

U. S. Department of Energy National Laboratory Network Notice of Opportunity:

Small Business Vouchers (SBV) Request for Assistance (RFA)

A. Overview

The U.S. Department of Energy's (DOE) enterprise of National Laboratories is an innovation powerhouse full of unique and advanced instruments, and world class scientists, engineers and other professionals. The Small Business Vouchers (SBV) Pilot is a mechanism structured to allow small businesses engaged in the renewable energy and the energy efficiency sectors greater access to the vast capabilities and resources that exist at the DOE National Laboratories.

Through the SBV Pilot, eligible small businesses can tap into the reserve of National Laboratory intellectual and technical assets to overcome critical technology and commercialization challenges such as:

- Prototyping
- Materials characterization
- High performance computations
- Modeling and simulations
- Intermediate scaling to generate samples for potential customers
- Validation of technology performance
- Designing new ways to satisfy regulatory compliance

B. Eligibility Requirements & Certifications

Eligible Requestor - An eligible requester is a small business that (1) is organized for-profit; (2) has less than 500 employees; (3) is majority (51%) owned by a U.S. citizen or lawfully admitted permanent resident alien, U.S. owned small businesses, or U.S. based venture capital, hedge fund or private equity companies; (4) is organized according to the laws of any of the 50 states, the District of Columbia, or any US territory or possession; and (5) operates primarily within the U.S.

Company Certifications - Requestors must certify that they will accept the SBV Agreements without modification, that they will provide the required 20% cost share upon selection for a voucher, and that they agree to report data for five (5) years from voucher project commencement. Details on SBV Agreements can be found in Section C of this document. Further details on data reporting and cost share requirements can be found in Sections F and G respectively.

Eligible Types of Assistance - Eligible types of assistance from National Laboratories are limited to providing the unique capabilities and facilities of the DOE National Laboratory network. Vouchers cannot be used at National Laboratories to obtain services or use of equipment that is readily available in the private sector.

Eligible Technical Areas for Small Business Vouchers Requests for Assistance include:

- Advanced Manufacturing
- Bioenergy Technologies

- Building Technologies
- Fuel Cell Technologies
- Geothermal Technologies
- Solar Energy Technologies
- Vehicle Technologies
- Water Power Technologies
- Wind Energy Technologies

C. Voucher Details

Funding - Vouchers support small businesses by providing funding to DOE National Laboratory staff to help small businesses overcome critical technology and commercialization challenges. Vouchers are not financial awards made to small businesses. Vouchers will be issued in up to three rounds between September 2015 and the summer of 2016. Funding is not guaranteed to be carried into the third round if all the funding is used up in prior rounds. Table 1 shows the funding remaining for rounds 2 and 3.

Table 1: Voucher Funding* and Anticipated Number of Vouchers by Technology Area

Technology Area / Sub-area	Approximate SBV Funding Remaining	Anticipated No. of Vouchers Remaining for Rd 2 & 3
Advanced Manufacturing	\$3M	10-60
<ul style="list-style-type: none"> ▪ Next Generation Manufacturing 		
Technology Area / Sub-area	Approximate SBV Funding Remaining	Anticipated No. of Vouchers Remaining for Rd 2 & 3
Bioenergy	\$1.5M	5-30
<ul style="list-style-type: none"> ▪ Conversion Technologies 		
<ul style="list-style-type: none"> ▪ Demonstration and Market Transformation 		
<ul style="list-style-type: none"> ▪ Analysis and Sustainability 		
<ul style="list-style-type: none"> ▪ Algae ▪ Feedstock Logistics 		
Technology Area / Sub-area	Approximate SBV Funding Remaining	Anticipated No. of Vouchers Remaining for Rd 2 & 3
Buildings Technologies	\$1.1M	4-22
<ul style="list-style-type: none"> ▪ Energy Consumption Reduction ▪ Demand Side Management and Interoperability 		
Technology Area / Sub-area	Approximate SBV Funding Remaining	Anticipated No. of Vouchers Remaining for Rd 2 & 3
Fuel Cells Technologies	\$1.8M	6-37
<ul style="list-style-type: none"> ▪ Fuel Cells 		
<ul style="list-style-type: none"> ▪ Production and Delivery 		
<ul style="list-style-type: none"> ▪ Manufacturing 		
<ul style="list-style-type: none"> ▪ Storage ▪ Safety codes and Standards 		

