

# **FY2025 Infrastructure Funding Opportunities Overview**

<b>Scientific Infrastructure Support for Consolidated Innovative Nuclear Research FOA</b>	<b>DE-FOA-0003312</b>
<b>University Reactor Sharing and Outreach</b>	<b>DE-FOA-0003313</b>
<b>University Nuclear Research Infrastructure Revitalization</b>	<b>DE-FOA-0003314</b>

**Informational Webinar  
May 9, 2024**

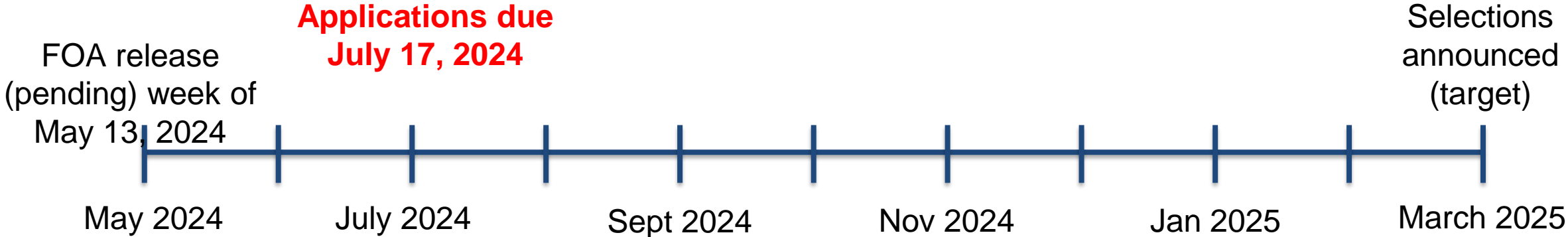
# Outline

- FY2025 Scientific Infrastructure Support for CINR FOA
  - Highlights and Schedule
  - NSUF Integration
  - Reactor Upgrades (RU)
  - General Scientific Infrastructure (GSI)
  - Contact Information
- Preliminary FY2025 Infrastructure FOAs
  - *University Nuclear Research Infrastructure Revitalization*
  - *University Reactor Sharing and Outreach*



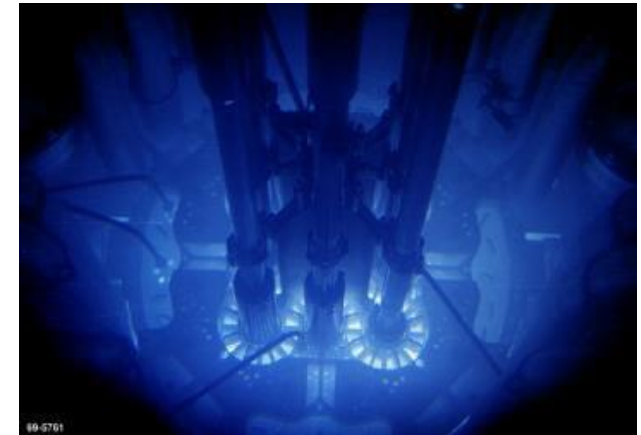
# Scientific Infrastructure Support for CINR Highlights and Schedule

- Funding Mechanism
  - Funding supplied by the Department of Energy’s Office of Nuclear Energy (DOE-NE)
  - Grants issued by the Department of Energy Idaho (DOE-ID)
- Funding Opportunity for U.S. Universities has two areas
  - Reactor Upgrades
  - General Scientific Infrastructure
- Find the FOA (DE-FOA-0003312) at [www.grants.gov](http://www.grants.gov)
- Submit applications at [www.neup.gov](http://www.neup.gov)



# Nuclear Science User Facilities (NSUF)

- DOE-NE provides nuclear energy researchers access to world-class capabilities to facilitate the advancement of nuclear science and technology through NSUF
  - Access to NSUF is granted through separate competitive proposal processes (e.g. for FY2025 DE-FOA-0003309 or Rapid Turnaround Experiments)
- Applicants are encouraged to demonstrate that the proposed infrastructure adds or expands capability to the NSUF and there is a willingness to join as a partner facility if an offer is extended
- If NSUF determines the proposed infrastructure adds or expands capability to DOE, the awarded institution may be invited to join NSUF, so the equipment is available to other researchers



[nsuf.inl.gov](http://nsuf.inl.gov)

# FOA Organization

## Area 1

### University Reactor Upgrades Infrastructure Support



## Area 2

### University General Scientific Infrastructure Support

# University Reactor Upgrades (RU)

- **Award Size**
    - Maximum individual award: \$5,000,000
    - Expected award range: No more than \$1,500,000
    - DOE anticipated to award several smaller awards
  - **Estimated Funding Level**
    - Approximately \$2.5 million
  - **Period of Performance (PoP)**
    - 1 year is typical
    - Longer PoPs are allowed
- Only educational reactors fueled by DOE are eligible
- List can be found in Part I.C.1.1 of FOA
  - Each institution is permitted to submit one application for each research reactor they operate.



