



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

U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy



## *Cleantech SBIR/STTR Webinar*

December 8, 2014

11:30 a.m.-12:30 p.m. EST

T2M@ee.doe.gov



# Agenda

Activity	Presenter
Welcome and Overview of Webinar	Janis Tabor
Opening Remarks	Jennifer Garson
<p>EERE SBIR/STTR:</p> <ul style="list-style-type: none"><li>• More Applicant Resources and Information</li><li>• Program Updates and Tips</li><li>• Fiscal Year 2015, Phase I Release 2 Deadlines, Resources and Contacts</li></ul>	Janis Tabor
Feedback Wanted! <a href="mailto:T2M@ee.doe.gov">T2M@ee.doe.gov</a>	



# Opening Remarks

**Jennifer Garson**  
**Technology-to-Market Team**

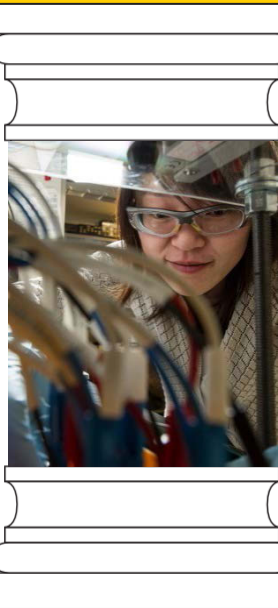


# EERE SBIR and Entrepreneurship – Three Pillars

## Capital



## Talent



## Technology



## Technology-to-Market Activities

- SBIR
- Commercialization
- Lab Entrepreneurship
- Student Entrepreneurship
- Workforce and Education Initiatives

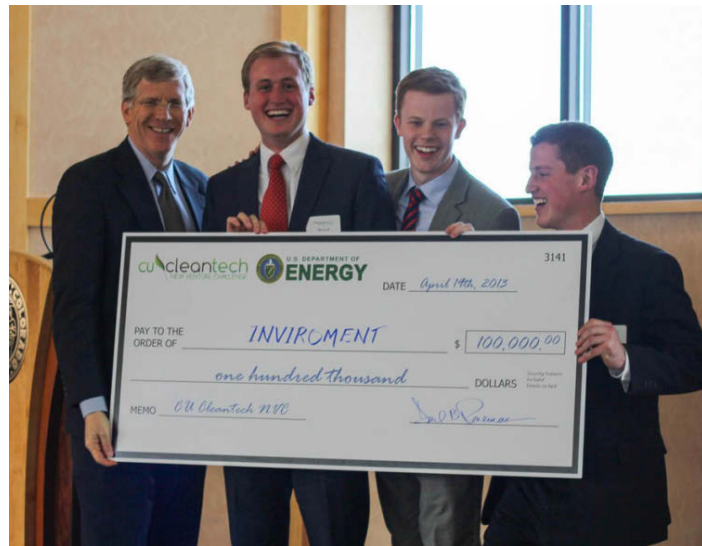


# National Clean Energy Business Plan Competition



NATIONAL CLEAN ENERGY  
BUSINESS PLAN COMPETITION  
U.S. DEPARTMENT OF ENERGY

- 750 student teams
- 70 startups
- 55 patents & disclosures
- >120 jobs created
- \$28 million in follow-on funding
- \$700,000 in prizes



*Clockwise, from left: **REEcycle**, winner of the 2014 National Clean Energy Business Plan Competition; **SiNode**, winner of the 2013 National Clean Energy Business Plan Competition; **Invirment**, winner of the 2013 CU Cleantech Business Plan Competition*



# How We Innovate: A Case Example





# Applicant Resources and Information


- Fiscal Year 2015 DOE SBIR/STTR Overview Webinar  
(<http://cc.readytalk.com/play?id=77r1v>)
- DOE SBIR Fiscal Year 2015 Phase I Release 2 FOA Webinar  
(<https://cc.readytalk.com/cc/playback/Playback.do?id=eh95j1>)
- EERE SBIR Topic/FOA Q&A  
<http://energy.gov/eere/downloads/qa-sbir-and-sttr-topics-fy-2015-release-2>  
*All Q&A will be gathered and posted here.*



