

**Memorandum of Understanding  
Between  
Battelle Energy Alliance, LLC  
And  
Wyoming Energy Authority  
Advanced Energy and Related Technologies**

**Purpose**

The purpose of this MEMORANDUM OF UNDERSTANDING (MOU), contemplated by **Wyoming Energy Authority (WEA)**, having offices at 325 West 18<sup>th</sup> Street, Suite 1, Cheyenne, WY 82001 and **Battelle Energy Alliance, LLC (INL)**, the management and operating contractor of the Idaho National Laboratory (INL) under Contract Number DE-AC07-05ID14517 (DOE Prime Contract) with the United States Department of Energy (DOE), with principal offices located at 2525 North Fremont Avenue, Idaho Falls, ID 83415-1303 (referred to collectively as, the "Entities" and individually as "Entity"), is to establish a framework for scientific and technological cooperation in the field of development and deployment of advanced energy and related technologies, with special emphasis on advanced nuclear energy and related technologies, and economic endeavors by strengthening the partnership with and cooperation between the State of Wyoming, its agencies, representatives, businesses and people and Battelle Energy Alliance, LLC, operating contractor of INL.

**Objective**

The objective of the collaboration is to leverage strategies, capabilities, insights, partnerships, and activities of INL and Wyoming stakeholders to realize a strong, sustainable, secure, and equitable economic future for the State of Wyoming; to enhance United States leadership in advanced energy technologies and applications; and to place the State of Wyoming at the forefront of advanced energy technology, applications, and workforce leadership. Simply stated, we seek to collaboratively develop a path to global leadership in a carbon-constrained economy.

**Background**

Wyoming is blessed with a rich endowment of natural resources that have been at the heart of its economy for decades. This energy economy has not only been an economic bedrock for Wyoming, but also has played a substantial role in the energy and economic security of the United States for most of the past century. Wyoming has always been at the frontier in energy, minerals, industry, natural resource management and entrepreneurship.

Wyoming now faces a new frontier, one of a global economic shift to lower-emission economic activity. Energy is at the forefront of that frontier, and Wyoming will again lead into this new economic frontier. As markets and society demands change, it is increasingly important that Wyoming's energy economy evolve and transform the way that it delivers energy, and produces products built on energy, to its consumers. This is critical for the health of the Wyoming economy and the quality of life of its citizens, as well as the energy security of the United States.

The Idaho National Laboratory is the nation's lead nuclear energy laboratory, and a major source of innovation and capability in national security and broader energy, energy conversion, and energy utilization technologies. The Laboratory is operated in the national interest to advance national objectives in energy technology and applications, but also has a strong commitment to our region

specifically. The Laboratory has operated for over 70 years, always at the frontiers of innovation, demonstration and validation of advanced energy and enabling technologies. In its regional role, the INL serves as a partner in advancing collaborative research, education, stakeholder and leadership knowledge, environmental security, workforce development and other activities key to enhancing the security and economic future of neighbors. As such, the Laboratory has a focused commitment to advance energy leadership on a global scale by working with regional stakeholders to secure their position in advanced technology deployment and their place in regional, national and global markets. This “regional to global” approach is key to the INL mission to expand markets for advanced energy technologies and help secure the present and future position of the United States in the global economy in a sustainable, secure and environmentally sound manner.

As national and global markets are restructuring to respond to the demands of a carbon constrained economy, there is perhaps no better time to strengthen and accelerate the collaboration between INL and the State of Wyoming to solidify their role in the new economic frontiers. This MOU facilitates this collaboration.

### Agreement

The Parties agree to engage in collaboration in areas and topics listed here, and further agree to work in good faith and with urgency to meet the purpose and objective of this MOU.

