Minutes of the Commission Meeting
PowerForward: Exploring Technologies, Day 3
July 27, 2017 – 9:00 a.m. – 4:15 p.m.

Present:
Asim Z. Haque, Chairman
M. Beth Trombold, Commissioner
Thomas W. Johnson, Commissioner
Lawrence K. Friedeman, Commissioner
Daniel R. Conway, Commissioner
Howard Petricoff, Chief Analyst
Krystina Schaefer, Grid Modernization & Security Section, Rates and Analysis Department
Mahila Christopher, Siting, Efficiency & Renewable Energy Section, Rates and Analysis Department
Timothy Benedict, Office of the Federal Energy Advocate, Rates and Analysis Department

The Commission met for the purpose of the second phase of PowerForward.

The meeting began at 9:00 a.m. in Hearing Room 11-B at the offices of the Commission.

1. **Integrating Distribution Energy Resources into the Evolving Grid: Presentation**
   *Chris Villarreal, President, Plugged In Strategies*
   Mr. Villarreal gave an overview of distributed energy resources.

2. **Distribution System Safety and Reliability Panel**
   *Julio Romero Agüero, Vice President of Strategy, Quanta Technology*
   Dr. Agüero presented on the impacts and solutions of distributed energy resources in power distribution systems.

   *Michael Coddington, Principal Engineer, Integrated Devices and Systems, National Renewable Energy Laboratory*
   Mr. Coddington gave an overview of interconnection standards and codes and the utility interconnection process.

   *Tom Key, Senior Technical Executive, Renewables Integration, Electric Power Research Institute*
   Mr. Key gave a presentation on the progress of distributed energy resource integration in the electricity industry.

3. **Distribution System Planning and Operations Panel**
   *Neil Placer, Managing Member, Placer Consulting Services, LLC*
   Mr. Placer presented on the development of a systematic utility 2.0 framework.
Alan Cooke, Senior Energy Research Engineer, Energy Policy and Economics, Pacific Northwest National Laboratory
Mr. Cooke gave a presentation about distribution system planning and operations.

Joshua Wong, President and CEO, Opus One Solutions
Mr. Wong presented on enhancements to the customer electricity experience through distributed energy resources.

The meeting took a break at 12:30 p.m. and resumed at 1:45 p.m.

4. Energy Storage: Presentation
Vijay Singh, Executive Director Business Development, NextEra Energy Resources
Mr. Singh provided an overview of energy storage technology and applications.

5. Energy Storage Panel
Don Harrod, Village Administrator, Minster, Ohio
Mr. Harrod gave a presentation about the solar and battery storage projects in Minster, Ohio.

Mr. Harty presented on vehicle-grid integration and energy storage.

Roger Wilkens, Co-Director, Pilot Microgrid Project, Athens, Ohio
Mr. Wilkens gave a presentation about the Athens Pilot Microgrid Project in Athens, Ohio.

6. Wrap-up Presentation
Jeff Taft, Chief Architect, Electric Grid Transformation, Pacific Northwest National Laboratory
Mr. Taft gave closing remarks with key considerations for the design of a modern electric grid platform.

The meeting adjourned at approximately 4:15 p.m.

[Signatures for Chair and Secretary]