

FERC Issues A Proposed Policy Statement on Smart Grid Technology and Rate Issues

On March 19, 2009, the Federal Energy Regulatory Commission (Commission) issued a proposed policy statement (Policy Statement) and action plan to facilitate development and deployment of Smart Grid technologies. The proposed Policy Statement prioritizes the development of interoperability standards and provides guidance to the electric utility industry regarding cybersecurity requirements for Smart Grid projects. The proposed Policy Statement also includes an interim rate policy to allow public utilities to timely recover investments in Smart Grid technologies. The proposed interim rate policy would be applicable until final interoperability standards are adopted through a Commission rulemaking.

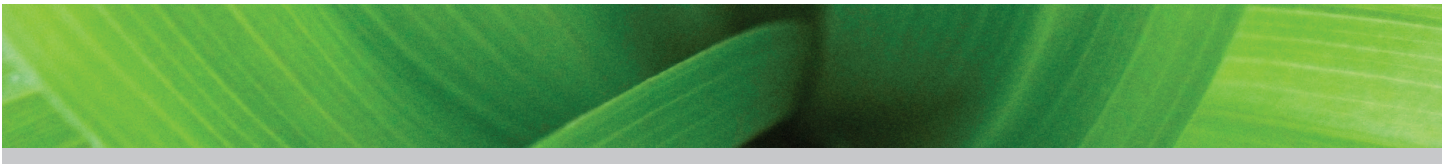
Comments on the proposed Policy Statement are due 45 days after publication in the *Federal Register*. The Commission also may convene a technical conference to seek additional input from the public regarding issues addressed in the proposed Policy Statement.

BACKGROUND

Smart Grid modernization of the interstate transmission system involves the application of digital technologies to enable real-time coordination of information from generation supply resources, demand resources, and distributed energy resources. Pursuant to the Energy Independence and Security Act of 2007 (EISA), the National Institute of Standards and Technology (NIST) is coordinating development of a framework that includes protocols and standards to achieve Smart Grid interoperability (i.e., the ability of a system or a product to work with other systems or products). Once the Commission is satisfied that NIST has achieved “sufficient consensus” on interoperability standards, EISA directs the Commission to adopt, by rulemaking, interoperability standards and protocols necessary to ensure Smart Grid functionality in the interstate transmission grid and wholesale electricity markets. To facilitate NIST’s efforts, the Commission issued its proposed Policy Statement to prioritize development of key interoperability standards.

DEVELOPMENT OF KEY INTEROPERABILITY STANDARDS

The proposed Policy Statement asserts that swift progress on certain Smart Grid standards is necessary for transmission system operators to address broad policy goals that include: increased reliance on demand response; climate change action; transmission system optimization; integration of renewable resources; and the potential for increased and variable loads from the transportation sector (e.g., electric powered vehicles). To facilitate implementation of these policy goals, the Commission is proposing to prioritize the development of Smart Grid standards for two cross-cutting issues and four key grid functionalities as the first level of work in the interoperability standards-setting process.



Cross-Cutting Issues: System Security and Communication

The proposed Policy Statement identifies two overarching principles to address security issues associated with the application of Smart Grid technology. First, an entity subject to Commission-approved reliability standards must ensure that it maintains compliance with those standards during and after installation of Smart Grid technologies. Second, to the extent Smart Grid technologies might affect the reliability of the bulk-power system, entities must address the following: (1) the integrity of communicated data; (2) the authentication of communications; (3) the prevention of unauthorized modifications to Smart Grid devices; (4) the physical protection of Smart Grid devices; and (5) the potential impact of unauthorized uses of Smart Grid devices. The proposed Policy Statement also states that a common semantic framework and software models are needed to enable effective communication and coordination across inter-system interfaces. To that end, the Commission has proposed that a core group of standards established by the Electric Power Research Institute should serve as a foundation for developing a complete set of communications standards.

Four Priority Functionalities

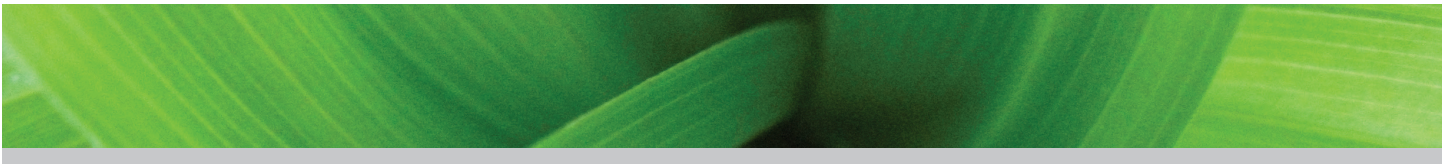
In addition to cross-cutting issues of security and communication, the Commission has identified four key Smart Grid functionalities that should be given priority in the standards development process.

Wide-Area Situational Awareness. Wide-area situational awareness is the visual display of interconnection-wide system conditions in near real-time at the reliability coordinator level and above. The proposed Policy Statement states the NIST should strive to identify core requirements for advanced software and systems that manage, process, and render large volumes of data to address transmission congestion and reliability.

Demand Response. The Commission believes that Smart Grid-enabled demand response should be a priority because of its potential ability to address bulk-power system challenges such as the loss of variable resources and over-generation. The proposed Policy Statement, therefore, emphasizes the need to standardize interfaces between systems on customer premises and utility systems to enhance interoperability and communications between system operators, demand response resources, and their supporting systems.

Electric Storage. Given the potential wide deployment of electric storage technologies, the proposed Policy Statement encourages the identification and standardization of all possible electricity storage uses at an early stage.

Electric Transportation. To the extent new electric transportation options become widely adopted, maintaining the reliable operation of the bulk power system will require some level of control over when and how electric cars draw electricity off the system. Accordingly, the proposed Policy Statement encourages NIST to focus on the development of appropriate standards, or extensions of relevant standards, to provide a minimum level of communications and interoperability requirements necessary to facilitate vehicle charging during off-peak periods. The proposed Policy Statement also encourages the Society of Automotive Engineers and the automobile industry to plan communications systems between electric vehicles and the grid that can be upgraded.



PROPOSED INTERIM RATE POLICY FOR SMART GRID INVESTMENTS

To encourage utilities to deploy Smart Grid technologies in the near-term, the proposed Policy Statement proposes an interim rate policy until final interoperability standards are adopted. Under the interim rate proposal, public utilities can recover the costs of Smart Grid technology, including devices and equipment used in pilot or demonstration projects, provided they: (1) demonstrate that the deployment of Smart Grid technology will not adversely affect the bulk-power system, including reliability and security standards; and (2) minimize the potential for stranded Smart Grid investments by deploying technology that can be upgraded, if necessary, to comply with final interoperability standards. Rate recovery would include stranded costs of legacy systems that are replaced by Smart Grid equipment (provided the utility has developed a mitigation plan to minimize such costs) and rate treatments for accelerated depreciation and abandonment authority. As a condition of rate recovery, public utilities must share information relevant to the interoperability standards development process with the Department of Energy's Smart Grid Clearinghouse.

FOR ADDITIONAL INFORMATION

The Commission's proposed Policy Statement follows the enactment of the American Recovery and Reinvestment Act (ARRA) in February. ARRA provided \$4.5 billion for Smart Grid demonstration and deployment programs authorized by EISA. If you would like additional information regarding the Commission's proposed Policy Statement or related Smart Grid funding opportunities under ARRA, please contact Jay Ryan, Doug Smith, Jennifer Owen, or any other member of Van Ness Feldman's Electric Practice.

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