SBIR and STTR Budgets by Agency, FY 2016

<table>
<thead>
<tr>
<th>Agencies with SBIR and STTR Programs</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Defense (DoD)</td>
<td>$1.070 B</td>
</tr>
<tr>
<td>Department of Health and Human Services (HHS), including the National Institutes of Health (NIH)*</td>
<td>$797.0 M</td>
</tr>
<tr>
<td>Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)</td>
<td>$206.1M</td>
</tr>
<tr>
<td>National Aeronautics and Space Administration (NASA)</td>
<td>$180.1 M</td>
</tr>
<tr>
<td>National Science Foundation (NSF)</td>
<td>$176.0 M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agencies with SBIR Programs</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Department of Agriculture (USDA)</td>
<td>$20.3M</td>
</tr>
<tr>
<td>Department of Homeland Security (DHS): Science and Technology Directorate (S&amp;T) and Domestic Nuclear Detection Office (DNDO)</td>
<td>$17.7 M</td>
</tr>
<tr>
<td>Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) and National Institute of Standards and Technology (NIST)*</td>
<td>$8.4M</td>
</tr>
<tr>
<td>Department of Transportation (DOT)</td>
<td>$7.9 M</td>
</tr>
<tr>
<td>Department of Education (ED)</td>
<td>$7.5 M</td>
</tr>
<tr>
<td>Environmental Protection Agency (EPA)</td>
<td>$4.2 M</td>
</tr>
</tbody>
</table>

*NIH also issues contracts

~ $2.5B in FY2016 across all agencies
**DOE Mission**

- **The mission of the DOE** 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.

**Program Offices Participating in the DOE SBIR/STTR Programs**

- Electricity Delivery & Energy Reliability
- Energy Efficiency & Renewable Energy
- Fossil Energy
- Nuclear Energy
- Advanced Scientific Computing Research
- Basic Energy Sciences
- Biological & Environmental Research
- Fusion Energy Sciences
- High Energy Physics
- Nuclear Physics
- Defense Nuclear Nonproliferation
- Environmental Management
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 SBIR/STTR Programs Office**
  - Develop Funding Opportunity Announcements
  - Administer Review and Selection Process
  - Ensure Compliance with SBIR/STTR Legislation
  - Conduct Outreach

**Technical Expertise Leveraged Throughout DOE**

**Single Administrative Office for Applicants**

**Single Grants Office for Awardees**
Features of the DOE SBIR/STTR Programs

• Competitive Grants Driven Program

• Two Phased Approach
  – $150K or $225K Phase I (6-12 months) – Feasibility
  – $1M or $1.5M Phase II (24 months) – Development & Sequential (up to 24 months)
  – Technology Transfer Opportunities (TTO)

• DOE uses the same topics for SBIR & STTR
• Applicants can apply to either or both programs with a single application
• Generally, must be awarded DOE Phase I to compete in Phase II
• Offer Application Guidance – www.doesbirlearning.com
• Offer Phase 0 Assistance – www.dawnbreaker.com/doephase0
• Offer Phase I and Phase II Commercialization Assistance
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 about topic scope
- **Webinar**
  - DOE program managers discuss their topics
  - Applicants submit questions in advance or during the webinar
  - Webinars are recorded and available from our website

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U.S. Department of Energy

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs

**Topics**

FY 2017 Phase I Release 2

Version 2, November 10, 2016

Participating DOE Research Programs

- Office of Defense Nuclear Nonproliferation
- Office of Electricity Delivery and Energy Reliability
- Office of Energy Efficiency and Renewable Energy
- Office of Fossil Energy
- Office of Fusion Energy Sciences
- Office of High Energy Physics
- Office of Nuclear Energy
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 Topic Areas**
- Clean Coal Technologies
- Advanced Turbine Technology
- Oil and Gas Technologies
- Advanced Materials and Technologies for Nuclear Energy
- Smart Grid Technologies
- Energy Storage
- Bio-energy & Biofuels
- Hydrogen & Fuel Cells
- Solar Power
- Water Power
- Wind Energy
- Advanced Manufacturing
- Efficient Buildings & Vehicles
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 Topic Areas
- 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 Topic Areas**
- Novel Radiation Monitoring Concepts
- In Situ Remediation
- Facility Deactivation and Decommissioning
- Remote Sensing
- Global Nuclear Safeguards R&D
- Nuclear Detonation Detection
FY 2018 SBIR/STTR Phase I
Funding Opportunity Announcements

Phase I Release 1
- Office of Advanced Scientific Computing Research (ASCR)
- Office of Basic Energy Sciences (BES)
- Office of Biological and Environmental Research (BES)
- Office of Nuclear Physics (NP)

Phase I Release 2
- Office of Defense Nuclear Nonproliferation (NA)
- Office of Electricity Delivery and Energy Reliability (OE)
- Office of Energy Efficiency and Renewable Energy (EERE)
- Office of Environmental Management (EM)*
- Office of Fossil Energy (FE)
- Office of Fusion Energy Sciences (FES)
- Office of High Energy Physics (HEP)
- Office of Nuclear Energy (NE)

