

July 16, 2019

The Honorable Rick Perry  
Secretary  
Department of Energy  
1000 Independence Avenue, SW  
Washington, D.C. 20585

Dear Secretary Perry:

The undersigned collectively represent nearly every electric utility in the U.S. and thousands of water and wastewater utilities. We write to urge you to consider holding a public meeting on an ongoing proceeding at the Federal Communications Commission (FCC) which could have a profoundly negative impact on our industries' collective ability to provide safe, reliable, and efficient life-sustaining energy and water services across the country.

Nearly every single federal agency—including and especially the Department of Energy (DOE)—has acknowledged the energy and water industries as among the most critical of all our nation's critical-infrastructure industries (CII). Electric utilities, for example, remain the only industry in the country subject to mandatory reliability and cybersecurity standards to ensure that our nation has highly reliable electricity service. In addition, each of our sectors participate in its respective sector-coordinating councils to ensure close collaboration with our federal partners in the event of natural or manmade disasters.

Despite this recognition from DOE, the White House, Department of Defense, and Department of Homeland Security, the FCC is proposing a rule which, if adopted as currently drafted, would likely cause significant reliability concerns along the energy and water infrastructure in the U.S. To avoid adverse impacts to customers, many of our individual members could be forced to rebuild parts of their infrastructure over a multi-year process because of the risk and uncertainty brought about by this rulemaking.

The CII we represent own and operate infrastructure to deliver life-sustaining services to all aspects of our economy, including to the technology and telecommunications sectors. This infrastructure consists of power plants, interstate and intrastate electricity lines, interstate and intrastate water and gas pipelines, control centers, and substations, among others. Because the generation of electricity must be instantly matched with the delivery of power to customers, balancing the supply and demand of electricity requires intense planning, careful coordination, and robust and redundant infrastructure. Additionally, oil and gas and water pipelines must be constantly monitored for safety and reliability.

In order to support the reliable delivery of these services on a real-time basis, our collective membership deploys a sophisticated array of private communications networks throughout their service territories. Often overlooked, these networks provide critical situational awareness, underpin safety functions, and enable crews to safely repair and restore services after storms. In addition, these communications networks support the greater deployment of distributed energy resources, smart meters and other technologies to enable the more flexible grids associated with the transition to the utility of the future.

Our energy and water utilities' communications networks consist of wireline and wireless technologies; while wireline services can often provide faster and more reliable communications, they can be cost-prohibitive or unfeasible to deploy in some locations. Therefore, our collective members must rely on wireless networks for numerous mission-critical communications needs. According to a recent survey published by the Utilities Technology Council<sup>1</sup>, the most popular, reliable, and cost-effective wireless transmissions are done via microwave networks. Indeed, electric utilities use microwave communications for outage management, energy management, teleprotection (the communication between and among power relays), and smart metering, among other functions.

Our collective membership uses the 6 GHz band for many of these mission-critical communications. Currently, the band is reserved for licensed use. Licensed spectrum offers our members the reliability and protection from interference that these networks require. Due to the criticality of these networks, electric utilities cannot tolerate even the slightest risk that these communications systems could be degraded, as diminished situational awareness can result in degraded electricity reliability. Having continued interference-free access to this licensed spectrum ensures greater reliability and resilience.

In October 2018, the FCC proposed opening the 6 GHz band to unlicensed use, which would allow any commercial entity access to the band. In most bands, unlicensed spectrum is less expensive and comes with requirements that the entities not interfere with incumbent license holders. However, most bands are not used for the kinds of mission-critical purposes that 6 GHz is well-suited to provide. Furthermore, the 6 GHz band is already heavily used; the entrance of new players into the band would threaten to interfere with these critical networks.

While the FCC knows the band is already crowded, it is moving forward nonetheless because it believes it can protect our systems from disruption through an automated protection system called Automated Frequency Coordination (AFC). Unfortunately, the FCC's AFC system is unproven and untested, and even those who support the concept cannot guarantee it will prevent harmful interference consistently and reliably.

Interference to these mission-critical communications networks could impair an electric utility's ability to protect its infrastructure from faults on the grid. If a line is experiencing a problem or fault, teleprotection systems take action to prevent the problem from escalating and possibly damaging other elements on the system or causing power outages. Teleprotection systems must operate in milliseconds to execute their functions properly. Interference to these communications could cause delayed or degraded communication signals within these systems, which may present adverse operational and safety impacts.

On June 27, 2019, the Federal Energy Regulatory Commission (FERC) held a session on this issue during its annual reliability technical conference. This was a welcomed opportunity to discuss our concerns with the agency responsible for overseeing reliability to the Bulk Electric System. The discussion

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<sup>1</sup> Utility Network Baseline, April 2019 Update <https://utc.org/wp-content/uploads/2019/04/UTC-Utility-Network-Baseline-Final.0419.pdf>

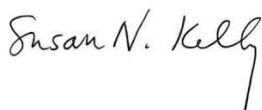
demonstrated that the communications and energy industries have very different spectrum needs and tolerance for interference.

