

Funding Opportunity Announcement

Smart Grid Investment Grants

Frequently Asked Questions

June 26, 2009

Introduction

The Department of Energy has reviewed all comments submitted in response to the Notice of Intent released on April 16, 2009 for the Funding Opportunity Announcement (DOE-FOA-0000058) titled Smart Grid Investment Grant Program. The final version of this FOA released on June 25, 2009 reflects various changes based on these comments. Potential applicants should carefully read the final version of the FOA to ensure that they understand the entire requirements and determine if their specific questions have been addressed. To further clarify the applicants understanding of the FOA, DOE is providing the following list of frequently asked questions based on the comments submitted. Answers to each question are provided but in no case do these answers supersede the information provided in the FOA.

Questions

What are the primary differences between the SGIG NOI and FOA?

There are three primary differences between the Smart Grid Investment Grant (SGIG) Notice of Intent (NOI) issued on April 16, 2009 and the Funding Opportunity Announcement (FOA), as follows:

1. **The topic areas differ.** Applicants are required to submit applications according to the following topic areas:
 - Equipment Manufacturing
 - Customer Systems
 - Advanced Metering Infrastructure
 - Electric Distribution Systems
 - Electric Transmission Systems
 - Integrated and/or Crosscutting Systems

2. **The merit review criteria differ.** The following technical merit review criteria will be used in the evaluation of proposals:
 - Adequacy of the Technical Approach for Enabling Smart Grid Functions (40%)
 - Adequacy of the Plan for project Task, Schedule, Management, Qualifications, and Risks (25%)
 - Adequacy of the Technical Approach for Addressing Interoperability and Cyber Security (20%)
 - Adequacy of the Plan for data Collection and Analysis of Project Costs and Benefits (15%)

These criteria differ significantly from those presented within the NOI. First, DOE removed the criterion on the extent of jobs creation and now will require applicants, as stipulated

within the Recovery Act, to report quarterly on the number of jobs created and retained. Second, DOE will not assign merit based on the extent of cost-sharing offered by the applicant; however, DOE may select meritorious applications that offer cost-share in excess of the minimum required fifty percent.

3. **The size of potential awards differ.** DOE has raised the cap of the federal cost-share to \$200 million to help cover the costs of the larger projects that are anticipated. In addition, DOE has lowered the minimum level of the federal cost-share to \$300,000. Approximately, forty percent of SGIG funding will be allocated for smaller projects, in the range of \$300,000 to \$20 million, and sixty percent for larger projects, in the range of \$20 million to \$200 million. The cost sharing requirement of at least 50% of the total project value remains unchanged from the NOI.

How do Buy America provisions apply to applications?

The Funding Opportunity Announcement (FOA) contains specific requirements that must be met regarding the Buy America provisions of American Recovery and Reinvestment Act of 2009 (Recovery Act). In addition, the FOA contains links or attachments containing the most recent guidance available concerning Buy America provisions, including definitions of public works and compliance with international agreements. The provisions also describe how applicants may request a determination of inapplicability of the Buy America provisions. Applicants should closely study these FOA provisions. Applicants should also continue to review the Federal Register and similar mechanisms to be aware of any new updates or changes in guidance regarding these provisions.

Can applications be amended or revised post submission after regulatory reviews and approvals?

As stated in the FOA, DOE will accept applications from, and may make awards to, entities that do not yet have regulatory approvals. Applicants must describe in their proposal how they intend to obtain required approvals. DOE understands that applicants cannot anticipate the final outcome of a regulatory body's deliberations and changes to applications or awarded projects may be required. Applicants should notify DOE of any formal approvals as soon as possible. Any such changes will be made in accordance with the policies and procedures of the Department.

Who is eligible to apply for funding and what projects are eligible?

The FOA contains extensive information regarding eligibility of applicants, projects and investments. Applicants must read this information carefully. Eligible applicants may include foreign entities (subject to all other applicable legal requirements), however all work funded under this FOA must be performed in the United States. Applicants are reminded that the overall goal of this solicitation is to accelerate the **deployment** of smart grid technologies, tools and techniques. Projects could include new installations, upgrades to existing systems, addition of new components or any number of other scenarios, as long as they meet the eligibility requirements of the FOA.

