

**BEFORE THE PUBLIC UTILITIES COMMISSION OF  
THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Consider Smart  
Grid Technologies Pursuant to Federal  
Legislation and on the Commission's own  
Motion to Actively Guide Policy in California's  
Development of a Smart Grid System

Rulemaking 08-12-009  
(Filed December 18, 2008)

**REPLY COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY  
ASSOCIATION ON JOINT RULING AMENDING SCOPING MEMO AND INVITING  
COMMENTS ON PROPOSED POLICIES AND FINDINGS PERTAINING TO THE  
SMART GRID**

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**I. INTRODUCTION**

Pursuant to the Assigned Commissioner and Administrative Law Judge's Joint Ruling in this proceeding, the Telecommunications Industry Association ("TIA") is pleased to provide reply comments on proposed policies and findings pertaining to the Smart Grid to the California Public Utility Commission ("Commission"). TIA is the leading trade association for the Information and Communications Technology ("ICT") industry. With 500 member companies that manufacture or supply the ICT products and services that will make the Smart Grid a reality, TIA is committed to the successful and secure modernization of the electric grid. Widely recognized as one of the greatest technological achievements of the last century, the electric grid has reliably provided consumers with electricity in an efficient and cost-effective manner. Electric utilities and the ICT industry share a long tradition of partnering to build and maintain the communications networks contributing to the security and reliability of the grid. Advances in technology and more robust use of ICT to transform the current electric grid into a Smart Grid

present exciting opportunities for consumers and utilities in the State of California and throughout the United States.

While the potential benefits of a Smart Grid are clear, at this nascent stage in its development, the policy and regulatory framework in which the grid matures will significantly impact how smart the grid can become and the benefits it can achieve in both the short and long term. TIA appreciates the comprehensive and forward-looking approach that the Commission is taking in this proceeding and appreciates the opportunity to share our perspective.

## **II. DEPLOYMENT PLAN REQUIREMENTS SHOULD BE FLEXIBLE AND ALLOW AND ENCOURAGE COMPETITION BETWEEN VIABLE TECHNOLOGIES**

In setting requirements for deployment plans, TIA agrees with the Commission that Smart Grid deployment plans may be used to establish a baseline allowing the Commission to monitor Smart Grid deployments and to be used by a utility or other party as part of the rationale for why specific investments are or are not just and reasonable. In both of these functions, however, requirements specific to technology requirements or architectures used in a deployment should be flexible and informational rather than rigid and prescriptive. As we have seen at the early stages of other developing technologies, technology neutrality is critical. Because of the diversity of applications and evolving nature of the Smart Grid, TIA emphasizes technology neutrality as the key to the successful development and deployment of Smart Grid infrastructure. Technology neutrality will lead to increased innovation in Smart Grid technologies, increased options for a range of customer needs and preferences, and provide a reliable and secure grid that reduces energy consumption and costs for consumers. Allowing and encouraging multiple technologies to compete to achieve the goals of a Smart Grid will increase investment in the

market, spur more innovation in products and solutions, and future proof the grid allowing it to realize its potential. At this early stage, it is impossible to predict which technology will be the most successful. TIA recommends that the Commission, either through deployment plan requirements, the regulatory process, or in selecting standards, avoid excluding viable technologies or architectures and instead focus on encouraging the use, coexistence, and interoperability of a group of viable technologies. From a technology perspective, deployment plans will need to be flexible as utilities continue to adopt and integrate new solutions as they become available. Annual updates from utilities to the Commission will be helpful. The Commission should anticipate and provide the necessary flexibility in both the deployment plans and the updates anticipating that they will change over time.

### **III. THE COMMISSION SHOULD DEFER CONSIDERATION OF STANDARDS AND PROTOCOLS TO ANOTHER PROCEEDING AFTER A NUMBER OF AGENCIES HAVE ADOPTED STANDARDS AND PROTOCOLS**

TIA recommends that the Commission should defer Commission consideration of standards to another proceeding that will commence after a number of the listed agencies have adopted standards or protocols. Adoption of standards and protocols in the current proceeding is premature given the status of the listed agencies in their process. The ICT industry is actively engaged with the National Institute of Standards and Technology (NIST) in helping them fulfill their responsibility of coordinating standards and protocols for the interoperability of Smart Grid solutions. TIA recommends that the Commission initiate a separate proceeding to examine the standards identified by NIST and evaluate any additional issues involving standards or protocols that the Commission will need to address beyond the NIST process.

