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DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Docket Number: [200911-0239]

Draft NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 4.0

AGENCY: National Institute of Standards and Technology, Department of Commerce.

ACTION: Notice; request for comments.

SUMMARY: The National Institute of Standards and Technology (NIST) seeks comments on the Draft NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 4.0. This document is available online at:

<https://www.nist.gov/el/smart-grid/smart-grid-framework>.

DATES: Comments must be received on or before 5:00 PM Eastern Time on **[INSERT DATE 45 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL**

REGISTER]. Written comments in response to this Request for Comments (RFC)

should be submitted according to the instructions in the ADDRESSES and

SUPPLEMENTARY INFORMATION sections below. Submissions received after that

date may not be considered.

ADDRESSES: Written comments may be sent to the Smart Grid and Cyber Physical Systems Program Office, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8200, Gaithersburg, MD 20899-8200 or by email at smartgridframework@nist.gov. Comments containing references, studies, research, and other empirical data that are not widely published should include copies of the referenced

materials.

All submissions, including attachments and other supporting materials, will become part of the public record and subject to public disclosure. NIST reserves the right to publish relevant comments, unedited and in their entirety. All relevant comments received in response to the RFC will be made publicly available at <https://www.nist.gov/el/smart-grid/smart-grid-framework>. Personal information, such as account numbers or Social Security numbers, or names of other individuals, should not be included. Do not submit confidential business information or otherwise sensitive or protected information.

Comments that contain profanity, vulgarity, threats, or other inappropriate language or content will not be considered.

FOR FURTHER INFORMATION CONTACT: Mr. Cuong Nguyen, Smart Grid and Cyber-Physical Systems Program Office, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8200, Gaithersburg, MD 20899-8200; telephone 301-975-2254, fax 301-948-5668; or via email at smartgridframework@nist.gov.

SUPPLEMENTARY INFORMATION:

Section 1305 of the Energy Independence and Security Act (EISA) of 2007 (Pub. L. 110–140) directs NIST “to coordinate the development of a framework that includes protocols and model standards for information management to achieve interoperability of smart grid devices and systems.”

To meet these statutory goals, in January 2010, NIST published the NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 1.0 (Release 1.0), and in February 2012, NIST published the NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 2.0 (Release 2.0), which updated the material

discussed in Release 1.0. The most recent update of the framework, Release 3.0, was released in 2014 and introduced new interoperability requirements among the generation, distribution, and customer domains.

NIST now announces publication of the Draft NIST Framework and Roadmap for Smart Grid Interoperability Standards, Release 4.0 (Draft Release 4.0) for public review and comment. Draft Release 4.0 is available online at:

<https://www.nist.gov/el/smart-grid/smart-grid-framework>.

Draft Release 4.0 is a substantial revision of previous releases to address structural changes and increasing system complexity in the grid. This release includes a description of communications scenarios inspired by different grid architectures, which are used to more closely examine unique interoperability requirements. The interoperability implications of expanding grid communications in four key areas – grid cybersecurity, operations, economics, and associated requirements for testing and certification – are also explored.

Draft Release 4.0 reflects changes taking place in the grid, including the accelerating pace of technological change, rapidly falling prices for modern energy technologies such as solar photovoltaic (PV) and other distributed energy resources (DER), increased proliferation of low-cost sensors and network enabled devices, and the resulting surge in granularity and amount of data being generated. The issues surrounding empowered consumers, the coordination of tens of thousands of devices operating across the system, and multi-directional power flows are also considered.

Request For Comments:

NIST seeks comments on the Draft NIST Framework and Roadmap for Smart Grid

Interoperability Standards, Release 4.0. In particular, the agency requests that comments be categorized as 1) technical; 2) editorial; or 3) general. If a comment is not a general comment, please identify the relevant page, line number, and section of Draft Release 4.0 that is addressed by the comment. NIST will also accept proposed solutions along with the comments. Comments should be submitted in accordance with instructions in the DATES and ADDRESSES sections of this notice. All relevant responses that comply with the requirements listed in the DATES and ADDRESSES sections of this RFC will be considered.

Authority: Section 1305 of the Energy Independence and Security Act (EISA) of 2007 (Pub. L. 110–140)

Kevin A. Kimball,

Chief of Staff.

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