

**UNITED STATES OF AMERICA  
BEFORE THE  
DEPARTMENT OF ENERGY**

Implementing the National Broadband )  
Plan by Empowering Consumers and the ) Request for Information  
Smart Grid: Data Access, Third Party Use )  
and Privacy )

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**REPLY COMMENTS  
BY  
THE NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES**

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August 9, 2010

The National Association of State Utility Consumer Advocates (“NASUCA”) submits these reply comments in response to the United States Department of Energy’s (“DOE”) Request for Information (“RFI”) entitled “Implementing the National Broadband Plan by Empowering Consumers and the Smart Grid: Data Access, Third Party Use, and Privacy.”<sup>1</sup>

### **Introduction**

On July 12, 2010, thirty-six organizations representing different interests and concerns involving Smart Grid privacy submitted initial comments to the DOE.<sup>2</sup> On July 16, 2010, DOE established a filing deadline of August 9, 2010 for reply comments.

NASUCA will comment on four issues. First, the consumers are the ultimate owners of their energy consumption data. The establishment of privacy protections for personal energy information is critical, and the issue must be resolved in favor of the highest degree of consumer protection. Second, consumers should have the choice to participate in any advanced metering program or in any dynamic pricing schedule that may involve data sharing arrangements. Third, there are unique differences among electric consumers that must be considered for any Smart Grid deployment. Fourth, investments made in Smart Grid technologies must be supported by a detailed cost-benefit analysis and subject to evidentiary proceedings and prudence review before costs are passed on to utility consumers.

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<sup>1</sup>See 75 Fed. Reg. 26203 (May 11, 2010).

<sup>2</sup>These comments are available at <http://www.gc.energy.gov/1592.htm>.

## **Ownership and Privacy Protection of Customer Usage Information**

Questions 1 and 2 in the RFI address ownership of and privacy protections for energy consumption data. In their comments, the Demand Response and Smart Grid Coalition asserts that there is co-ownership of individual consumption data between utilities and their consumers.<sup>3</sup> This notion of co-ownership of customer usage information is troublesome. While utilities might be authorized users of consumer usage information, collecting usage information from a meter does not mean the information is owned by the utility. Consumers have owned and must continue to own their specific energy usage information.

Florida Power and Light comments that the distribution company has ownership rights over the operational usage data and customers should only have rights to access their own specific energy consumption data.<sup>4</sup> As addressed earlier, electric utilities have the right to bill for metered usage; however, this right does not extend to ownership of usage information. FPL is merely a user of customer usage information for the purposes of calculating a bill.

Likewise, the Edison Electric Institute (“EEI”) claims that the primary policy issue is not the ownership of customer-specific energy usage data, but rather the issue is access to and disclosure of such data.<sup>5</sup> The comments of Pepco Holdings, Inc. (“Pepco”) generally mirror EEI’s view that ownership of the energy consumption data is not the relevant question.<sup>6</sup> All three of these comments seem to support utility ownership of

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<sup>3</sup>Comments of the Demand Response and Smart Grid Coalition (DRSG), at 1

<sup>4</sup>Florida Power and Light Comments at 3.

<sup>5</sup>Edison Electric Institute Comments at 5.

<sup>6</sup>Pepco Holdings, Inc. Comments at 4.

customer usage data. EEI even notes that absent clear evidence of abuse by utilities in protecting customer electronic data, there is no reason for the DOE to attempt to establish standards for protecting energy information.<sup>7</sup> NASUCA is opposed to waiting until customers are harmed before adequate consumer protections are developed to protect customer privacy.

Consumer energy data must be owned by the consumer. In its initial comments, NASUCA said that customers pay for the infrastructure that is needed for the utilities to obtain access to consumption data in their monthly bill and, therefore, must own their energy usage data.<sup>8</sup> NASUCA also stated that consumer privacy protections need to extend to customer generation data to facilitate net-metering arrangements, in which customers both buy and sell generation. Further, NASUCA argued that home energy data can reveal intimate details about an individual and household characteristics and patterns that could appeal to other parties for a variety of reasons. Because the usage data are personal and valuable, the consumer must have ownership of and access to the ability to control how these data are used.<sup>9</sup>

In order to provide clarity to all parties involved about the important issue of data ownership, there need to be consistent rules and guidelines from both state and federal regulators about the permissible uses of customer data. In legal terms, these rules will highlight the bright line between ownership and license.