Coexistence and interoperability are critical for communications interfaces for the Smart Grid. Industry standards should be selected that avoid interference and allow multiple technologies to compete. TIA recommends the use of Internet Protocol (IP) as an end-to-end network layer for Smart Grid communications where feasible. IP has many qualities ideal for the development of the smart grid:

- IP is secure with a proven and mature system of cybersecurity tools and applications.
- IP is interoperable, which minimizes costs and discourages technology silos.
- IP is reliable and self-healing as the technology will automatically avoid failed transmission links to ensure delivery of communications.
- IP is scalable and flexible allowing for loose coupling between the physical communications network and the applications on the network regardless of the underlying physical infrastructure.

#### **IV. THE COMMISSION SHOULD CONTINUE TO WORK WITH STAKEHOLDERS TO DEFINE REQUIREMENTS FOR PROVISION OF CONSUMER DATA**

To open the door to innovation in Smart Grid technologies, it is imperative that consumers have access to usage and pricing data and have the ability to easily authorize access to that data to third-party service providers. Whether the data is generated by customer-installed sensors or by the utility, customers should be able to access the data. The Commission should continue to work with stakeholders to define requirements for provision of the data as well as the cost to utilities for providing the data directly from the meter.

#### **V. INCENTIVES WILL BE HELPFUL TO ENCOURAGE AND PROMOTE THE DEPLOYMENT OF CONSUMER DEVICES THAT INTERACT WITH THE SMART GRID**

TIA believes that incentives can play an important role in both funding and promoting awareness for consumer devices that interact with the Smart Grid. Consumer awareness of

existing Smart Grid devices remains low. Incentives can act as a catalyst to spur consumer interest and accelerate greater interest and investment in the market.

**VI. THE COMMISSION SHOULD ENCOURAGE A NEUTRAL SMART GRID ARCHITECTURE THAT ALLOWS VIABLE TECHNOLOGIES TO COMPETE FAIRLY ON BOTH SIDES OF THE METER**

TIA recommends a neutral Smart Grid architecture where multiple interoperable technologies can coexist and compete as the most beneficial approach for both consumers and the development and deployment of the Smart Grid. TIA recommends that the Commission insure that consumers have access to the greatest number of home energy management solutions possible by allowing all technologies to compete fairly on both sides of the meter. In addition to serving a broad range of consumers, this will allow competition to drive innovation maximizing the intelligence of the grid.

**VII. THE COMMISSION SHOULD WORK WITH STAKEHOLDERS TO IDENTIFY CYBERSECURITY BEST PRACTICES AND CONSIDER SEEKING THE OPINION OF A QUALIFIED NEUTRAL THIRD PARTY ON TECHNICAL ASPECTS RELATED TO CYBERSECURITY**

By addressing cybersecurity early in the process, Smart Grid stakeholders can benefit by instituting optimal security policies and principles prior to the deployment of new technologies. Cybersecurity requires significant resources and ongoing management to mitigate current and developing threats. The Commission can benefit from best practices developed in other industries such as finance and healthcare that rely on ICT to protect assets and information.

On technical matters, TIA encourages the Commission to seek the opinion of a qualified and neutral third party when evaluating and rendering Smart Grid decisions that involve ICT. The convergence of ICT and energy services represents a major transformation of our energy

infrastructure and TIA believes that ratepayers would be best served if the capabilities of ICT are well understood by the Commission and leveraged where appropriate. In particular, the technical aspects of securing Smart Grid and Smart Meter communications and protecting customer data are highly complex. Smart Grid decisions based on inadequate information may result in system vulnerabilities that negatively impact the reliability of energy services, the privacy of ratepayers, and the ability of the Smart Grid to deliver on its full potential. It may further result in undesirable post-deployment costs to remediate security shortcomings that could have been avoided through an independent information security assessment during the planning stage. Seeking the opinion of a qualified, neutral third party is an industry best practice in the ICT sector, and it is well established practice among many state PUCs.

## **VIII. CONCLUSION**

TIA appreciates the opportunity to file these comments and looks forward to partnering with other stakeholders to facilitate the successful and secure deployment of the Smart Grid.

Respectfully signed and submitted on April 7, 2010.

TELECOMMUNICATIONS INDUSTRY ASSOCIATION

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**CERTIFICATE OF SERVICE**

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of **“REPLY COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION ON JOINT RULING AMENDING SCOPING MEMO AND INVITING COMMENTS ON PROPOSED POLICIES AND FINDINGS PERTAINING TO THE SMART GRID”** on all parties identified on the attached official service list for Proceeding: R08-12-009. Service was completed by serving an electronic copy on their email address of record, and by mailing paper copies to parties without email addresses.

Executed on April 7, 2010 at Washington, DC.

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