

This guide is for potential applicants to the U.S. Department of Energy (DOE) Small Business Innovation Research (SBIR) program. The document identifies unique aspects of the DOE SBIR program, describes the nature of its topics, and links readers to additional agency resources. When used in conjunction with MTIP's [Profile of a Good Candidate](#), this guide will help prospective applicants determine quickly whether to pursue funding under the DOE SBIR program and how best to approach a proposal.



THE SBIR/STTR PROGRAMS

The federal SBIR program is a source of early-stage R&D seed capital exclusively for small, tech-based U.S. companies engaged in serious R&D and commercialization of technologies of interest both to the government and to the company. Applicants submit proposals in response to specific topics released by each of the 11 participating agencies. Within each agency, the rules and requirements frequently change from one solicitation to the next. Prospective applicants must monitor closely each targeted agency's solicitations.

SBIR funding is provided as either grants or contracts, and does not have to be matched or repaid by the small business. The award monies can be used to fund most costs associated with the R&D project and up to a 7% profit margin. The company maintains ownership of any new intellectual property, and the government retains certain rights to use the technology.

SBIR is a three phase program starting with Phase I to establish the technical feasibility of the proposed technology. Phase I awards vary, but can be as high as \$225,000 for periods ranging from 6 to 12 months. Phase II is to perform more in-depth R&D on the technology, ideally moving toward prototyping and demonstration. Phase II awards range as high as \$1.5 million, generally for a period of up to two years. The objective of Phase III is commercialization of the technology. This phase is non-funded though some agencies offer extra assistance in the form of commercialization support programs.

In SBIR Phase I, up to 33% of the total budget may go to outside services, including consultants and subcontractors. In Phase II, this figure rises to 50%. In addition, for both Phase I and II, the Principal Investigator (PI) must be employed by the company for greater than 50% of ordinary work hours for the duration of the project.

Overall, agencies report that the chance of winning a Phase I award ranges from ~7% to ~15%. Well-qualified Montana applicants can substantially improve these odds by working closely with the no-cost services offered by the Montana Technology Innovation Partnership (MTIP). If not currently enrolled for MTIP services, see the information box at the end of this guide.

DOE SBIR PROGRAM

DOE's SBIR program uses grants to fund the development of technologies in such broad areas as clean energy, basic science and engineering, scientific computing, and nuclear security, with numerous subtopics within each. DOE typically offers two SBIR Phase I Funding Opportunity Announcements (FOAs) per year. Each FOA begins with the "Pre-Release" of the agency's areas of interest, or topics. In the "Open" period, which begins about one month following "Pre-Release," DOE will begin accepting proposals. The due date of the final proposal typically falls another month later, after which the FOA is "Closed."

The main website for DOE's SBIR program is <http://science.energy.gov/sbir/> from which potential applicants can download current and past FOAs, learn about commercialization assistance options, find past awards and statistics, and more. DOE typically requires the submission of a Letter of Intent (LOI). An LOI is a document that is submitted in advance of the Phase I application to the DOE SBIR program. LOIs are submitted directly to DOE through their Portfolio Analysis and Management System (PAMS) while proposals are submitted through Grants.gov. Detailed instructions for writing and submitting the LOI are located on the DOE website and may vary from one FOA to the next.

Visit DOE's website for access to numerous other webinars and technical assistance guides including, "[Instructions for Completing a DOE SBIR/STTR Phase 1 Grant Application](#)." It is recommended that first time applicants watch DOE's Overview Webinar. The overview is about an hour long and provides in-depth details about the DOE SBIR program, technology areas covered, the LOI, and the grant application process. Live webinars are conducted before each FOA is released. See DOE's "Funding Opportunities" page for webinar schedules and registration links.

DOE also offers Small Business Technology Transfer (STTR) opportunities concurrently with the SBIR solicitations. You can read more about the STTR program in the MTIP guide entitled "[SBIR VS. STTR – Similar but Different Funding Programs](#)."

IDENTIFYING AN APPROPRIATE TOPIC

The DOE SBIR/STTR program formulates focused topics based on identified technical challenges. The Phase I Release Topics document can be downloaded on DOE's SBIR/STTR FOA webpage: <http://science.energy.gov/sbir/funding-opportunities/>. Each of the two annual releases are independent of each other and contain differing research focus areas and topics which can vary from year to year.

Once the topics are released, potential applicants should review them to identify any that match the applicant's technical interests and capabilities. A proposal must target only one topic area, and within that area, only one subtopic. DOE will not make this selection – it must be made by the applicant.

