

U.S. Department of Energy SBIR/STTR Programs

Eileen Chant

Acting Director

eileen.chant@science.doe.gov

301.578.2386

SBIR – Small Business Innovation Research (Est. 1982)

STTR – Small business Technology TransfeR (Est. 1992)

Also known as America's Seed Fund



What is the Federal SBIR/STTR Program?



- A >\$4 Billion early stage nondilutive R&D fund for small businesses
- A mechanism to fund best early-stage high-risk innovation ideas
- Funds ideas that are too high risk for the private sector
- Stimulates technological innovation

Federally Funded Laboratories



Large & Small Businesses



Universities



America's Seed Fund Program Goals



SBIR

- Stimulate technological innovation using small business concerns.
- Meet Federal research and development needs.
- Foster and encourage participation in innovation and entrepreneurship by women and socially or economically disadvantaged persons.
- Increase private-sector commercialization of innovations derived from Federal research and development funding.

STTR

- Stimulate and foster scientific and technological innovation through cooperative research and development carried out between small business concerns and research institutions
- Foster technology transfer between small business concerns and research institutions

America's Seed Fund

SBIR/STTR are federally funded contracts & grants designed to stimulate the commercialization of technological innovation using small businesses

SBIR and STTR funding provides *early-stage, nondilutive R&D funding* for *U.S. small businesses* with *innovative ideas* that have *commercial potential...too high risk* for private sector

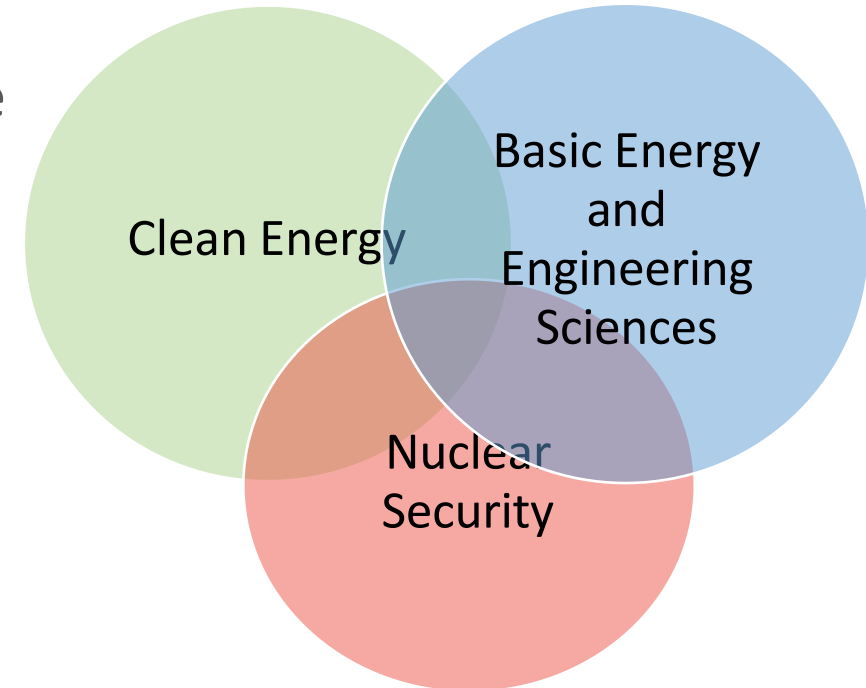


DOE SBIR/STTR Programs – The Specifics



- Historically awards in excess of \$300 Million per year
- Grants not contracts – your idea & your execution
- DOE unlikely to be your customer, so understand the marketplace.
- Focused topics are aligned with DOE Mission
- Topics are more wide ranging than most expect!
- Two Phase I solicitations per year (Topics in July & November)
- Letter of Intent is required
- We offer an expansive application assistance program “Phase 0”. It opens for an application cycle when the topics document are released
<https://doephase0.dawnbreaker.com/>

DOE Mission



SBIR vs STTR?