Given the negative impacts this proposal could have on our nation's energy and water systems, we believe the FCC must hear from other agencies that regulate this infrastructure. Indeed, Senate Energy and Natural Resources Committee Chairman Lisa Murkowski, in a June 14, 2019, letter to FCC Chairman Ajit Pai, specifically asked whether and how the FCC was planning on consulting FERC and other energy stakeholders in the development of this proposal. Our collective membership recognizes the importance of using spectrum more efficiently to meet our nation's growing wireless needs. However, the 6 GHz band is home to the communications systems that support the very devices and services the FCC wishes to expand.

Although the FCC is an independent agency, its decisions have a clear and present impact on the nation's energy and water sectors. It is therefore in DOE's interest to hold a public conference or, at the very least, encourage the FCC to ensure that its final rule contains adequate, tested, and proven measures to protect the CII industries which power our ways of life.

Please do not hesitate to contact us with any questions.

Sincerely,




Sue Kelly  
American Public Power Association



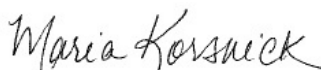
G. Tracy Mehan, III  
American Water Works Association



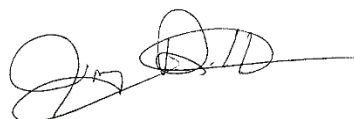
Tom Kuhn  
Edison Electric Institute



Jim Matheson  
National Rural Electric Cooperative  
Association



Maria Korsnick  
Nuclear Energy Institute



Joy Ditto  
Utilities Technology Council

**Cc:**

The Honorable Neil Chatterjee, Chairman, Federal Energy Regulatory Commission

The Honorable Cheryl LaFleur, Commissioner, FERC

The Honorable Richard Glick, Commissioner, FERC

The Honorable Bernard McNamee, Commissioner, FERC

*The American Public Power Association (APPA) is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. It represents public power before the federal government to protect the interests of the more than 49 million people that public power utilities serve, and the 93,000 people they employ.*

*The American Water Works Association (AWWA) is an international, nonprofit, scientific and educational society dedicated to providing total water solutions assuring the effective management of water. Founded in 1881, the Association is the largest organization of water supply professionals in the world. Our membership includes more than 4,000 utilities that supply roughly 80 percent of the nation's drinking water and treat almost half of the nation's wastewater. Our 50,000-plus total membership represents the full spectrum of the water community: public water and wastewater systems, environmental advocates, scientists, academicians, and others who hold a genuine interest in water, our most important resource. AWWA unites the diverse water community to advance public health, safety, the economy, and the environment.*

*The Edison Electric Institute (EEI) is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for more than 220 million Americans, and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than 7 million jobs in communities across the United States. In addition to our U.S. members, EEI has more than 65 international electric companies, with operations in more than 90 countries, as International Members, and hundreds of industry suppliers and related organizations as Associate Members.*

*The National Rural Electric Cooperative Association (NRECA) is the national service organization for America's Electric Cooperatives. The nation's member-owned, not-for-profit electric cooperatives constitute a unique sector of the electric utility industry – and face a unique set of challenges. NRECA represents the interests of the nation's more than 900 rural electric utilities responsible for keeping the lights on for more than 42 million people across 47 states. From booming suburbs to remote rural communities, America's electric cooperatives are energy providers and engines of economic development. Electric cooperatives play a vital role in transforming communities.*

*The Nuclear Energy Institute is the policy organization of the nuclear technologies industry, based in Washington, D.C. NEI has hundreds of members across the world and, with their involvement, develops policy on key legislative and regulatory issues affecting the industry. NEI was founded in 1994 from the merger of several nuclear energy industry organizations, the oldest of which was created in 1953. NEI's members include companies that own or operate nuclear power plants, reactor designers and advanced technology companies, architect and engineering firms, fuel suppliers and service companies, consulting services and manufacturing companies, companies involved in nuclear medicine and nuclear industrial applications, radionuclide and radiopharmaceutical companies, universities and research laboratories, law firms, labor unions and international electric utilities.*

*Founded in 1948, the Utilities Technology Council (UTC) is the international trade association for the telecommunications and information technology interests of electric, gas, and water utilities. UTC's membership includes approximately 300 utilities across the U.S. and Canada, including large, for-profit, investor-owned electric and gas companies that serve millions of customers across multi-state service territories, as well as smaller, not-for-profit, rural electric cooperative and public power utilities, which may serve only a few thousand customers in isolated communities or remote areas. UTC's core utility members own, manage, and control extensive communications infrastructure to support the safe, reliable, and secure delivery of essential energy and water services to the public.*