

SMALL BUSINESS INNOVATION RESEARCH SMALL BUSINESS TECHNOLOGY TRANSFER

SBIR-STTR and NETL

The Office of Fossil Energy at the U.S. Department of Energy manages a Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Program through the National Energy Technology Laboratory. SBIR and STTR are U. S. Government programs in which Federal agencies with large research and development budgets “set-aside” a fraction of their funding for competitions among small businesses. Congress established the SBIR and STTR programs in 1982 to support scientific excellence and technological innovation through the investment of these Federal research funds in critical American priorities to build a strong national economy.

Mikro Systems Ceramic Core
Developed under a Fossil Energy SBIR Award Managed by NETL
Image courtesy of Mikro Systems, Inc

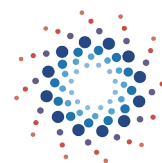
NETL

NATIONAL ENERGY TECHNOLOGY LABORATORY

HOW DOES IT WORK

Each year the Department of Energy (DOE) issues Funding Opportunity Announcements (FOA) inviting small businesses to apply for SBIR/STTR grants. Through the National Energy Technology Laboratory (NETL), the Office of Fossil Energy (FE) leverages its participation in DOE's SBIR/STTR Program by directing its involvement in two mission objectives. Namely, FE/NETL seek innovative ideas for research from small businesses in the areas of Clean Coal and Carbon Management (“Realizing the Promise of Clean Coal”) and Oil & Natural Gas Technologies (“Responsible Development of America’s Oil and Gas Resources.”)

DOE's main SBIR Office organizes the solicitation of applications for grants into two distinct activity periods: Release 1 and Release 2. Release 1 includes topics in the areas of Basic Science and Engineering and Nuclear Security. Release 2 includes topics in the areas of Clean Energy and Environmental Management. The Office of Fossil Energy's Topics are included in Release 2, under Clean Energy. For Fiscal Year 2017, the percentage from Fossil Energy's total external research budget is set (by the SBIR-STTR Reauthorization Act of 2011) at 3.2% for SBIR awards and 0.45% for STTR awards, for a total of 3.65% (approximately \$14 million for both Phase I and II awards.)



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SBIR AND STTR DISTINCT PHASES

- Phase I explores the **FEASIBILITY** of innovative concepts with awards of \$225,000 for up to 12 months. Letters of intent are required. Only Phase I awardees may compete for Phase II.
- Initial Phase II is the principal R&D effort where the innovative concept is **PROTOTYPED** with awards of \$1,500,000 (typical) over a two-year period. No letter of intent is required.
- Sequential Phase II awards are available to completed initial Phase II projects and is comprised of Phase IIA and Phase IIB. Award size and duration for sequential Phase IIA and Phase IIB are \$1,500,000 for up to 2 years
- Phase IIA is the award to be used to continue R&D within the scope of the original prototype/process R&D. Program offices recommend topics/subtopics among the Phase II awardees from two years prior to the current fiscal year. Applicants may only apply to those specific topics listed and must have completed the entire initial Phase II project. A letter of intent is also required.
- Phase IIB is the award to be used to continue R&D beyond the scope of the original prototype/process R&D in preparation for commercialization. The applicant submits a letter of intent when the FOA is issued. Their topic needs not be listed on the FOA. Initial Phase II awardees from two and three years prior to the current fiscal year are eligible to apply.
- Though Phase III is officially part of the SBIR/STTR programs, non-SBIR/STTR funding is used for small businesses to pursue **COMMERCIAL APPLICATIONS** of their R&D. Under Phase III, as with other Federal agencies, DOE may award non-SBIR/STTR funded, follow-on awards for products or processes that meet the mission needs of its funding programs. The small business may also pursue private funding and carry on the project under SBIR/STTR guidelines for intellectual property / data protection, reporting requirements, etc.

SBIR AND STTR TOPICS FOR FOSSIL ENERGY

Introductions to recent Topic descriptions (Topics/Subtopics vary from year to year)

Topic I: CLEAN COAL AND CARBON MANAGEMENT

For the foreseeable future, coal will continue to play a critical role in powering the Nation's electricity generation, especially for base-load power plants. Significant R&D is currently being pursued for new technologies focused on finding new ways to extract the power from coal – while simultaneously expanding environmental protection and confronting the issue of global climate change.

Topic II: OIL AND NATURAL GAS TECHNOLOGIES

The dramatic increase in domestic natural gas production from shale source rocks is in large part due to the combination of large volume, multistage hydraulic fracturing and horizontal drilling technologies. There is interest in R&D related to the development of novel technologies that will improve the ability to understand much more precisely the dimensions orientation, and the conductivity and distribution of created hydraulic fractures.

SBIR AND STTR TOPICS FOR FOSSIL ENERGY

SBIR-STTR FUNDING OPPORTUNITY ANNOUNCEMENTS (FOAs)				
	Phase I		Phase II (Initial and Sequential)	
	Release 1	Release 2	Release 1	Release 2
Topics Issued	Mid-July	Late October	N/A	N/A
FOA Issued	Mid-August	Late November	Late October	Mid-February
Letters of Intent	Early September	Mid-December	Mid-November	Mid-March
Applications Due	Mid-October	Early February	Mid-December	Early April
Award Notification	Early January	Late April	Late February	Mid-June
Grant Start Date	Mid-February	Early June	Early April	Late July

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