



Frequently Asked Questions

GSA/DOE RFI for Emerging Technologies for Net-Zero Carbon Buildings

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General Information

How do the GSA and DOE programs differ?

Both programs aim to provide actionable data to transform the market for sustainable, high-impact building technologies. If selected for evaluation, both programs provide U.S. Department of Energy (DOE) National Laboratory measurement and verification of technology performance.

The U.S. General Services Administration's (GSA) <u>Green Proving Ground (GPG) program</u> focuses on providing information that can inform investment decisions throughout GSA's real estate portfolio, which consists of approximately 185 million rentable square feet in approximately 1,800 federally owned real property assets nationwide. The GPG program leverages this portfolio as a "proving ground" for promising emerging building technologies. When a technology is selected for evaluation, the program will match the technology with one or more federal buildings for real-world testing and directly oversee its installation and evaluation.

DOE's Office of Energy Efficiency and Renewable Energy (EERE) supports the adoption of emerging and cost-effective building technologies through partnerships with the commercial buildings industry. DOE will facilitate matchmaking of technologies with commercial building partners (which may include privately owned buildings, federally owned buildings outside of GSA's jurisdiction, custody and control, and institutional buildings), but will not directly provide the testbed in the same way that GSA does.

Why are you issuing this RFI jointly?

Issuing a joint Request for Information (RFI) demonstrates one way the U.S. Government is committed to sustainability and interagency collaboration. By drawing from a single pool of applications, GSA and DOE can coordinate their program selections to streamline programmatic offerings for industry and offer the greatest value to the Federal Government, the U.S. taxpayer, and the commercial building industry.

Is there a cap on the number of projects that are chosen for on-site evaluation?

We want to present as many opportunities to industry as possible, based on available resources. However, technologies that meet cost and savings thresholds are more likely to be selected for demonstration and deployment by commercial building partners. Our emphasis is on cost-effective technologies that present large-scale energy savings opportunities for commercial buildings.

How much real estate does GSA manage, and how do facilities compare energy consumption to the rest of the U.S. commercial office space?

GSA manages the largest single portfolio of commercial office space in the country: approximately 377 million ft² of leased property and approximately 185 million ft² of federally owned space. GSA space is approximately 30% more efficient than its commercial counterpart, as measured by the <u>Commercial Building Energy</u>

Consumption Survey.

Do GSA or DOE have any residential buildings?

GSA's GPG program is focused primarily on commercial space. DOE has some partners with multi-tenant residential buildings. If you are interested specifically in single-family and multi-family housing, contact Mike Sheppy, project management support for DOE's Building Technologies Office (michael.sheppy@ee.doe.gov).

Where can I find information on other federal technology testing programs?

See DOE's <u>Building Technologies Office</u> and the Department of Defense's (DOD) <u>Environmental Security Technology Certification Program</u>.

Benefits of Participation

Can you tell us what the end benefit is for a company that is participating in these programs?

The primary benefit, assuming your technology proves out, is market acceptance. Both programs help overcome some of the barriers associated with new, unproven sustainable building technologies by providing detailed, technical reports on their value and functionality, as installed in real-world, operating conditions.

The GPG program's evaluation results will be made publicly available on the <u>GPG webpages</u> and aim to provide actionable data that can inform public- and private-sector investment decisions for sustainable building technologies. Notable findings from the GPG program may inform decision-making within GSA through the development of performance specifications for the GSA portfolio or through indication of technology readiness for incorporation into energy savings performance contracts (ESPC).

DOE publishes final technical reports and disseminates them through existing stakeholder networks, including Better Buildings, and develops case studies to drive national adoption and energy savings. DOE may incorporate the results of successful technology demonstrations into follow-on market transformation activities based on the predefined strategy determined for that technology.

Both GSA and DOE programs are intended to provide real-world performance data that can accelerate market adoption. But it is not common practice for either program to fund deployment beyond the initial demonstration project. Participation in either program does not guarantee deployment.

Technology Eligibility

Will technologies be considered that are not listed on this RFI?