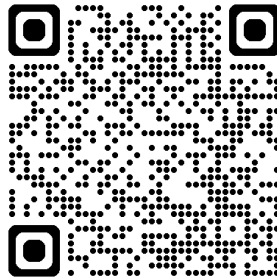
Small Business Innovation Research (SBIR) est. 1982	Small Business Technology Transfer (STTR) est. 1992
<ul style="list-style-type: none"> • Allows non-profit research institution partner • Principal Investigator (PI) employee of small business 	<ul style="list-style-type: none"> • Foster technology transfer between small business concerns and research institutions • Requires non-profit research institution (RI) partner • PI can be employee of either small business or RI

There are different level of effort requirements to meet [use our workbook to check compliance !](#)

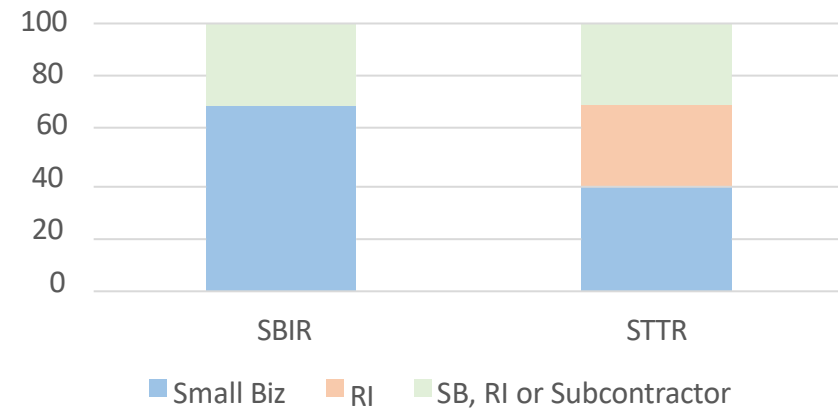
Award always goes to the Small Business

They are two pots of funding

If you fulfill requirements of SBIR & STTR you can submit the same application to both programs

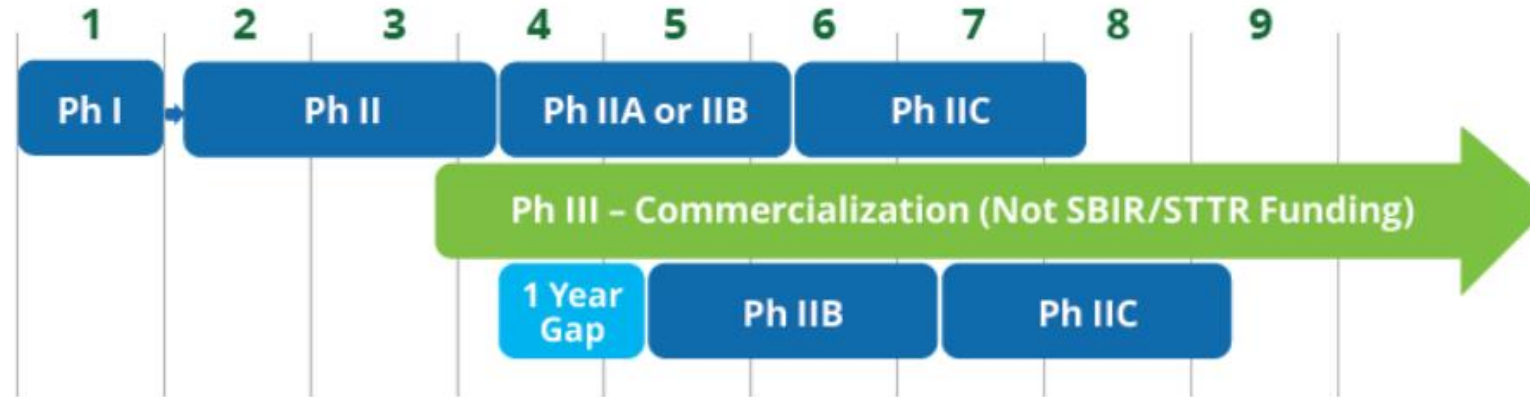


Phase I – R&D Requirements



SBIR and STTR were reauthorized on September 30, 2022

How does DOE funding work?




