Call for Preliminary Proposals: NSF Energy Storage Engine MegaBoost Technology Translation Program

Release Date: April 16, 2026
Preliminary Proposal Due Date: Reviewed on a rolling basis

Awards subject to the availability of funds

1. Introduction

The NSF Energy Storage Engine in Upstate New York (Engine) is entering its third year and launching a novel technology translation program to accelerate technology development, support collaboration among startup, for-profit, government, and other key partners, and enable pathways to full-scale manufacturing of next-generation battery technologies and their applications.

The Engine is seeking preliminary proposals for its MegaBoost Technology Translation Program, a flagship initiative offering $500,000–$1,000,000 per project, to support high-impact, large-scale efforts that accelerate the commercialization and deployment of energy storage technologies.

Preliminary proposals should detail how a proposed effort will bring together partners across the Upstate New York battery ecosystem to advance a clearly defined energy storage or battery technology application. Submissions should articulate how these partnerships will enable high-impact translation activities that de-risk technology and accelerate pathways to deployment and market adoption.

Lead organizations will coordinate multi-partner project teams, define and execute technical milestones, and align efforts with market needs and customer demand. Proposals should demonstrate a clear path to deployment and contribute to scalable, real-world solutions that strengthen the regional energy storage ecosystem. The Engine will support these efforts through funding, access to facilities and testbeds, and connections to complementary programs and partners.

2. MegaBoost Program Goals

MegaBoost is purpose-built to catalyze large-scale, high-impact projects that move technologies decisively from concept to market. The program prioritizes efforts that:

- Advance industry-driven innovation, anchored in clearly defined market needs and customer demand
- Accelerate technology validation and commercialization, bridging the gap between breakthrough innovation and real-world deployment
- Enable scale-up and manufacturing readiness, positioning technologies for production, adoption, and long-term economic impact

A defining feature of the NSF Energy Storage Engine MegaBoost Program is its mandated alignment with for-profit companies and/or government organizations. Successful projects need to demonstrate evidence of active,

ongoing engagement with for-profit/government partners, ensuring that development is not only technically sound, but directly responsive to market pull.

3. MegaBoost Program Required Components

Industry demand
Projects must demonstrate:

- Clear and credible market pull evidenced by active engagement from for-profit/government partners, validated customer demand, or a defined market need;
- Meaningful financial participation from for-profit/government partners, reflecting shared commitment to project development, validation, and eventual deployment; and
- A credible pathway to commercial adoption and manufacturing scale-up.

Partnership requirement
All MegaBoost Program projects must be comprised of teams that are led by a for-profit and/or government partner. The teams may include a university and/or non-profit partner in addition to a for-profit/government partner. (Projects may include more than one partner.) Projects are expected to bring together multiple stakeholders to meaningfully advance the development, validation, and commercialization of battery technologies and their applications.

Alignment with Engine's technical focus areas
Proposals must align with one or more of the Engine's core technical areas:

- Safety:
    - Projects will address critical safety challenges that directly impact commercialization and customer adoption of battery or energy storage systems.
- Power engineering:
    - Projects will enable higher-performance battery systems that meet industry demand for faster charging and greater power density. Proposals should focus on clear validation pathways tied to customer use cases.
- Artificial intelligence:
    - Projects will leverage AI to advance battery or energy storage system performance. While direct AI R&D is not the focus, proposals must demonstrate meaningful integration of AI that accelerates deployment.
- Advanced manufacturing:
    - Projects must advance next-generation battery manufacturing approaches that improve cost, scalability, and resource efficiency. Proposals should focus on innovations such as novel processing methods (e.g., dry processing). Strong applications will demonstrate alignment with U.S. manufacturing priorities and include pathways for scale-up.

Contributions to Upstate New York

Projects must also contribute to strengthening the domestic battery ecosystem, with an emphasis on demonstrating a meaningful connection to **Upstate New York**, such as:

- Use of regional testbeds, pilot lines, or facilities
- Engagement with regional companies or institutions
- Plans to locate, scale, or manufacture in the region
- Contribution to the regional workforce or supply chain

4. MegaBoost Preliminary Proposal Submission

To apply for the MegaBoost Program, the first step in the application process is to submit a preliminary proposal (maximum 3 pages) to the NSF Energy Storage Engine in Upstate New York for initial review.

Please submit your preliminary proposals here.

The Engine team will review submissions on a rolling basis and provide feedback aimed at strengthening proposals in advance of a full application.

Promising proposals will be selected for further discussion and development in collaboration with the NSF Energy Storage Engine team. Selected teams will then be invited to submit a full proposal as a final application.

5. MegaBoost Project Final Application Requirements

If invited to submit a full proposal application to the MegaBoost Program (the second step of the application process), applicants will be required to provide the following materials:

- Statement of Work (Executive Summary, Milestones, Project Team, and other required elements); Letter of Commitment; Biosketch of Key Personnel; Current and Pending (other) Support; Letter(s) of Collaboration; Budget(s); Budget Justification

Additional guidance will be provided to selected applicants during the full proposal application stage.

6. Anticipated Number of Awards

Each selected project will receive between $500,000–$1,000,000 over 1–3 years (with the latest possible end date of 2/28/2029) to implement the project activities. The Engine anticipates funding up to four MegaBoost projects per year.

7. Applicant Eligibility

The Engine is seeking proposals from all types of entities, including startups, small and medium-sized enterprises, and established corporations. Lead organizations will coordinate multi-partner project teams, define and execute

technical milestones, and drive alignment with market needs and customer demand. Lead institutions must be US-based. Foreign collaborators, if any, are not eligible for Engine funding and require prior approval from NSF.

8. Evaluation Criteria

Preliminary proposals will be evaluated based on the extent to which they address the required program elements through the components described in Section 3, including:

- Strength of industry need, engagement, and potential impact
- Alignment with Engine technical focus areas
- Technical merit and feasibility
- Commercialization potential
- Contribution to the Upstate New York ecosystem
- Use of regional infrastructure and facilities

9. Project Execution and Milestones

Call for Preliminary Proposals Launch	April 16, 2026
Submission Deadline	Rolling
Review & Selection	Starting April 16, 2026
Anticipated Program Launch	June 1, 2026

10. Post-Submission/Pre-Award

Compliance Criteria if Awarded

The following are not required to apply to the Program but are required prior to award being issued. These are provided to applicants as a notice:

- Potential awardees must have a UEI or SAM.gov registration, and potential awardee organizations must have an NSF account prior to award being issued.
- Senior personnel on awards must have the Research Security training complete prior to award being issued.

11. Post-Award Terms and Conditions

Progress Reports. All awardees will be required to provide quarterly progress reports and a final report upon completion of the project.

Financial Administration. Awardees must follow all applicable regulations in the Office of Management and Budget Uniform Guidance (2 CFR 200) for administration of Federal awards by non-profit organizations.

Conflict of Interest Policy. Awardees must have an established conflict of interest policy for Federal awards. Awardees must disclose in writing any potential conflict of interest to the Federal awarding agency or pass-through entity in accordance with National Science Foundation policy.

Termination. Sponsor reserves the right to terminate approved funding in the event of any failure to initiate any project activities within 2 months of execution of award agreement; failure to meet progress milestones; failure to meet NSF Energy Storage Engine in Upstate New York's reporting criteria.

12. Additional Terms of the Call for Preliminary Proposals

The NSF Energy Storage Engine in Upstate New York reserves the right to withdraw this Call for Preliminary Proposals at any time, at the Engine's sole discretion, for any reason.

Funds being issued are subject to prior approval by the prime sponsor, the National Science Foundation. Continued support is subject to funding being available from the NSF.