## More Applicant Resources and Information



# Cleantech SBIR Website

**ENERGY.GOV**  
Office of Energy Efficiency & Renewable Energy

Search Energy.gov

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Home » Cleantech SBIR: Small Business Innovation Research (SBIR) for the Office of Energy Efficiency and Renewable Energy

CLEANTECH SBIR: SMALL BUSINESS INNOVATION RESEARCH (SBIR) FOR THE OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

**THE BEST-KEPT FUNDING SECRET FOR CLEANTECH SMALL BUSINESSES?**

Could your firm use \$2.1 - 2.7 million? Apply by December 15, 2014!

[More](#)



The federal government supports research at thousands of small innovative businesses through the Small Business Innovation Research (SBIR) program. SBIR (with sister program on Small Business Technology Transfer (STTR)) is a competitive program that links government agencies' needs and missions with funding for the development and commercialization of new ideas and innovative research by diverse small business.

DOE-SBIR provides funding to small businesses using a funding ladder similar to that of cleantech investors with \$150,000-\$225,000 at [Phase I](#); \$1 million-1.5 million at [Phase II](#); a potential additional \$1 million for [sequential Phase II](#) and [Phase III](#) (not -set-aside funded) at up to \$4.5 million.

*"AMERICA'S BUSINESS SUCCESS HAS OCCURRED BECAUSE WE HAVE SO MANY PEOPLE WITH SPECIALIZED KNOWLEDGE WHO ARE WILLING TO PUT THEIR MONEY, TIME AND RESOURCES ON THE LINE FOR IDEAS."*  
— ROBERT SCHILLER, NY TIMES

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NEWS

NOVEMBER 19, 2014  
DOE Announces Webinars on Economic Impacts of Offshore Wind, Overview of Energy Efficiency Conservation Loan Program, and More

NOVEMBER 14, 2014  
DOE Announces Webinars on Hydrogen Fueling Infrastructure Technology, Energy Efficiency and Conservation Loan Program, and More

More

A SUCCESS STORY



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<http://energy.gov/eere/Cleantech-sbir-small-business-innovation-research-sbir-office-energy-efficiency-and-renewable>

# New! All-in-One Application Tool (1 of 3)

<http://energy.gov/eere/small-business-research-all-one-application-tool>

The new All-in-One Application Tool creates a more streamlined, user-friendly application experience.

GET STARTED HERE

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Office of Energy Efficiency & Renewable Energy

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Home » Small Business Research All-in-One Application Tool

## SMALL BUSINESS RESEARCH ALL-IN-ONE APPLICATION TOOL

Does your small business need funding to advance clean energy technologies?

If yes, our new All-in-one Application Tool can help. It provides a comprehensive guide for potential applicants to EERE Topics under the U.S. Department of Energy's Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. If you are new to DOE SBIR, look at our Definitions.

Not ready to apply?

Read more about why these unique programs provide such a great opportunity.

Why two programs? They were established under separate laws with separate eligibility requirements summarized in Table A1 below. But the two programs have many similar features—especially the DOE SBIR/STTR programs. DOE runs its SBIR and STTR programs at the same time using the same topics. This video is a detailed overview of the SBIR/STTR programs at DOE.

TABLE A1: ELIGIBILITY DIFFERENCES BETWEEN SBIR AND STTR

	Small Business	Research Institution	PI Principal Employment	SBIR/STTR Budget*	Year Program Became Law**
SBIR	Minimum Level of Effort	Optional	With Small Business	85-87%	1982
Phase I	5%				
Phase II	50%				
STTR	Minimum Level of Effort	40%	Either with Small Business or Research Institution	13-15%	1992
Phase I+ Phase II	30%				

Funding begins in Phase I. This is also where the Topics that are used for Phases I, II and III are set. The topic descriptions in the open funding opportunity announcement (FOA) also provide information per topic on the maximum award size, and whether the topic is Fast-Track (combined Phase I and Phase II award). The SBIR and STTR programs in DOE's Office of Energy Efficiency and Renewable Energy (EERE) strongly align with the EERE's mission. See additional details in this All-in-one Tool about EERE's SBIR/STTR application process. Finally, keep in touch by signing up for our EERE SBIR/STTR newsletter at [https://public.govdelivery.com/accounts/USEERE/subscriber/new?topic\\_id=U...](https://public.govdelivery.com/accounts/USEERE/subscriber/new?topic_id=U...)