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<sup>7</sup>EEI at 12.

<sup>8</sup>NASUCA Comments at 7.

<sup>9</sup>NASUCA Comments at 7.

First, there needs to be a clear rule that states that the consumer is the owner of the interval data that relate to the customer's residence. The definition of consumer needs to clearly indicate that even if the consumer is renting a residence, the owner of the data is the resident.

Second, as it concerns the utility company and other entities, there need to be clear rules and guidelines from state and federal regulators that outline the permissible uses (license) for the use of consumers' data.

The utility company has the right to: 1) use the consumer's individual interval data to bill for the service, 2) compile consumers' data in aggregate form to determine jurisdictional load profiles for reporting purposes and 3) make decisions concerning the operational efficiencies of the utility's network. However, the utility is not allowed to send consumer data in any form to any entity unless the consumer has provided written permission to do so.

Property owners have the right to review aggregate data for their building(s) in order to comply with regulatory mandates such as LEED certification and for capital investment purposes. Property owners should be restricted from having access to individual customer data within their building unless the customer has provided the utility with written permission to provide the data to the building owner.

Comments provided by EEI and others note the traditional role of the states in regulating the provisions related to protection of customer information and, specifically, the information provided to competitive choice providers.<sup>10</sup> Further, a resolution by the National Association of Regulatory Utility Commissioners ("NARUC") asserts that there

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<sup>10</sup>EEI Comments at 4.

is a need for states to safeguard customers' privacy and the responsibility for third parties to protect this information.<sup>11</sup> These comments seem to suggest that consumer data protection policies are only a state issue. While NASUCA supports an enhancement of the state role in promulgating rules related to privacy protection, there is a need for a national privacy policy to establish a minimum level of privacy protection.<sup>12</sup>

The need for a national privacy policy is made more evident by some of the submitted comments. For example, Verizon and Verizon Wireless (Verizon) encourages DOE to explore "self-regulatory models" of privacy.<sup>13</sup> And the Utilities Telecom Council (UTC) claims that there is no need for federal privacy standards, touting an "historic, unblemished record on utility protection of data" and stating that "utilities will do their best to ensure the privacy and security of consumer data."<sup>14</sup> It is not enough for utilities to simply "do their best," nor are self-regulatory models of privacy adequate in this instance. Consumers need clear, understandable privacy rules that are enforceable, and consistent.

UTC also claims that because there will be no contractual relationship between the utility and a third party, the customer would be responsible for the protection of his or her own data and would need to seek redress for third-party privacy violations in the courts or other means.<sup>15</sup> Rather than supporting UTC's opposition to federal privacy standards, such lack of consumer recourse through contractual relationships only

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<sup>11</sup> NARUC Comments at 3.

<sup>12</sup>NASUCA Comments at 20.

<sup>13</sup>Verizon Comments at 2.

<sup>14</sup>UTC Comments at 9.

<sup>15</sup>*Id* at 13.

highlights the need for enforceable privacy standards that pertain to all eligible parties who are permitted to access customers' data.

There is the potential for a state-mandated certification process to ensure that third-parties or others entrusted with customer usage information have the financial, technical and managerial wherewithal to provide adequate privacy protection. However, in terms of enforcement, federal and state mandates will need to be complementary in order to ensure broad consumer privacy protection.

In opposition to UTC's comments, United States Telecom Association (USTelecom) very clearly points out that "consumers should be able to expect the same level of privacy protection and choice for the collection and use of comparable data irrespective of the entity involved" and that such parity will "spur competition" and "foster innovation."<sup>16</sup> NASUCA agrees. Standards and business practices related to privacy protection need to be applied not only to the utility, retail choice provider or demand response provider but also to third-party companies entrusted with the use of customer energy usage information.<sup>17</sup>

Finally, several parties support the use of Fair Information Practice Principles (FIPs).<sup>18</sup> NASUCA notes that FIPs are very similar to the privacy principles and practices being developed by the Smart Grid Interoperability Panel Cyber Security Working Group and to the Privacy by Design principles discussed in opening

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<sup>16</sup>USTelecom Comments at 2.

<sup>17</sup>NASUCA Comments at 9.

