

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Smart Grid Policy Statement) Docket. No. PL09-4-000

**COMMENTS OF
THE NATIONAL ASSOCIATION OF REGULATORY UTILITY
COMMISSIONERS**

The Federal Energy Regulatory Commission (“FERC” or “Commission”) published a March 10, 2009 Federal Register request for comments on a proposed Smart Grid Policy Statement (“*Policy Statement*”).¹ The National Association of Regulatory Utility Commissioners (“NARUC”) supports the development and prioritization of Smart Grid standards for intersystem communication and cyber security as outlined in the *Policy Statement*.

We appreciate FERC's explicit recognition of State jurisdiction over meter specifications and the central role States play in promoting Smart Grid facilitated demand response. The *Policy Statement* raises many issues of jurisdictional overlap between FERC and State Commissions. To the extent that the Smart Grid will be deployed on lines or in areas within State Commission-jurisdiction (including, but not limited to, electricity distribution, retail services, customer premises, and bundled transportation) the State Commissions maintain

¹ Smart Grid Policy, 74 Fed. Reg. 13152 (March 10, 2009), *available at* <http://frwebgate1.access.gpo.gov/cgi-bin/PDFgate.cgi?WAISdocID=049872381729+0+2+0&WAIS action =retrieve>.

jurisdiction.² As FERC moves forward to promote the development and adoption of standards for the Smart Grid, we urge the Commission to be aware of its jurisdictional boundaries.

It would be easy to construe the Commission's proposed rate-setting policy as reaching beyond FERC-jurisdictional investments in transmission or wholesale electricity infrastructure. This needs clarification. The development of a Smart Grid will involve technologies that engage and affect the electricity system across State and Federal regulatory jurisdictions. NARUC's members look forward to working proactively with the Commission on these issues.

In support of these positions, we respectfully state as follows:

NARUC'S INTEREST

NARUC is a quasi-governmental nonprofit organization founded in 1889. Its members include the government agencies of the fifty States, the District of Columbia, and U.S. Territories engaged in the economic and safety regulation of carriers and utilities. NARUC's members oversee the rates and services of electric, gas, water and telephone utilities operating within their respective jurisdictions. They have the obligation under State law to assure that energy utility services required by the public convenience and necessity are established, maintained, and provided at rates and conditions which are just, reasonable and nondiscriminatory. NARUC is located at 1101 Vermont Ave., NW, Suite 200,

² See, Federal Power Act § 201, 16 U.S.C. § 824 (2006).

Washington D.C. 20005. Both the Courts³ and the United States Congress⁴ recognize NARUC as the proper party to represent the collective interest of the State Commissions.

NARUC appreciates the opportunity to comment. These comments address each of the cross-cutting issues and functionalities, provide feedback on FERC's proposed interim rate policy, and summarize our overall impressions and concerns. We do not take a position on specific standards or standards development bodies, but rather target overall policy goals, regulatory processes and jurisdictional issues raised by the *Policy Statement*.

STANDARDS

The development of Smart Grid standards for intersystem communication and cyber security are necessary to promote successful and cost-effective deployment of Smart Grid technologies. The *Policy Statement* correctly recognizes the urgency within industry and government to develop interoperability standards and deploy Smart Grid technologies. See *Policy Statement* at ¶ 12. The *Policy Statement* proposes “to prioritize the development of standards for two cross-cutting issues and four key grid functionalities involving interfaces between utilities (*e.g.*, regional transmission organizations

³ See, *e.g.*, *USA v. Southern Motor Carrier Rate Conference, et al.*, 467 F.Supp. 471 (N.D. Ga. 1979), *aff.* 672 F.2d 469 (5th Cir. Unit "B" 1982); *aff. en banc*, 702 F.2d 532 (5th Cir. Unit "B" 1983, *rev'd*, 471 U.S. 48 (1985)). See also *Indianapolis Power and Light Co. v. ICC*, 587 F.2d 1098 (7th Cir. 1982); *Washington Utilities and Transportation Commission v. FCC*, 513 F.2d 1142 (9th Cir. 1976).

⁴ See, *e.g.*, 47 U.S.C. § 410 (1986); *Cf.* 47 U.S.C. § 254 (1996).