# RU Review Criteria

- Each application will receive a merit review by DOE, university peers, and NSUF reviewers
- **Review Criteria**
  - (40%) **Safety and/or Security** – Potential of the requested equipment, instrumentation, or modification to:
    - Enhance the safety, performance, control, or operational reliability of research reactor systems; or
    - Increase the quality, safety/security, or efficiency of the operation of the research reactor facility
  - (20%) **Impact** – Potential of the requested equipment, instrumentation, or modification to facilitate, improve, or expand ongoing DOE-NE research and training capabilities
  - (20%) **Utilization** – As a result of the proposed equipment, the amount of student and faculty usage of the research reactor facility, and the amount and variety of research and/or services provided by the facility
  - (20%) **Execution** – Capability to implement the full scope of the project, including timely project completion, personnel qualifications, budget, and feasibility.

# RU Focus Area – Safety, Security, and Operations

- A high priority for this FOA is the safety, security, performance, and reliability of university research reactors
- Proposals to support continued long-term operation of the university research reactor by purchasing spare parts and associated hardware may be highly regarded
- Proposals to support the research reactor facility by increasing quality, safety, security and operation efficiency



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# General Scientific Infrastructure (GSI)



- Award Size
  - Maximum DOE funding per individual university award: **\$5,000,000**
  - Anticipated award size **\$250,000**
- Period of Performance (PoP)
  - 1 year is typical
  - **Longer PoPs are allowed**
- Eligibility
  - US universities are eligible to submit applications
  - One application per institution can be submitted to the GSI area of this FOA.
- University cost match (1:1) required after \$250,000
- Estimated Funding Level
  - Approximately \$2.5 million.

# GSI Review Criteria

Each application will receive a merit review by DOE, university peers, and NSUF reviewers.

## Review Criteria

- (25%) **Impact** – Potential of the requested equipment, instrumentation, or modification to facilitate, improve, or expand ongoing DOE-NE research and training capabilities
- (25%) **Utilization** – As a result of the proposed equipment, the amount of student, faculty, or researcher usage of the capabilities, and the amount and variety of research or services provided by the facility
- (25%) **Execution** – Capability to implement the full scope of the project including timely project completion, personnel qualifications, budget, and feasibility
- (25%) **Educational Innovation** – Uses of equipment for educational purposes.
- **(BONUS) NSUF Priority** – up to 3 bonus points (constituting up to 3% of a maximum achievable technical rating based upon the merit ratings given) may be attributed if improving an existing NSUF partner facility or as a potential partner facility

# GSI Focus Areas

- Applications can be submitted for equipment, software, instrumentation, and associated non-reactor upgrade requests that support nuclear energy-related R&D or education.
- Funding requests may include, but are not limited to, equipment and instrumentation for specialized facilities, classrooms and teaching laboratories, and non-reactor NS&E research.
- Infrastructure requests that support the sharing and use of equipment and instrumentation by multiple campuses of a university, multiple universities, or national laboratories are encouraged.