Phase I	Phase II	Phase IIA/IIB	Phase IIC
<ul style="list-style-type: none"> • Focused, mission-aligned topics • Proof of feasibility • Feedback provided on letters of intent • \$200,000/\$250,000 • 6 - 12 months duration • ~ 350-400 awards per year 	<ul style="list-style-type: none"> • Phase I awardees apply for Phase II the following year • Focus on prototype, demonstration and commercialization • \$1,100,000/\$1,600,000 • 2 years duration • ~ 160 awards per year 	<ul style="list-style-type: none"> • For projects that require additional R&D funding for commercialization • \$1,100,000 • 2 years duration • ~30 awards per year 	<ul style="list-style-type: none"> • Pilot program to leverage 1:1 matching funds for commercialization • \$1,100,000 • 2 years duration

Small Business and Principal Investigator (PI) Eligibility Requirements

- For-profit U.S. business with 500 employees or fewer, including affiliates
- More than 50% of your company's equity (e.g., stock) must be directly owned and controlled by U.S. Citizens or permanent residents
- All R&D must be performed in the United States
- PI is the key individual designated by the applicant to direct the project
- Only one PI per project. Co-PIs are **NOT** allowed
- Primary employment requirements

Participating DOE Program Offices – 2 Releases/year

 Release 1 – July (Due in October)

Advanced Scientific Computing Research (ASCR)	Fusion Energy Sciences (FES)
Basic Energy Sciences (BES)	High Energy Physics (HEP)
Biological & Environmental Research (BER)	Nuclear Physics (NP)

 Release 2 – November (due in February)

Nuclear Nonproliferation (NNSA)	Cybersecurity, Energy Security & Emergency Response (CESER)
Energy Efficiency & Renewable Energy (EERE)	Electricity (OE)
Nuclear Energy (NE)	Environmental Management (EM)
Fossil Energy & Carbon Management (FECM)	

Specific Topics Aligned with DOE Mission



Leadership in Clean Energy

- Advanced Turbine Technology
- Clean Coal, Oil and Gas Technologies
- Advanced Materials/Technologies for Nuclear Energy
- Smart Grid Technologies
- Cyber Security
- Energy Storage
- Bio-energy & Biofuels
- Hydrogen & Fuel Cells
- Solar Power
- Water Power
- Wind Energy
- Advanced Manufacturing
- Efficient Buildings & Vehicles

Leadership in Basic Energy and Engineering Sciences

- Advanced Detectors
- Accelerator technology
- RF Components and Systems
- Data Acquisition, Processing and Analysis
- Fusion Energy Systems
- High Performance Computing & Networking
- Quantum Information Sciences
- Modeling and Simulation
- Atmospheric Measurement Technology
- Genomic Science and Related Biotechnologies
- Advanced Sources: neutron, x-ray, electron

Enhancement of Nuclear Security

- Advanced Detectors
- Novel Radiation Monitoring Concepts
- In Situ Remediation
- Facility Deactivation and Decommissioning
- Remote Sensing
- Global Nuclear Safeguards R&D
- Nuclear Detonation Detection

Many more and wide-ranging topics than you would expect!

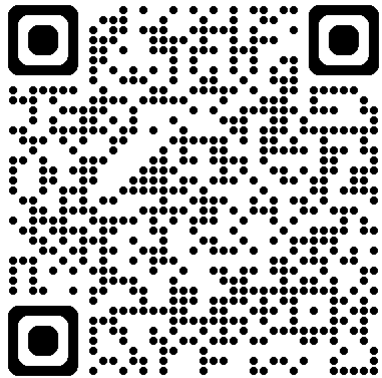
U.S. Department of



Office of
SBIR/STTR
Programs

Schedule:

