Industrial Technology Validation Program Opportunity: Application Questions

ONLY APPLICATIONS SUBMITTED VIA THE SUBMITTABLE ONLINE PORTAL WILL BE CONSIDERED

Industrial Technology Validation Program Application

Main Point of Contact Name (required)

First Name (required)

Last Name (required)

Main Point of Contact Email (required)

email@example.com

Main Point of Contact Phone Number (required)

Alternate Point of Contact Name

First Name

Last Name

Alternate Point of Contact Email

email@example.com

Alternate Point of Contact Phone Number

Organization Name (required)

Limit: 300 characters

Please make sure to use the official organization name such that multiple submissions from the same organization use the name consistently in all submissions.

Organization Street Address (required)

Organization City (required)

Location of Organization (State/Territory) (required)

Select...

Organization Zip Code (required)

Organization Website (required)

example.com

Do you have a UEI? (required)

- ◯ Yes
- ◯ In Process
- ◯ No

To learn more about the UEI, please visit **SAM.gov | Home**

Project Information

IN ORDER TO APPLY, PROJECTS MUST HAVE **BOTH** A COMMITTED HOST SITE AND TECHNOLOGY DEVELOPER IDENTIFIED. Host sites and technology developers should work together to develop application content. However, the application may be filled out and submitted by either party. Whichever party submits the final application must obtain and submit a dedicated letter of commitment from the other party, or the application *will not* be considered.

Note the word count limits for each question (not including supporting documents). Any submission deemed to contain insufficient content for a thorough evaluation will be eliminated from consideration.

Host Site

Note: The proposed demonstration location must be an industrial site (e.g. a manufacturing facility, water/wastewater treatment plant, or data center) located within the U.S.

Company Name (required)

Street Address (required)

City (required)

Location of Host Site (State/Territory) (required)

Select...

Zip Code (required)

Applicant Name (required)

First Name (required)

Last Name (required)

Applicant Title (required)

Applicant Email (required)

email@example.com

Applicant Phone Number (required)

Provide the names of the host site team members who will be involved during the engagement with the ITV program based on the roles listed below.

Note: *In some cases, the same person may fill more than one role.*

Host Site Executive Lead

This individual is responsible for overseeing all high-level decisions regarding the host site. They are the primary point of contact for all site-related matters.

First Name (required)

Last Name (required)

Email (required)

email@example.com

Phone (required)

Host Site Technical Lead

This individual is the most competent subject matter expert of the impacted technical systems at the host site.

First Name (required)

Last Name (required)

Email (required)

email@example.com

Phone (required)

Host Site Facility Lead

This individual is in charge of the physical location and all day-to-day activities occurring on site.

First Name (required)

Last Name (required)

Email (required)

email@example.com

Phone (required)

Technology Developer

Company Name (required)

Street Address (required)

City (required)

Location of Technology Developer (State/Territory) (required)

Select...

Zip Code (required)

Provide the names of the technology developer team members who will be involved during the engagement with the ITV program based on the roles listed below.

Note: *In some cases, the same person may fill more than one role.*

Technology Developer Executive Lead

This individual is responsible for overseeing all high-level decisions for the technology. They are the primary point of contact for all technology-related matters.

First Name (required)

Last Name (required)

Email (required)

email@example.com

Phone (required)

Technology Developer Technical Lead

This individual is the most competent subject matter expert on the technology and impacted systems.

First Name (required)

Last Name (required)

Email (required)

email@example.com

Phone (required)

Technology Developer Project Lead

This individual is in charge of the day-to-day activities regarding demonstrating the technology on site.

First Name (required)

Last Name (required)

Email (required)

email@example.com

Phone (required)

Project Title and Summary

Descriptive Title (required)

Limit: 50 words

Provide an informative and measured descriptor of the proposed technology in general terms to be tested (e.g., "Thermoelectric Generator for Waste Heat Reclamation"). The title submitted will be used by the review team when discussing the proposed technology. **Please do not use a product, unsupported claims, or brand name for the title.**

Project Summary (required)

Limit: 300 words

Describe the technology and specify how it is projected to benefit operations, optimize performance, or improve competitiveness at the host site. Use links to any references as needed.

Technology Classification

Indicate the category that most accurately describes the technology: (required)

- ◯ "Pre-commercial Technology" – technology that is not yet fully available on the open market and has a value proposition or price that is still being defined.
- ◯ "Early Commercial Technology" – technology whose value and risks are understood by specialists for some applications, but the supply chain and/or full-scale production have not yet been fully established.
- ◯ "New Applications" – technology will be demonstrated in a different sector or use case than conventionally deployed.
- ◯ "Underutilized" – technology is commercialized, but adoption within the U.S. or within a relevant industry is not widespread.