<sup>18</sup>Xcel Energy Comments at 7, Tendiril Comments at 3, Telecommunications Industry Association Comments at 3, Southern California Edison Comments at 1 and 4, Pepco Holdings, Inc. Comments at 4, National Rural Electric Cooperative Association Comments at 9, EnerNOC Comments at 8, Demand Response and Smart Grid Coalition Comments at 2, and Consumer Electronics Association Comments at 3.

comments.<sup>19</sup> DOE, and states, should consider all of these useful privacy frameworks to develop meaningful and enforceable privacy standards.

### **Smart Grid Deployment and the Ability of Customers to Opt-In**

Question 4 of the RFI involves a consumer's ability to "opt-in" or "opt-out" of smart meter deployments and the control of individual customer usage information that may be shared with utilities and third-party providers. Pepco notes it is not practical for individual consumers to be able to opt-in or opt-out of a smart meter deployment.<sup>20</sup>

Likewise, Idaho Power suggests that consumers should not have the ability to opt-in or opt-out of smart meter deployments because of increased costs and lost efficiencies were utilities required to maintain separate processes for manually and automatically reading meters.<sup>21</sup> DTE Energy also opposes giving consumers the ability to opt-in or opt-out of smart meter deployments on the basis that utility business cases for investing in smart meter are predicated on 100% deployments for their cost justification.<sup>22</sup> EEI comments that any perceived benefit in customers being able to opt-in or opt-out of a smart meter deployment cannot outweigh the financial and operational impact on all customers.<sup>23</sup>

These comments do not adequately address consumer concerns about smart meter deployment. NASUCA disagrees with these commenters and recommends that the threshold question of whether or when to install smart meters should be addressed in comprehensive

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<sup>19</sup>NASUCA Comments at 10-14.

<sup>20</sup>Pepco Comments at 2.

<sup>21</sup>Idaho Power Comments at 6.

<sup>22</sup>DTE Energy Comments at 3.

<sup>23</sup>EEI Comments at 16.

proceedings at the state regulatory level.<sup>24</sup> Once state regulatory approval to install smart meter has been granted, consumers should have the voluntary choice to opt-in to dynamic pricing rate schedules even though a smart meter has been installed on their premise. In addition, NASUCA notes that meters can be changed as part of routine maintenance or when equipment fails.<sup>25</sup> This process may need to occur over a period of time to avoid the negative public perception of perfectly functioning meters being unnecessarily replaced by much more costly smart meters. Ultimately, public education about smart meters and the benefits that are potentially available for consumers as a result of smart meter deployment is a necessary predecessor for any wide scale deployment.

As it relates to individual customer data, Southern notes that it is not concerned about states requiring customers to opt-in to the sharing of customer information with unaffiliated third party providers.<sup>26</sup> However, DTE Energy comments that customers should have control over only that part of the customer-owned portion of the Energy Information that is shared with third parties.<sup>27</sup> Regarding the sharing of customer usage information, NASUCA continues to argue that customers are the ultimate owners of their energy usage information and must have the ability to “opt-in” to any data sharing arrangement.<sup>28</sup> As explained in NASUCA’s initial comments, “opt-in” means that customers must affirmatively agree with any program that results in energy usage data being shared with third-party providers.<sup>29</sup>

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<sup>24</sup>NASUCA Comments at 15.

<sup>25</sup>NASUCA Comments at 15.

<sup>26</sup>Southern Company Comments at 4.

<sup>27</sup>DTE Energy Comments at 3.

<sup>28</sup>NASUCA Comments at 16.

<sup>29</sup>*Id.* at 16.

NASUCA believes that offering consumers the ability to “opt-in” to data sharing provides the best method of consumer protection.

### **Different Community Interests are Affected by the Smart Grid**

In response to the RFI question 6, the comments indicate a general understanding of the potential problems that could exist if the public is not adequately educated about the Smart Grid and if the proper attention is not focused on the community issues. The industry and regulatory community at large must be diligent in avoiding making mass generalizations across socio-economic demographics. It is not necessarily a true statement to associate low income with low usage characteristics, or to assume that high income households must have high energy usage patterns. Energy usage profiles are diverse, and dependent on a plethora of characteristics such as education level, employment status, household size, age of home and appliances, profession, amount of time spent at home and general neighborhood demographics just to name a few. In the initial comments, NASUCA emphasized the need for pilot programs to evaluate the practicality of offering different pricing options and incentives that result in conservation and consumer consumption behaviors among different customer communities.<sup>30</sup> NASUCA also advanced the need for a coordinated educational program that is adapted to the state specific needs, and stakeholders that are affected by the smart grid.

