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**Demand Response and Smart Grid Coalition (DRSG)**  
**Comments on DRAFT NOI for Smart Grid Investments**  
**(EISA Section 1306)**

**May 6, 2009**

**Summary Comment:**

The Demand Response and Smart Grid Coalition (DRSG) is the trade association for companies that provide the technologies, products and services that enable demand response and the smart grid. DRSG companies will be actively involved in the development of the smart grid, both through their direct actions and in their work with utilities and other entities that comprise the electricity industry. DRSG companies anticipate being involved in implementation efforts related to the Smart Grid Investment Grants, both directly and in directly via partnerships with other applicants.

Speaking for the demand response and smart grid industry, we are very concerned relative to the DRAFT NOI issued by DOE on the Section 1306 Smart Grid Investment Grants. We believe that the program described and inferred by the DRAFT NOI may not meet the goals of stimulus nor do what is necessary to develop the smart grid.

The Demand Response and Smart Grid Coalition offers the following comments and recommendations:

**1. The DRAFT NOI must take care to “thaw” the current freeze on smart grid investments.**

Because of the availability of stimulus funds for smart grid projects, those who seek to begin or speed up smart grid projects are holding back, as they

understandably want to know if they will receive funding, and do not want to jeopardize their eligibility for the grants. Thus, the market is somewhat “frozen” at the moment, and DOE must move expeditiously on the program so that projects and investments can begin to move forward in the marketplace.

**Recommendation:**

DOE should immediately provide more specific details on the actual metrics and criteria to be used in the grant program so that potential applicants can begin to formulate and shape their specific applications.

If sufficient details are forthcoming now, then it is possible that the timeline between the issuance of the FOA and the date when applications are submitted can be shortened.

**2. The DRAFT NOI does not reveal sufficient information about the grant program.**

The DRAFT NOI was supposedly released to allow potential applicants and other stakeholders to help DOE craft a program that would be workable, practical and successful, both in terms of developing the smart grid and meeting the goals of stimulus. Yet much of the details of the program are not actually put forth in the DRAFT NOI. While the DRAFT NOI may give the appearance of giving stakeholders a chance to comment and contribute, much of what stakeholders need to know to do that is not in the DRAFT NOI.

In particular, there is insufficient information at best on what metrics and criteria projects will have to meet and which they will be competitively compared on. The DRAFT NOI seems to indicate that this information will not be revealed until the FOA is issued. Even worse, the DRAFT NOI leads potential applicants to believe that evaluation criteria for funding may be applied post-facto, either by the suggestion on page 1 of a future “gold standard” or by the application of to-be-defined standards as qualifying criteria. This is not constructive relative to the ultimate success of the investment grants program.

**Recommendation:**

DOE should immediately provide more specific details on the actual metrics and criteria to be used in the grant program so that potential applicants can begin to formulate and shape their specific applications.

### **3. The proposed \$20 million per grant cap is too low.**

Both large and small projects should be allowed to benefit from smart grid stimulus funding. In particular, large projects are needed to meet the objectives of ARRA – the smart grid job creation estimates that supported the passage of ARRA were based on scenarios that included large projects. The proposed \$20 million cap will not allow the grants to achieve the Administration's goals for development of the smart grid, job creation, achievement of the stated goal of 40 million smart meters, or the use of smart grid to enable and support increased levels of energy efficiency and renewable energy.

At the same time, smaller projects and those projects applying for smaller amounts should have a fair chance to participate and receive funds.

#### **Recommendation:**

The Department should scrap the proposed \$20 million cap. Any concern about large projects "swamping" the grant program can instead be addressed by allocating a portion of available funds for smaller projects and/or smaller applicants.