Provide a brief explanation/justification for why the technology belongs in this classification (required)

Limit: 300 words

INFORMATION PROVIDED FOR ALL QUESTIONS BELOW (AND FOR THE REMAINDER OF THIS APPLICATION) WILL BE CONSIDERED PRIVILEGED AND CONFIDENTIAL COMMUNICATION

Technology Overview

Describe the proposed technology (required)

Limit: 700 words

Include sufficient detail on the technology's theory, functionality, and operations. If applicable, include schematics, diagrams, or other information that help explain the technology in an attachment below.

Proposed Technology Attachment(s)

Choose File

Upload a file. No files have been attached yet.

Acceptable file types: .doc, .docx, .pdf

Describe previous activities to test, validate, or demonstrate the proposed technology in a laboratory or other early developmental environment. (required)

Limit: 700 words

Where possible, include laboratory or validated performance data associated with aspects of the proposed technology. This could include, for example, peer-reviewed journal articles, lab reports, or endorsements from previous users of the technology. Please do not include promotional or marketing materials created by the technology developer. Provide a summary here and if necessary, provide additional information as an attachment. If laboratory or validated performance data is not available for aspects of the technology, please provide other empirical evidence or documented field experience related to the technology's performance.

Laboratory or Validated Performance Data Attachment(s)

Choose File

Upload a file. No files have been attached yet.

Acceptable file types: .doc, .docx, .pdf, .xls, .xlsx

How is the technology innovative? (required)

Limit: 500 words

Describe how the technology represents an advancement or innovation when compared to existing technologies, solutions, and practices typically deployed in industry and specifically deployed at the host site.

Agreement Attachment(s) (required)

Choose File

Upload a file. No files have been attached yet.

Acceptable file types: .doc, .docx, .pdf

Attach a copy of any signed agreements (e.g. Cooperative Agreements, Joint Development Agreements, Memorandum of Understanding). If a signed agreement does not exist, upload a letter of support from executive/upper management for the technology developer organization detailing interest and commitment to the ITV program. You are encouraged to reference a template commitment letter here, which should be included on company letterhead and signed.

Host Site Overview

Describe the site and the specific industrial process where the technology is being applied (required)

Limit: 500 words

Provide a description of the industrial site where the technology is being installed, as well as an overview of the process that will be improved by the technology. Include a brief summary of expected performance improvement of the technology compared to the incumbent technology, solution, or practice. Include specific metrics (e.g., "reduce energy intensity of the process by 20%).

How did the host site learn about the proposed technology? (required)

Limit: 300 words

Describe when and how the host site learned about the technology and how the technology is expected to benefit the site. Describe any existing relationship between the host site and technology developer and the technology developer's familiarity with the host site and its processes. If possible, state the nature of any signed agreements (e.g. Cooperative Agreements, Joint Development Agreements, Memorandum of Understanding).

Agreement Attachment(s) (required)

Choose File

Upload a file. No files have been attached yet.

Acceptable file types: .doc, .docx, .pdf

Attach a copy of any signed agreements (e.g. Cooperative Agreements, Joint Development Agreements, Memorandum of Understanding). If a signed agreement does not exist, upload a letter of support from executive/upper management for the host site organization detailing interest and commitment to the ITV program. You are encouraged to reference a template commitment letter here, which should be included on company letterhead and signed.

Technology Installation

Describe in detail the existing system(s) the technology will be replacing and the system configuration after the new technology is installed.

Provide a detailed description of the existing system(s). Clearly identify all the major components and subsystems that will be modified or affected by the integration of the new technology. Include key functions and any dependencies with other equipment or processes. (required)

Limit: 700 words

Provide a detailed description of the system configuration after installation of the new technology. Clearly outline the new components introduced, how they integrate with existing equipment, and the resulting expected changes to system performance or operation. Schematics or line diagrams are encouraged and may be provided as attachments. Indicate whether the installation is intended to be a permanent, full-scale replacement of an existing system, a temporary installation to verify performance, or a parallel, partial-scale installation that will operate alongside an existing system. If applicable, identify any other equipment or systems affected by the new technology. Describe how these interactions might influence testing requirements or performance evaluation. (required)

Limit: 700 words

System Configuration Attachment

Choose File

Upload a file. No files have been attached yet.