### **Assurances for Prudence Review and Cost Effective Investments**

While not explicitly addressed in the RFI, there is a need to ensure that any investment made in Smart Grid technologies is subject to prudence review and that investments are supported with detailed cost-benefit analysis prior to passing along costs

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<sup>30</sup>NASUCA Comments, at 18.

to consumers. EEI comments that while customers should not have the ability to opt-out of having smart meters installed, customers are under no obligation to subscribe to Smart Grid Services.<sup>31</sup> As mentioned earlier, DTE Energy commented that the smart meter deployment requires 100% participation in order to justify the costs.<sup>32</sup>

These comments appear to indicate a willingness or desire on the part of some to force smart meters on consumers when the potential benefits of Smart Grid investments are far from defined. Further, there is real concern about the extent to which consumers, utilities or third parties need or want the granularity of data that would be available from smart meters.<sup>33</sup> Joint comments provided by the Consumers Union, National Consumer Law Center and the Public Citizen suggest that utilities should focus on cost-effective Smart Grid investments while smart meters are in the development and standardization stage.<sup>34</sup> NASUCA supports any assistance that DOE can provide in helping evaluate the effectiveness of Smart Grid initiatives and technologies and in prioritizing the different needs.

Finally, NASUCA has adopted two resolutions concerning the Smart Grid and the Advanced Metering Infrastructure principles that should be adopted by the regulatory community. These resolutions are attached. They should be considered in policymaking regarding Smart Grid investments.

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<sup>31</sup>IEE Comments at 16.

<sup>32</sup>DTE Energy Comments at 3.

<sup>33</sup>NASUCA Comments at 16.

<sup>34</sup>Consumers Union, National Consumer Law Center, Public Citizen Comments, at 6

## **Conclusion**

NASUCA appreciates the opportunity to provide these reply comments concerning the Smart Grid and consumer privacy protection. NASUCA respectfully requests that the DOE adopt NASUCA's recommendation to ensure that any Smart Grid policies and developments benefit and protect utility consumers.

Respectfully submitted,

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**THE NATIONAL ASSOCIATION OF  
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RESOLUTION 2009-01**

**ADVANCED ELECTRIC METERING AND ADVANCED ELECTRIC  
METERING INFRASTRUCTURE PRINCIPLES OF THE  
NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER  
ADVOCATES**

*Whereas*, the National Association of State Utility Consumer Advocates (“NASUCA”) has an earnest and long-standing interest in issues and policies that affect electric customers, including issues and policies that involve new technologies, reliability of electricity service, and rates; and

*Whereas*, many states and utility service territories are considering implementation of or are actively implementing advanced electric meters with the goals of reducing operational costs, increasing efficiency, increasing electric reliability, collecting real-time information about electricity usage and providing such information to customers, reducing electricity usage at peak times, achieving environmental benefits, enabling dynamic pricing options, *et al.*; and

*Whereas*, the interests of the public as electric consumers are of paramount concern, since deployment of advanced electric meters is ultimately paid for by electric ratepayers and will affect their electricity usage, rates, bills, and equipment in their homes and businesses; and

*Whereas*, in this Resolution the terms “advanced meters” and “smart meters” shall refer to advanced metering infrastructure (“AMI”) that is composed of at least the following characteristics:

- (i) the ability to measure and record electricity usage data on a time-differentiated basis in at least 24 separate time segments per day,
- (ii) the ability to provide for the exchange of information between the electricity supplier or provider and the customer’s electric meter in support of time-based rates or other forms of demand response,
- (iii) the ability to provide data to such supplier or provider so that the supplier or provider can provide energy usage information to customers electronically, and
- (iv) the ability to provide for net metering where applicable.