No. If your technology does not fit within this year's request for technologies, we encourage you to check back next year to see how our targeted technologies have changed. Outside of this RFI, you can research opportunities at DOE's <u>Building Technologies Office</u> and DOD's <u>Environmental Security Technology</u> <u>Certification Program</u>.

Does this year's RFI include both new and existing technologies?

Yes. We anticipate that responses to this year's RFI will include early- and underutilized-commercial technologies and new technologies and services that integrate and optimize energy use across multiple building systems.

What technology maturity level are you expecting? Will you consider a technology that is in the prototype stage? What about a technology that is already fully commercialized abroad, but not in the U.S.?

Both programs are interested in technologies that are early or underutilized commercial and ready for evaluation in occupied operational buildings. Pre-commercial and prototype technologies are not appropriate for this year's RFI.

For technologies that have seen full commercialization abroad but not yet in the U.S., your application should include barriers to entry in the U.S. and how an evaluation would help to overcome those barriers.

Are you looking at both new construction and retrofits?

GSA is focused on retrofits because this is the majority of what we do and where the primary opportunity is currently available. DOE also emphasizes retrofit, though new construction is growing and a new construction validation project may be appropriate for some technologies.

Can you evaluate a product already installed and in use at a site?

If we can establish an adequate baseline before the technology is installed, it is something we could consider, and we have done so in the past.

Are you open to solutions that involve software or cloud-based technologies?

Yes. The RFI is open to software and software-as-a-service (SaaS) solutions. The GPG program has evaluated an increasing number of information technology (IT)-enabled and cloud-based technologies in recent years. All technologies considered for inclusion in the program must comply with <u>GSA IT Policy and Governance</u>. See <u>GSA's Building Technologies Technical Reference Guide</u> for information on integrating building management systems into the GSA network. Please be prepared to engage in information sessions with GSA IT Security prior to selection.

What are the IT security requirements for IP-enabled technologies, cloud-based analytics, and information management systems?

Technologies considered for inclusion in the GPG program must comply with <u>GSA IT Policy and Governance</u>. If your technology has any wireless or Internet Protocol-enabled components, cloud-based analytics, or requirements for gathering data from the building automation system, be prepared to engage in information sessions with GSA IT Security before selection. If your technology is selected for measurement and verification (M&V), you will be expected to work closely with GSA IT Security to arrive at an approved technical solution to your network and communications infrastructure.

IT security requirements for technologies piloted through DOE will be considered on a case-by-case basis. While DOE does not have a strict set of guidelines for IT security, it should be noted that host sites are often owned, operated, or occupied by companies and organizations with significant security requirements. Generally, your ability to demonstrate your technology's compliance with stringent IT security standards will increase your technology's likelihood of being matched with a host site.

Will GPG or DOE consider a technology that is similar to one that has already been piloted and tested by the GPG program?

Yes, especially if there has been a significant improvement to the technology or if it was still pre-commercial or in late-stage development when it was first evaluated. We also encourage you to consider that the opportunity for deployment may be broader in the commercial building sector. While GSA deals primarily with office buildings, DOE considers a much wider array of building types, including multi-family, supermarkets, food service, retail, and schools, which may be a better market for many technologies. Finally, additional demonstration data can help to supplement risk evaluation and streamline adoption incentives.

Is there a minimum energy efficiency gain you are seeking for any particular technology?

No, however, it should be quantifiable and verifiable through the M&V process. Reasonable and justifiable estimates must be provided in the application.

Does acceptance into either program require results from prior third-party evaluations? If so, what is the minimum level of test results that are needed for a technology to be considered for the program?

We are looking for some measure of validation. We encourage you to submit anything that helps us

We are looking for some measure of validation. We encourage you to submit anything that helps us understand your technology and gives us confidence in where you are in the innovation cycle.

- If your technology has already undergone other third-party studies, you should submit those results with your application.
- If you do not have third-party studies completed or underway, your application should include sufficient information to validate the functionality of your technology when operating at scale.

If you have a technology with well-documented real-world performance that is ready for the market, you should express clearly in your application what the value of a test-bed assessment will be.

Are you looking at both embodied and operational greenhouse gases?

We are mostly focused on operational greenhouse gases, but if there are retrofit solutions that offer embodied carbon reduction, those would also be considered.

