Department of Energy
Office of Science
Washington, DC 20585

May 15, 2026

Dear Colleagues:

The Department of Energy (DOE) Office of Science Fusion Energy Sciences (FES) program is interested in receiving applications from private companies, universities, and/or National Laboratories for preliminary design studies exploring the creation of volumetric neutron sources (VNS) based on the next generation of fusion concepts with the potential for significant cost share through public-private partnerships.

The VNS mission is to provide Deuterium-Tritium fusion neutron flux to support research, development, and testing of fusion fuel cycle and blanket components. This funding opportunity aligns with DOE's Fusion Science and Technology Roadmap to accelerate the development of a competitive U.S. fusion energy industry. While the fusion community has not yet precisely defined requirements for a VNS, it is unlikely that sources producing fewer than 10^14 neutrons per second or providing irradiation geometries <10 cm will be competitive. The goal of this effort is to more thoroughly explore the risks, benefits, costs, and construction timelines needed to deliver critically needed VNS capability to the fusion ecosystem. FES expects that successful applications will suggest pathways to maximize the near-term fusion power plant component testing in the U.S.

FES encourages applications from multi-disciplinary teams with participants from industry, DOE/National Nuclear Security Administration (NNSA) National Laboratories, academic and non-profit research institutions, other federal agencies, and/or state and local governments. FES envisions teams led by domestic entities, though the presence of non-domestic team members will not impact the evaluation of an application. FES expects that the most responsive teams will be led by for-profit entities, institutions of higher education, or DOE/NNSA National Laboratories. Proposers are encouraged to leverage DOE lab infrastructure and federally owned land sites that could host such a capability. The most competitive applications will demonstrate a well-coordinated collaboration across participating institutions, with responsibilities of team members and/or institutions appropriately balanced.

Anticipated Award Information:

- Total Funding: $6M
- Maximum Award Amount: $2M per award, regardless of the number of participating institutions.
- FES seeks to fund 3-6 awards at $1-$2M per award.

- Period of Performance: up to 1 year
- Start Date: For planning purposes, proposals should use a start date of September 1, 2026. This date can be negotiated if an application is recommended for funding.
- Cost share is not required

Application Submission:

FES anticipates holding merit review panels in summer 2026 and strongly encourages full applications to be submitted by 11:59 PM on June 30, 2026, for consideration.

Applicants should carefully review the guidelines for applications in the FY 2026 Continuation of Solicitation for the Office of Science Financial Assistance Program under the topic "Closing the Fusion Cycle: Fusion Nuclear Science." In the case of any perceived inconsistencies between this letter and the referenced NOFO, the terms of the NOFO apply. Additional FES-specific recommendations regarding application formatting and teaming arrangements can be found in Section III.3 of the NOFO. A prime and subaward model with one application submitted by the lead institution is a better fit for FES applications. For those proposing teams of institutions, please follow the instructions and guidelines, especially on teaming and financial arrangements, in the NOFO.

Applications should be submitted through Grants.gov to DE-FOA-0003600. National Laboratory-led teams should contact Dr. Jeff Stehr (Jeff.Stehr@science.doe.gov) to receive an invitation to apply through the Portfolio Analysis and Management System (PAMS).

FES will consider the use of DOE's Other Transaction authority for teams led by for-profit entities.

We look forward to receiving your innovative applications and accelerating the development of a VNS for future fusion machines. If you have questions about this initiative, please contact Dr. Jeff Stehr (Jeff.Stehr@science.doe.gov).

Sincerely,

Dr. Linda Horton

Acting Associate Director of Science for Fusion Energy Sciences