(RTO) to utilities outside the RTO), utilities and customers, and utilities and other systems (e.g., energy management systems). . . in the interoperability standards-setting process.” *Id. at* ¶ 27.

Cross-Cutting Issues

System Security

To promote security, the *Policy Statement* proposes that Smart Grid standards must meet FERC reliability standards and ensure full cyber security by addressing the: (1) integrity of data communicated, (2) authentication of communications, (3) prevention of unauthorized modification to Smart Grid devices and logging of all modifications made, (4) physical protection of Smart Grid devices and (5) potential impact of Smart Grid devices on the bulk power system. *Policy Statement at* ¶¶ 29-30. The *Policy Statement* also suggests standards that address security concerns be given the highest priority. *Id. at* ¶ 31.

NARUC fully supports development of cyber- and physical security standards that move the utility industry into a framework of maximum system resilience, as well as next-generation safeguards that allow the network to be impregnable even if devices connected to it are compromised. Such standards are essential and must be prioritized.

Communications

The second cross-cutting issue defined in the *Policy Statement*, is the need for “a common semantic framework and software models for enabling

effective communication and coordination at the boundaries of utility systems where these interface with customer and other systems (and hence provide ‘inter-system’ functionality)” *Id.* at ¶ 32.

Interoperability and communications are essential to build out the Smart Grid. The rapid development of standards will undoubtedly decrease the likelihood of stranded investments. Regulators must focus on avoiding system obsolescence to assure efficiency and minimize the rate impact of Smart Grid investments while standards are being developed (and even after standards are set). Obsolescence creates increased costs to ratepayers. State Commissions are first in line to limit such unnecessary increased costs. Assuring needed software and firmware are *upgradable* is an important to avoiding obsolescence and should be included in the standards that are developed.

Functionalities

Wide-Area Situational Awareness

This functionality is defined as the “visual display of interconnection-wide system conditions in near real time at the reliability coordinator level and above.” *Policy Statement* at ¶ 35. The *Policy Statement* “encourage(s) RTOs to take a leadership role in coordinating the North American SynchroPhaser Initiative work with member transmission operators” *Id.*

To increase the efficiency and effectiveness of the backbone of the grid, developing standards for Wide-Area Situational Awareness and other Smart Grid

technologies must be a priority. This can promote the deployment of technologies to give grid operators a much better real-time view of their transmission and distribution networks and, necessarily streamline operations and improve reliability.

The *Policy Statement's* focus on RTOs as leaders in this critical process raises an additional concern. Because not every part of the country is covered by an RTO, FERC must assure the standards-setting process also includes input from those non-covered areas. These standards are aimed at the reliability coordinator level and above. Wide-Area Situational Awareness may also be a valuable tool for the grid's distribution lines, but this will be in the jurisdiction of the State Commissions.

Demand Response

Demand response programs are concededly State-jurisdictional. However, the *Policy Statement* claims that demand response policy may also help address challenges to the bulk power system such as: the possible need to integrate large amounts of variable power (*Policy Statement* at ¶¶ 18-19), the future potential for large variable classes of electric load via electric vehicles (*Id.* at ¶ 21), continuing congestion concerns, and the need to maintain reliability. *Id.* at ¶¶ 23-24. It contends “[f]urther development of key standards would enhance interoperability and communications between system operators, demand response resources, and the systems that support them.” *Id.* at ¶ 37. Based on this scenario, the *Policy*

Statement suggests “a series of demand response ‘use cases’ . . . be developed using readily available tools,” and “encourage(s) a particular focus on use cases for the key demand response activities (including) dispatchable demand response load reductions to address loss or unavailability of variable resources and the potential for dispatchable demand response to increase power consumption during over-generation situations.” *Id.* According to FERC, “achieving such demand response capabilities will require additional standardization of the interfaces between systems on the customer premises and utility systems, including addressing data confidentiality issues.” *Id.* at ¶ 38.