For technologies that require certifications (*i.e.*, UL, ETL, FedRamp, EPD, HPD), is it okay to submit an application if these certifications are in progress?

Yes, you can submit an application, but clearly state where the certification is in the process and when you anticipate the certification to be completed.

Program Eligibility

Are non-U.S. companies allowed to apply?

Yes. If your goal is to sell to the Federal Government, you will need a path for <u>Buy American Act</u> or <u>Trade</u> <u>Agreement Act</u> compliance.

Are universities and national labs eligible for this RFI?

Only companies with a commercial product are eligible.

Are nonprofits eligible?

Yes, nonprofits are eligible. Additionally, technologies that reduce the energy burdens in underserved and disadvantaged communities are of interest, and if you are a nonprofit serving those communities, you are encouraged to apply.

Is there a small business advantage?

There is no formal carve out for small or disadvantaged businesses in either program, but both programs have evaluated technologies from vendors spanning a wide spectrum of scale and establishment. The GPG program recognizes that technology gifting may be more challenging for small businesses, but the program always aims to work within each vendor's means. Additionally, DOE supports small businesses through the Small Business Innovation Research and Technology Transfer programs.

Is it a requirement to be on the GSA Schedule in order to apply to this RFI? Will GPG help a company get on schedule?

No, being on schedule is not a requirement. Most technologies that have been selected for these programs were not on schedule when they were selected. The GPG program can provide you with resources to help you get on schedule during your evaluation or upon its conclusion.

Program Participation

Can I be considered for both programs or only one?

Yes. All applications will be reviewed by both GSA and DOE for their eligibility and suitability for each program. Applications may be selected for one program, both programs, or neither. If you believe your technology to be better suited for one program over the other, please include your preference and reasoning in your application.

Can an organization or individual represent third-party products in an application or must the technology owner be the entity submitting the application?

You can submit an application on behalf of a technology as long as the technology vendor has asked you to represent the partnership. We have accepted applications submitted by third parties in the past.

Can organizations submit a joint application?

Yes, different organizations, scientific disciplines, and technology sectors can form interdisciplinary and cross-sector teams.

Can I submit multiple applications?

Yes, if you have more than one technology that is eligible for the RFI.

If submitting multiple technologies, should they be submitted as separate applications or consolidated into a single application?

If the technologies are distinctly different, submit them as separate applications. However, if they are related and build upon each other, it would be good to consolidate the technologies into one application.

Do we maintain ownership of our intellectual property?

Yes. Both programs agree to protect your intellectual property. Neither GSA nor DOE will violate, modify, or directly contribute to your intellectual property.

If selected, are applicants required to participate in the program?

No, they are not required to participate.

Financial Expectations

Are there any costs to participate? Does GSA or DOE provide grants to participants in their programs?

Neither program will offer grants or any other source of funding to technology suppliers. There are no direct fees associated with either program, but participation is an investment. Initially, there is the time you invest in completing the RFI and supplying information about your technology to the RFI selection team.

If you are selected to participate in the GPG program, you will be expected to make an unconditional gift of the core technology or arrange financing through an alternative funding mechanism such as a utility energy service contract. You will also be expected to dedicate time to providing input to and reviewing project plans, installation and operational guides, and draft reports. You may also be expected to travel to the site for a limited number of coordination meetings; GSA will not cover the cost of travel.

DOE will not provide funding for technology suppliers or host sites; any technology purchases must be negotiated directly between the supplier and host site. DOE will facilitate host site development and pay for third party M&V by the DOE National Laboratories.

With respect to the gifting process for GPG, what quantity of technology would be expected to be transferred to GSA?

The quantity of units for gifting to GSA is mutually agreed upon in discussions with the manufacturer, research team, and GPG program team considering the M&V study objectives. The set quantity depends on the technology type and the number of agreed-upon M&V study sites. GSA looks for the minimum quantity to yield test results that enable a conclusive recommendation for deployment. In addition, there are, at times, aesthetic considerations, as might be the case with technology such as light fixture replacements, where a certain number of units might be required to create a coherent sense of design in occupied spaces.