Technology Area / Sub-area	Approximate SBV Funding Remaining	Anticipated No. of Vouchers Remaining for Rd 2 & 3
Geothermal Technologies	\$1.1M	4-22
▪ Enhanced Geothermal System		
▪ Low Temperature Geothermal		
▪ Systems Analysis		
Technology Area / Sub-area	Approximate SBV Funding Remaining	Anticipated No. of Vouchers Remaining for Rd 2 & 3
Solar Energy Technologies	\$420,000	2-8
▪ Balance of Systems (BOS)		
▪ Concentrating Solar Power (CSP)		
▪ Systems Integration (SI)		
▪ Photovoltaic (PV)		
Technology Area / Sub-area	Approximate SBV Funding Remaining	Anticipated No. of Vouchers Remaining for Rd 2 & 3
Vehicle Technologies	Total \$1.26M	
▪ Advanced Combustion Engines	\$ 350,000	2-7
▪ Battery R&D	\$ 275,000	1-5
▪ Electric Drive R&D	\$ 70,000	1
▪ Vehicle Systems	\$ 90,000	1
▪ Materials (Lightweight)	\$ 300,000	1-6
▪ Materials (Propulsion)	\$ 73,000	1
▪ Fuels and Lubricants	\$ 108,000	1-2
Technology Area / Sub-area	Approximate SBV Funding Remaining	Anticipated No. of Vouchers Remaining for Rd 2 & 3
Water Power Technologies	\$1.7M	6-34
▪ Marine & Hydrokinetic		
▪ Hydro		
Technology Area / Sub-area	Total Available SBV Funding	A Anticipated No. of Vouchers Remaining for Rd 2 & 3
Wind Technologies	\$660,000	3-13
▪ Distributed Wind		
▪ Utility Scale Wind		

**Note that the dollar amounts shown include funding for lab staff to administer the SBV Pilot. Funding is not guaranteed to carry over into subsequent SBV rounds.*

Voucher Period of Performance: Vouchers are valid for up to 12 months from the date the agreement is executed. Exceptions may be granted if lab staff is not available to begin right away.

Voucher Terms & Conditions: All voucher recipients will sign one of two standard, non-negotiable agreements. Small businesses may engage with National Laboratories on collaborative research and development (R&D) that may result in the development of intellectual property (IP). In that case, a collaborative research and development agreement (CRADA) <https://www.sbv.org/community-library/accounts/92/925112/SBV-Short-Form-CRADA-1.1-12-18-15.pdf> may be the most appropriate contractual vehicle. Alternatively, Small Business Vouchers may be awarded to requesters who do not

anticipate the development of intellectual property, and in those cases the Technical Assistance Pilot Agreement (TAPA) <https://www.sbv.org/community-library/accounts/92/925112/SBV-TAPA-1.1-12-8-15.pdf> may be the more appropriate agreement. Products embodying intellectual property developed under SBV assistance must be substantially manufactured in the United States. Please refer to the specific agreements above for further details. Small Businesses will work with Lab Contracting Officers to determine the appropriate agreement.

The U.S. DOE and its enterprise of National Laboratories are committed to accelerating the speed at which we are able to review, select and start Voucher work. As such, we cannot allow for negotiation of the terms and conditions in the linked agreements.

D. Key Dates & Timeline

Between September 2015 and September 2016, up to three rounds will be issued under the Small Business Vouchers Pilot. All rounds will follow a similar timeline and be available for use for up to 12 months after executing an agreement with a national laboratory.

Round 2

- March 10, 2016 - Round 2 Request for Assistance (RFA) Opens
- April 10, 2016 - Round 2 RFA submission closes, 11:59 PM Pacific Time
- Mid-Late June, 2016 - Notification of semi-finalist selections
- Late June-Early July 2016 – Semi-finalists work with lab staff on statement of work
- Mid- Late July, 2016 –Finalists notified for final award negotiation
- August 2016- SBV work can begin

E. Merit Review Criteria

Requests for assistance will be evaluated in accordance with the following criteria:

1. Potential for Impact (33%)

Mission – Extent to which solving the stated problem will enable the achievement of the goals as described in “Technology Areas” section of the Notice of Opportunity.

Innovation - Extent to which solving the stated problem represents a significant market improvement with respect to existing commercial products or solutions.

Market Impact –

- Extent to which the solving the stated problem will lead to a commercially successful product and company.

- Adequacy, specificity, and reasonableness of the stated commercial impacts of solving the stated problem and the degree to which it convincingly conveys how the applicant will move the current state to the proposed advancement.
- Extent to which solving the stated problem will result in either a product or solution that transforms or replaces existing industry approaches or a new product or solution that can be widely used by the existing industry and represents a significant improvement of industry approaches (an improvement leveraged across the entire industry can be as valuable as a new transformational standalone product).