### **4. The timeline for the program is problematic.**

Comments are due on the DRAFT NOI in only 20 days, and then there is a long period of time (May 6 until June 17) before the final Funding Opportunity Availability (FOA) Notice is issued. Because the real "guts" of the grant program are not revealed in the DRAFT NOI (a separate issue in and of itself), applicants will not actually know how to apply until June 17. They will then have only 45 days between issuance of the FOA to prepare their applications, yet not learn the details of the grant program until June 17. Depending on what those details are, the 45 days may or may not be fair and sufficient to allow potential applicants to adequately respond.

#### **Recommendation:**

DOE should immediately provide more specific details on the actual metrics and criteria to be used in the grant program so that potential applicants can begin to formulate and shape their specific applications. DOE should not wait until June 17 to reveal more details of the program. The internal process between May 6 and June 17 also needs to be shortened.

If sufficient details on the grants are forthcoming now, then it is possible that the timeline between the issuance of the FOA and the date when applications are submitted can also be shortened, with the result being a more aggressive application of funds for stimulus purposes.

**5. The DRAFT NOI is not clear as to when the total amount of grant funds will be awarded and distributed.**

The DRAFT NOI talks about several “cycles” when grants may be submitted, but also appears to say that all of the money may be committed to projects in the first cycle. The Administration and the Department have done a very good job of promoting the availability of the Smart Grid Investment Grants, and as a result all indications are that a large number of parties are preparing to compete for such grants. As noted in Comment #1 (above) it is important that DOE and the Administration provide explicit clarity on its intentions in this area. Potential project applicants must know whether they must apply now or whether there will be a window of opportunity later. Similarly, unsuccessful applicants in the first “tranche” of applications must know whether they now must move forward absent federal grant funds or whether they will be able to re-apply in another near-term window for a Smart Grid Investment Grant.

**Recommendation:**

The Department should have one open window (i.e. deadline) for applicants at the outset of program implementation, and award all available funds to applications received in that single solicitation.

**6. The DRAFT NOI appears to not adhere to EISA, as it precludes many parties, including smart grid technology companies and electricity customers, from applying for grants.**

Section 1306 of EISA does not eliminate any types of parties from being eligible for the grants. The DRAFT NOI does not follow EISA in this regard. In the Section entitled “Draft Eligibility Requirements” it lists five categories. The categories primarily accommodate utilities and RTOs and do not include as eligible an electricity consumer (of any size or type) or providers of Smart Grid technologies (hardware and software) and services.

**Recommendation:**

DOE must expand the list of eligible categories (for applicants) to include non-utility providers of smart grid technologies, products, software or services. It must also include a category for electricity customers. The categories of “Provider of Smart Grid Technologies of Products and Services” and “Electricity End-User” should be added as categories (6) and (7) respectively.

**7. Maintain the Proposed Balance of Smart Grid Investment and Smart Grid Demo funding.**

The DRAFT NOI proposes an allocation of funding between Smart Grid Investment grants (EISA 1306) and Smart Grid Demonstration grants (EISA 1304). We believe the Demonstration grants level is sufficient for several major regional demonstrations, while the Investment grants will allow the DOE and Administration to achieve their goals of enduring investments (i.e., not R&D) in smart grid infrastructure. Reasons for this include the extensive commercial availability of smart grid technologies today and the extensive body of research already performed and proven on smart grid technologies going back, in some cases, as much as two decades. We believe it is time to begin constructing the smart grid infrastructure, while neither foreclosing nor shortchanging additional R&D. Therefore, it is reasonable, and supported by the nature of the smart grid industry and how it has evolved, that the majority of the funds available for smart grid under ARRA go to investments, and that only a portion of such funds be used for demonstrations.

**Recommendation:**

The Department should not change the allocation between 1304 and 1306 such that more funds than proposed in the Draft NOI go to demonstrations under 1304.