GET STARTED HERE



Is your small business eligible?



Your innovation: Does it fit in EERE?



Start required registrations now.



Solicitation-related schedule here.



Apply for an SBIR with these steps.



Resources to enrich your application.



# All-in-One Application Tool (2 of 3)

- ✓ Eligibility
- ✓ Program Fit
- ✓ Registration

The image displays three overlapping screenshots of the ENERGY.GOV website, illustrating the steps of the application process:

- Top Screenshot:** The homepage with the header "ENERGY.GOV Office of Energy Efficiency & Renewable Energy" and a navigation menu. The main heading is "IS YOUR SMALL BUSINESS ELIGIBLE?".
- Middle Screenshot:** The next step in the process, with the heading "YOUR INNOVATION: DOES IT FIT IN EERE?".
- Bottom Screenshot:** The final step shown, with the heading "GET STARTED ON THE REGISTRATIONS YOU WILL NEED". It features a large image of a man holding a "HELP" sign and a sidebar with links: Home, Schedule, Application Tool, Success Stories, and Diversity Initiative.

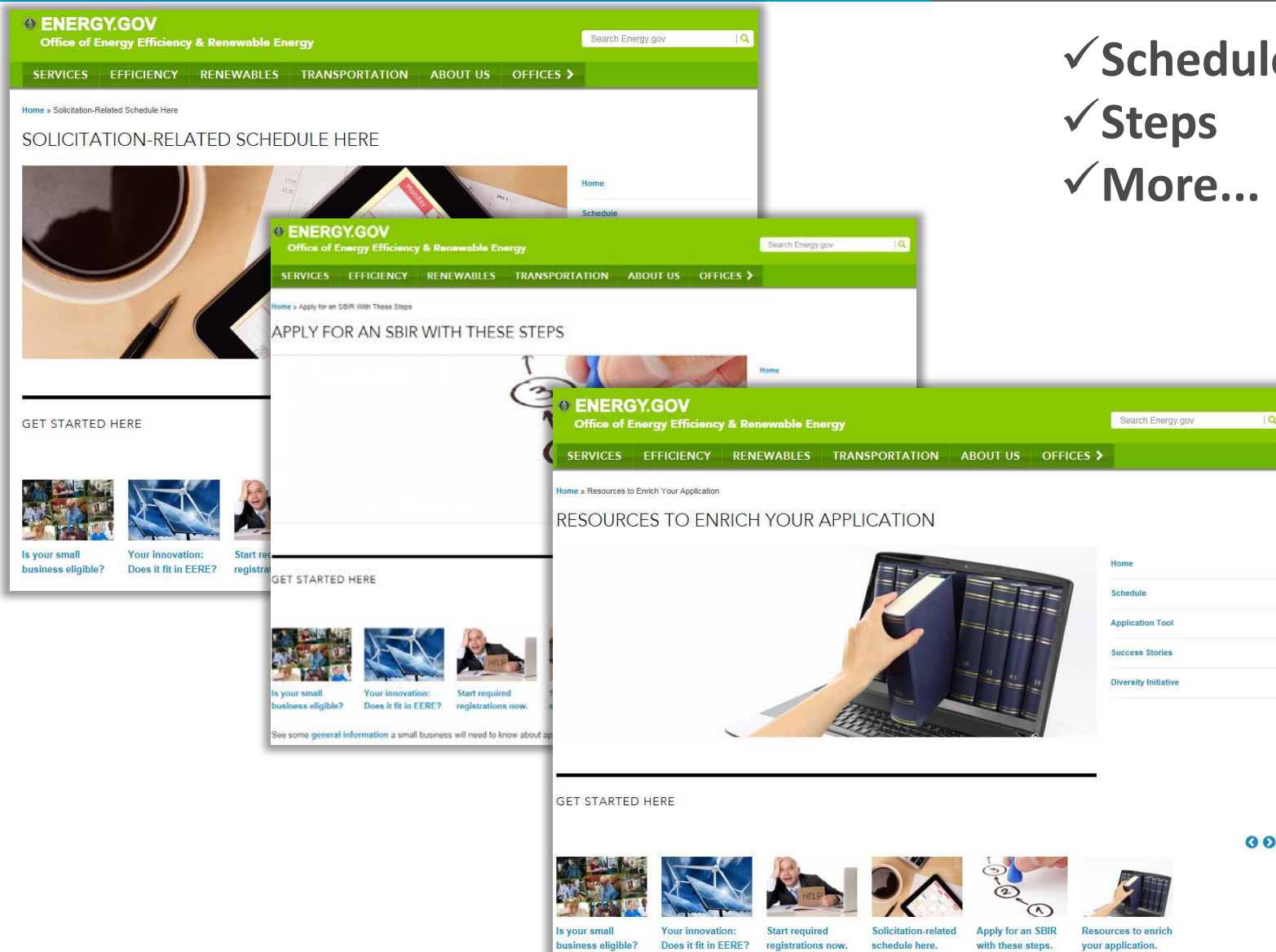
Below the bottom screenshot, a row of six icons represents the full application process flow:

- Is your small business eligible?
- Your innovation: Does it fit in EERE?
- Start required registrations now.
- Solicitation-related schedule here.
- Apply for an SBIR with these steps.
- Resources to enrich your application.



# All-in-One Application Tool (3 of 3)

- ✓ Schedule
- ✓ Steps
- ✓ More...





# EERE SBIR Diversity Initiative

**ENERGY.GOV**  
Office of Energy Efficiency & Renewable Energy

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Home » EERE Small Business Innovation Research Diversity Initiative

## EERE SMALL BUSINESS INNOVATION RESEARCH DIVERSITY INITIATIVE

[Home](#)  
[Schedule](#)  
[Application Tool](#)  
[Success Stories](#)  
**Diversity Initiative**  
[MEDIA INFO](#)

For more information on EERE SBIR/STTR team efforts, please contact us at the "Tech-to-Market" email:  
[T2M@ee.doe.gov](mailto:T2M@ee.doe.gov)

### WHY FOCUS ON WOMAN- AND MINORITY-OWNED SBCs?

EERE SBIR seeks to increase the diversity of our applicant pool in general. We focus on Women-Owned and Minority-Owned small business concerns (SBCs) because they are an excellent diversity indicator. Together, women and minorities--These underserved community-- now comprise 7% of the population. In our initial outreach, however, we discovered low awareness of this program among woman- and minority- owned firms. It's almost as if EERE SBIR grants have been kept secret from many minority- and woman-owned SBCs. Thus, we are more actively encouraging such businesses to apply and move great ideas from cleantech and other cutting-edge industries into action.

### SIX GREAT REASONS TO APPLY TO SBIR/STTR

<http://energy.gov/eere/eere-small-business-innovation-research-diversity-initiative>



# EERE News Updates

Sign up for EERE Email Updates

[https://public.govdelivery.com/accounts/USEERE/subscriber/new?topic\\_id=USEERE\\_442](https://public.govdelivery.com/accounts/USEERE/subscriber/new?topic_id=USEERE_442)

## EERE NEWS

Sign up to receive breaking news announcing EERE's accomplishments, research initiatives, funding opportunities, and more. Subscribe to the email list on the right side of this page, or subscribe to the **RSS feed**. <http://energy.gov/rss/eere/788841>

## EERE BLOG

The EERE Blog includes updates on current EERE projects, interviews with energy experts, and other stories about EERE's technology offices, cross-cutting initiatives, and national laboratories. Subscribe to the email list on the right side of this page, or subscribe to the **RSS feed**. <http://energy.gov/eere/about-us/eere-blog?view=rss>

