



1129 20th Street, NW | Suite 350 | Washington, D.C. 20036
202.872.0030 Phone | 202.872.1331 Fax
utc.org | networks.utc.org

May 8, 2018

Kimberly D. Bose, Secretary
U.S. Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: Docket No. AD18-7, Grid Resilience in Regional Transmission Organizations and Independent Systems Operators

On behalf of the Utilities Technology Council (UTC), thank you for the opportunity to submit comments in the above-referenced proceeding (AD18-7). The Federal Energy Regulatory Commission (FERC, the Commission) should be commended for initiating this proceeding to gauge the resilience of the bulk-power systems managed and overseen by the nation's regional transmission organizations (RTOs) and independent system operators (ISOs). Given the tremendous change occurring in the energy and utility industries, this is a timely proceeding.

UTC is the international trade association advocating for the telecommunications and information technology interests of electric, gas and water utilities and other critical infrastructure industries. Our 220 core utility members include entities of all sizes and ownership structures ranging from large investor-owned utilities serving millions of customers across multiple states to smaller rural cooperative and public power utilities that may serve only a few thousand customers. All UTC members have private internal communications networks that they own, operate and maintain in order to ensure the safe, reliable and secure delivery of essential electric, gas and water services to the public at large. UTC represents the interests of these utilities as they deploy information and communications technologies and solutions that deliver secure, reliable and affordable mission-critical services.

As referenced in multiple occasions in FERC's Jan. 8, 2018, Grid Resilience Order initiating this proceeding, the Commission notes the changing nature of the electric utility industry.¹ These changes include the integration of variable energy and demand-response resources, more interaction with utility consumers, the threat of cyberattacks, and the ongoing effort to harden utility systems against extreme weather, among others. Although the initial focus of this proceeding was on generation resources² and secure, onsite fuel, the Commission rightly recognized that the resilience of the grid consists of multiple factors. UTC appreciates this approach and offers the following comments on behalf of its members.

¹ *Grid Resilience in Regional Transmission Organizations and Independent System Operators*, Order Terminating Rulemaking Proceeding, Initiating New Proceeding, and Establishing Additional Procedures, 162 FERC ¶61,012 (2018) ("Grid Resilience Order").

² Grid Resiliency Pricing Rule, 82 Fed. Reg. 46940 (Oct. 10, 2017).

In its Grid Resilience Order, the Commission broadens its analysis of grid resilience to include wholesale electric market rules, planning and coordination, and North American Electric Reliability Corporation (NERC) standards. The Commission states that resilience encompasses a number of services, characteristics, and attributes which allow the grid to recover from naturally occurring and man-made disruptive events. The Commission asks the nation's RTOs and ISOs to respond to a series of questions in order to gauge whether any additional Commission action or leadership is needed.³

UTC supports the Commission's notion that resilience in general involves a host of factors. We agree with the Commission that a holistic approach is necessary to ensure the resilience of the grid. We also believe utilities and the nation's RTOs and ISOs are taking proper steps to support these efforts, and we defer to their judgment on whether further Commission action is necessary at this time on the issues raised in the Jan. 8th Grid Resilience Order.

As referenced multiple times in the Jan. 8th Grid Resilience Order and corresponding statements from Commissioners LaFleur, Chatterjee, and Glick, the energy and utility sectors are undergoing profound change. This transformation is being driven by numerous factors, most notably the new technologies being developed and implemented on both bulk power and distribution systems across the country. Although not explicitly referred to in the Jan. 8th Grid Resilience Order, the key facilitators of this change are the Information and Communications Technology (ICT) networks that utilities, RTOs, and ISOs deploy on their transmission and distribution systems. These ICT networks often underpin the towers, wires, and poles that deliver reliable, resilient, and affordable power safely to homes and businesses all over the U.S.

Most utilities use ICT networks for the following essential functions:

- Real-time monitoring of medium and high-voltage networks
- Protective relays
- Energy management
- Outage management
- Distribution management
- Smart metering
- Substation automation⁴

These networks improve the reliability and resiliency of the grid by supplying real-time situational awareness to control-room operators. Networks also enable integration of distributed energy technologies such as battery storage, smart meters, and rooftop solar. Additionally,

³ Grid Resilience Order at P 25.