Significantly, FERC correctly recognizes, albeit obliquely, that the Smart Grid’s ability to facilitate demand response will necessarily involve policy initiatives that are beyond both the bulk power system and FERC’s jurisdiction:

“Specifications for customer meters are within the jurisdiction of the States, but it is clear that communication and coordination across the interfaces between the utility and its customers can have a significant impact on the bulk-power system, particularly as new renewable power and climate policy initiatives introduce the need for more flexibility in the electricity grid, which creates the need for increased reliance on demand response and electricity storage.” *Policy Statement* at ¶ 39.

The Commission also recognizes the existing essential role State Commissions currently occupy in promoting Smart Grid facilitated demand response. “The Commission seeks comment from States and other parties on the optimal approach to develop standards in this area, and we will pursue direct

communications with the States on this topic through the NARUC–FERC Smart Grid Collaborative and other NARUC Committees.” *Id.* at ¶ 39.

NARUC welcomes this invitation and looks forward to working with the Commission to further develop and expand demand response programs. While a smarter grid may optimize and expand demand response programs, *demand response programs do not require a Smart Grid to operate*. States have focused on Demand Response and in some cases used it widely. State Commissions, including those serving on the NARUC-FERC Demand Response and Smart Grid Collaboratives, look forward to collaborating with FERC to determine how to pursue a shared goal of increasing demand response.

Demand Response programs empower consumers to control electricity usage. Such programs potentially reduce consumer costs and can help utilities limit peak demand. However, they require retail consumer involvement, *an area which falls squarely within State-Commission jurisdiction*. In RTOs or ISOs, aggregators of retail customers may sell demand response resources into the bulk power system, *but even in such organized markets, State laws or regulations may prohibit customer participation*.⁵ Moreover, demand response programs are also in place outside RTO and ISO regions.

⁵ See Wholesale Competitions in Regions with Organized Electric Markets, Order No. 719, 125 FERC ¶ 61, 071, at PP 13-14.

As FERC recognizes, specifications for customer meters are firmly within the jurisdiction of State Commissions. *Policy Statement* ¶ at 39. The *Policy Statement* states that “achieving such demand response capability will require additional standardization of the interface between systems on the customer premises and utility systems, including addressing data confidentiality issues.” *Id.* at ¶ 38.

Utility engagement on customer premises and issues of data confidentiality, among other things, are firmly within the jurisdiction of State Commissions. A rulemaking targeting standards connected to customer premises will exceed the authority granted to the Commission to “institute a rulemaking proceeding to adopt such standards and protocols as may be necessary to insure Smart Grid functionality and interoperability *in interstate transmission of electric power, and regional wholesale electricity markets.*” EISA § 1305 (d) (emphasis added).

Moreover, the NIST Summit on April 28-29 identified NARUC as the best resource for the development of standards for data confidentiality and sharing of customer information.⁶

⁶ See, Summary of the Business Track discussion at the NIST Smart Grid Standards Summit, April 28-29, 2009, available at http://collaborate.nist.gov/twiki-ssgrid/bin/view/_SmartGridInterimRoadmap/WorkshopITrackA.

Electric Storage

The *Policy Statement* identifies electric storage as an “important means of addressing some of the difficult challenges facing the electric industry.” *Policy Statement* at ¶40. The Commission recognizes that only pumped hydro has been widely deployed as a bulk electricity storage mechanism, but that other, newer technologies are under development. FERC states that “while further research and development appears necessary before any widespread deployment of such newer technologies can take place, it may nevertheless be appropriate to encourage the identification and standardization of all possible electric storage use cases at an early stage.” *Id.*

The *Policy Statement* hypothesizes that “A large portion of electricity storage may ultimately be located on customer premises.” *Id.* at ¶ 39.

Electric storage can play an important role in the future of the Smart Grid. However, to the extent that electricity storage is located on customer premises and connected to the grid through the distribution system, it will be subject to State Commission oversight.

Electric Transportation

The *Policy Statement* at ¶ 42, aspires for a “smarter grid to accommodate a wide array of advanced options for electric vehicle interaction with the grid, including full vehicle to grid capabilities.”

“[T]o the extent that new electric transportation options become widely adopted in the near future, maintaining reliable operation of the bulk-power system will require some level of control over when and how electric cars draw electricity off of the system. At the most basic level, this could be accomplished by providing an ability for *distribution utilities* to facilitate vehicle charging during off-peak periods so that this new electric load would not increase peak loads and require the development of new peak generation, demand response and/or more transmission to urban load centers that are being targeted for these vehicles.”