Will DOE provide preference to small and/or disadvantaged businesses in their selection process?

No preferences will be given.

How does DOE plan to handle scope changes?

Information concerning how DOE handles changes to scope can be found in 10 CFR Part 600. DOE understands that planning assumptions may not prove to be valid once implementation of a project begins. DOE will work with awardees on a case by case basis to resolve such situations. Applicants are reminded that ONLY THE DOE CONTRACTING OFFICER HAS THE AUTHORITY TO MODIFY SCOPE, SCHEDULE, OR COST CHANGES OR ANY OTHER TERMS AND CONDITIONS OF ANY GRANT AWARDED UNDER THIS FOA.

How will DOE handle issues relative to intellectual property and proprietary data?

The FOA contains several clauses and provisions concerning rights of parties to, and the protection of, data or information. DOE will work with applicants and awardees to resolve specific issues associated with an individual application or award, within the bounds of the statutory and regulatory framework concerning these issues.

How will applicants know if there are changes to the FOA?

Notices of any modifications to the FOA will be posted on www.FedConnect.net. You can receive an e-mail notification when a modification or an announcement message is posted by registering with FedConnect as an interested party for this FOA.

How can applicants submit questions about the FOA?

Applicants can submit questions concerning this FOA to the following e-mail address:

DOESGIGQuestions@hq.doe.gov.

The questions and DOE's answers to all questions will be posted to FedConnect for the benefit of all applicants.

Will DOE accept applications to both the SGIG and the SGDP FOAs from the same entity? Will DOE accept more than one application to the SGIG FOA from the same entity?

DOE will accept separate applications to both the SGIG and the SGDP FOAs from the same entity(ies) as long as the applications are for distinctly different projects (distinct scope, project plan and funding). DOE will also accept multiple applications to the SGIG FOA from the same entity(ies) as long as the applications are for distinctly different projects (distinct scope, project plan, and funding). In either case, each distinct application will be evaluated on its own merits alone and no

award will be made that is contingent on funding from any other SGIG or SGDP project. In no case can federal funds from both the SGIG and the SGDP FOAs be used to fund a single project.

What is the relative importance of the merit review criteria and what is their relation to the program policy factors?

There are four merit review criteria and they are discussed along with their relative importance in the FOA. The purpose of the merit review criteria is to determine the technical merit of each application in a consistent manner. It is DOE's intent to award grants to the most meritorious projects, funds permitting. However, there are additional considerations beyond technical merit and these are the program policy factors discussed in the FOA. These factors are important when applications of equal technical merit are competing for limited funds. DOE reserves the right to make awards to projects of lesser technical merit when those applications also accomplish other important purposes that meet the purpose and goals of the SGIG program and the Recovery Act.

Who will be the technical merit reviewers of the applications?

DOE expects to receive a large number of applications to this FOA. In conducting the technical merit review of applications, DOE plans to augment its own staff by undertaking a nationwide recruitment effort of technical experts to assist in the merit review process. Reviewers will come from other federal agencies, state agencies, universities and colleges, national laboratories, and the private sector. Reviewers will sign agreements with DOE to ensure that information in the applications will be kept confidential and that there will be no conflicts of interest.

Will DOE use the number of jobs estimated to be created and/or retained as a criterion for rating a proposal for funding?

No. Although job creation is not included in the technical criteria used to rate proposals, it plays an important role throughout the grant process, and grant recipients are required to submit the numbers of jobs created and retained in their quarterly reports to DOE and to recovery.gov.

How does DOE distinguish between "metrics" used for tracking progress against program performance and data requirements needed for cost-benefit analysis?

DOE will measure the impact of projects with respect to the program metrics listed within the FOA. Applicants are asked to identify within their applications the metrics they plan to track and report on to DOE, and/or to identify additional metrics. Tracking progress against these metrics will help DOE determine the extent to which smart grid technologies, tools and techniques are being adopted nationally. These metrics are related, and in some cases may be similar, to the data that will be used to calculate project benefits. An example of data requirements for estimating project benefits can be found within the FOA. Applicants are asked to identify the types of data required to estimate benefits relating to improvements in economics and reliability, as well as reductions in the emission

of environmental pollutants (e.g., carbon dioxide) and in the use of fuels (particularly, oil). These benefits can accrue to the applicant and/or society.

