

TUTORIAL #1

Participating in the Department of Energy's SBIR and STTR programs

OVERVIEW

This is the first in a series of tutorials designed to assist you in preparing a proposal in response to a Department of Energy Funding Opportunity Announcement or FOA. In this tutorial, we will introduce you to the basic benefits of participating in either the Small Business Innovation Research program, also referred to as SBIR, or the Small Business Technology Transfer program, referred to as STTR.

These two initiatives, the SBIR and STTR programs, are sometimes referred to as the nation's largest source of early stage/high risk funding for startups and small business. To be eligible, the small business must be American-owned, organized as a for-profit entity, and have less than 500 employees. There are 11 Federal agencies that participate annually in the SBIR program and five that participate in the STTR program.

These agencies designate R&D topics and accept proposals. They fund innovative research that will

meet the objectives of each agency. Each has a unique mission and should be viewed as distinct customers. After this initial introduction, we will focus on one agency - the Department of Energy, and will assist you in learning how to prepare a responsive Phase I SBIR or STTR proposal.

GOALS OF THE SBIR PROGRAM

The original charter of the SBIR and STTR programs was to address four goals:

- » First, to stimulate technological innovation
- » Second, to use small business to meet Federal R/R&D needs
- » Third, to foster and encourage participation in technological innovation by socially and economically disadvantaged small businesses, as well as those that are 51 percent owned and controlled by women, and
- » Fourth, to increase private sector commercialization of innovations derived from Federal research and development thereby increasing

competition, productivity, and economic growth. Since the program began in 1982, the charter has expanded to:

- » Require evaluation of commercial potential in Phase I and Phase II
- » Make awards that are comparable in size to angel investments in the private sector, and
- » Encourage the federal agencies to accept greater risk in support of agency missions

THE THREE PHASES OF SBIR/STTR

Both the SBIR and STTR programs have three phases. Following submission of proposals, agencies make SBIR awards based on small business qualification, degree of innovation, technical merit, and future market potential. Small businesses that receive awards then begin a three-phase process:

- » Phase I is the concept phase. It lasts six to twelve months and supports exploration of the technical merit or feasibility of an idea or technology.
- » Phase II awards may last for up to two years and expand upon the Phase I results. During this time, the R&D work is performed. Only Phase I award winners are considered for Phase II.
- » Phase III is the period during which a Phase II innovation moves from the laboratory into the marketplace. No SBIR funds support this phase. The small business must find funding in the private sector or other non-SBIR/STTR federal funding to support continued development.

AWARD VALUES

In the Department of Energy's program, Phase I awards are up to \$150,000 or \$225,000, depending on the topic. Phase I research is conducted over a nine to 12-month period. Phase II is the principal R&D effort with awards up to \$1.5 million over a two-year period. Phase III offers opportunities to small businesses to continue their Phase I and II R&D work to pursue commercial applications of their research and development with non-SBIR or STTR funding. Under Phase III, Federal agencies may award non-competitive, follow-on grants or contracts for products or processes that meet the mission needs of those agencies, or for further R&D.

TO SUCCEED

To succeed in these programs, there are a number of prerequisites:

First, you must have a burning desire to conduct research and development AND a desire to develop a viable product that you want to bring to the marketplace; just wanting to do research is insufficient. You must want to see that research commercialized or turned into a useful product that you and your firm will promote, either directly, or through a variety of commercialization strategies.

BENEFITS OF WINNING A SBIR AWARD

If you can match your interests and talents with the specific needs of a Federal agency, you may be able to secure funding to conduct research and

» **Phase I awards are valued between \$150K to \$225K**

» **Phase II awards are valued up to \$1.5M**

