

**Sponsors: Nebraska Public Power District; Florida Municipal Electric Association; Pennsylvania
Municipal Electric Association**

Protecting Public Power Communications Systems in the 6 GHz Spectrum Band

1 Electric utilities typically own and operate their own communications systems (wireline and wireless) for
2 mission-critical operations throughout the electric system. These private communications networks are
3 designed to remotely control and monitor transmission, generation, and distribution assets to ensure the
4 safe and reliable delivery of power to homes, businesses, and communities. Many electric utilities,
5 including public power utilities, rely on the 6 gigahertz (GHz) band of spectrum for wireless
6 communications to operate their critical electric infrastructure. In 2020, the Federal Communications
7 Commission (FCC or Commission) adopted a rule to allow the operation of unlicensed devices in this
8 band despite the strong concerns of radio frequency interference to critical infrastructure communications
9 using the band. Since the 2020 Report and Order, the Commission has adopted two more orders which
10 further expanded unlicensed operations in the 6 GHz band, and it has issued various waivers to further
11 facilitate unlicensed operations in the band, as well.

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13 Electric utilities are subject to mandatory reliability standards issued by the North American Electric
14 Reliability Corporation (NERC) and enforced by the Federal Energy Regulatory Commission (FERC).
15 They rely on their communications systems to ensure their compliance with these reliability standards.
16 Any delay or degradation of communications signals on communication systems used by electric utilities
17 in the 6 GHz band could lead to the disruption of power delivery and/or threaten the safety of workers and
18 customers. Thus, utility communications must not experience harmful interference from unlicensed
19 devices in the 6 GHz band and must maintain communications reliability to ensure the safe, reliable, and
20 secure delivery of electric power and to comply with the FERC/NERC reliability standards.

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22 In October 2018, the FCC issued a Notice of Proposed Rulemaking (NPRM) to open the 6 GHz band to
23 unlicensed spectrum sharing. The FCC stated in the NPRM, “proposed rules will allow a valuable
24 spectrum resource to be more intensively used to benefit consumers while allowing the existing licensed
25 uses of the 6 GHz band to continue uninterrupted.” To address interference concerns, the FCC proposed
26 use of an “automated frequency coordination (AFC)” system to mitigate any potential interference. AFC
27 is a technology that has not yet been shown under real-world conditions to protect licensed users in the
28 band from harmful interference by unlicensed devices. Many commenters in the proceeding, including the
29 American Public Power Association (APPA) and other electric, gas, and water utility trade associations
30 expressed strong opposition to allowing unlicensed operations in the band. In addition, the Department of
31 Energy, FERC, and members of Congress expressed their concerns to the Commission on the potential
32 impacts of unlicensed devices on critical utility communications networks and asked the Commission to

conduct real-world testing of AFC technology before allowing spectrum sharing in the band. Unfortunately, the FCC adopted the order, ignoring the concerns of industry and other regulators. Further, the Commission has allowed the operation of hundreds of millions of devices that utility studies have shown cause interference.

NOW, THEREFORE, BE IT RESOLVED: That the American Public Power Association (APPA) has serious concerns with the Federal Communications Commission’s (FCC or Commission) policies allowing unlicensed devices to operate in the 6 gigahertz (GHz) spectrum band that can cause harmful interference to licensed private utility communications networks that are used to control and monitor transmission, generation, and distribution assets to ensure the safe and reliable delivery of power to homes, businesses, and communities; and

BE IT FURTHER RESOLVED: That APPA believes the FCC must continue to conduct real-world testing of automated frequency coordination technology to ensure unlicensed devices operating in the 6 GHz band do not cause harmful interference to licensed utility communications networks operating in the band; and

BE IT FURTHER RESOLVED: That APPA would oppose future orders issued by the Commission that would further expand the operation of unlicensed devices in the 6 GHz band without demonstrating harmful interference to utility communications in real-world conditions will not occur.