

Office of Cybersecurity, Energy Security, and Emergency Response (CESER)

FY2024 Regional Pilot Threat Mitigation Research Call

Background Information

This Research Call aims to address the FY 2024 congressional direction, “The agreement provides \$10,000,000 to support a regional pilot to foster partnerships between national laboratories, universities, electricity sector utilities, and state and local government entities to identify and mitigate the prevalent and constantly evolving national security threats to regional infrastructure.”

Partnership projects resulting from this Research Call will test and validate an emerging threat mitigation technology in a real-world regional electricity infrastructure. The emerging threat mitigation technology being piloted will possess functionality to identify and mitigate prevalent and evolving national security threats, focused on cybersecurity. These partnerships will provide valuable feedback and resources to support the pilot.

Award Information

Estimated Funding

A total of approximately \$10,000,000 is expected to be available for all new awards under this Research Call.

Expected Number of Awards

DOE anticipates making 3 awards under this Research Call depending on the size of the awards.

Anticipated Award Size

DOE anticipates that it will issue several awards of varying sizes from \$3,000,000 to \$3,500,000 per award.

Period of Performance

DOE anticipates making awards with an estimated project period of 2 years. The DOE reserves the right to set the expected period of performance to meet DOE’s objectives.

Topic Area

Asset owners and operators have the primary responsibility to protect their existing systems from cyberattacks. Performers should establish partnerships to test and validate cutting-edge cybersecurity technology that is not yet commercially available that can be integrated into the current electricity infrastructure. Pilots will center on the use of emerging technologies that are designed for the operational technology environment, capable of identifying and mitigating the prevalent and constantly evolving national security threats. Successful applications will pilot the feasibility and effectiveness of the emerging technology by integrating with existing electricity systems or high-fidelity testbeds that accurately replicate utility operations. Performers are expected to include research, iteration, and refinement activities in their approach in addition to the pilot. It must be demonstrated through letters of intent that all parties involved have been consulted and are fully committed to the proposed effort.

Team and Resources

Applicants are required to establish partnerships with universities, electricity sector utilities, state, and local government entities to pilot technologies at their utility partner's facilities or testbeds to validate the efficacy of the technology against increasing threats. Labs are encouraged to consider rural electric utility partners to make a positive impact in future reliability and resiliency to the local electric utility infrastructure through the adoption of piloted emerging technologies. Rural electric cooperatives in the United States serve more than 90% of the counties experiencing persistent poverty ([NRECA, 2023](#)). Applicants are encouraged to form partnerships that include minority serving institutions (MSI), but these partnerships are not limited to MSIs exclusively, to leverage diverse perspectives for a more impactful collaboration. Applicants are also encouraged to propose pilot projects that support the Administration's [Justice40](#) initiative, which directs 40% of the overall benefits of certain Federal investments to flow to disadvantaged communities (DACs).

Evaluation Criteria

CESER will evaluate concept papers internally according to the following criteria:

Criterion 1: Technical Merit and Innovation (30%) This criterion will evaluate the proposed project's technical merit, innovation, and feasibility in comparison to contemporary technology, along with the effectiveness of the proposal in addressing the technical requirements specified in the Research Call.

Criterion 2: Significance and Impact (30%) This criterion will evaluate the significance of implementation of the proposed technical concept/project and the

resultant impact to electricity system operational efficiency, cost-effectiveness, and resiliency. The applicant should clearly articulate the impact of overall benefits to disadvantaged communities.

Criterion 3: Project Execution and Management Approach (10%) This criterion will evaluate the adequacy, appropriateness, and reasonableness of the proposed project management and risk strategies to achieve the stated goals and Department of Energy's (DOE) mission objectives.

Criterion 4: Team and Resources (30%) This criterion will evaluate the likelihood that the identified project team, facilities, and other resources are appropriate and sufficient to achieve the project's proposed goals and objectives of the congressionally directed language. The applicant should clearly articulate the project's goals related to diversity, equity, inclusion, and accessibility. Special consideration will be given to the extent for meaningful roles for MSIs/Historically Black Colleges and Universities/Tribal Colleges and Universities.

Eligible Applicants

Only DOE sponsored FFRDCs, such as National Laboratories, are eligible to apply for funding as a prime awardee. FFRDCs may also be proposed as a project team member sub-awardee.

NOTE: NETL is not considered eligible for award under this Research Call and may not be proposed as a team member on another entity's proposal.

Submission Process

Labs must provide no more than a 5-page concept paper identifying the emerging technology, the proposed regional pilot approach, methods to improve the emerging technology, basic project structure and intended partnerships. In addition to the concept paper, a letter of intent is required for each project partner. Selections will be made following the concept paper evaluation. The selected projects will submit statements of work during negotiations leading to award.

Interested Laboratories must submit their concept papers to RegionalPilot@netl.doe.gov by June 27, 2024, 6pm ET.

The concept paper must include:

1. Project Objectives: This section should provide a clear, concise statement of the specific objectives/aims of the proposed project.
2. Description of emerging technology with comparison to the current state of the art and other ongoing R&D (i.e., Why is the technology needed today and how is it different from existing capabilities and other solutions under development?)
3. Pilot Approach: Describe the proposed approach while addressing each merit review criterion.
4. Project Team Members, Estimated Project Cost and Period of Performance.

Government Right to Reject or Negotiate

DOE reserves the right, without qualification, to reject any or all concept papers received in response to this Research Call and to select any proposal, in whole or in part, as a basis for negotiation and/or award.

Estimated Timeline

- Submission Deadline for Concept Papers – June 27 6pm ET
- Expected Date for Selection Notifications – July 31
- Expected Date for Award – August 16

Questions and Comments

Questions or comments on this opportunity should be directed to RegionalPilot@netl.doe.gov