FY 2026



Phase I	Release 1	Release 2
Topics Issued	Monday, July 7, 2025	Monday, November 10, 2025
Document		
Phase 0 Application Assistance (free for first time applicants) starts	Monday, July 7, 2025	Monday, November 10, 2025
Topic Webinar, week of	Monday, July 14, 2025	Monday, November 17, 2025
FOA Issued	Monday, August 4, 2025	Monday, December 15, 2025
Document		
FOA Webinar	Friday, August 8, 2025	Friday, December 19, 2025
Letters of Intent (LOI) Due	Tuesday, August 26, 2025 5:00pm ET	Tuesday, January 6, 2026 5:00pm ET
Non-responsive LOI Feedback Provided	Monday, September 15, 2025	Monday, January 26, 2026
Full Applications Due	Tuesday, October 7, 2025 11:59pm ET	Wednesday, February 25, 2026 1:59pm ET
Award Notification	Monday, January 5, 2026	Tuesday, May 26, 2026
Projected Grant Start Date	Tuesday, February 17, 2026	Tuesday, July 7, 2026
Awardee Webinar, week of	March 9, 2026	July 27, 2026
Phase Shift I Kick-off (formerly I-Corps)	April 2026	September 2026
Principal Investigator Meeting	June 2026	October 2026
*Registration link will be posted here, one week prior to the webinars. To receive this link automatically via email, please join our Mail List.		
**Preliminary dates subject to change		

About DOE Specific & Mission-Focused Topics

- *Specify grant maximum amounts and whether STTR and Fast-Track applications are being accepted*
 - If SBIR and STTR criteria are met, you can apply to both
 - 2 different pots of funding
- *Carefully read the topic*
- *Be an expert in your technology area*

<https://science.osti.gov/sbir/Funding-Opportunities>



C60-09. INDUSTRIAL EFFICIENCY AND DECARBONIZATION OFFICE (IEDO)

Maximum Phase I Award Amount: \$200,000	Maximum Phase II Award Amount: \$1,100,000
Accepting SBIR Phase I Applications: YES	Accepting STTR Phase I Applications: YES
Accepting SBIR Fast-Track Applications: NO	Accepting STTR Fast-Track Applications: NO

This topic will be providing feedback to responsive Letters of Intent.

The U.S. Department of Energy's (DOE) Industrial Efficiency and Decarbonization Office (IEDO) is working to build an efficient and competitive U.S. industrial sector with net-zero greenhouse gas emissions by 2050 [1]. IEDO provides funding, management, and the strategic direction necessary for a balanced national program of research, development, and demonstration (RD&D), as well as technical assistance and workforce development, to drive improvements in energy, materials, and production efficiency and to accelerate decarbonization across the industrial sector. IEDO's RD&D strategy focuses on two complementary approaches: tackling subsector-specific decarbonization challenges in energy- and emissions-intensive industries and pursuing cross-sector challenges that are common across many industries.

This topic focuses on disruptive industrial innovations, including RD&D, small-scale demonstrations, and technology partnerships to drive U.S. industrial decarbonization, productivity, and economic competitiveness.

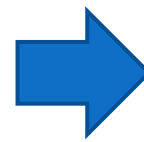
All applications to this topic must:

- Clearly indicate the subtopic and area of interest;
- Explicitly and thoroughly differentiate the proposed innovation with respect to existing commercially available products or solutions using appropriate metrics, key performance parameters, or properties as well as justify all performance claims with theoretical predictions and/or relevant experimental data;
- The program should include quantitative technical milestones, timelines, and expected deliverables that demonstrate aggressive but achievable progress toward meeting performance parameter targets;
- Provide evidence that the applicant has relevant experience and capability to successfully accomplish the proposed scope within proposed schedule and budget;
- Explain a project's output potential for future commercialization including projections for cost and/or performance improvements that are tied to a clearly defined baseline.

The Phase I application must detail material, design and/or lab-scale systems that are scalable to a subsequent Phase II prototype development.