Id. at ¶ 41 (emphasis added).

The distribution of electricity is firmly within the jurisdiction of the States.⁷ This means challenges posed by electric transportation will necessarily be dealt with, in the first instance, at the retail and distribution levels by State Commissions. Even the *Policy Statement* acknowledges that the first line of integration of electric transport will occur on the distribution level. The advent of electric transportation and its inclusion in this policy statement raises jurisdictional issues more fully discussed below.

RATE-SETTING POLICY

To promote Smart Grid technology, the Commission proposes an interim rate policy:

“[F]or the near term we propose certain rate treatments to encourage investment in Smart Grid technologies that advance efficiency, security, reliability and interoperability in order to address potential challenges to the bulk-power system. We recognize that a key consideration of public utilities in deciding

⁷ Federal Power Act § 201, 16 U.S.C. § 824 (2006).

whether to invest in Smart Grid technologies may involve the potential for stranded costs associated with legacy systems that are replaced by Smart Grid equipment. Additionally, as the electric system may require several of the new capabilities of the Smart Grid before interoperability standards have been developed, we recognize the need for guidance for jurisdictional entities. Thus, to offer some rate certainty and guidance regarding cost recovery issues, the Commission is proposing a rate policy for the interim period until final interoperability standards are adopted. The Commission also proposes that Smart Grid investments that demonstrate system security and compliance with Commission-approved Reliability Standards, the ability to be upgraded, and other specified criteria will be eligible for timely rate recovery and other rate treatments. For now, we propose as an interim rate policy to accept single-issue rate filings submitted under FPA section 205 by public utilities to recover the costs of Smart Grid deployments involving jurisdictional facilities provided that certain showings are made. In other words, we propose to consider Smart Grid devices and equipment, including those used in a Smart Grid pilot program or demonstration project, to be used and useful for purposes of cost recovery if an applicant makes the certain showings, as described below.” *Policy Statement* at ¶ 3

Encouraging Smart Grid investment is a laudable goal. However, this proposed “rate policy” will likely result in increased costs to consumers in the short term, prior to the realization of any Smart Grid benefits. Utilities will clearly benefit from these investments through streamlined and efficient operations. These efficiency gains, and related benefits, should be factored into rate-setting before passing all costs through to the consumers. Many early rate cases will likely involve utilities that have received matching grant or demonstration project funds for up to 50% of the cost of the Smart Grid

investments from the American Recovery and Reinvestment Act.⁸ This government funding should factor into the ultimate rate recovery calculus.

The *Policy Statement's* proposed rate-setting policy purports to apply to “public utilities to recover the costs of Smart Grid deployments involving jurisdictional facilities” *Policy Statement* at ¶ 3. NARUC seeks clarification on the applicability of the rate-setting policy. The term “involving jurisdictional facilities” may be construed to reach beyond investments made in transmission or wholesale electricity infrastructure and bleed into the State Commission’s jurisdiction. For example, an RTO may seek cost recovery for meters that are deployed in the homes of entities within their areas. Utilities need clear jurisdictional definition to support investment and State Public Utility Commissions need to have the opportunity to review and decide on the cost effectiveness of Smart Grid investments within their jurisdiction that affect rate payers. Because Smart Grid, as defined (*see Policy Statement* at ¶ 6 for definition of Smart Grid Characteristics, EISA § 1301) includes investments that straddle the jurisdictional divide between the State and Federal regulatory jurisdictions, it is important that FERC’s rate-setting policies do not allow FERC jurisdictional entities to bootstrap cost recovery for projects implemented within State jurisdictions (see more in general discussion below). It is imperative that any

⁸ The American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5.

rate-setting policies clearly prohibit the utilities from obtaining double cost recovery from Federal and State Commissions for the same investment.

GENERAL COMMENTS

Prioritization

FERC requests feedback on whether the priorities and reliability principles articulated in the policy statement are appropriate. *Policy Statement* at ¶ 44.

As noted, *supra*, the cross-cutting issues of communications and security must be prioritized. The various functionalities are at different stages of development—for example States currently deploy demand response, while new electric storage technologies and electric transportation require more technological development.