**NOW THEREFORE, NASUCA RESOLVES:**

That NASUCA supports the following principles to ensure that any implementation of AMI by electric utilities includes appropriate policies and procedures and reduces or eliminates potential negative impacts on customers:

1. That prior to implementation of advanced meters, states should consider the requirements of Section 1307 of the Energy Security and Independence Act of 2007 (now codified at 16 United States Code § 2621). States and utilities should also conduct a detailed analysis of the costs and benefits of a proposed advanced metering program and attendant rate design changes, if any, including but not limited to consideration of the following items:
  - a. the bill impacts resulting from rate design changes, such as time-of-use and critical peak pricing rates, on different residential and business customer classes;
  - b. the bill impacts or other effects on users in various usage and demographic profiles, including low-income consumers, elderly consumers, consumers with severe health conditions, and other consumers whose electric loads are relatively low or not easily shifted to off-peak times of the day;
  - c. how the costs of additional equipment that would be necessary to be purchased or rented by individual ratepayers in order to participate in any voluntary or mandatory utility advanced metering program affects the cost-benefit analysis;
  - d. how the costs of advanced metering included in rates are allocated among the various classes of customers served by the utility; and
  - e. whether an advanced metering program may lead to a reduced need to build new peaking capacity or transmission and distribution infrastructure, or to environmental benefits through decreased fuel use, or may reduce the electricity bills of some customers through dynamic pricing options, or may create other system or consumer benefits that offset the costs paid by ratepayers;

The above consideration of costs and benefits should be done through an evidentiary proceeding before the appropriate state or municipal utility commission.

2. That since advanced metering is an evolving technology, states and utilities are encouraged to proceed with appropriate caution in ordering a widespread implementation of advanced meters, and to examine the experiences of other states. To avoid customer frustration and/or stranded

costs, it is important to carefully consider, before approving any deployment proposal: (i) whether the proposed advanced metering product is or may soon become obsolete; (ii) whether the proposed advanced metering product has the required cost-effectiveness and functionality; and (iii) whether the advanced metering products or protocols are governed by national standards. States and utilities are also encouraged to balance the risks inherent with deployment of this evolving technology against the cost of inaction on advanced metering, including failure to achieve potential reductions in energy use and/or capacity needs;

3. States and utilities are encouraged to consider the interaction of a proposed advanced metering program with broader “smart grid” measures that are associated with the distribution and transmission system (existing or proposed) to ensure, to the extent possible, that expectations of benefits of an advanced metering proposal are realized and the advanced meters do not become obsolete as smart grid infrastructure is introduced;
4. To determine costs and benefits of a proposed advanced metering program to a geographically targeted area, states and utilities are encouraged, prior to widespread implementation of advanced meters, to consider running a pilot program that is properly designed and includes independent evaluation. States and utilities are also encouraged to design a pilot program to ensure accurate representation of the whole customer base in the relevant territory.<sup>1</sup> It is essential to provide to potential pilot participants an accurate description of how their homes and businesses will be affected and a thorough description of the goals and operations of the pilot. In the absence of a pilot, states and utilities are encouraged to use caution in relying on data about the costs and benefits of advanced metering in other states, nations and service territories, as differences in demographics, climate, appliance penetration or other characteristics could lead to dissimilar results;
5. That utilities should be expected to implement any advanced metering program with prudence and collect at most only the net costs in rates,<sup>2</sup> and any cost overruns, benefit shortfalls, or other negative impacts arising from the failure of a utility to implement an advanced metering program in a prudent way should remain the responsibility of utility shareholders, not ratepayers. For example, but not by way of limitation, if a utility

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<sup>1</sup> See Testimony of the Honorable Frederick F. Butler, Commissioner, New Jersey Board of Public Utilities on behalf of the National Association of Regulatory Utility Commissioners on “Smart Grid” before the United States Senate, Committee on Energy and Natural Resources, March 3, 2009.

<sup>2</sup> The “net costs” would be actual costs of the advanced metering program less the projected net savings to the utility from the advanced metering program, such as reduced operational expenses due to more reliable new meters or better data about the source and scope of outages. In the absence of a reduction in utility recovery to “net costs,” the utility could be overcompensated (at least between rate cases) and the risks of whether or not operational savings actually develop would be entirely on ratepayers.

imprudently deploys advanced meters and associated technologies that become prematurely obsolete, the ratepayers should not pay the resulting stranded costs. Prior to recovery by the utility of costs associated with an advanced metering program, the state or municipal utility commission should conduct a regulatory review or audit to ensure that such costs were prudently incurred;