2. Problem Definition (33%)

Problem Identification— Extent to which applicant discusses and demonstrates understanding of the key technical and commercial challenges involved in the proposed work.

Quality and Reasonableness – Extent to which the requester states a valid technical issue which can reasonably be solved within the budget and scope of this program.

3. Team and Resources (33%)

Capabilities - The extent to which the capability of the proposed requester’s team, can address the relevant aspects of the proposed project with a good chance of success, including, but not limited to, qualifications, relevant expertise, and time commitment of the individuals on the team.

Resources - Ability of the requester to support the proposed work.

F. Reporting Requirements

The U.S. Department of Energy has contracted with a third-party evaluator for the purposes of assessing the effectiveness of the Small Business Vouchers Pilot. The third-party evaluator will request information from small business voucher recipients annually for five (5) years after voucher commencement. Voucher recipients are expected to complete a web survey necessitating no more than 30 minutes of the respondent’s time each year. The survey questions will seek information from respondents such as: satisfaction with pilot participation processes and pilot services received; interest in subsequent lab assistance; technology development status; commercialization advancements; intellectual property created; follow-on funding attained; and product sales, if any. Time and cost incurred to comply with these reporting requirements can be included in a requester’s cost share contribution.

G. Cost Share

Requestors will be required to obtain 20% cost-share of the total voucher amount if awarded. Requestors will be required to provide detail about how it will meet the 20% cost-share requirement upon selection for award.

Every cost share contribution must be allowable under the applicable Federal cost principles. In addition, cost share must be verifiable upon submission of the Full Application.

Requestors may provide cost share in the form of cash or in-kind contributions. Allowable in-kind contributions include, but are not limited to: personnel costs, indirect costs, facilities and administrative costs, rental value of buildings or equipment, and the value of a service, other resource, or third party in-kind contribution. Requestors are allowed to estimate the cost to provide metrics data about the SBV for 5 years to the U.S. Department of Energy.

Project teams may use funding or property received from state or local governments to meet the cost share requirement, so long as the funding was not provided to the state or local government by the Federal Government.

The Prime Recipient may not use the following sources to meet its cost share obligations including, but not limited to: revenues or royalties from the prospective operation of an activity beyond the project period; proceeds from the prospective sale of an asset of an activity; federal funding or property (e.g., Federal grants, equipment owned by the Federal Government); or expenditures that were reimbursed under a separate Federal Technology Office. For example, Small Business Innovation Research (SBIR) /Small Business Technology Transfer (STTR) funding cannot be used to provide in-kind or direct cost share. Small businesses with SBIR/STTR funding can make a request for assistance under the Small Business Vouchers Pilot, but the scope of work must be distinct from existing SBIR/STTR projects.

Requestors may not use the same cash or in-kind contributions to meet cost share requirements for more than one project or program. For more information on allowable cost share, please refer to the Federal Acquisition Regulations (FAR) Part 31 at <http://farsite.hill.af.mil/reghtml/regs/far2afmcfars/fardfars/far/31.htm>).

In addition, independent research and development (IR&D) funds are allowable as an indirect cost expense to the extent that the costs are allocable and reasonable. Please refer to FAR 31.205-18 for guidance on IR&D cost share.

H. Submitting a Request for Assistance (RFA)

To request assistance from a national laboratory, follow these steps:

Step 1: Confirm your eligibility on the sbv.org website

Step 2: Review the Notice of Opportunity: Request for Assistance carefully

Step 3: Visit sbv.org and create a login by hitting Register on the top navigation bar (or log into your existing SBV account)

Step 4: Prepare your request (instructions are located in Section I of this Notice of Opportunity; a template is available on the sbv.org website)

Step 5: Fill out the online form located on the sbv.org submission page and upload your request as a single PDF document

Step 6: Hit the submit button at the bottom of the submission page (you will receive an auto-generated confirmation of receipt via email)

NOTE: Notification emails will come from Ideascale, please add to your safe list.

I. Request for Assistance (RFA): Instructions Please do not provide any proprietary information in the request or in supporting documentation.