### Areas of Cooperation

This endeavor may include, as resources and interests allow, but is not limited to:

- collaboration in the research, development, demonstration, and deployment of energy and related technologies and strategies, in particular as they relate to advanced nuclear energy and related enabling technologies and approaches;
- development of advanced applications of energy resources and technologies and advancing the underlying science and engineering of such;
- engaging in efforts to educate, inform and train stakeholders on issues relating to energy, energy technology, economic opportunities of energy use and global policies;
- capacity building and worker training through support of development of new academic research, education and training programs;
- providing non-biased advice and strategies to the people and leaders in Wyoming and providing insights from industry and communities to technologists and national leaders;
- advancing the understanding of emerging energy and industrial economies and related community concerns, desires and needs specific to the people of Wyoming;
- identifying policy and regulatory needs associated with deployment of advanced technologies and applications;
- catalyzing broader local, regional, national and international partnerships to transform the economy as it relates to energy production, transmission, consumption, and upgrading and the related manufacturing associated with such activities; and
- collaborating on the development of public-private partnerships to advanced technology deployment and develop novel mechanisms to engage global markets.

### Specific Areas of Interest Include:

- Hydrogen production, transportation, consumption and industrial applications in manufacturing;
- Advanced nuclear reactor technology, applications and enabling technologies;

- Novel business, technological and collaboration models for net-zero advanced industrial production, such as “Frontiers Centers”;
- Advanced energy systems and adjacencies (cyber security, advanced control systems, applied computing, radiological operations, etc.);
- Nuclear fuel cycle broadly (cradle to grave);
- Zero-emissions energy production and utilization, particularly incrementally provisioned advanced production with embedded nuclear reactors;
- Economic modeling and assessment;
- Nuclear-specific component manufacturing;
- Hosting of energy-intensive industries;
- Social license in energy and economic transitions;
- Regulatory and financial structures to advance net-zero industry;
- Advanced energy system manufacturing;
- Operations workforce recruiting, needs and strategies; and
- Global leadership in capacity building for “nuclear newcomers” and advanced nuclear energy first-adopters.

#### Possible Elements of Cooperation

- Research, development, demonstration, and deployment partnerships:
  - Coordination and engagement between INL and the University of Wyoming (UW), with School of Energy Resources as the lead and coordinator.
- Education and community partnerships (K-12, community colleges, UW, community outreach):
  - K-12 teacher instruction and training;
  - Student internships, undergraduate through graduate;
  - Sabbatical and summer research opportunities for community college and university professors and staff;
  - Identification of relevant academic programs and development thereof;
- International partnerships and knowledge sharing;
- Advanced concepts development;
- Loaned staff, sabbaticals, and related mechanisms;
- Collaborative project development;
- Collaboration in state, regional and federal leadership endeavors;
- Public outreach and communication;
- Expert narrative and counsel;
- Strategic planning;
- Economic analysis;
- Inform state and federal policy development; and
- Federal agency liaison.

### Roles, Responsibilities and Outputs

- The WEA will serve as the primary point of contact for collaboration, and will facilitate engagement between public and private entities in Wyoming and BEA.
- BEA's Nuclear Science and Technology Directorate will serve as the primary contact for BEA, and will facilitate engagement among laboratory entities and capacity centers and Wyoming stakeholders.
- These parties will designate individual points of contact (POC) for overall leadership and unit engagement.
- Leadership POCs will establish a schedule and process for regular engagement, collaboration focus, dialogue, and reporting, with a minimum of bi-weekly engagement and yearly updated collaboration plans.
- The Parties will engage in community outreach and communication collaboratively and individually, as agreed.
- The Parties will seek to identify and secure financial and other resources for individual and collaborative efforts as an emphasis and will develop strategic objectives and plans to guide resource acquisition and expenditure.

### Independent Entities:

The Entities understand that nothing contained herein is intended to authorize either Entity to bind or act for, or assume any obligations or responsibilities on behalf of the other Entity. The Entities do not intend for this MOU to create responsibility or liability for any indebtedness or obligation of the other Entity. This MOU is not intended to create a partnership, joint venture, alliance or any other affiliation between the Entities.

### Liability:

In no event is this MOU to be construed such that either Entity is liable to the other Entity or their affiliates or other entities for loss of profits, loss of products, loss of use or for indirect, consequential or special damages. Additionally, by entering into this MOU the WEA, State of Wyoming and its agencies, do not waive sovereign immunity and specifically retain all immunities and defenses available to them as sovereigns.