## EERE NETWORK NEWS

A free weekly newsletter that summarizes the latest news from EERE as well as the latest national news about renewable energy and energy efficiency. Subscribe to the email list on the right side of this page, or subscribe to the **RSS feed**. <http://apps1.eere.energy.gov/news/rss/enn.xml>

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<http://energy.gov/eere/about-us/eere-news-and-blog/subscribe-news-updates>



# DOE-wide SBIR/STTR Online Resources

## DOE SBIR/STTR Home (<http://science.energy.gov/sbir/>)

- **FAQs**  
<http://science.energy.gov/sbir/about/faqs/>
- **Funding Opportunity Announcements (FOA) Information**  
<http://science.energy.gov/sbir/funding-opportunities/>
- **Letter of Intent (LOI) Instructions and Example**  
<http://science.energy.gov/sbir/applicant-and-awardee-resources/letter-of-intent/>
- **Instructions for Preparing a DOE SBIR/STTR Phase I Grant Application** (Includes budget worksheets and examples of plans)  
<http://science.energy.gov/sbir/applicant-and-awardee-resources/grant-application/>

## Recent Webinars

- **FY 2015 DOE SBIR/STTR Phase I Release 2 FOA Overview** (12.1.14)  
<https://cc.readytalk.com/cc/playback/Playback.do?id=eh95j1>
- **FY 2015 DOE SBIR/STTR Topics 10-1** (11.7.14)  
<http://cc.readytalk.com/play?id=al5y38>
- **FY 2015 DOE SBIR/STTR Program Overview** (8.15.14)  
<http://cc.readytalk.com/play?id=77r1v>



## Program Updates and Tips



# Why SBIR?

- Strongest **intellectual property protection** of any federal program
- Essentially **undiluted capital**: project funding is \$1.15 million to \$1.725 million over three years
- **Independence**: Alternative to early Venture Capital backing, licensing, joint ventures, or acquisition
- **Potential to “go the distance”**: Government-wide, only one in eight Phase I applicants is awarded, but half of Phase II applicants are



# New for FY 2015: Phase 0 Assistance Program

## Goal

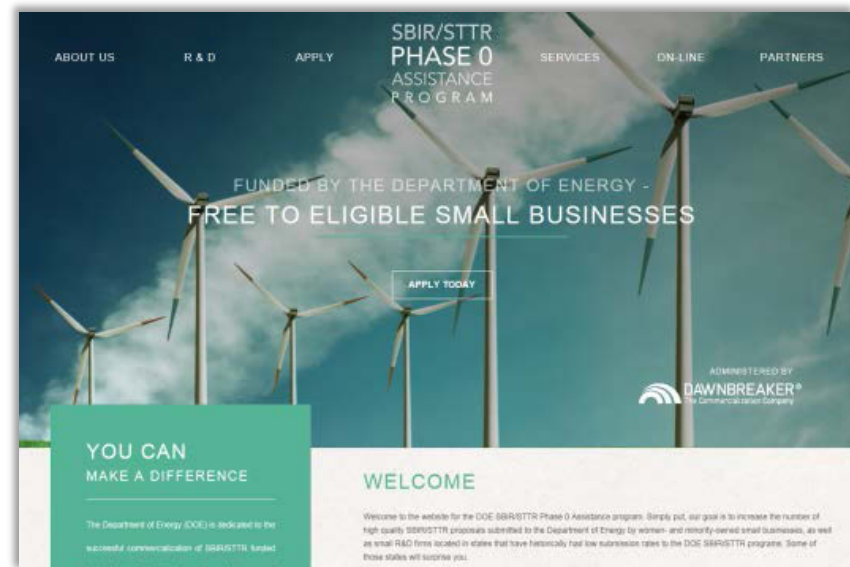
- Increase the number of responsive, high quality proposals from states\* with historically low SBIR/STTR applications to DOE—and among women- and minority-owned businesses nationally