Acceptable file types: .doc, .docx, .pdf, .xls, .xlsx

Schematics or line diagrams are encouraged and should be uploaded here.

Installation Timeline (required)

Limit: 250 words

If this application is selected, from the time the notification of selection is received, how long would it take to fully install the technology at the selected host site?

Note: *The technology must be installed within 12 months from the notification of selection. Be sure to consider lead times of materials required as part of the installation among other factors such as any host site constraints (maintenance requirements, production schedules, system shutdowns) in these estimates. A detailed timeline of the installation should be included below.*

Detailed Timeline of Installation (required)

Choose File

Upload a file. No files have been attached yet.

Acceptable file types: .doc, .docx, .pdf, .xls, .xlsx

Please use the template found here.

Potential Risks

Are there any potential risks that could prevent or delay installation of the technology (e.g., inability to access secure internal networks or interoperability/compatibility with existing platforms or devices)? (required)

Limit: 600 words

Please describe each risk and discuss how it will be managed or mitigated.

What potential barriers could prevent this technology from performing as intended once installed (e.g. technical issues or maintenance requirements)? (required)

Limit: 600 words

Discuss how these barriers will be addressed or prevented.

Performance Improvement Methodology

Describe potential methods and key performance indicators that should be used to test the performance improvement resulting from adoption of the technology, compared to the current existing baseline.

Note: *The Lawrence Berkeley National Laboratory (LBNL) team will be developing the final measurement and verification (M&V) plan, in consultation with the technology developer and host site. This section is intended to provide a starting point for developing the M&V plan.*

If needed, can the baseline collection period duration or relevant historical data be made accessible for up to 12 months? (required)

Limit: 700 words

If needed, can the new technology be kept online and validated for up to 12 months? (required)

Limit: 700 words

Technology Impact

Describe the performance improvement benefits as well as any other benefits of the proposed technology (required)

Limit: 700 words

Provide a detailed description of the expected operational improvement benefits of the technology compared to the incumbent technology, solution, or practice. Describe how the technology may offer other non-energy or indirect benefits (*e.g., health and safety, economics, productivity, product quality, environmental benefits*). Note: Claims under consideration should be substantiated with publicly available documentation (references, peer-reviewed journals, citations, endorsements, etc.).

How will participation in the ITV program accelerate adoption of the proposed technology? (required)

Limit: 350 words

Describe how participation in the ITV evaluation will enable the technology developer to overcome barriers to market adoption (e.g. accelerate product development, access financing, attract customers).

How will the M&V report be used by the host site after the ITV program, and how is it expected to benefit the host site (for example, informing decisions to deploy technology at other sites)? (required)

Limit: 350 words

How will the M&V report be used by the technology developer after the ITV program, and how is it expected to benefit the technology developer (for example, to share with prospective investors to demonstrate technology performance)? (required)

Limit: 350 words

What is the potential for this technology to reach wide-scale deployment? (required)

Limit: 400 words

Provide a description of how this technology, or aspects of this technology, can reach wide-scale deployment. This should include classification of early adopters and target markets that could benefit from deployment of this technology. Relative to the specific proposed application, as well as the broader U.S. industrial sector, roughly estimate the magnitude of the potential deployment opportunities.

Need for Financial Assistance

Funding Requested (required)

$ USD

Project Budget (required)

Choose File

Upload a file. No files have been attached yet.

Acceptable file types: .pdf, .xls, .xlsx

Submit a budget for the installation phase of the project, following the budget template here. Budget should include all relevant project costs including equipment and instrumentation purchases, expected staff or contractor time dedicated to installation, and indirect facilities or administrative costs. Budgets should also clearly delineate which party will bear each cost. Note that costs may include in-kind contributions (for example, if a technology developer donates equipment to be used in the validation, the value of this equipment should be considered a cost to the developer).

Funding Impact (required)

Limit: 400 words

Describe the impact that DOE funding will have on the project implementation, and why it cannot be funded wholly through other sources. Describe any efforts to secure other funding (e.g., loans, grants, rebates, incentives, etc.) and plans for other funding to support the proposed project after DOE funding ends.

Note: *Federal funding from other sources may not be used as cost share for this opportunity.*

Other

The Host Site and Technology Developer attest the following:

- Cost share will not include funding from any other Federal Award, foregone fee, or profits.
- In order to ensure a successful validation, both the Host Site and Technology Developer are willing to provide raw data files for the current equipment/system as well as the equipment/system being tested, and understand that some elements of this data may be published as part of the analysis report.
- The Technology Developer understands that they will provide the equipment or technology to be tested. The Host Site understands that they will provide the facility where the installation will occur, manage the installation, and provide performance data from both the existing baseline system and the newly installed technology.