Request for Assistance (RFA) Template – available at sbv.org

Requests for Assistance (RFA) are limited to 4 pages of text. Graphs, tables, and images must be included in the 4-page RFA. In addition, requesters may include up to three (3) pages of supporting documentation consisting of resumes for company personnel and/or support letters. Please use 11 point Times New Roman font and 1" margins. Tables and graphics may have smaller font, as long as the information is legible. Please save all pages as one PDF file and save it as "Your Company Name_SBVpilot" (i.e., Company XYZ_SBVpilot.PDF). Once all files have been saved, please upload the file on the submission page of the sbv.org website.

1. Company Overview: Describe the mission and vision for your company as it relates to this request for assistance.
 - a. What differentiates your company from others in this market?
 - b. Discuss the history, successes, and current status of the requester's product development.
 - c. Include relevant, previous work efforts, demonstrated innovations that relate to the request for assistance.

2. Problem Definition: Describe the challenge your company is facing and how this assistance, if granted, will help you overcome that challenge.
 - a. Include a high-level discussion introducing the technical challenge the business is facing.
 - b. Describe any efforts your company has made to address this technical challenge.
 - c. Describe what you envision as a successful solution to this technical challenge. For example, what data, experimental result, or technical service is needed?

3. Project Impact: Describe how this project, if successful, will contribute to one of more of the DOE EERE mission areas.

- a. Include a quantifiable baseline. Quantitatively describe the current “baseline” status of the company’s technology, product, or service to be addressed by this project.
 - b. Quantitatively describe the targeted improvement in this baseline.
 - c. Quantitatively describe how the company’s technology, product or service compares to the current state of the art. Potential metrics for quantifying the baseline and targeted improvements include the following:
 - i. Cost savings
 - ii. Increased performance
 - iii. New processes or materials
 - iv. New products or markets
 - v. Reduced greenhouse gas emissions
 - vi. More efficient energy generation
 - vii. Reduced life-cycle or process energy use
 - viii. Increased regulatory acceptance
 - d. Include a statement on how solving this problem will lead to market or business success.
 - e. Potential metrics include the following:
 - i. Competitive advantage gained by solving the research challenge
 - ii. Accelerated commercialization timeline
 - iii. Projected increase in company growth in terms of annual sales or revenue, annual job growth, or decrease in cost of goods sold.
4. Use of Project Results: Describe how the results of the proposed assistance will be used to advance the development of your company’s products or services and the impact the requested assistance will have on your business and the market.
5. Team: List the key members of your company’s leadership and technical team. Briefly describe their qualifications and experience. (Requesters may include up to three (3) pages of resumes and/or support letters combined in addition to this 4-page request).
6. Cost Share: Describe how your company will provide a minimum of 20% cost share. If providing in-kind cost share, indicate how you plan to contribute to the project.

RFA Appendix:

Requesters may include the following documentation to support the request for assistance:

- Attach up to three (3) pages of resumes and support letters in an appendix. Resumes and support letters do not count towards the 4-page RFA limit, but are limited to three (3) pages total, combined. Additional pages beyond the three (3) will not be reviewed.

J. Merit Review and Selection Process

The SBV team will employ a 3-step review process. First, an external (non-lab) merit review committee will review each RFA and make the first down-selection. Second, labs will work with DOE to determine the optimal lab-company match to enter into the semi-finalist review. Semi-finalists will be matched with a lab researcher and have approximately 4 weeks to work with their lab researcher to develop a brief statement of work and budget for final review by DOE. Third, DOE Technology Offices will select SBV projects to enter into final award negotiations.

Anticipated Review and Selection Schedule:

Phase 1: An external (non-lab) merit review committee will review each RFA and make the first down selection. (April-May)

Phase 2: Labs will work with DOE to determine the optimal lab-company match to enter into the semi-finalist review phase. Semi-finalists will be notified via email (from Ideascale, please add to your safe list) matched with a lab researcher and have approximately 4 weeks to work with their lab researcher to develop a brief statement of work and budget for final review by DOE. (Mid-June-Early July)

Phase 3: DOE Technology Offices will select SBV projects to enter into final award negotiations. (Mid-July)

K. Confirmation of Receipt of Request & Status Updates

Once the request has been submitted, requesters will receive an auto-notification of receipt of the request. Your request will be reviewed for compliance and then routed to a merit review committee if compliant. You will receive an email stating the status of your request throughout the review and selection process. Notification emails will come from Ideascale, please add Ideascale to your safe list.

Requesters may check on the status of the review at any time by logging into the sbv.org website. National laboratory staff will not be able to provide status on requests. Requesters will be notified of a final decision whether the request was accepted or not via email (from Ideascale).

To upload your Request for Assistance, please visit

<https://www.sbv.org/a/showCreateTopic.do?templateId=0>