## 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

## Cost

- This program is funded by the DOE at no cost to eligible participants



<http://www.dawnbreaker.com/doephase0/>

\*DOE's Underrepresented States:  
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



# Some Important Elements of Your Application

- **Project Narrative**
  - Page and word limits
    - Phase I: 15 pages, 7,500 words
    - Phase II: 20 pages, 10,000 words
    - Fast-Track: 25 pages, 12,500 words
- **Budget & Budget Justification**
- **Key Personnel**
- **Commercialization Plans**
  - Phase I commercialization plan
    - An example can be found [here](#)
  - Phase II commercialization plan
- ***New:* Data Management Plan**



# Top 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 ([http://science.energy.gov/~media/sbir/pdf/Application\\_Resources/Application\\_Guide.pdf](http://science.energy.gov/~media/sbir/pdf/Application_Resources/Application_Guide.pdf))
  - *Failed to properly mark proprietary data*
    - See FOA for instructions
  - *Exceeded page limit*
    - Reviewers will stop reading once the page limit has been reached



## **FY 2015 Phase I Release 2 Deadlines, Contacts, and Resources**



# Key Upcoming Dates

## FY 2015 Phase I, Release 2

<b>Letters of Intent Due*</b>	<b>December 15, 2014</b>
<b>Full Applications Due</b>	<b>February 3, 2015</b>
<b>Award Notification</b>	<b>April 2015</b>
<b>Grant Start Date</b>	<b>June 2015</b>

*\* Letters of Intent are mandatory.*

Detailed schedules are maintained on the EERE Cleantech SBIR Website:  
<http://energy.gov/eere/sbir-dates-remember>

Sign up to receive timely EERE news and updates:  
[https://public.govdelivery.com/accounts/USEERE/subscriber/new?topic\\_id=USEERE\\_442](https://public.govdelivery.com/accounts/USEERE/subscriber/new?topic_id=USEERE_442)



# EERE Topics Resources

- Topics and subtopics are developed and clarified by each Technology Office
- Topic/subtopic POCs are listed in the Topics Announcement document
- If you have technical questions about a specific topic, you can:
  - Contact the cognizant POC
  - Any time after the topics are announced up until you submit your application on or before the due date
- EERE compiles all topic questions and answers and publishes them on our Cleantech SBIR web page:  
<http://energy.gov/eere/downloads/qa-sbir-and-sttr-topics-fy-2015-release-2>
- EERE topic Q&A will be updated several times during the period between topic announcement and the application due date



## U.S. Department of Energy

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

### Topics

**FY 2015  
Phase I  
Release 2**

#### 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

[http://science.energy.gov/~media/sbir/pdf/TechnicalTopics/FY2015\\_Phase\\_1\\_Release\\_2\\_Topics.pdf](http://science.energy.gov/~media/sbir/pdf/TechnicalTopics/FY2015_Phase_1_Release_2_Topics.pdf)