Subtopics

- *Response is to a topic/subtopic pair*
- *Carefully read the subtopic*
- *Open communication permitted about the topic/subtopic scope with DOE Program Managers*
- *Reading references is highly recommended.*
- Review our [market studies page](#) to see if there is anything for you



b. Improving EV Battery Recycling Efficiency

Commercial battery recycling is vital to meet U.S. climate change and circular economy goals and strengthen domestic supply chains of critical materials. Solving key challenges such as the high processing cost of recycling battery material requires novel R&D efforts [1,2]. This subtopic seeks innovative technologies or processes that increase the efficiency or economic viability of recycling end-of-life electric vehicle (EV) batteries. Technologies should advance the state of the art and have a clear pathway towards commercialization and competitiveness in the domestic market. Technological approaches of interest include:

- Processes that focus on feedstocks from end-of-life lithium-ion EV batteries (with a focus on NMC, NCA, or LFP chemistries)
- Direct recycling and upcycling approaches
- Hydrometallurgical approaches
- Processes that substantially decrease energy, water, reagent use, waste generation, and greenhouse gas emissions over current recycling practices
- Processes that increase lithium, cobalt and nickel recovery yield to above 90%

113

- Other processes that increase economic viability and yield of recycling processes to help reach 90% recovery by weight of battery materials from recycling feedstocks

Phase I efforts should focus on validation or small-scale demonstration of the proposed technology or process. The Phase I work plan should include preliminary life cycle analysis (LCA) and technoeconomic analysis (TEA) to understand how the technology or process compares to current processes. Submissions should propose a plan to achieve a processing rate of 100 tons/year with the proposed technology to demonstrate scalability. Phase II work should focus on commercialization and demonstrating that the technology is able to be integrated into the battery recycling ecosystem. All submissions should clearly explain how the proposed work differs from other work in the field and should not be duplicative of ongoing projects.

Questions – Contact: Stephanie Spence, Stephanie.Spence@ee.doe.gov, Jake Herb, Jake.Herb@ee.doe.gov, and Tina Chen, Tina.Chen@ee.doe.gov

DOE Program Office Websites



Review the following:

- Mission
- Funding Priorities and Announcements (non-SBIR)
- Technical Reference Data and Reports
- Workshop & Conference Proceedings
- Contact Information

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY ABOUT EERE RESOURCES BUILDINGS & INDUSTRY RENEWABLE ENERGY SUSTAINABLE TRANSPORTATION

BUILDINGS

Building Technologies Office

About the Building Technologies Office Funding Opportunities Events, Webinars, and Conferences

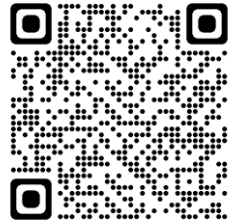
The Building Technologies Office (BTO) conducts research, development, and demonstration activities to accelerate the adoption of cost-effective technologies, techniques, tools, and services that enable high-performing, cost-efficient, reliable, comfortable, and healthy buildings for all Americans that also support the energy system and the electric grid.

Get the Latest from BTO

Sign up to receive BTO's news, events, and funding opportunities. Customize your subscription to hear from the programs you care about most.

Enter Email Address GO

Applicant Assistance Help is Available



[Phase 0 Application Assistance](#) begins accepting applications on day that topics are released. For first-time DOE SBIR/STTR applicants.

Email us!

Application questions: sbir-sttr@science.doe.gov

Phase 0 and Outreach: eileen.chant@science.doe.gov

Stay Connected!



[Subscribe to our mailing list](#)



[New! Phase I Application Guidance & Planning Resource](#)



[SBIR Partnering Platform](#) provides searchable database where SBIR/STTR applicants (**INNOVATORS**) can find potential **PARTNERS** and **SBIR/STTR funding opportunities**, and **LOTS more**



Being on our mailing list is the most important way to stay up to date on our funding opportunities, topic, FOA and Q&A webinars!

Are you a good fit with DOE SBIR/STTR?



Phase I Application Review Criteria

Technical Merit

Ability to Carry Out the Project

Impact

#1 - Responsiveness to the topic & subtopic

- Must be technology development R&D
- Idea is novel
- Solid work plan to prove feasibility
- Your team is composed of the right expertise
- Potential impact if R&D is successful
- *The three review criteria are equally weighted*

Awardee Resources



[Technical and Business Assistance \(TABA\)](#)



***Need help
preparing your
Phase II
Commercialization
Plan?***



\$6500 for Phase I Awardees (our vendor or subaward)
\$50,000 for Phase II Awardees (must be subaward)

[Phase Shift \(formerly I-Corps\)](#)

Phase Shift I is an 8-week, 30-customer interview, learn-by-doing experience. For more details about the current Phase Shift I offering, please visit the [Phase Shift I web page](#).