*Does not always participate
### Schedule: FY18 Phase I, Releases 1&2

<table>
<thead>
<tr>
<th>Phase I FOA Schedule</th>
<th>Release 1</th>
<th>Release 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics Issued</td>
<td>July 17, 2017</td>
<td>October 30, 2017</td>
</tr>
<tr>
<td>Topic Webinars</td>
<td>Week of July 24, 2017</td>
<td>Week of November 06, 2017</td>
</tr>
<tr>
<td>Funding Opportunity Announcement</td>
<td>August 14, 2017</td>
<td>November 27, 2017</td>
</tr>
<tr>
<td>FOA Webinar</td>
<td>August 18, 2017</td>
<td>December 01, 2017</td>
</tr>
<tr>
<td>Letters of Intent Due</td>
<td>September 05, 2017</td>
<td>December 18, 2017</td>
</tr>
<tr>
<td>Full Applications Due</td>
<td>October 16, 2017</td>
<td>February 06, 2018</td>
</tr>
<tr>
<td>Award Notification</td>
<td>January 08, 2018*</td>
<td>April 30, 2018*</td>
</tr>
<tr>
<td>Grant Start Date</td>
<td>February 20, 2018*</td>
<td>June 11, 2018*</td>
</tr>
</tbody>
</table>

*preliminary dates subject to change*
Letters of Intent (LOI)

- **Requirement**
  - You must submit an LOI by the due date to be eligible to submit an application

- **Primary purpose**
  - begin reviewer assignment to reduce award selection time
  - due 3 weeks after FOA is issued

- **Secondary purpose**
  - provide email notification to applicants who appear to be non-responsive; you may submit an application if you receive this notification
  - Applicants whose LOI appears responsive will NOT receive a notification

- **Limits**
  - Small businesses may submit only 10 LOI’s (and 10 applications) per solicitation

**Content of LOI**

- **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
Application & Award Statistics for FY 2016

- Phase I
  - 1,556 applications
  - 325 awards

- Awarded (21%)
- Recommended for Funding—Not Awarded (13%)
Phase II Application & Award Statistics for FY 2016

- Phase II
  - 339 applications
  - 152 awards

- Phase IIA
  - 35 applications
  - 13 awards

- Phase IIB
  - 33 applications
  - 8 awards
Phase I Awardees:
First Time Winners & Applicants

% of Phase I Awardees

- First time awardees
- First time applicants

2009 2010 2011 2012 2013 2014
Reviewers agree that (1) they will keep application information confidential and (2) they do not have a conflict of interest in reviewing the application.
Top 5 Application Errors

• Serious Errors (Applications Ineligible for Review & Administratively Declined)
  – Failed to update SAM registration early—unable to submit application to Grants.gov by deadline
  – Failed to submit a Phase I Commercialization Plan
    • Submit in Field 12 of the Research & Related: Other Project Information Form
  – Improper filenames for attachments to grants.gov application
    • Use only standard characters in file names: A through Z, a through z, 0 through 9, and underscore (_). Do not use any special characters (example: “&”, “-”, “*”, “%”, “/”, and “#”) or spacing in the file name. Use underscore (example: “My_Attached_File.pdf”) for word separation.

• Other Errors (may limit funding eligibility or delay award processing, if recommended for award)
  – Failed to accurately calculate level of effort (for SBIR and/or STTR)
    • Use level of effort worksheet to assist you with the calculation
  – Failed to properly mark proprietary data
    • See FOA for instructions
Phase 0 Assistance Program

- **Goal**
  - increase the number of responsive, high quality proposals from under-represented groups
  - small businesses from states with historically low SBIR/STTR applications to the DOE
    - AK, DC, GA, HI, IA, ID, IN, KS, LA, ME, MN, MS, MT, NC, ND, NE, NY, OK, PA, PR, RI, SC, SD, WA, WI
  - women-owned small businesses
  - minority-owned small businesses

- **Services**
  - Letter of Intent (LOI) writing assistance
  - Phase I proposal preparation, review and submission assistance
  - Small business development training and mentoring
  - Communication and market research assistance
  - Technology advice and consultation
  - Indirect rate and financial information
  - Partner Travel (promote collaboration with DOE Labs)

- **Cost**
  - No cost to DOE participants

- **Phase 0 Assistance:** [www.dawnbreaker.com/doephase0/](http://www.dawnbreaker.com/doephase0/)
- **Phase I Application Assistance:** [www.doesbirlearning.com](http://www.doesbirlearning.com)
Online Application Help

• DOE online learning system to assist new applicants:
  – [http://www.doesbirlearning.com](http://www.doesbirlearning.com)

• Additional resources can be found on our website:
DOE SBIR/STTR Programs Office
Contact Information

- SBIR/STTR Web:  [www.science.energy.gov/sbir](http://www.science.energy.gov/sbir)
- Email:  sbir-sttr@science.doe.gov
- Phone:  301-903-5707
- DOE Phase 0 Small Business Assistance:  [http://www.dawnbreaker.com/doephase0/](http://www.dawnbreaker.com/doephase0/)
- DOE Phase 0 Online Learning Center:  [www.doesbirlearning.com](http://www.doesbirlearning.com)