⁴ *Utility Network Baseline Survey*, Utilities Technology Council, (November 2017), available at <https://utc.org/resources/#research>.

utilities use communications networks to restore service after devastating storms and other natural disasters and man-made incidents.

For the most part, utilities have built out and maintained their own ICT networks, rather than outsourcing service from commercial telecommunications carriers. Utilities require high levels of reliability that traditional telecommunications carriers are unable or unwilling to provide. Utilities rely on both wireless and wireline technologies to run their ICT networks. Depending on the size, location, terrain, and geography of a utility's service territory, along with the expense of laying fiber lines to these remote locations, many utilities rely on wireless communications. Like any wireless network, utility ICT systems need radiofrequency spectrum to function, and the reliability of the wireless communications may be affected by radio frequency interference. Therefore, access to adequate and interference-free spectrum is a requirement if these networks are to work as intended.

Although spectrum policy resides at a separate federal agency—the Federal Communications Commission (FCC)—we encourage FERC Commissioners and Commission staff to consider the importance of interference-free spectrum to the continued reliable and resilient operation of the nation's energy systems. Not only is spectrum needed for advances in distributed energy technologies, but it is essential for modernization of the Bulk Power System as well. Utilities use Supervisory Control and Data Acquisition (SCADA) systems throughout their service territories on the Bulk Power System. SCADA systems deliver huge amounts of data and situational awareness through the ICT networks deployed by utilities. ICT networks are essential to delivering this data to the right location at the right time; indeed, without reliable ICT networks, grid modernization at the bulk power system level is impossible.

Spectrum policy is managed by the FCC under the Communications Act of 1934.⁵ Under law, the FCC is required to manage spectrum in the public interest. In the Balanced Budget Act of 1997, Congress authorized the FCC to award spectrum through auction, although it also exempted utilities from competitive bidding of spectrum, given the importance of utility services to the country.⁶ Despite this congressional requirement, the FCC continues to treat utilities as any other commercial entity when it comes to spectrum policies.

As FERC knows—and its regulations indicate—the nation's electric utilities deliver essential public services to all Americans. FERC's own regulations require electric utilities to meet stringent reliability standards in order to provide the highest levels of reliable service as demanded by the government and, more importantly, the industry's customers. Although spectrum policy is managed by the FCC, we ask that this Commission, through this proceeding,

⁵ See Communications Act of 1934, as amended, 47 U.S.C. § 151 et seq.

⁶ H. Rept. No. 105-217, Section 3002(a), (1997).



1129 20th Street, NW | Suite 350 | Washington, D.C. 20036
202.872.0030 Phone | 202.872.1331 Fax
utc.org | networks.utc.org

consider opportunities to establish formal and recurring meetings with its sister federal agency so as to acknowledge the utility industry's growing reliance on ICT networks.

These jurisdictional overlaps speak to the growing interdependencies between the telecommunications and energy sectors. Not only is spectrum needed for day-to-day reliability on the Bulk Power System, but it is essential for "smart grid" and utility of the future applications. As the use of these resources grows, electric utilities will need more spectrum to continue the reliable operation of their systems. If the transition to a more consumer-centric, distributed utility industry is going to be realized, a clear recognition of these cross-sector interdependencies must be understood and collaboration across government must occur regardless of jurisdictional boundaries.

UTC recognizes that this request does not necessarily fall neatly into the immediate proceeding. However, given the importance of ICT networks to the resilience of the nation's bulk power system, we believe that engagement with the FCC is a critical component of this discussion. FERC has held routine meetings with other federal agencies including the Nuclear Regulatory Commission, the Department of Energy, and the Environmental Protection Agency. On behalf of our members, we ask that the Commission consider extending its outreach to the FCC as well.

Thank you for the opportunity to submit these comments. UTC is supportive of efforts to analyze grid resilience and appreciates your consideration of our concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'Joy Ditto', with a long horizontal line extending to the right.

Joy Ditto
President and CEO,
Utilities Technology Council