[NERSC Computing Resources](#)

NERSC is the primary scientific computing facility for the DOE. All DOE SBIR/STTR grant projects requiring high performance computing support are eligible to apply to use DOE NERSC resources.



DOE SBIR/STTR Resources



Early-Stage
Innovation
SBIR & STTR

Commercialization
Private Funding



Applicant Resources

Phase 0 Application Assistance

Free for first-
time applicants

Phase Shift I & Phase Shift II (formerly I-Corps)

TABA funds (\$6,500 Ph I and \$50,000 Ph II)

Partnering Resources

Virtual Commercialization Workshops

NERSC Computing Resources

Awardee
resources

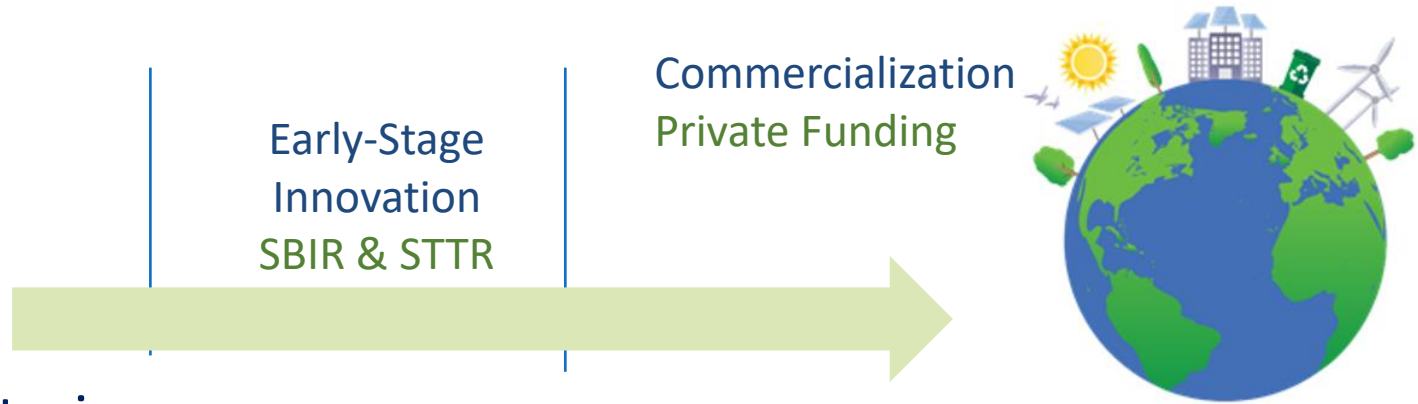
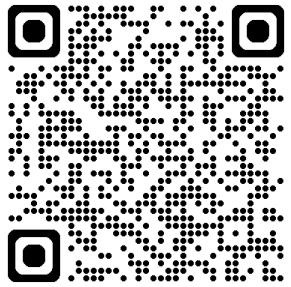
Stayed
tuned for
more!

U.S. Department of



Office of
SBIR/STTR
Programs

Other DOE Resources - Stage of Technology Relevant



Partnering with National Laboratories

National Labs – POCs and Core Capabilities

Lab-Embedded Entrepreneurship Program (LEEP)
& NM LEEP

American-Made Challenges

IMPEL and Cradle-to-Commerce

Demonstration Facilities: Idaho, NREL, ORNL

Office of Clean Energy Demonstrations

Loan Programs Office

Technology Commercialization Fund (TCF)

EnergyWerx, TechWerx and ConnectWerx

National Energy Research Scientific Computing Center (NERSC)

