Overview of the DOE’s Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs

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DOE SBIR & STTR Programs: Technology Areas
U. S. Department of Energy Mission

- The mission of the Department of Energy is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions.
  - **Goal 1**: Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in clean energy technologies.
  - **Goal 2**: Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity, with clear leadership in strategic areas.
  - **Goal 3**: Enhance nuclear security through defense, nonproliferation, and environmental efforts.
DOE Program Offices Participating in SBIR/STTR

New for FY12: ARPA-E SBIR/STTR Programs
Operation of the DOE SBIR and STTR Programs

- DOE Program Office
  - Develop Topics
  - Identify Reviewers (Scientific Peer Review)
  - Recommend Awardees
  - Manage Projects

- DOE Chicago Office
  - Negotiate Grants
  - Issue New and Continuation Awards
  - Grant Closeout

- DOE Program Office
  - Develop Funding Opportunity Announcements
  - Administer Review and Selection Process
  - Ensure Compliance with SBIR/STTR Legislation
  - Conduct Outreach

- Single Grants Office for Awardees

- Single Administrative Office for Applicants

Leverage Technical Expertise Throughout DOE
DOE Program Offices supporting

Goal 1: Clean Energy Technologies

- Office of Electricity Delivery and Energy Reliability
- Office of Energy Efficiency and Renewable Energy
- Office of Fossil Energy
- Office of Nuclear Energy

R&D Topics
- Clean Coal Technologies
- Advanced Turbine Technology
- Oil and Gas Technologies
- Advanced Materials and Technologies for Nuclear Energy
- Smart Grid Technologies
- Bio-energy & Biofuels
- Hydrogen & Fuel Cells
- Solar Power
- Water Power
- Wind Energy
- Energy Storage
DOE Program Offices Supporting
Goal 2: Science and Engineering Leadership

- Advanced Scientific Computing Research
- Basic Energy Sciences
- Biological and Environmental Research
- Fusion Energy Sciences
- High Energy Physics
- Nuclear Physics

R&D Topics
- Advanced Detectors
- Accelerator technology
- RF Components and Systems
- Data Acquisition, Processing and Analysis
- Fusion Energy Systems
- High Performance Computing & Networking
- Modeling and Simulation
- Atmospheric Measurement Technology
- Genomic Science and Related Biotechnologies
- Advanced Sources: neutron, x-ray, electron
DOE Program Offices Supporting
Goal 3: Nuclear Security

- **Office of Defense Nuclear Nonproliferation**
- **Office of Environmental Management**

R&D Topics
- Novel Radiation Monitoring Concepts
- In Situ Remediation
- Facility Deactivation and Decommissioning
- Remote Sensing
- Global Nuclear Safeguards R&D
- Nuclear Detonation Detection
DOE SBIR & STTR Programs:
Application & Award Process
Application & Award Timelines

<table>
<thead>
<tr>
<th>Issue Topics</th>
<th>Issue FOA</th>
<th>LOI Due</th>
<th>Applications Due</th>
<th>Award Notification</th>
<th>Start of Budget Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOPICS</td>
<td>FOA</td>
<td>REVIEW &amp; SELECTION</td>
<td>NEGOTIATE</td>
<td>Phase I Budget Period—9 months</td>
<td></td>
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Phase I
- Applications Due
  - Phase I
    - Award Amount: $150,000, $225,000

Phase II
- Applications Due
  - Phase II
    - Award Amount: $1,000,000, $1,500,000

FOA: Funding Opportunity Announcement
LOI: Letter of Intent
Two Phase I Funding Opportunity Announcements Planned For FY 2014

Phase I Release 1
- Office of Advanced Scientific Computing Research
- Office of Basic Energy Sciences
- Office of Biological and Environmental Research
- Office of Defense Nuclear Nonproliferation
- Office of Fusion Energy Sciences
- Office of High Energy Physics
- Office of Nuclear Physics

Phase I Release 2
- Office of Electricity Delivery and Energy Reliability
- Office of Energy Efficiency and Renewable Energy
- Office of Fossil Energy
- Office of Nuclear Energy
# FY14 Phase I Schedule

<table>
<thead>
<tr>
<th></th>
<th>Release 1</th>
<th>Release 2</th>
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<tbody>
<tr>
<td>Topics Issued</td>
<td>July 15, 2013</td>
<td>October 28, 2013</td>
</tr>
<tr>
<td>- Topic Webinar</td>
<td>Week of July 22, 2013</td>
<td>Week of November 4, 2013</td>
</tr>
<tr>
<td>Funding Opportunity</td>
<td>August 12, 2013</td>
<td>November 25, 2013</td>
</tr>
<tr>
<td>Announcement (FOA)</td>
<td></td>
<td></td>
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<tr>
<td>- FOA Webinar</td>
<td>August 16, 2013</td>
<td>December 3, 2013</td>
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<tr>
<td>Letters of Intent Due</td>
<td>September 3, 2013</td>
<td>December 16, 2013</td>
</tr>
<tr>
<td>Full Applications Due</td>
<td>October 15, 2013</td>
<td>February 4, 2014</td>
</tr>
<tr>
<td>Award Notification</td>
<td>Early January, 2014</td>
<td>Late April, 2014</td>
</tr>
<tr>
<td>Grant Start Date</td>
<td>Mid February, 2014</td>
<td>Early June, 2014</td>
</tr>
</tbody>
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- Join our mailing list to ensure that you are notified!
  - Link to our mailing list can be found on our website: [www.science.energy.gov/sbir](http://www.science.energy.gov/sbir)
## FY14 Phase II Schedule

