

The City of Idaho Falls and IAEC partnered to create and distribute a survey, educational materials, and accurate information on technological breakthroughs, challenges, and progress regarding environmental cleanup at the Idaho National Laboratory (INL) Site.

The educational materials included interactive information on the Snake River Plain Aquifer and how work on the INL site protects it and the surrounding environment. These resources can be used to teach K-12 students about the local environment and the protections set in place to preserve our natural resources in Idaho.

The survey gathered information from citizens of Idaho to gain a better understanding of their knowledge of the cleanup work taking place at the INL Site. The information will help IAEC partners work to build public understanding and support.



STEM Activity. Photo courtesy INL



ATR operations teams. Photo courtesy INL.

Energy Sector Frameworks

IAEC has championed the advancement of energy sector frameworks regionally and nationally through the following initiatives:

- ✓ Worked on the state and national level to expand career cluster frameworks to recognize the energy sector and with the state of Idaho to create a Computer Science and Engineering Higher Education Committee
- ✓ Worked with Idaho's Office of Energy and Mineral Resources on the Advanced Nuclear Energy Strategic Framework and the Idaho Energy Legislative Summit
- ✓ Bridged conversations between regional and national construction, steel, and advanced energy suppliers through Manufacturing Extension Partnership (MEP) teams

NSF Engines Proposals

The IAEC is partnering with universities, national labs, economic development organizations, labor, utilities, and industry on two National Science Foundation (NSF) Engines opportunities to grow and strengthen regional innovation:

- I The Tennessee-Idaho Nuclear Regional Innovation Hub (ENRIcH) to accelerate the deployment of carbon-free, advanced nuclear reactors in TN and ID and expand the supply of radionuclides for life-threatening disease treatment.
- II The Northwest Energy Accelerator Region (NEAR) Nuclear Innovation Engine focused on advancing nuclear materials from research to manufacturing to recycling and workforce development.



Photo courtesy INL

State Resolutions

The Idaho Legislature passed a concurrent resolution to show its support for the collaboration taking place across the state in the advanced nuclear and clean energy sector. The resolution acknowledges the work done by IAEC alongside INL and its vital strategies promoting clean energy and economic development throughout the region. The template language, developed by IAEC, was also used for resolutions in Butte County, Pocatello, and Rexburg.



Idaho State Capitol Building

Leading the Conversation

IAEC established a solid presence at key regional and national gatherings as event organizers, facilitators, or key presenters.

- IAEC's own Annual Conference, Board of Directors Summit, and Up and Atom Breakfasts

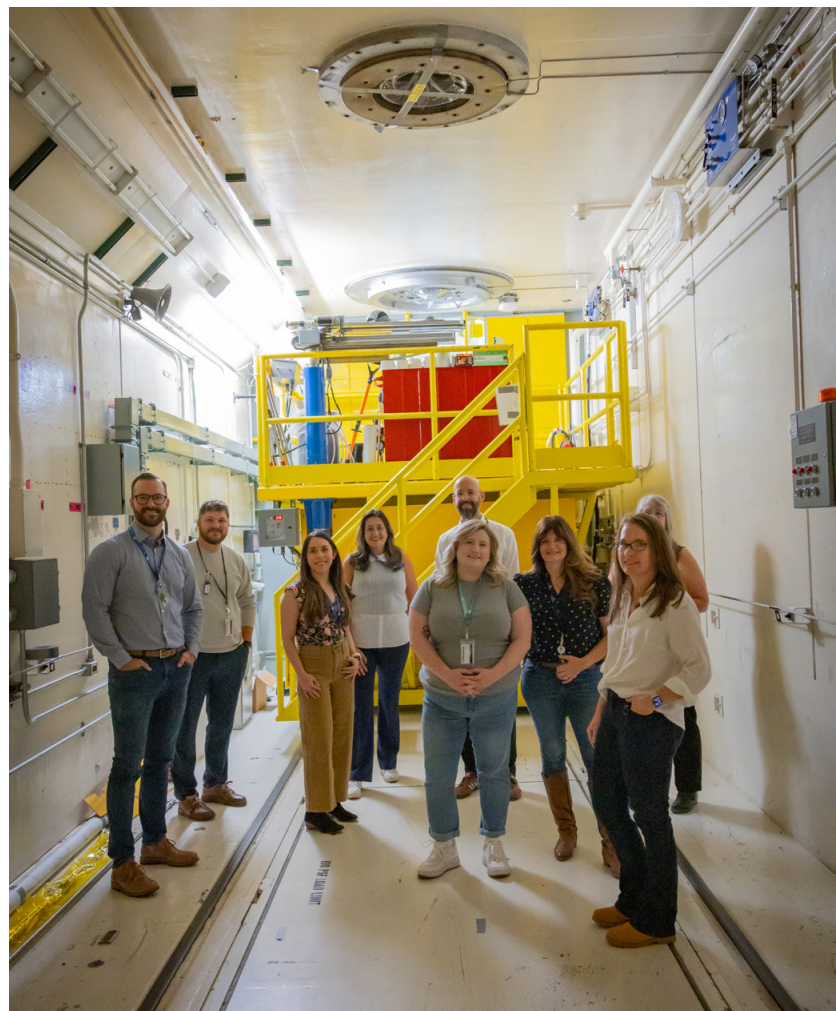
- IAEC, INL, and IEC cohosted community colleges across the region to build partnerships.
- Regional gatherings, including Idaho Legislative Energy Summit, Idaho Rural Success Summit and the Idaho's Leadership in Nuclear Energy (LINE) Commission
- National events, such as Energy Communities Alliance (ECA) Conference, SelectUSA Investment Summit, and Nuclear Opportunities Workshop (NOW)



Energy Days at College of Southern Idaho



2023 IAEC annual conference. Photo courtesy INL.



Tour with Economic Development Administration Tech Hubs Program Director Eric Smith tour of INL as part of INEC visit. Photo courtesy INL.