A key aspect of the analysis of impacts, costs, and benefits is the development of “baseline” conditions against which the results of the project can be assessed. It is the responsibility of the applicant to explain how the project baseline will be developed and to ensure that appropriate data collection and analysis activities are included in the application.

What is the analytical approach that DOE will apply for conducting cost-benefit analysis and what are the requirements of applicants in addressing that approach, including pre-award and post-award responsibilities?

DOE will perform a cost-benefit analysis that will be applied consistently across projects. The methodology will also use cost and other data developed during the project and will attempt to determine societal benefits, in addition to those that would accrue to the applicant and other stakeholders. DOE presents a framework for conducting the cost-benefit analysis in the FOA. The framework describes the types of benefits that DOE is interested in measuring, as well as the data requirements needed to estimate costs and benefits.

The FOA requests that applicants examine the DOE-proposed framework and provide a discussion of how the framework (or the relevant aspects of the framework) will be implemented, including identifying specific data requirements and how data will be provided during the course of the project. Grant recipients will provide data to DOE and DOE will then perform the cost-benefit analysis.

In addition, applicants are encouraged to propose suggestions to the framework, for example, identifying additional data requirements and types of benefits that DOE may not have considered. Applicants may propose that they undertake their own cost-benefit analysis; however, DOE will not consider the applicant’s analysis to be a substitute for the DOE analysis unless the methodologies applied are consistent with the DOE approach. DOE will discuss the details of how applicants will support the cost-benefit analysis once selections have been made but prior to award. DOE requires relevant data on impacts, costs, and benefits, and/or the results of analysis, to be provided within annual and final reports to DOE.

DOE requires that applicants provide a discussion that includes estimates of the type and size of benefit that is anticipated. DOE is not requiring a detailed analysis in the application, but a higher-level assessment that provides credible and defensible information on the magnitude of expected project benefits from the deployment of smart grid technologies, tools, and techniques.

Does DOE have unique cyber security requirements that differ from typical industry requirements?

DOE requirements concerning what the applicants projects plans must contain are found in the FOA. In an effort to aid applicants in thinking about issues related to cyber security, the following thoughts are offered.

1. Smart Meters should provide the capability to fulfill critical functions in a secure and resilient manner (perhaps in a degraded mode that still provides essential services) during and after an attack, accident, emergency situation, subsystem failure, or in response to unexpected malicious or accidental inputs.
2. The Smart Meter security environment should ensure that the Smart Meters are not usable as conduits for attacks on other Smart Meters or Smart Grid systems and components, end users, external service providers (e.g., telecommunications), or any other interconnected and interdependent device.
3. Smart Meters should protect the privacy of customer-sensitive data and the confidentiality of business-sensitive data in transit and in storage.
4. Smart Meters should ensure the integrity, non-repudiation, and availability of event signals, control message, commands, and other operational data.
5. Smart Meters should be physically tamper resistant.
6. Smart Meters should protect against unauthorized remote or local access to operations or modifications.
7. Smart Meters should audit all cyber security-relevant functions. Smart Meters shall collect, protect, and transmit, for analysis, sufficient forensic and tracking data to support comprehensive auditing of cyber security, real-time intrusion detection capability and incident response in reaction to a malicious or accidental cyber event.
8. Where Smart Meters contain cryptographic keys for authentication, encryption, or other cryptographic operations, a key management scheme should provide for adequate protection of cryptographic materials as well as sufficient key diversity. Each Smart Meter should have unique credentials and key material such that compromise of one meter does not impact other deployed meters. The key management system should also support an appropriate lifecycle of periodic re-keying and revocation.
9. Smart Meters should have the capability for timely, authorized cyber security updates, and be readily extensible and upgradable in the face of a changing threat environment.

10. The system configuration as installed needs to be fully disclosed to the purchaser to ensure no extra services are installed and no means of undocumented remote access exist.