

MEMORANDUM OF UNDERSTANDING

between the

DEPARTMENT OF ENERGY

and the

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS,
INCORPORATED

This Memorandum of Understanding (“MOU”) is entered into this 5th day of May 2016 by and between the United States Department of Energy’s (“DOE”) Office of Electricity Delivery and Energy Reliability (“OE”) and the Institute of Electrical and Electronics Engineers (“IEEE”) on behalf of the Power and Energy Society (“IEEE PES”), hereinafter “the Parties”.

I. Purpose and Authority.

The purpose of this MOU is to more effectively align the efforts of OE and IEEE to address grid modernization challenges, especially at the distribution system level. The advent of information and communication technology (ICT) and renewable and distributed energy resources (e.g., solar power, electric vehicles, energy storage devices, active building load management, and microgrids) is providing new opportunities for improving the efficiency and reliability of the electric power grid, as well as enabling new benefits associated with its integration with other infrastructures. However, significant advancements in distribution grid capabilities are needed to make possible the multi-directional flow of energy, information and resources that are envisioned for the future grid and its convergence with other networks.

The transformation to an advanced grid will require a focused effort with the technical community to address both planning and operational challenges, including developing approaches for integrated resource planning and schemes for coordination, control and information management. In addition, as new technologies are developed, they will require careful examination to understand their impacts and requirements for grid integration. Recognizing the mutual interest in mobilizing the technical community to address these challenges, OE and IEEE are formalizing this understanding for the purpose of facilitating dialogue and coordinating activities leading to the implementation of effective strategies for grid modernization.

OE enters into this MOU under the authority of section 646 of the Department of Energy Organization Act (Pub. L. 95-91, as amended; 42 U.S.C. § 7256).

OE and IEEE will work collaboratively with the following objectives:

1. Sharing technical needs for grid interoperability requirements,
2. Identifying technological gaps and approaches for addressing them, and

3. Individually, developing, disseminating and sharing information on advancements in technology and associated practices for planning and operations.

II. Background.

DOE and its national laboratories have worked closely with IEEE for many years to share advancements in technology and industry standards in grid modernization.

DOE intends to execute this MOU with the IEEE PES to continue this process and to share information on technology development and construction of electric grid equipment and systems, and to educate members of the industry and the general public on grid modernization.

III. Responsibilities of the Parties.

OE will act as the DOE lead organization in executing this MOU with IEEE. In this role, OE will organize and facilitate collaborative within DOE and with other key federal agencies.

IEEE PES will act as the IEEE lead organization and will consult within other divisions of IEEE as necessary.

Through this MOU, the Parties agree to work together to advance the objectives stated above and will develop an implementation plan to accomplish them. An initial draft implementation plan is incorporated as an addendum under this MOU.

IV. Terms and Termination.

This MOU shall remain in effect until terminated by either party upon written notice to the other party.

This MOU in no way restricts either of the Parties from participating in any activity with other public or private agencies, organizations or individuals.

This MOU is neither a fiscal nor a funds obligation document. Nothing in this Agreement authorizes or is intended to obligate the Parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

This MOU is strictly for internal management purposes for each of the Parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either Party, including that of a federal contractor. This Agreement shall not be construed to provide a private right or cause of action for or by any person or entity.

IEEE agrees that it will not use this MOU to imply endorsement by DOE of its organization, its products or its services.

This MOU is subject to, and will be carried out in compliance with, all applicable laws, regulations and other legal requirements.

V. Modifications.

This MOU may be modified by mutually acceptable written amendment duly executed by authorized officials of OE and IEEE.

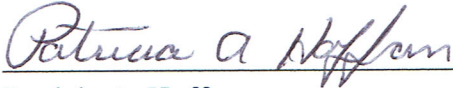
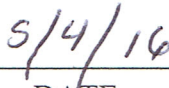
VI. Entire Agreement.

This MOU constitutes the full and final understanding of both Parties on all subjects contained within it. All prior negotiations, understandings, and agreements are merged into this Agreement.

VII. Execution.

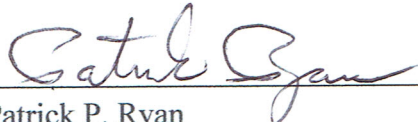
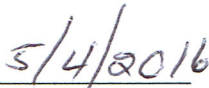
The Parties have caused this MOU to be executed in duplicate originals by their duly authorized representatives and is effective on the date of the last signature below.

For the U.S. Department of Energy

Patricia A. Hoffman DATE
Assistant Secretary, Office of Electricity Delivery and Energy Reliability

For the Institute of Electrical and Electronics Engineers

Patrick P. Ryan DATE
Executive Director, IEEE Power and Energy Society