**8. The DRAFT NOI includes requirements for research that will make projects unnecessarily more expensive.**

The Section 1306 grants are specifically targeted in EISA and ARRA for investment in the smart grid and deployment of the smart grid – not research. Yet the DRAFT NOI requires projects to be designed and structured to perform market research. An example is the requirement that customers to be involved in projects be selected using techniques such as randomization. While it is important that DOE collect data from the projects that will be useful to future projects and the development in general of the smart grid, it is more important that DOE not turn this grant program into

something akin to a large number of pilot projects. Pilots have been done on most aspects of smart grid, in particular customer acceptance and participation. Proven technologies are available. The \$3.3 billion for investment grants is only a small portion of the \$50 to 200 billion needed for the overall smart grid, and therefore it is important to ensure that these investments support actual smart grid deployment rather than be used to fund further research in pursuit of knowledge that is already known or proven. Rather, Section 1304 Demonstration Grants are available for that purpose. Section 1306 should be focused on investment and deployment.

If the intent of this component of the DRAFT NOI is to ensure that all customer and demographic groups are targeted, that is understandable. If so, however, it would be preferable to communicate the intent rather than to try to incorporate that intent into specific research methodology. The applicant can conform to that intent -- promoting to all demographics -- without having to adhere to an unnecessarily burdensome research method during active deployment. Even within different demographic groups, the "take rate" by the consumer will be driven by the consumer's needs -- which won't be truly random.

There is also the practical issue of how certain smart grid deployments are undertaken. Many smart grid technology deployments make the most economic and business sense when deployed along with contiguous communications networks. While pilots for such technologies have relied on surgical deployment of communications technologies, the costs of doing such have been much higher per premise/account than that achievable via deployment of a network. This is yet another reason that the Smart Grid Investment Grants must not take an experimental/pilot approach -- to do so would result in higher costs, and therefore use of greater stimulus funds to achieve lesser smart grid impact.

Another component of the DRAFT NOI also causes concern with respect to this randomization issue. That is the concept put forth by the Department that the randomized control, the design and also quantified evaluation will "allow for a 'gold standard' (page 1 of NOI) evaluation of projects achieving stated goals. The use of this term in the NOI could be read as the establishment of project criteria that are expected and/or that will be used beyond the scope and duration of the Smart Grid Investment Grants. Worse yet, it could be read that this "gold standard" could be applied post facto to projects that have been selected for grants whereby different criteria and/or requirements could be applied to such projects already subject to a grant award, impacting that project's funding.

**Recommendation:**

DOE should remove any requirements that require funded projects to be used as pilot or market research projects. Data collection should be based on data generated during the normal course of project implementation and deployment.

**9. Phasor Measurement Units (PMUs) should not be favored over other Smart Grid technologies and functions.**

The DRAFT NOI declares that a sizeable amount of the funds available to Section 1306 will be set aside for Phasor Measurement Units (PMUs). This is the only case of a set-aside for a particular technology in the NOI. This amount seems to be disproportionate to the role that PMUs play in Smart Grid and the ability of PMUs to provide benefits to customers and to meet the goals of stimulus. This is particularly true given the high capital intensity/low labor intensity of installing PMUs. To our knowledge, PMUs have not been demonstrated to reduce emissions, lower costs, increase cost-effectiveness, increase reliability, or increase energy security (i.e. the desired benefits listed on page 13 of the DRAFT NOI). We are aware of no evidence that PMU investment will create anywhere near the same jobs as other investments that are candidates for Smart Grid Investment Grants, and the present level of favoritism will reduce the potential job creation benefits of stimulus fund directed to smart grid projects. PMUs have their place, but the level of favoritism shown them does not appear to be appropriate. If the Department believes that PMUs should receive such preferential treatment, it should put forth the reasoning and evidence as to why such is the case.

**Recommendation:**

There should be no "set-aside" for PMUs. PMUs should compete among all of the other applications in the "general pool" of applicants covering all smart grid technologies and projects.