Generally, standards will be valuable to address the functionalities addressed in the statement, as long as any final order reflects the fact that demand response, electric transport, and electric storage (to the extent it is housed on the customer premises) are within State-Commission jurisdiction.

Jurisdictional Questions

The *Policy Statement* aims to prioritize the development of consensus-based standards so that FERC may implement rules around such standards:

“The purpose of the policy statement the Commission ultimately adopts will be to prioritize the development of key interoperability standards, provide guidance to the electric industry regarding the need for full cybersecurity for Smart Grid projects, and provide an interim rate policy *under which jurisdictional public utilities may*

seek to recover the costs of Smart Grid deployments before relevant standards are adopted through a Commission rulemaking.” at ¶ 2

Smart Grid technology has the potential to revolutionize the electricity system. But in the process, there is a potential for the jurisdictional boundaries between State and Federal authority to become less clear. While electrons may not recognize jurisdictional boundaries, policy makers must. Jurisdictional ambiguity is a prescription for wasteful litigation at ratepayer (and shareholder) and taxpayer expense, as well as a prescription for reduced investment. NARUC’s members understand this policy statement is the beginning of a longer dialogue and appreciates the Commission’s extensive engagement with its State colleagues on these issues.

Smart Grid technologies range from phasor measurement units on the transmission and distribution side to advanced meters on the retail side and everything in between, including technologies that have yet to be conceived. As the Commission issues its policy statement and continues to work along side the States to modernize the grid, it will be important to clarify jurisdictional boundaries to limited wasteful litigation, prevent double cost recovery, encourage appropriate investment, and assure ratepayers get the best possible service at proper rates.

The cleanest approach to determining whether the State Commissions or FERC has jurisdiction over a particular Smart Grid technology is to examine the

location of the deployed technology. If it is deployed on a line regulated by FERC, then the Smart Grid investment should be regulated by FERC; and if it is located on a line or in an area regulated by States, then the States should conduct the oversight.

As FERC and the States work together to promote the transformation of the grid to meet the challenges of our new energy economy, NARUC encourages clear jurisdictional definition that respects the strong contribution States can and must make as technologies are deployed to access the potential of a Smart Grid.

Respectfully submitted,

/s/ Robin J. Lunt

James Bradford Ramsay

GENERAL COUNSEL

Robin J. Lunt

ASSISTANT GENERAL COUNSEL

1101 Vermont Avenue, NW

Suite 200

Washington, DC 20005

Telephone: (202)898-1350

Fax: (202)898-1559

Attorneys for the

National Association of Regulatory Utility

Commissioners

Dated: May 11, 2009



N A R U C
National Association of Regulatory Utility Commissioners

June 2, 2009

Chairman Jon Wellinghoff
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

RE: Request for Supplementary Comments on Smart Grid Policy Statement

Dear Chairman Wellinghoff:

In response to your request for supplementary comments to the Smart Grid Policy Statement, in light of the Department of Energy's release of the draft Funding Opportunity Announcement (FOA) for Smart Grid Demonstrations and Notice of Intent to issue a Funding Opportunity Announcement for the Smart Grid Investment Grant Program, the National Association of Regulatory Utility Commissioners (NARUC) would like to reiterate some concerns we raised in our initial comments.

We encourage FERC to continue to respect the jurisdiction of State Commissions. Many, if not the majority of, demonstrations and grant projects will occur on the retail and distribution side of the grid, or on bundled transmission lines where States maintain jurisdiction. FERC should not provide a letter guaranteeing a source of funding or any sort of conditional rate recovery for any project that will be deployed within a State Commission's jurisdiction. Commissions need to have the opportunity to review these projects. Further, blurring jurisdictional definitions will cause uncertainty that hinders investment.

It is also imperative that any rate recovery mechanism clearly prohibit the utilities from obtaining double cost recovery from a State Commission and FERC for the same investment.

These and other comments are more fully articulated in our May 11, 2009 comments.

Thank you for the opportunity to comment.

Sincerely,

JAMES BRADFORD RAMSAY
GENERAL COUNSEL

/s/ Robin J. Lunt
Robin J. Lunt
Assistant General Counsel