



Smart Grid Interoperability Standards

RM11-2-000
January 31, 2011

Agenda

1:00 – 1:05 p.m. Welcome and Opening Remarks by Commission Staff

Introduction

- The Energy Independence and Security Act of 2007 (EISA) requires that, once the work of the National Institute of Standards and Technology (NIST) has led to sufficient consensus in the Commission's judgment, the Commission shall 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 and wholesale electricity markets.¹
- To offer guidance regarding the development of smart grid standards, the Commission issued a Smart Grid Policy Statement in July 2009.² This document, among other things, identified key priorities for standards development to consider cyber security, interoperability, and certain smart grid functions.³
- In January 2010, NIST issued a Framework and Roadmap for Smart Grid Interoperability Standards, containing a list of standards identified as applicable to

¹ EISA § 1305(d), Public Law No. 110-140, 121 Stat. 1492, 1788 (2007) (to be codified at 15 U.S.C. § 17385(d)).

² *Smart Grid Policy*, 128 FERC ¶ 61,060 (2009).

³ *Id.* P 29, 40-45, 51-54, 61-62, 74-77, 81-82 and 90-91. The key functional areas included in the Smart Grid Policy Statement are wide-area situational awareness, demand response, electric storage, and electric transportation. *Id.* P 61-62, 74-77, 81-82 and 90-91.

the smart grid. On October 6, 2010, NIST notified the Commission by letter that it had selected five families of standards as ready for consideration by regulators and posted summaries of those families of standards on its website.

- The purpose of this conference is to obtain further information to aid the Commission's determination of whether there is "sufficient consensus" that the five families of standards posted by NIST on October 6, 2010, are ready for Commission consideration, as directed by section 1305(d) of EISA.

1:05 – 1:20 p.m. Opening Remarks by George W. Arnold, National Coordinator for Smart Grid Interoperability, NIST

Panel 1

1:20 – 2:50 p.m. The Smart Grid Interoperability Standards Process for Reviewing and Selecting the First Five Families of Standards

The Commission seeks information on the NIST processes used to select the five families of standards posted by NIST on October 6, 2010, summaries of which are included in the record of this proceeding. Panelists are encouraged to address:

- The role of stakeholder⁴ participation in the NIST process for reviewing and selecting these five families of standards, including the extent of agreement achieved among the participating stakeholders.
- The diversity of stakeholder participation in the NIST process for reviewing and selecting these five families of standards, including the extent to which stakeholders with relevant expertise participated in that process.
- In response to these subjects, panelists are encouraged to discuss topics that include, but are not limited to, the following:
 - Time and resources devoted to the review of standards;
 - Contribution of standards to increasing interoperability;

⁴ The term "stakeholder" refers to the NIST identified list of 22 stakeholder categories as well as experts from other industries involved in smart grid standards identification, development, or implementation. See <http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/SGIPCATEGORIES>.

- The standards’ attention to cyber security concepts such as authentication, cryptography, integrity, and availability;
- Consideration of legacy system integration issues;
- The U.S. power industry’s familiarity with the five families of standards; and
- Lessons learned from industries within and outside the power sector.

Panelists

- Daniel Thanos, Chief Cyber Security Architect, GE Digital Energy
- Darren Highfill, Founder, UtiliSec; Chair, Smart Grid (SG) Security Working Group, UCA International Users Group (USAIug)
- Gib Sorebo, Chief Cybersecurity Technologist and Assistant Vice President for Technology, Science Applications International Corporation (SAIC)
- John Lucas, Transmission Policy and Services General Manager, Southern Company Transmission
- Dr. Andrew Wright, Chief Technology Officer (CTO), N-Dimension Solutions, Inc.
- Ed Beroset, Director of Technology and Standards, Elster Solutions, LLC
- Frances Cleveland, President and Principal Consultant, Xanthus Consulting International

2:50 – 3:00 p.m. Break

Panel 2

3:00 – 4:30 p.m. The Smart Grid Interoperability Standards Development and Identification Process Going Forward

The Commission understands that the process for identifying smart grid standards at NIST has been and is likely to remain dynamic in nature. The Commission seeks information on the development and identification of smart grid interoperability standards going forward. Panelists are encouraged to address:

- Changes that have been made in the process for developing, reviewing, and identifying smart grid standards subsequent to the process used by NIST to select the five families of standards posted on October 6, 2010.
- How any revisions to NIST’s existing process to identify smart grid standards for regulatory consideration will provide for the sharing of information, transparency and the development of consensus.

- The role of the Smart Grid Interoperability Panel standing committees and permanent working groups⁵ in providing input into the standards development, and identification process.
- In response to these subjects, panelists are encouraged to discuss topics that include, but are not limited to, the following:
 - Time and resources devoted to the review of standards;
 - Contribution of standards to increasing interoperability;
 - The standards' attention to cyber security concepts such as authentication, cryptography, integrity, and availability;
 - Consideration of legacy system integration issues;
 - The U.S. power industry's familiarity with the identified standards; and
 - Lessons learned from industries within and outside the power sector.

Panelists

- Michael (Mike) Assante, CEO, National Board of Information Security Examiners (NBISE)
- Ron Ambrosio, Global Research Leader, Energy and Utilities, Industries STSM, IBM Research
- Dr. Nate Kube, Co-founder and Chief Technology Officer, Wurldtech
- Wayne R. Longcore, Director of Enterprise Architecture and Standards, Consumers Energy
- Andy Bochman, Energy Security Lead, IBM
- Paul De Martini, Chief Technology Officer and Vice President of Smart Grid Strategy, Cisco Systems

4:30 – 5:00 p.m. Wrap-Up FERC Staff, with George Arnold, National Institute of Standards and Technology, and Previous Speakers

⁵ These include the Smart Grid Architecture Committee, Smart Grid Testing and Certification Committee, and the Cyber Security Working Group.