Utilities Technology Council™

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Feb. 27, 2018

The Honorable Fred Upton
Chairman, House Energy and Commerce Committee Subcommittee On Energy
2138 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Bobby Rush
Ranking Member, House Energy and Commerce Committee Subcommittee On Energy
2188 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Greg Walden
Chairman, House Energy and Commerce Committee
2185 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Frank Pallone
Ranking Member, House Energy and Commerce Committee
237 Cannon House Office Building
Washington, D.C. 20515

Re: Feb. 27 Subcommittee on Energy Hearing on State of the Nation's Energy Infrastructure

Dear Subcommittee Chairman Upton, Ranking Member Rush, Committee Chairman Walden, and Ranking Member Pallone:

I am writing on behalf of the Utilities Technology Council (UTC) regarding the Subcommittee on Energy's Feb, 27 hearing on the "State of the Nation's Energy Infrastructure." Established in 1948, UTC is the global association representing energy and water providers on their needs related to deployment of reliable and resilient information and communications technology (ICT). Energy providers use ICT networks as the backbone for the infrastructure that delivers safe, reliable, and secure energy services. These networks are essential for reliability, safety, resilience, and security.

UTC applauds the Subcommittee on Energy for holding this important hearing. As Subcommittee Chairman Upton so aptly noted in his announcement of this hearing, "Modernizing the nation's energy infrastructure should play an integral role in any sort of infrastructure plan moving forward."

Much of this hearing's focus will likely revolve around the transmission grid, resilience, and grid modernization, and rightfully so. A critical piece of this discussion must be centered on the ICT networks embedded throughout the grid. Indeed, electric infrastructure and the ICT networks that underpin them are essential to the reliable flow of electricity. More specifically, electricity providers use these networks for the following essential functions:

- Real-time monitoring of medium- and high-voltage networks (distribution and transmission, respectively)
- Protective relaying
- Energy management
- Outage management
- Distribution management
- Smart metering

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- Substation automation

Utilities began building out telecommunication networks as their service territories expanded in the post-World War II years. Because of the need for electricity to flow reliably nearly 100% of the time, electric utilities could not rely on communications networks built by commercial providers, which did not provide the level of reliability necessary to run electricity infrastructure. As they developed their networks, utilities recognized the need to deploy both wired and wireless technologies.

Over time, utilities began adding new technologies to these networks to improve real-time situational awareness, providing data from the power lines in the field to the more centralized substations and control rooms. These networks run the supervisory control and data acquisition (SCADA) systems that are essential to reliability. While the term "smart grid" is relatively new, utility ICT networks have long provided a level of automation and efficiency. Importantly, ICT networks are critical to grid modernization as they enable utilities to integrate intermittent generation resources such as solar and wind, accommodate demand response regimes, smoothly transition between battery storage technologies and the grid, and provide the infrastructure needed to deploy electric vehicles, among other exciting advances empowered by technology and now sought by customers.

Because these networks often rely on wireless devices to communicate, radiofrequency spectrum is a key element to their success. Spectrum is allocated by the Federal Communications Commission (FCC), under which the full Energy and Commerce Committee has jurisdiction. Spectrum is a limited and sought-after commodity that is needed for wireless communications of all kinds, including smart phones, laptops, any WiFi-enabled device, and much more. The FCC is charged with allocating spectrum in the public interest.

As utilities built and maintained these networks, however, they noticed a disconnect in how their services are valued by the FCC in contrast to other government agencies. Specifically, the Department of Homeland Security, the Department of Energy, many in Congress and at the White House (under several Administrations) consider the electric sector to be among the most critical of all critical industries. Our members meet, and often exceed, strict reliability requirements to keep the power on safely and reliably while at the same time planning for natural disasters and other hazards such as physical and cybersecurity attacks that could result in operational challenges.

Unfortunately, the FCC historically has not acknowledged this criticality in its spectrum allocation policies. As the demand for spectrum has increased exponentially due to the increased use of smart phones, drones, and many other wireless devices, the FCC's policies have crowded utilities out of, or forced them to share, spectrum in bands that are essential for the reliable flow of electricity. As policymakers discuss infrastructure proposals, we encourage members of this Subcommittee to consider the critical nature of energy providers and ensure they have access to suitable spectrum. Doing so will enable the country to realize its digital future while ensuring safe, secure and reliable delivery of energy services.

This could be done in the following ways:
FCC-Federal Energy Regulatory Commission (FERC) Meetings: Electric utilities meet and exceed requirements and standards for reliable service approved by FERC at the Bulk Power System (BPS) level.

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Utilities rely on the aforementioned telecommunications systems and networks to provide these extremely high levels of reliability, and spectrum is the key ingredient to operating these networks. With the FCC overseeing a central element to the reliability of our nation's electricity system, Congress should direct the FCC and FERC to meet on a regular basis to discuss issues of shared interest and jurisdiction. This is especially critical as utilities implement new technologies, such as smart grid, that rely on communications and information technologies and will result in a cleaner, more efficient energy delivery systems. We encourage Congress to direct FERC and the FCC to enter into a Memorandum of Understanding that would establish a format for these regular meetings and create a "joint spectrum team" consisting of a commissioner and staff from each agency. The joint spectrum teams would discuss each agency's authorities and hold technical conferences on how spectrum policies impact the energy industry.

Sense of Congress on the Spectrum Needs of the Energy Industry: Congress should consider passing a Sense of Congress Resolution officially stating its recognition of the energy sector's spectrum needs. Such a resolution would declare the importance of spectrum to the energy industry, sending a strong signal to government agencies about how critical spectrum is to our nation's electricity future.

The full Energy and Commerce Committee has jurisdiction over both FERC and the FCC. Members of this Subcommittee therefore have a unique opportunity to facilitate these discussions and analyze the growing interdependencies between the energy and telecommunications sectors. UTC stands ready to assist in this effort. Our organization has resources and subject-matter experts willing to provide Subcommittee members with any information or resources they need.

Again, UTC thanks the Subcommittee for holding this hearing. We appreciate the opportunity to submit this letter and look forward to working with all of you going forward.

Sincerely,

Joy Ditto
President, CEO of the Utilities Technology Council