<table>
<thead>
<tr>
<th></th>
<th>Release 1</th>
<th>Release 2</th>
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</thead>
<tbody>
<tr>
<td>FOA Issued</td>
<td>October 21, 2013</td>
<td>February 10, 2014</td>
</tr>
<tr>
<td>Applications Due</td>
<td>December 10, 2013</td>
<td>April 17, 2014</td>
</tr>
<tr>
<td>Award Notification</td>
<td>Late February, 2014</td>
<td>Late June, 2014</td>
</tr>
<tr>
<td>Grant Start Date</td>
<td>Early April, 2014</td>
<td>Late July, 2014</td>
</tr>
</tbody>
</table>

- Only Phase I awardees are eligible for Phase II
- **Switching programs at Phase II**
  - Phase I awardees can choose to apply to SBIR or STTR with their Phase II application
Topics

• Topics Document
  – DOE primarily uses focused topics
  – Issued 4 weeks prior to the Funding Opportunity Announcement

• Communication with DOE program managers
  – Open communication permitted before Funding Opportunity Announcement is issued

• Topic Webinar
  – DOE program managers discuss their topics
  – Applicants submit questions in advance or during the webinar

• Tech Transfer Opportunity (TTO) Topics
Funding Opportunity Announcement (FOA)

- DOE issues grants for its SBIR & STTR awards
- FOA
  - Anticipated number of awards and funding available
  - Eligibility
  - Application Requirements
  - Review Criteria
  - Award Administration
- FOA Webinar
  - Provides overview and highlights important changes
Letters of Intent (LOI)

• LOI Required
  – You must submit an LOI by the due date to be eligible to submit an application

• Primary purpose
  – begin reviewer assignment to reduce award cycle time
  – due 3 weeks after FOA is issued

• Secondary purpose
  – provide notification to applicants who appear to non-responsive; you may submit a formal application if you receive this notification

• Limits
  – Small businesses may submit only 10 letters of intent (and 10 applications) per solicitation

• Content:
  – Title
  – Topic and subtopic
  – Abstract (<500 words)
    • Provide sufficient technical detail to enable reviewer assignment
    • Non-proprietary
  – List of collaborators
  – Small business information
    • Name, address
    • Business official and contact information
    • Principal investigator
  – Phase I or Fast-Track
Application Process: Registration

- Applications must be submitted through Grants.gov
- Registration at Grants.gov is a 3 step process
  1. Obtain a DUNS number
  2. Complete a SAM (formerly CCR) registration
     - must be updated annually
  3. Complete Grants.gov registration
- Start this process as early as possible!
Completing an Application

- Download and complete the application package
  - Available at Grants.gov
  - Can be completed offline

- Important documents to assist you with completing the application package
  - Topics Document, Funding Opportunity Announcement, & Instructions are available at the [DOE SBIR website](#)
SBIR vs. STTR

• DOE uses the same topics for SBIR & STTR
• Applicants can apply to either or both programs with a single application. If you apply to both programs, you must meet the requirements for both.

• SBIR: Small business is required to perform the majority of the R&D
  – Phase I: >67%
  – Phase II: >50%

• STTR: Small business collaborates with a non-profit research institution
• For both Phase I & II
  – Small business: >40%
  – Research Institution: >30%
Fast-Track Application

- Primary Benefit: Awardees of Fast-Track applications will not have a gap in their funding between Phase I and Phase II.

Current Process:
5 month Phase I – II funding gap

Fast-Track process

- Applicants must have a compelling Phase I/Phase II application.
  - May not be suitable for risky Phase I research with many different paths for Phase II
  - May not be suitable for those with limited commercialization experience.
Review and Selection

• DOE uses primarily external peer review to evaluate your applications
  – Typically at least 3 technical reviewers
  – 1 reviewer for the Phase II commercialization plan

• Review Criteria (equally weighted)
  – Strength of the Scientific/Technical Approach
  – Ability to Carry Out the Project in a Cost Effective Manner
  – Impact

• Reviewer comments will be made available to you after notification of your award
Application Statistics for FY12

• Phase I
  – 1733 applications
  – 253 awards

• Phase II
  – 208 applications
  – 104 awards

- Awarded (15%)
- Recommended for Funding--Not Awarded (15%)
- Not Recommended for Funding (55%)
- Declined Without Review (15%)

- Awarded (50%)
- Recommended for Funding--Not Awarded (14%)
- Not Recommended for Funding (36%)
Phase I Awardees:
First Time Winners & Applicants in FY12

% of Phase I Awardees

- First time DOE winners
- First-time DOE applicants
Commercialization Assistance

- DOE Commercialization Assistance will be provided by Dawnbreaker
  - Phase I assistance
    - Commercialization readiness assessment
    - Focused assistance with development of Phase II commercialization plans
  - Phase II assistance
    - Flexible offerings to meet a variety of commercialization needs
    - [http://science.energy.gov/sbir/commercialization-assistance/](http://science.energy.gov/sbir/commercialization-assistance/)

- Company selected commercialization assistance vendor
  - Reauthorization permits companies to select their own vendors to provide commercialization assistance
  - Company must include this vendor as a subcontractor or consultant in their Phase I or II application
Questions?

Contact us:
• Phone: 301-903-5707
• Email: sbir-sttr@science.doe.gov
• DOE SBIR/STTR website: www.science.energy.gov/sbir