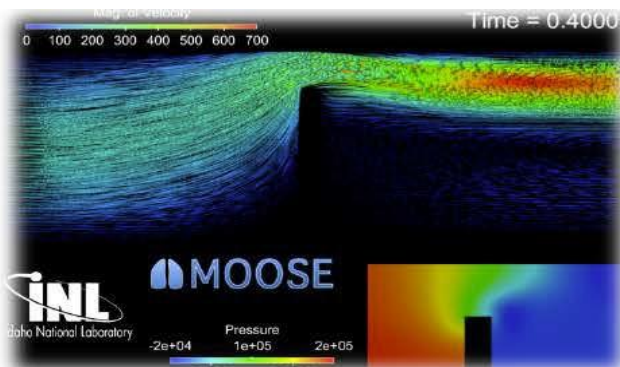


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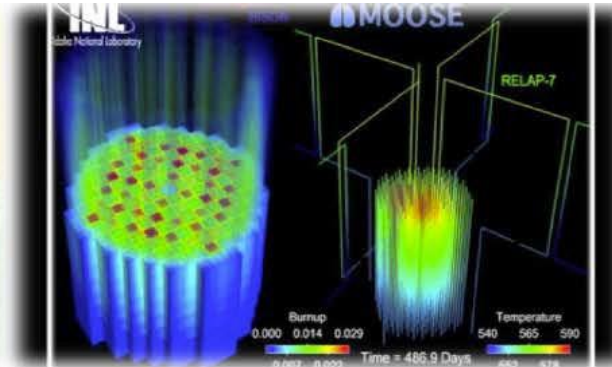
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# GSI Reminder of Excluded Areas

- Equipment and associated upgrades specifically for university research reactors are only for the RU area of this FOA
- NSUF provides access to high-performance computational resources at INL at no cost to users.
  - Applications requesting purchase of scientific computing equipment (such as institutional clusters, high-performance computing [HPC] nodes) will not be entertained.
  - See [nsuf.inl.gov](http://nsuf.inl.gov) or [hpc.inl.gov](http://hpc.inl.gov) for information on accessing HPC resources.



Courtesy of Eric Whiting, Director of Scientific Computing (INL)



# GSI Cost Sharing & Cost Match

- **Cost match** is **required** on university **GSI projects** that exceed **\$250,000**
  - Dollar for dollar matching requirement, up to the project ceiling of **\$5,000,000**
  - For example, if the project's total cost was \$350,000; the university would be responsible for \$50,000 and DOE's share would be \$300,000
  - Anticipated award range will be around **\$250,000** for most applications
- **Cost sharing** is encouraged but not required in this FOA
- Contact the DOE-ID Contracting Office with questions

# Pitfalls to Avoid

## **The infrastructure requested should be individual, discrete, and definable items or capabilities that will:**

1. Support, maintain, or enhance the institution's capacities to attract and teach high-quality students interested in nuclear energy-related studies
2. Build the institution's research or education capabilities
3. Enhance the institution's capabilities to perform R&D relevant to DOE-NE's mission

## **Focus on a single, synergistic goal or capability:**

- A proposal made of several uncorrelated equipment requests does not meet the goals of this FOA

## **Try not to duplicate existing capabilities:**

- To see NE R&D capabilities in the U.S., review the Nuclear Energy Infrastructure Database (NEID) available at <https://nsuf-infrastructure.inl.gov>

## **Specifically list any DOE-NE R&D program relevance**

# Contact Information



- Technical questions can be submitted to:
  - Brenden Heidrich (TPOC)
    - [Brenden.Heidrich@inl.gov](mailto:Brenden.Heidrich@inl.gov)
- Procurement questions can be submitted to:
  - Andrew Ford (DOE-ID Contract Specialist)
    - [fordaj@id.doe.gov](mailto:fordaj@id.doe.gov)
- Application Site
  - [www.neup.gov](http://www.neup.gov)
- Infrastructure Q&A Section
  - <https://neup.inl.gov/SitePages/FAQs.aspx>