### Consent:

This MOU is not intended to commit nor obligate either Entity to provide any products, or perform any services, or accept any responsibilities, without the other Entity's prior written consent. Such consent shall be in the form of a separate signed written agreement between the necessary parties to provide the specific products, perform services or accept said responsibilities.

### Responsibilities:

Each Entity is to remain responsible for its respective costs, risks, and liabilities associated with or arising from this MOU except as may be otherwise agreed in a separate formal mutually acceptable written agreement.

### Nature of MOU:

Notwithstanding any other clause of this MOU, the Entities understand and acknowledge: (1) that this MOU is non-binding and not contractual in nature; (2) activities under this MOU should be conducted in accordance with all applicable laws, regulations, and other requirements to which the Entities are subject; and (3) to the extent any of the clauses and provisions of this MOU conflict with

the terms of BEA's DOE Prime Contract, the terms of the DOE Prime Contract prevail, with respect to BEA.

#### Assignment:

The Entities understand that BEA may assign this MOU without prior consent to DOE or its designee.

#### Application of Export Laws:

The Entities acknowledge that information exchanged under this MOU may be subject to U.S. export control laws that prohibit or restrict (i) transactions with certain persons, and (ii) the type and level of technologies and services that may be exported. These laws include the Arms Export Control Act, the Export Administration Act, the International Emergency Economic Powers Act, the Atomic Energy Act and regulations issued pursuant to these, including the Export Administration Regulations (EAR) (15 CFR Parts 730-774), the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130), and the Nuclear Regulatory Commission and Department of Energy export regulations (10 CFR Parts 110 and 810). Export control requirements may change and export of goods and/or technical data from the U.S. without an export license or other appropriate governmental authorization may result in criminal liability. Each Entity is responsible for its own compliance with laws and regulations governing export.

An Entity receiving information is responsible for (1) ensuring the export, re-export, or transfer of information (or any product, process, or service resulting directly there from) directly or through its agents or affiliates is authorized under U.S. law, including, U.S. economic sanctions and embargoed country restrictions; (2) obtaining any required U.S. governmental authorization prior to such export, re-export or transfer; and (3) complying with all regulatory recordkeeping requirements for such export, re-export or transfer. Each Entity acknowledges that it can contact the U.S. Departments of Commerce, State, Energy and Treasury for guidance as to applicable licensing requirements and restrictions.

#### Intellectual Property Management

- The Parties will develop topic-specific nondisclosure agreements, as necessary and required by relevant laws, rules or regulations.
- The Parties will manage intellectual property developed collaboratively per the standards and processes of the organizations and funding mechanisms involved, and subject to the laws, rules and regulations governing the development and use of such intellectual property.

#### Term

This MOU is in-force for a period of 5 years, or until such time one or both of the Parties chooses to withdraw. Either Party may withdraw by giving written notice to the other Party a minimum of 6 months prior to doing so.

Notices:

All written communication and notices to be submitted between the Entities are to be sent to the following respective addresses:

**Battelle Energy Alliance, LLC**

Contact: Dr. Steven E. Aumeier  
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Idaho Falls, ID 83415-3855

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**Wyoming Energy Authority**

Contact: Dr. Glen Murrell  
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82001

E-mail: Glen.murrell@wyo.gov  
Phone: (307) 635-3573

With a Copy to:

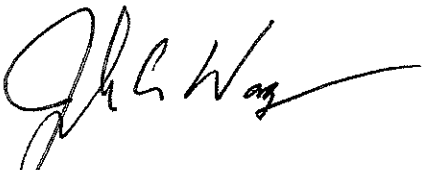

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With a Copy to:

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or any other address of which either Entity notifies the other Entity in writing.

BATTELLE ENERGY ALLIANCE, LLC	WYOMING ENERGY AUTHORITY
By: 	By: 
Name: Dr. John C. Wagner	Name: Dr. Glen Murrell
Title: Laboratory Director	Title: Director, Wyoming Energy Authority
Date: 5/4/2022	Date: 5/4/22