Commercialization is a statutory goal of the SBIR/STTR programs



- *“Increase private sector commercialization of innovations derived from Federal R-R&D, thereby increasing competition, productivity and economic growth.”*
- Agencies are required to evaluate the commercial potential of R&D conducted under SBIR/STTR
- Congress wants to see **ROI** of taxpayer dollars: **taxable revenues, job creation, and/or scientific or societal benefit**
- It is never too early to develop your commercialization strategy
- Your businesses’ success depends on it

Phase I Commercialization Plan MUST HAVES

1. Customer discovery –

- *Is there anyone out there that needs your solution?*
- *What are they using now and what are the limitations?*
- *What are they willing to pay for a solution?*
- *Who are stakeholders?*

2. Understand your **target market** and the **opportunity**.

3. Understand your **competition** and the industry.

4. Team – often strong technically; put together a time-phased plan to incorporate key business functions if not in place today; ***do you need partners?***

5. **Strategy for IP**

6. Model for **revenue generation**

7. ***Funding Required*** and where it might come from (***early but begin to think about it...***)

DOE SBIR/STTR Programs



Some initial steps

- General:
 - Attend SBIR/STTR training events
 - Review SBIR.gov tutorials - <https://www.sbir.gov/tutorials>
 - Research SBIR local assistance in your state/region
 - Search awards, using 5 – 10 keywords to see what agencies are a fit with your technology - <https://www.sbir.gov/awards>

[sbir.gov](https://www.sbir.gov)



DOE Specific

- Begin registrations, **especially SAM.gov**
- Mark your calendars for topics releases in July & November
- Perform an initial topic search using 5-10 keywords in our closed topic documents to get a feel for what we have funded and whether your technology may fit - <https://science.osti.gov/sbir/Funding-Opportunities>
- Review our [online application guidance](#)



Award Data Company Data

Company Name

Keywords

Topic Code

Research Institution

i For best search results, use the search terms first and then apply the filters

i The Award database is continually updated throughout the year. As a result, data for FY23 is not expected to be complete until September 2024.

i Please allow a minimum of 24 hours for newly added awards to the system to be reflected in the search results below.

i Download all SBIR.gov award data either with [award abstracts \(290MB\)](#) or [without award abstracts \(65MB\)](#). A data dictionary and additional information is located on the [Data Resources Page](#). Files are refreshed monthly.

i The SBIR.gov award data files now contain the required fields to calculate award timeliness for individual awards or for an agency or branch. Additional information on calculating award timeliness is available on the Data Resource Page.

Filter Results

Agency

- Department of Agriculture
 - ↳ National Institute of Food and Agriculture
- Department of Commerce
 - ↳ National Institute of Standards and Technology
 - ↳ National Oceanic and Atmospheric Administration
- Department of Defense
 - ↳ Air Force

Demographic

- HUBZone Owned
- Socially and Economically Disadvantaged
- Woman Owned

Phase

- Phase I

Showing 1-10 of 46 results

[SBIR Phase II: High Energy-Density Hydrogen-Halogen Flow Batteries for Energy Storage](#)

SBC: SKIP TECHNOLOGY INC | **Topic:** EN
The broader impact/commercial potential of this Small Business Innovation Research (SBIR) project is directly related to the utilization of renewable energy sources in the electrical grid. Due to the variability of supply, renewable energy generators (e.g....

[SBIR Phase II: Development of a Flow Battery Using Common Materials and Proprietary Electrolytes](#)

SBC: XL BATTERIES INC | **Topic:** EN
The broader impact/commercial potential of this Small Business Innovation Research (SBIR) Phase II project is the development of a grid-scale battery to enable large-scale, long-duration energy storage. New technologies for long-duration energy storage are...



Thank you!

Get organized!

- Take advantage of [Phase 0](#) and other resources if you are a first-timer!

Reach out to us:

- sbir-sttr@science.doe.gov (Application Questions)
- eileen.chant@science.doe.gov (Phase 0 & Outreach)
- carol.rabke@science.doe.gov (Partnering)



Read about our [Outcomes and Phase III success stories](#), which contain a wealth of case studies on successful startups!

<https://science.osti.gov/sbir>