6. That states and utilities are encouraged to analyze the interaction of proposed advanced metering programs with demand response measures and rate design to determine whether any proposed new infrastructure or program is the most cost-effective way to achieve the stated goals. In particular, but not by way of limitation, States and utilities should be encouraged to consider whether some of the goals expected to be achieved through implementing advanced meters, such as reductions in overall peak electricity loads or in energy usage, could be (or already are being) accomplished at low net cost to ratepayers in the aggregate through rate design measures such as inclining block rates, or through direct load control programs, such as those that offer customers value for interrupting central air conditioning or heat pumps during critical peak hours;
7. That the implementation of advanced metering should not lead to mandatory or “opt-out” dynamic pricing of electricity usage for residential and small commercial customers. Residential customers and small commercial customers should continue to be provided electricity under existing rate designs unless they affirmatively choose to receive dynamic prices that use smaller time increments, such as time-of-use rates or hourly pricing. Similarly, a customer should not be required to cycle off an air conditioner or other appliance in exchange for a bill credit unless the customer affirmatively chooses to be part of such a program.
8. That States and utilities should not be permitted to use advanced meters as a means for reducing consumer protections with regard to electric service in general and termination procedures in particular. The notices and warnings that typically are required prior to service termination provide important protections for low-income and other vulnerable customers and often avoid negative consequences, from misunderstandings to tragedies. Because utility systems, including billing systems, remain imperfect, States should consider increasing consumer protections regarding service terminations as part of the implementation of advanced metering to ensure that mistaken terminations and the attendant risks and hardships do not occur. This issue is of particular concern on weekends, holidays, and during severe weather conditions, when utility service personnel may not be immediately available to correct a mistaken termination;
9. The implementation of advanced metering should also not be used to degrade existing consumer protections in the area of prepayment. The

implementation of advanced metering should not lead to new requirements for prepayment of electric service;

10. That any implementation of advanced meters should be administered through specific policies and programs that meet Federal and applicable standards for cybersecurity and protect the privacy of customer usage information, both with respect to usage data derived by the utility for customer billing and information obtained concerning a customer's specific usage of electricity; and
11. That any advanced metering program or pilot must be accompanied by a vigorous education and outreach effort to ensure, at a minimum, that participating and non-participating customers are aware of the projected goals and impacts of the program, that participating customers will understand how to utilize equipment provided by the utility and how the deployment would affect them, and to address concerns about privacy of customer usage information.

BE IT FURTHER RESOLVED that NASUCA authorizes its Executive Committee to develop specific positions and to take appropriate actions consistent with the terms of this resolution. The Executive Committee shall advise the membership of any proposed action prior to taking such action, if possible. In any event, the Executive Committee shall notify the membership of any action taken pursuant to the resolution.

**Approved by NASUCA  
Boston, MA  
June 30, 2009**

# **THE NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES RESOLUTION 2009-03**

## **SMART GRID PRINCIPLES OF THE NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES**

*Whereas*, the National Association of State Utility Consumer Advocates (“NASUCA”) has an earnest and long-standing interest in issues and policies that affect electric consumers, including issues and policies that involve new technologies, reliability of electricity service, and rates; and

*Whereas*, NASUCA has adopted a resolution setting forth its principles on Advanced Metering Infrastructure (“AMI”); and

*Whereas*, NASUCA recognizes that the U.S. Department of Energy defines “Smart Grid” as a broad range of solutions that optimize the energy value chain;<sup>1</sup> and

*Whereas*, Section 1306(d) of the Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492 (2007) (“EISA”) states:

The term “smart grid functions” means any of the following:

- (1) The ability to develop, store, send and receive digital information concerning electricity use, costs, prices, time of use, nature of use, storage, or other information relevant to device, grid, or utility operations, to or from or by means of the electric utility system, through one or a combination of devices and technologies.
- (2) The ability to develop, store, send and receive digital information concerning electricity use, costs, prices, time of use, nature of use, storage, or other information relevant to device, grid, or utility operations to or from a computer or other control device.
- (3) The ability to measure or monitor electricity use as a function of time of day, power quality characteristics such as voltage level, current, cycles per second, or source or type of generation and to store, synthesize or report that information by digital means.
- (4) The ability to sense and localize disruptions or change in power flows on the grid and communicate such information instantaneously and automatically for purposes of enabling automatic protective responses to sustain reliability and security of grid operations.

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<sup>1</sup> Smart Grid: Enabler of the New Energy Economy, A Report of the Electricity Advisory Committee at p. 3 (Dec. 2008), <http://www.oe.energy.gov/DocumentsandMedia/final-smart-grid-report.pdf>.