The GPG program will respect any restrictions you may have on the quantity of the technology you are reasonably able to gift. However, the GPG program will NOT, under any circumstances, consider any application that is unable to gift its technology for evaluation.

Are the terms of "technology gifting" to the government indefinite or are there provisions allowing for the purchase of technology transfer after program evaluation?

The technology needed for assessment under the GPG program must be provided as an unrestricted, unconditional gift to the American people in perpetuity. If the government wanted to purchase the technology following the evaluation, it would have to do so consistent with standard procurement protocols.

Our technology provides a service as part of our revenue model. Would we be expected to provide this service for free to GSA as part of the gifting process?

We have assessed many technologies involving some kind of IT component; quite a few have a SaaS model. GSA's unconditional gift acceptance authority only applies to property, not services. However, GSA can accept gratuitous services if the donor acknowledges, in writing, that it will not be paid or otherwise compensated for any duties performed or services provided under the agreement. GSA also can accept service under a license. A gift of services only lasts for the period of the evaluation.

Does DOE buy our technology?

No, DOE is not a purchaser of technology. For DOE, EERE validations purchases must be negotiated directly between the technology supplier and the host site.

Will I be expected to pay for travel?

Technology providers are responsible for the costs of their travel for 1 to 3 on-site meetings.

Is the donated equipment to GSA eligible for a tax deduction?

We do not give tax advice to donors. Please consult your own advisors for an answer to that question.

Measurement and Verification

What is the timeline for a study? How long will the evaluation process take?

We anticipate selecting finalists in late winter/early spring. Specific dates and times vary depending on the volume of applications received, interest from potential host sites, and other coordination factors.

GPG program projects are typically slated for installation in the fall. The duration of a GPG program M&V study can vary depending on the type of technology in question, the complexity of the test-bed location and site preparation, the technology installation process, and the M&V study's objectives. For planning purposes, respondents to this RFI should assume that the GPG program's project planning and design will start in June, and that the M&V will take approximately one year to complete. The final report is typically published approximately 6 months following the completion of M&V.

The timing of DOE projects will vary based on host site interest and M&V objectives. DOE may assist with host site suitability evaluation and site selection criteria; once a host site is identified, technology providers and host sites will need to negotiate and finalize project details. The timeline for baseline data collection and technology performance evaluation will then be included in the M&V plan, which will be reviewed and concurred upon by the host site, DOE, the technology provider, and, if applicable, GSA. DOE will publish preliminary results prior to the completion of the project.

Both programs strive for the most efficient path and timeline to provide actionable results to accelerate the deployment of effective technologies.

Our solution incorporates more than one technology and some portions are further along in testing/deployment. How will you evaluate when all components of a vendor's solution are not at the same stage of market readiness?

All components do not need to be at the same stage of market readiness; we are looking for innovative preand early-commercial technologies. That said, we need to feel confident that your technology will be operable and safe in a real-world occupied space. Any critical components that are still in the earlier stages of research and development should be discussed in your application, with a description of the path forward to stable performance and market commercialization.

What is considered an acceptable payback period for DOE and GSA projects? How is this time frame determined?

DOE: Payback is key to moving projects forward, and DOE typically looks for payback periods within 2–5 years. Building owners are competing for funds, and according to our partners in DOE's Better Buildings program, even 5 years can seem like a long payback period. Outside of simple payback, other measures of cost effectiveness can include benefits such as extended life and operation and maintenance savings.

GSA: A unique characteristic of GSA is the duration for which we hold our buildings; approximately one-third of our federally owned portfolio is listed in or eligible for listing in the National Register of Historic Places. Since our buildings are long-term investments, GSA is open to longer simple payback periods, assuming the technology is life-cycle cost effective. In recent years, GSA has increasingly considered ESPCs and other sources of third-party financing. Generally, ESPCs require paybacks of less than 10 years, though there are some authorities that increase that to 20 years.

Are there specific methods provided to establish payback?

Payback should incorporate the incremental cost difference between the technology to be evaluated and the baseline technology (what would customarily be done (e.g., a normal roof, window or wall retrofit) and the energy cost savings associated with the technology being evaluated. A reasonable payback period is if the technology is life-cycle cost effective.