**10. All of the provisions regarding qualifying investments set forth in EISA should be in the FOA**

The DRAFT NOI lists and repeats eight of the nine qualifying investment categories in Section 1306 of EISA, but drops the category that allows the Secretary to fund "The documented expenditures related to purchasing and implementing Smart Grid functions in such other cases as the Secretary shall identify." This is essential in order for grants to address consensus components that were not included in EISA but yet which are necessary for

smart grid projects (e.g. high-priority costs such as software installation costs; installation costs for all other categories are already enumerated) and compliance costs, including planning, reporting, documentation, and other requirements imposed on grant recipients that go beyond normal business requirements. It is also important that the Secretary and the Department reserve some flexibility to use in the program as it unfolds and evolves.

**Recommendation:**

DOE must include investment category (9) from Section 1306 (b) in the grants programs.

The Secretary must reserve the flexibility throughout the course of the Smart Grid Investment Grant Program to make determinations that correct omissions of projects and project components and address other issues as they develop.

**11. There is insufficient focus and attention on consumers in the DRAFT NOI.**

There is consensus across the board among all parties that the Smart Grid as either a concept or an operating principle does not stop at the meter on the customer's premise. Whether it be demand response (which is increasingly referred to as "the smart grid in action"), distributed storage, or home area networks (HAN), the true smart grid is one that will engage the customer in ways that optimize all aspects of grid operation and that reduce costs to customers.

We do not believe that the DRAFT NOI includes sufficient focus on or attention to how consumers and investments in technologies and practices by consumers will help create the smart grid.

As noted in Comment #6 above, customers appear to be ineligible from applying for grants. Moreover, while the list of smart grid functions certainly infers that smart grid technologies for consumer use will be eligible, there is not sufficient clarity on the list of eligible investments. When the Congress enacted the ARRA, it made many administrative and structural changes to the program as it was appropriating the funds that would allow it to go forward. It also, however, made one change to the substance of the Smart Grid Investment Grant Program – it inserted demand response as an area which was to be covered by the Smart Grid Investment Grant Program.

**Recommendation:**

DOE should more explicitly state that electricity customers, including mass-market customers, are eligible to apply for grants and that projects that focus on smart grid technologies and functions for customers are eligible for grants.

**12. Demand response is not delineated as an area of priority or eligibility.**

In ARRA, the Congress took special steps to indicate that demand response should be appropriately and specifically addressed in EISA. The DRAFT NOI needs to more specifically discuss and list demand response.

**Recommendation:**

On page one of the DRAFT NOI, it states "These investments will help implement the necessary digital upgrades to the electric grid enabling it to work more efficiently, as well as making it capable to effectively integrate renewable and energy efficient technologies and demand management practices." DOE should revise this statement and other components of the DRAFT NOI to make explicit that investments which "*implement*" demand response are eligible and just investments that make such implementation "*capable*."

**13. The evaluation regarding dynamic pricing should not penalize applicants who require state regulatory approvals for such rate structures.**

Applicants who do not have the regulatory authority to commit to such pricing should not be penalized with lower evaluation scores. Only the entities that regulate utilities are in position to change rates and prices, and projects that go forward prior to rate/price changes are valid projects that will provide the necessary infrastructure to allow such rate/price changes to be made, i.e. putting time-based rate/price changes in place prior to the installation of smart meters does not allow such changes to be implemented – one cannot charge customers on a time basis if their usage is not measured on a time-basis. The converse is true – a smart meter needs to be in place before a customer can go on time-based pricing.

**Recommendation:**

DOE must remove the requirement or provide alternative compliance mechanisms that meet the same intent of the original provision. If the requirement is left as is, it will eliminate from eligibility the vast majority of projects that would provide the job creation and benefits (both direct and indirect) to customers.

**14. The DRAFT NOI implies adherence to Interoperability Standards that are not yet finalized.**

We understand and agree with the desire of the Department to be prudent in its outlay of stimulus funds, and its attempt to fund investments in the smart grid area which will be compatible with the evolution of smart grid technologies and the standards which govern them. We commend the Department for recognizing that some desired standards will not be in place in time to establish threshold criteria for smart grid investment grants if such grants are to serve a stimulus purpose.