- (5) The ability to detect, prevent, communicate with regard to, respond to, or recover from system security threats, including cyber-security threats and terrorism, using digital information, media, and devices.
- (6) The ability of any appliance or machine to respond to such signals, measurements, or communications automatically or in a manner programmed by its owner or operator without independent human interventions.
- (7) The ability to use digital information to operate functionalities on the electric utility grid that were previously electro-mechanical or manual.
- (8) The ability to use digital controls to manage and modify electricity demand, enable congestion management, assist in voltage control, provide operating reserves, and provide frequency regulation.
- (9) Such other functions as the Secretary (of Energy) may identify as being necessary or useful to the operation of a Smart Grid; and

*Whereas*, the American Recovery and Reinvestment Act of 2009 (“ARRA”) provides funds for expenses necessary for electricity delivery and energy reliability activities to modernize the electric grid, to include demand responsive equipment, enhance security and reliability of the energy infrastructure, energy storage research, development, demonstration and deployment, and facilitate recovery from disruptions to the energy supply, and for implementation of programs authorized under EISA; and

*Whereas*, the interests of the public as electric consumers are of paramount concern, since Smart Grid technologies are ultimately paid for by electric ratepayers and will affect their electricity usage, rates, bills, and equipment in their homes and businesses.

**NOW THEREFORE, NASUCA RESOLVES that it supports the following Smart Grid principles:**

- 1) A Smart Grid should be designed to improve the efficiency, reliability and security of the electric grid.
- 2) States, federal agencies, and utilities should conduct a detailed analysis of the costs and benefits of a proposed Smart Grid project through an evidentiary proceeding and should only go forward with the project if the benefits outweigh the costs. Such a proceeding would weigh all the tangible benefits leading to cost reductions from improved efficiencies accruing to the utility from Smart Grid deployment and would defray any Smart Grid investment costs against the identified utility tangible cost-reduction benefits when considering any utility cost-recovery. States should encourage utilities to seek ARRA funds to reduce the cost impact on ratepayers and consumers of any approved Smart Grid deployment.

- 3) An integrated approach to Smart Grid design includes adherence to FERC standards; optimization of regional and local planning to reduce rates, increase reliability and integrate renewable resources; and consideration of the interoperability with technology in neighboring utility service territories or grid systems and with existing or potential customer-side technology.
- 4) Smart Grid technology is in many cases new and evolving and the FERC and states should take steps to ensure that the specific set of technologies associated with a utility's proposed installation is in fact capable of operation as proposed, and to insure against the installation of technology that is soon outdated or stranded. Such assurances could take the form of placing the risk of loss associated with stranded costs, buyers' remorse or the like on shareholders.
- 5) Smart Grid design should prioritize a secure communications network with appropriate safeguards to prevent security breaches and reliability deficiencies.
- 6) Any implementation of a Smart Grid project should meet Federal and state requirements for cyber security and protect the privacy of customer usage information, both with respect to usage data derived by the utility for customer billing and information obtained concerning a customer's specific usage of electricity.
- 7) Consumption information obtained should be used to properly and accurately reflect demand side data with respect to electric energy and capacity in order to improve load forecast capabilities.
- 8) Smart Grid should be used to enable and inform the development of programs and policies that will lead to reduced costs for consumers. For example, Smart Grid should assist in the identification of portions of the grid that are nearing capacity in order for steps to be taken to reduce demand on that portion.
- 9) In conjunction with the installation of Smart Grid technology on the local level, local distribution utilities must maintain and operate their infrastructure system in a safe, adequate, and reliable manner.
- 10) That States and utilities should not be permitted to use Smart Grid deployment as a means for reducing consumer protections with regard to electric service in general and termination procedures in particular.
- 11) That the implementation of Smart Grid should not lead to mandatory dynamic pricing of electricity usage for residential and small commercial customers.

**BE IT FURTHER RESOLVED** that the Federal Energy Regulatory Commission should refrain from granting incentive returns for Smart Grid infrastructure, refrain

from requiring the early replacement of otherwise useful transmission or distribution plant and refrain from making decisions that serve to restrict or otherwise impinge upon the ratemaking authority traditionally held by state regulatory commissions.

NASUCA authorizes its Executive Committee to develop specific positions and to take appropriate actions consistent with the terms of this resolution. The Executive Committee shall advise the membership of any proposed action prior to taking action if possible. In any event the Executive Committee shall notify the membership of any action pursuant to this resolution.

**Approved by NASUCA  
Boston, MA  
June 30, 2009**