Most innovative technologies require some level of influence over the building operators to be successful. How will the vendor/provider be able to influence the facility operator if they do not have direct authority over them?

The buildings that have been pre-selected to host the testbed evaluations all have engaged facility managers. If you propose a different facility, make sure that you have buy-in and that the facility operator is aware of both the opportunity and the commitment. Once M&V begins, DOE National Laboratory researchers will help facilitate engagement between the vendor and the facility manager.

Would we be able to keep the data acquired during the evaluation period?

The vendor may retain any data collected by the vendor during the evaluation, but must share the data, as necessary, to support the evaluation and final report. Vendors will also have access to any data collected by the DOE National Laboratories and published publicly. See examples of previously published reports on the GSA GPG program website.

If your proposal is accepted but your technology does not prove out, will the results be released? GSA and DOE publish all findings. An exception to this rule occurs when the M&V process does not deliver reliable results.

Testbed Selection

How are testbed sites selected?

The GPG program identifies federally owned buildings within GSA's portfolio that will be best suited for a pilot evaluation of each technology. We work with the vendor, the DOE National Laboratories, and our internal technical committee to come to a consensus on which locations will represent the best testbed opportunity for deployment. Considerations may include state of the incumbent technology, occupant agencies in the building, building size, building location, and other factors relevant to the technology being evaluated.

DOE will facilitate matchmaking between technology providers and interested host sites. DOE may provide assistance through the National Laboratories in the identification and selection of appropriate host sites. Once the host site and technology provider have negotiated and finalized the details of the evaluation project, DOE will support third-party M&V.

Can a local government still sign up to serve as a potential testbed?

Yes, contact Mike Sheppy, project management support for DOE's Building Technologies Office (michael.sheppy@ee.doe.gov).

Could a Homeland Security location qualify for the host site?

Yes, if you have already secured the site and there are no issues with the installation and the M&V.

Are DOD facilities eligible GSA host sites?

Testing at DOD facilities is possible. In addition, DOD has its own technology testing program, the <u>Environmental Security Technology Certification Program</u>, that uses DOD facilities as host sites.

Is there an advantage to providing a host site?

There is no quantifiable advantage or ranking metric associated with including a potential host site in your RFI response. However, including a testbed site in submissions can provide valuable context for the use case and demonstrate established interest from a partner, adding value to your application.

Is it possible to request and receive specific information (e.g., total square footage, roof square footage, number of parking lots) on GSA buildings?

You can find publicly available information about GSA properties at several sources, including the <u>Inventory of Owned and Leased Properties</u> and the <u>GSA Properties Overview</u>. We are unable to provide details beyond what is publicly available at this time.

RFI Application Help

Prepare responses to the <u>RFI questions</u> and save them in another program before transferring them into the <u>web-based RFI application</u>. The online application saves your work in progress and you can revisit as often as needed before the submission deadline. Once the application is submitted, it cannot be edited.

Text formatting is not possible in the online application. It will strip out all hyperlinks, graphics, and text formatting when you paste into it.

- Use complete URLs for hyperlinks.
- **Link images.** All linked documentation, such as graphics, must use a hosted domain URL or cloud-based file sharing. Please DO NOT share through Dropbox.

You must fill in all of the fields. Type N/A if the question does not apply.

Character limits include spaces.

Common issues with specific fields:

- Phone: Use a valid 10-digit U.S. phone number. Do not include hyphens, parentheses.
- **State:** Use the two-letter state abbreviation in ALL CAPS.
- **Country:** Use the three-letter country abbreviation in ALL CAPS.
- **Zip Code:** Use a valid 5-digit U.S. zip code.

In the event of a connection time-out or reset during submission, please refresh the form and resubmit your information.

When all answers are complete and you click submit, a confirmation screen loads. If you do not see this, please review the answer fields for any error messages.

A confirmation email with the reference "GPGA-FY25" will be sent to the email address you provided. Please use this reference, GPGA-FY25, in the subject line when corresponding with GSA or DOE.

RFI help: Please send all inquiries to gpg@gsa.gov