Tour of Materials and Fuels Complex with EDA Tech Hub. Photo courtesy INL.



The Growth of IAEC

IAEC members have grown into a diverse and robust team who support the consortium mission and the continuing development of the INEC Tech Hub. This group provides strong foundational direction and support to the consortium, as well as a synergistic network benefitting all participants. This strong base includes:

Advanced Energy Companies



Leading providers throughout the entire clean energy supply chain, including researchers, pioneering manufacturers, and regional and community utilities



Educational & Training Institutions

Universities, colleges, union-based training centers, and research centers focused on clean energy research, education, and workforce development



Legislators



Elected officials and policymakers advocating for policies that support clean energy innovation, investment, and regulatory frameworks



Community Leaders

Local leaders, nonprofits, and advocacy groups promoting community engagement, sustainability initiatives, and clean energy adoption

Regional Benefits & Economic Analysis

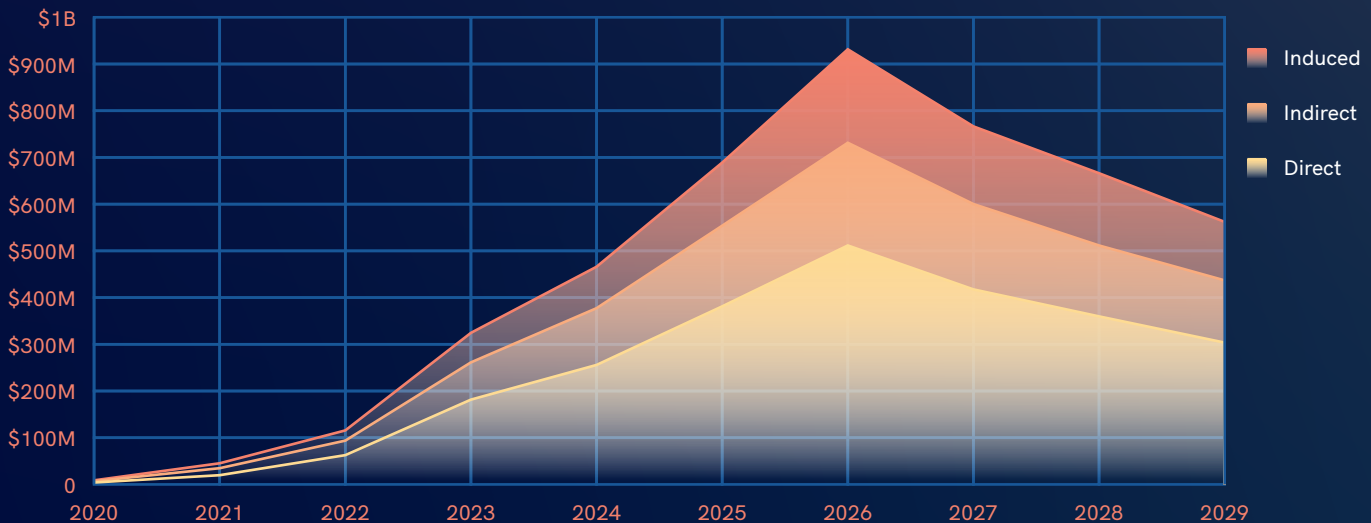
The Idaho Advanced Energy Consortium continues its efforts to communicate the broader economic impact of new construction projects on the INL site. Project impacts from the primary contractors—Battelle Energy Alliance (BEA), Idaho Environmental Coalition (IEC), and Naval Nuclear Propulsion Program (NNPP)—show significant impact on Idaho’s economy. Project

managers expect more than 80% of construction work and associated equipment orders will be sourced to Idaho-based companies. The below chart depicts the anticipated total impact over a ten year period, with project costs totaling more than \$3 billion. Additional construction spending will be added as estimates become available.

MORE THAN **80%** of construction work and associated equipment orders will be sourced to Idaho-based companies.

The full IAEC Annual Report will include additional project impact information, workforce and employment data, and more. Our members will also have access to detailed workforce projections for the INL site, expenditure impacts, project types, etc.

New construction projects and their economic impact



As time progresses, the economic impact of the INL site contracts and additional energy deployment partners will continue on an exponential path. Keep up with your IAEC membership to see these timelines change as more projects come online.

Your Participation Matters

This document represents just a summary of what the Idaho Advanced Energy Consortium has accomplished within 2024. You can learn more about the IAEC strategic landscape and critical economic information in the comprehensive report, available exclusively to members.

We invite you to become a formal member of the IAEC team. Come add your voice and drive to building out this important sector. Together, we can build better approaches and solutions to industry, legislation, community, and educational environments. In addition to supporting the advancement of our important mission, IAEC membership offers many benefits.

Depending on the membership level you select, some of your benefits would include:



Discounts to IAEC events, such as the annual IAEC Conference



Participation in relevant IAEC panel discussions



Access to "Members Only" reports, data, articles and other important information



Your logo and company information posted on the IAEC website



Participation on IAEC advisory or other committees



And more...



Join the Consortium

To join, please visit

idahoadvancedenergy.org/membership

and select your membership from a variety of participation levels. If you have any questions, please feel free to reach out to the IAEC Executive Team at info@idahoadvancedenergy.org for help.