Unique to very few SBIR/STTR participating agencies, the DOE offers technology transfer opportunities (TTOs) utilizing inventions made by the DOE National Lab or a DOE-sponsored university research program. Along with grant funding, SBIR/STTR awardees also receive an option to license the DOE originated patent. TTO information is available at the beginning of the Topics document.

CONTACTING THE AGENCY

Before completing a LOI or SBIR proposal, applicants are strongly encouraged to communicate with a DOE Program Manager to gauge if a project is in alignment with the program technology thrust and commercial impact criteria. Contact information for Program Managers can be found in the DOE SBIR/STTR Topics document accessed from the DOE FOA webpage: <http://science.energy.gov/sbir/funding-opportunities/>.

A good way to approach the Program Manager is by sending a one page write-up on the prospective project technology and scheduling a follow-up phone discussion. This write-up should begin with a clear, concise statement of the problem to be addressed and how that problem is presently being handled. Then, describe the team and its credentials, the technology being proposed as a solution including an explicit statement of its innovation, and a brief explanation of the commercial potential. Be prepared with questions to ask of the Program Manager and listen carefully to feedback provided. This is not the time to provide a long-winded explanation of the company and its technology. An MTIP counselor can assist with summary development and review before contacting DOE.

PREPARING/SUBMITTING THE PROPOSAL

The purpose of the proposal is to provide sufficient information to persuade reviewers that the proposed research offers a unique and sound approach to addressing the need expressed in the DOE announcement. The proposal should be written at a level of quality suitable for publication. Following are general recommendations for ways in which applicants can enhance their chances for success:

- **Start early.** The DOE posts previous solicitations that will permit valuable insights for advance planning and preparations. Proposal submission requires multiple electronic registration efforts that can require 6 to 8 weeks for completion. These include: 1. One-time registrations to obtain a DUNS number and an Employers' Identification Number (EIN); 2. A government contractor registration on the System for Awards Management (SAM); 3. An SBA Company Registry, or an update of the Registry for the new application; 4. A one-time only, registration at Grants.gov for access to the application forms package and to enable proposal submission; and 5. Registration with DOE's PAMS. Be alert to the DOE early closing date for LOI submission.

- **Dive into planning.** Applicants can discuss their project and proposal approaches with an MTIP counselor. The project must be vetted in terms of the agency's review criteria and past awards. Give careful thought to any outside consultants or subcontractors, with the understanding that these individuals should strengthen the team's credentials. Identify necessary letters of support and set a plan for securing them.
- **Read the entire solicitation.** All SBIR agencies have specific requirements for font size and style, page limits, marking of confidential information, and other aspects of the proposal. Agencies routinely reject proposals that don't comply with these instructions. One person on the proposal team must be responsible for reading the instructions thoroughly, noting all requirements. Initiate a properly-formatted proposal template that puts key guidance for each section into comment boxes for easy reference while writing. Use the agency website to find instructional webinars or other guidance specific to its process.
- **Develop a project plan that envisions both the Phase I and the Phase II R&D activities.** Start the writing effort by developing well-defined Technical Objectives. Follow the instructions carefully in writing this piece that is the backbone of the technical proposal. Outline a work plan for achieving the objectives, giving consideration to what must be performed in Phase I to create a good foundation for Phase II. For the DOE, the work plan must include a means (e.g. testing) to examine how the proposed product will lead to the proposed technical outcomes. Review these pieces to determine whether the project matches well with the topic and agency guidelines. Conduct a team meeting to get full buy-in on the proposed work plan AND on the proposal-writing efforts. Develop a schedule and assign responsibilities for completion of the proposal. Immediately start the process of collecting team Curriculum Vitae and letters of support.
- **Obtain an outside, third-party review by MTIP.** Regardless of the applicant's experience with SBIR, secure an MTIP or other third party review of the draft proposal. Even the most experienced applicants have a tendency to get "off point" when working through the details of so many sections. Invariably, good outside reviews help ensure the proposal is responsive to the instructions and identify meaningful ways in which to enhance both the content and the presentation of the proposal. Provide the proposal to a reviewer not less than one week before submission so that suggested changes can be implemented.
- **Submit early.** Applicants should plan to submit their proposals at least two days prior to the final due date. Early submission avoids the possibility of server overload, and gives applicants ample time to resolve any problems that arise during the electronic submission process.

READY FOR THE NEXT STEP?

This agency-specific SBIR guide has been prepared by the Montana Technology Innovation Partnership (MTIP) and does not imply endorsement from the Department of Energy. A program of the Montana Department of Commerce, MTIP provides free coaching to Montana technology-based companies seeking help in applying to federal and state R&D and commercialization funding programs. For more information, contact the MTIP Program Manager at (406) 841-2734 or visit MTIP's website at www.mtip.mt.gov.



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