☐ I agree to the attestations listed above (required)

Supporting Documents (optional)

Choose File

Upload a file. No files have been attached yet.

Acceptable file types: .doc, .docx, .pdf, .xls, .xlsx

If not provided elsewhere in this application, please provide any additional relevant resources to support your application. This could include resources that help explain the technology or parts of the technology, including verification of performance claims from previous stages of development (e.g., cut sheets, press, studies, or published findings or reports) as described previously.

Do you have any pending funding/support from DOE to disclose? (required)

- ◯ Yes
- ◯ No

How did you hear about ENERGYWERX? (required)

- ☐ Conference
- ☐ Contacted by ENERGYWERX
- ☐ Co-Worker
- ☐ Ratio Exchange
- ☐ Sam.gov
- ☐ Social Media
- ☐ Website

I am representing: (required)

- ◯ Academia
- ◯ For Profit - Large Business
- ◯ For Profit - Small Business
- ◯ Non-Profit Organization
- ◯ National Lab
- ◯ Government - Not AHJ
- ◯ Government - Authority Having Jurisdiction (State, Local, Tribal)
- ◯ Utility
- ◯ Other

Have you received assistance or DOE funding in the past? (required)

- ◯ Yes
- ◯ No

Have you received DOE assistance or DOE funding in the last 5 years? (required)

- ◯ Yes
- ◯ No

Certifications

- DOE reserves the right to require additional or clarifying information regarding the application submissions, the team, and any other matters related to the anticipated funding. Applicants selected for negotiation will be required to agree to standard DOE funding legal terms and conditions.
- I certify that the named applicant is a domestic entity and is not owned by, controlled by, or subject to the jurisdiction or direction of a government of a Country of Risk and meets the eligibility requirements for this program. DOE defines Country of Risk to include China, Russia, North Korea and Iran.
- I certify that the information contained in the submission is true and contains no misrepresentations. I understand that any false, fictitious, or fraudulent information, misrepresentations, half-truths, or omissions of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (18 U.S.C. §§ 1001 and 287, and 31 U.S.C. 3729-3733 and 3801-3812). I further understand and agree that the statements and representations made herein are material to DOE's funding decision.
- Persons participating in a *Foreign Government-Sponsored Talent Recruitment Program of a Foreign Country of Risk** are prohibited from participating in projects selected for federal funding under this Opportunity. Should an award result from this Opportunity, the recipient must exercise ongoing due diligence to reasonably ensure that no individuals participating on the DOE-funded project are participating in a *Foreign Government-Sponsored Talent Recruitment Program of a Foreign Country of Risk*. Consequences for violations of this prohibition will be determined according to applicable law, regulations, and policy. Further, the recipient must notify DOE within five (5) business days upon learning that an individual on the project team is or is believed to be participating in a foreign government talent recruitment program of a foreign country of risk. DOE may modify and add requirements related to this prohibition to the extent required by law.
- I certify that the information contained in the submission does not contain confidential, proprietary, or privileged information.

* Foreign Government-Sponsored Talent Recruitment Program is defined as an effort directly or indirectly organized, managed, or funded by a foreign government, or a foreign government instrumentality or entity, to recruit science and technology professionals or students (regardless of citizenship or national origin, or whether having a full-time or part-time position). Some foreign government-sponsored talent recruitment programs operate with the intent to import or otherwise acquire from abroad, sometimes through illicit means, proprietary technology or software, unpublished data and methods, and intellectual property to further the military modernization goals and/or economic goals of a foreign government. Many, but not all, programs aim to incentivize the targeted individual to relocate physically to the foreign state for the above purpose. Some programs allow for or encourage continued employment at United States research facilities or receipt of federal research funds while concurrently working at and/or receiving compensation from a foreign institution, and some direct participants not to disclose their participation to U.S. entities. Compensation could take many forms including cash, research funding, complimentary foreign travel, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or consideration, including in-kind compensation.

I agree to the Certifications listed above. (required)

◯ I agree

DOE retains the prerogative to require additional information from the applicants to verify the applicant meets the eligibility requirements. Further, DOE retains the prerogative to decide whether to fund the proposed project entirely, partially, or not at all. (required)

◯ I agree

I agree to join the ENERGYWERX ecosystem and receive news about future opportunities. (required)

◯ I agree

Note to Organizer:

Limit: 100 words

Save Draft | Submit Form

Drafts may be visible to the administrators of this program.