# EERE SBIR/STTR FY 2015 Phase I, Release 2

Topics and Subtopics	Points of Contact
11. Advanced Manufacturing (4 Subtopics)	
a. Wide Bandgap Semiconductors for Energy Efficiency and Renewable Energy	<a href="mailto:anant.agarwal@ee.doe.gov">anant.agarwal@ee.doe.gov</a>
b. Natural Gas Feedstock and Fuel Substitution for Energy Efficient Manufacturing	<a href="mailto:stephen.sikirica@ee.doe.gov">stephen.sikirica@ee.doe.gov</a>
c. Carbon Fiber Production Processes	<a href="mailto:kelly.visconti@ee.doe.gov">kelly.visconti@ee.doe.gov</a>
d. Novel Low Cost Recovery from Low Temperature Industrial Waste Heat	<a href="mailto:bob.gemmer@ee.doe.gov">bob.gemmer@ee.doe.gov</a>
12. Bioenergy (3 Subtopics)	
a. Design and Fabrication of Solids Handling for Biomass Conversion Systems	<a href="mailto:mark.elless@ee.doe.gov">mark.elless@ee.doe.gov</a>
b. Low-Cost Coatings for Advanced Thermal Processes in Metal Combustors	<a href="mailto:neil.rossmeissl@ee.doe.gov">neil.rossmeissl@ee.doe.gov</a>
c. Solid-Liquid Separations for Algal Systems	
13. Buildings (2 Subtopics)	
a. Energy Efficient Solid-State Lighting Luminaires, Products, and Systems	<a href="mailto:james.brodrick@ee.doe.gov">james.brodrick@ee.doe.gov</a>
b. Integrated Storage and Distributed Generation for Buildings	<a href="mailto:karma.sawyer@ee.doe.gov">karma.sawyer@ee.doe.gov</a>
14. Fuel Cells (2 Subtopics)	
a. Fuel Cell-Battery Electric Hybrid for Utility or Municipal MD or HD Bucket Trucks	<a href="mailto:peter.devlin@ee.doe.gov">peter.devlin@ee.doe.gov</a>
b. TECHNOLOGY TRANSFER OPPORTUNITY: In-line Quality Control Devices Applicable to PEM Fuel Cell MEA Materials	<a href="mailto:nancy.garland@ee.doe.gov">nancy.garland@ee.doe.gov</a>



# EERE SBIR/STTR FY 2015 Phase I, Release 2

Topics and Subtopics	Points of Contact
15. Geothermal (2 Subtopics)	
a. Innovative Products or Technologies that Develop New Markets/Revenue Streams for Geothermal Energy	joshua.mengers@ee.doe.gov
b. TECHNOLOGY TRANSFER OPPORTUNITY: Enabling Geothermal Co-produced Applications by Employing Electromagnetic Manipulation of Magnetizable Oil	
16. Solar (5 Subtopics)	
a. Analytical and Numerical Modeling and Data Aggregation	solar.sbir@ee.doe.gov
b. Concentrating Solar Power: Novel Solar Collectors	
c. Concentrating Solar Thermal Desalination	
d. Grid Performance and Reliability	
e. Labor Efficiencies through Hardware Innovations	
17. Vehicles (4 Subtopics)	
a. Electric Drive Vehicle Batteries	brian.cunningham@ee.doe.gov
b. SiC Schottky Diodes for Electric Drive Vehicle Power Electronics	steven.boyd@ee.doe.gov
c. Onboard Fuel Separator or Reformer	roland.gravel@ee.doe.gov
d. Alternative Crank Mechanisms for Internal Combustion Engines Leading to Improved Energy Efficiency	leo.breton@ee.doe.gov



# EERE SBIR/STTR FY 2015 Phase I, Release 2

Topics and Subtopics		Points of Contact
18. Water		
a. Innovative Small, Low-head Hydropower Turbines		<a href="mailto:rajesh.dham@ee.doe.gov">rajesh.dham@ee.doe .gov</a>
b. Prognostic & Health Monitoring of MHK devices		
19. Wind		
a. Active Load Alleviation Strategies for Wind Turbine Blades		<a href="mailto:shreyas.ananthan@ee.doe.gov">shreyas.ananthan@ee.doe.gov</a>



# Questions

## Remember, for questions related to SBIR topics:

- Please email the relevant topic/subtopic POC specified in this document:  
<http://energy.gov/eere/downloads/sbir-and-sttr-topics-fy-2015-phase-i-release-2>
- All Q&As will be gathered and posted here:  
<http://energy.gov/eere/downloads/qa-sbir-and-sttr-topics-fy-2015-release-2>

## For general SBIR process questions:

- Check the DOE SBIR FAQs: <http://science.energy.gov/sbir/about/faqs/>
- If your question is not listed, please email [T2M@ee.doe.gov](mailto:T2M@ee.doe.gov)



# Thank you!

If you have suggestions or comments about how EERE can improve its:

- Cleantech SBIR webinars
- Cleantech SBIR website
- All-in-one Application Tool
- Diversity initiative
- Email updates

Please email: [T2M@ee.doe.gov](mailto:T2M@ee.doe.gov)