



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 Department of Energy (DOE) national lab measurement and verification of technology performance.

The U.S. General Services Administration's [Green Proving Ground \(GPG\) program](#) focuses on providing information that can inform investment decisions throughout GSA's real estate portfolio, consisting of over 1,800 federally owned real assets nationwide, and spanning over 180 million rentable square feet. GPG 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.

The U.S. Department of Energy'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, 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 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 our partners as possible, based on our available resources. However, technologies that meet cost and savings thresholds are more likely to be selected for demonstration and deployment by commercial 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 US commercial office space?

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

Do GSA or DOE have any residential buildings?

GSA is entirely commercial space. DOE has some partners with multi-tenant residential buildings. If you are interested specifically in single-family and multi-family housing, contact Jeff Wanner, Project Manager for DOE's Building Technologies Office (jeffrey.wanner@ee.doe.gov).

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

See DOE's [Building Technologies Office](#) (BTO) and the Department of Defense (DoD)'s [Environmental Security Technology Certification Program](#) (ESTCP).

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, operating conditions.

GPG results will be made publicly available on [GPG webpages](#) 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 evolution of performance specifications for the GSA portfolio or through indication of technology readiness for incorporation into Energy Savings Performance Contracts (ESPCs).

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

What are the key capabilities you are looking for in this year's RFI?

This year's RFI is focused on technologies that:

- Improve Operating Efficiency and Promote Healthy Workplaces
- Enable Whole Building Electrification
- Facilitate GHG and Carbon Reduction
- Provide On-site Energy Generation and Storage Systems
- Deliver Electric Fleet and Load Management Solutions

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

Yes, but applications must fall broadly within this year's request for information. 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 [Building Technologies Office](#) (BTO) and DOD's [Environmental Security Technology Certification Program](#) (ESTCP).

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

Yes, we anticipate that responses to this year's RFI will include existing proven and under-utilized technologies as well as 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 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. DOE also emphasizes retrofit, though new construction is growing and a new construction validation project may be appropriate for some technologies.

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. GPG has evaluated an increasing number of IT-enabled and cloud-based technologies in recent years. All technologies considered for inclusion in the program must comply with [GSA IT Policy and Governance](#). See [GSA's Building Technologies Technical Reference Guide](#) for information on integrating building management systems to 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 [GSA IT Policy and Governance](#). If your technology has any wireless or IP-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 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 should 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 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 (GHGs)?

The RFI is mostly focused on operational GHGs but if there are retrofit solutions that offer embodied carbon reduction, those would also be considered.

Program Eligibility

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

Yes, if your long-term goal is to sell to the federal government, there will need to be an established trade agreement with the U.S. Your application should indicate relevant trade agreements, plans to expand into U.S. markets, and plans to comply with the Buy American Act.

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. GPG 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 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. GPG 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 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.

Do we maintain ownership of our intellectual property?

Yes. Both programs operate under counsel 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 “gift” the core technology or arrange financing via an alternative funding mechanism such as a Utility Energy Service Contract (UESC). 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 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, the research team, and the 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 tenant-occupied spaces.

GPG will respect any restrictions you may have on the quantity of technology you are reasonably able to gift. However, GPG 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 gift to the American people in perpetuity. This benefits the vendor; because it's an unrestricted gift, we are prohibited from doing anything that will reveal your intellectual property, and we can work with you outside the limitations of standard procurement.

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've assessed many technologies involving some kind of IT component; quite a few have a software-as-a-service (SaaS) model. GSA's gifting authority doesn't accept services, so we look at the service as a license. The gift for these technologies lasts only for the period of the study.

Does DOE buy our technology?

No, DOE is not a purchaser of technology. For DOE-High Impact Technology (HIT) 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 travel to 1 to 3 on-site meetings.

Is the donated equipment to GSA a tax deduction?

We don't 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 projects are typically slated for installation in the fall. The duration of a GPG measurement and verification (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.

Timing of DOE demonstrations 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 demonstration details. The timeline for baseline data collection and technology performance verification 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 demonstration 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 pre- and early commercial technologies. That said, we need to feel confident that your technology will be operable and safe in a real-world, tenant-occupied space. Any critical components that are still in the earlier stages of R&D 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 like extended life and operations and maintenance savings.

GSA: A unique characteristic of GSA is the duration for which we hold our buildings; approximately one-third of our owned portfolio is listed in or eligible for 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 energy savings performance contracts and other sources of third-party financing. Generally, ESPCs require paybacks of less than ten years, though there are some authorities that increase that to twenty years.

Are there specific methods provided to establish payback?

Payback should incorporate the incremental cost difference between the demonstrated technology and the baseline technology (what would normally be done, e.g. a normal roof, window or wall retrofit) and the energy cost savings associated with the demonstrated technology. 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, national lab 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 retains ownership of any data collected by the vendor during the evaluation but will be expected to share demonstration data as necessary to support the evaluation and final market-facing resources. Vendors also have access to any data collected by the national labs and published publicly. See examples in 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 definitive or relevant results.

Testbed Selection

How are testbed sites selected?

GPG 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, National Labs, 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, tenant, 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 Labs in the identification and selection of appropriate host sites. Once the host site and technology provider have negotiated and finalized the details of the demonstration, DOE will support third-party M&V.

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

Yes, contact Jeff Wanner, Project Manager for DOE's Building Technologies Office (jeffrey.wanner@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 demonstration and M&V.

Are DOD facilities eligible GSA host sites?

DoD has its own technology testing program that relies on DoD facilities, the [Environmental Security Technology Certification Program](#) (ESTCP). Branches of the Department of Defense can be test sites for DOE HIT (non-GSA) validations.

Is there an advantage to providing a host site?

There is no quantifiable advantage or ranking metric associated with the inclusion of a potential host site with your RFI response. If submissions include sites that can provide context related to the use case of a technology and demonstrate established interest from partners.

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 [Inventory of Owned and Leased Properties](#) and the [GSA Properties Overview](#). We are unable to provide details beyond what is publicly available at this time.

RFI Application Help

Prepare responses to the [RFI questions](#) and save them in another program before transferring them into the online [RFI application](#). The online form does not save work in progress, and can not be edited once it is submitted.

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:

- **DUNS number:** Use a valid 9-digit DUNS number. If you do not have a DUNS number, please visit the [U.S. Small Business Administration](#) website to create one in one business day, or contact gpg@gsa.gov to be assigned a placeholder number.
- **Phone:** Use a valid 10-digit U.S. phone number. Do not include hyphens, parentheses, etc.
- **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, please refresh the form and re-submit 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 reference GPGA-# will be sent to the email address you provided. Please use this GPGA-# when corresponding with GSA or DOE.

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