# FY2025 Reactor Sharing and Outreach (Preliminary)

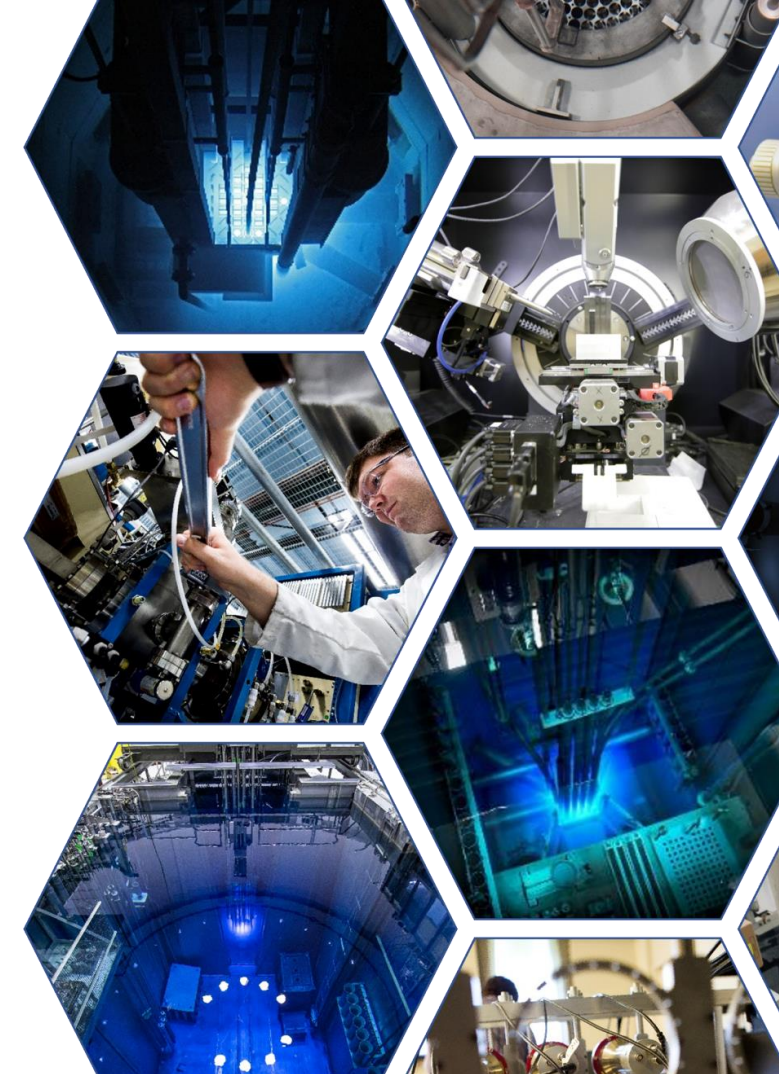
- Target FOA Release: August 15, 2024
- Encourage universities and colleges with nuclear research reactor facilities to share resources and capabilities with non-reactor educational institutions, such as universities, colleges, K-12, vocational schools, and community colleges.
- Incorporate engagements with university research reactor facilities and the public to advocate for nuclear sciences, engineering, and technology.
- Previous FY2024 FOA
  - ~5 awards up to \$200k each with a Period of Performance (PoP) up to 2 years
  - Lead institution must be one of the 24 universities or colleges with a research reactor



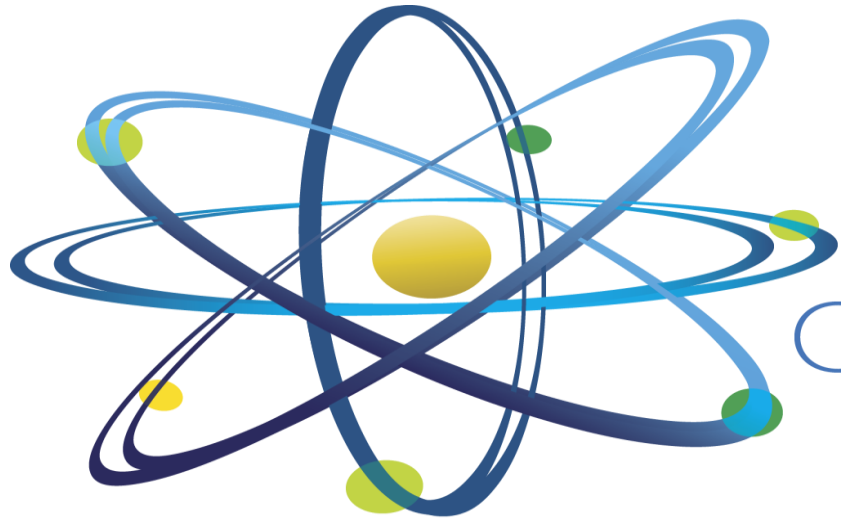


# FY2025 Infrastructure Revitalization FOA (Preliminary)

- Target FOA Release: November 20, 2024
- Supports infrastructure and associated research to provide a more holistic approach to US university infrastructure investments and associated R&D capabilities through a consortia-style model that combines physical infrastructure investments with training, student support, and research.
- Excludes activities that involve the planning or construction of new university nuclear reactors.
- Previous FY2024 FOA
  - Single \$6M award with a Period of Performance (PoP) of 4 years
  - 50% of funds must be used for physical infrastructure
  - Non-university collaborators can have no more than 20% of the overall budget
  - Cost sharing encouraged but not required



# Questions?



Clean. **Reliable. Nuclear.**