One area where the DRAFT NOI does, however, attempt to establish a bar is interoperability. The DRAFT NOI suggests that the checklist of the GridWise Architecture Council (i.e. Decision-Maker's Interoperability Checklist) be used in evaluating grant applications. While we commend the work of the GWAC, we nevertheless feel that the Department must take care to not base decisions on what is somewhat of a moving and evolving target.

Equally if not more important is that the Department not implement the future work of NIST in a way that would create a "reach back" effect on projects that have already been awarded grants. When the results of the NIST effort are determined to be final and to be applied to smart grid projects, they must be applied pro-actively.

**Recommendation:**

DOE should not establish the GWAC Interoperability Checklist as a threshold criterion to be met by grant applicants.

DOE must state clearly that future standards establishment will not result in new requirements being put on projects already subject to a Smart Grid Investment Grant award.

**15. Measurement of Project Impact.**

Consistent with a number of our other comments above, we believe that the project impact provisions of the DRAFT NOI do not at present sufficiently address or envision consumer-side impacts and benefits.

**Recommendation:**

The DRAFT NOI clause on page 13 dealing with project impact should have the following added:

"vii -- enhanced consumer awareness"; "viii -- greater energy efficiency"; "ix -- improved load shifting from expensive or carbon-depleting time periods to cheaper or carbon-neutral time periods"; and "x -- improved customer satisfaction."

**16. Clarification on Eligible Costs.**

We agree with the importance of careful delineation of eligible costs, but it is also important at the outset to allow consideration of costs that may not be so readily considered as part of a smart grid project.

**Recommendation:**

On Page 9, we request the addition of a 4th sub-point under clause 1.c -- "marketing, recruitment, installation, customer service, support and other ancillary service costs provided by the applicant to promote, install and service the smart grid functionality to the end-recipient." Whereas most of these costs might be included under "labor costs," in the case of recruitment efforts (e.g. radio advertisements compelling consumers to receive smart grid benefits), such costs can be expensive and yet represent viable expenses to achieve the goals DOE seeks.

**17. Regional projects should not be favored under Section 1306 grants.**

Regional projects are already specifically favored under Section 1304 grants, and Smart Grid Investment Grants under Section 1306 of EISA should not include any component of favoritism for multi-party, regional-in-nature projects.

At the same time, regional, multi-party projects should not be disfavored, and they should be allowed to compete. In the case of some projects, the deployment of technologies within a utility service territory or footprint of an ISO/RTO may necessarily cross state lines and be regional in nature.

**Recommendation:**

DOE needs to clarify and, if necessary, specify that regional, multi-party projects are not favored over other projects.

**18. The reporting and other compliance requirements should be reasonable.**

We understand the need for strict program rules regarding grant administration. At the same time, it is important that DOE not unnecessarily add to the numerous reporting, accounting, pay rate, and other requirements set forth in ARRA. To do so would unnecessarily burden applicants and awardees and reduce interest on the part of some applicants. It will also result in excess costs being placed on the projects.

**Recommendation:**

DOE should adhere to ARRA requirements in terms of grant administration.

**19. Confidentiality of Data and Competitive Information.**

Page 8 of the DRAFT NOI states that "DOE will incorporate data provided by grant recipients in studies that will result in publications, but institute practices to ensure complete anonymity of data sources." We would like DOE to provide more clarity in this sentence. Specifically, we would like to see DOE explicitly say that "applicant data marked confidential will remain confidential to the applicant." Anonymity of the data sources is not enough of a commitment to keep confidential information confidential. For example, applicants may wish to share a great amount of consumer behavior detail with DOE if it is believed it will help in the competitive evaluation of an applicant project.

**Recommendation:**

Absolute assurance must be provided that any "competitive-advantage" data would not make its way into public research papers.