

***CI-1/TC-1/WC-1 Resolution on FCC Proposal to Allow Unlicensed Operations in the 6 GHz Spectrum Band***

*Whereas* electric, gas, and water utilities under State commission regulation rely on extensive communications networks to underpin the delivery of these essential services to the public; those communications networks are for the most part built, owned, and maintained by the utilities themselves, with a few relying on third-party telecommunications, wireless, internet, or broadband providers for specific portions of their networks;

*Whereas* these communications networks (independent of ownership) rely on both wireless and wireline technologies in order to bolster the resilience of these networks — and, therefore, electricity, water, and gas infrastructure — against natural disasters, cyber and physical attacks, and other hazards;

*Whereas* these communications networks (when owned or operated by electric utilities) play a vital role in integrating new distributed energy resources into the grid which assists utilities in meeting federal and State reliability, efficiency and emissions standards; when owned by the telecommunications, wireless, Internet, or broadband providers, the communications networks are used both to facilitate the provision of broadband, Wi-Fi, VoIP, and other communications services, and to support the internal communications needs of the electric, gas, and water utilities;

*Whereas* utilities and other critical-infrastructure industries (“CII”) use wireless communications technologies that are reliant on radiofrequency spectrum, a naturally occurring phenomenon required for any wireless transmission; electric, gas, and water utilities need access to adequate interference-free radiofrequency spectrum to underpin the delivery of the essential services these entities provide;

*Whereas* telecommunications, wireless, Internet, or broadband providers, use wireless communications technologies that rely on radiofrequency spectrum, to provide telecommunications, wireless, broadband, and Internet services, which are also considered extremely high priorities, both during times of natural disasters or terrorist incidents, as well as other times;

*Whereas* companies operating in the U.S. Department of Homeland Security (“DHS”) “Communications” and “Information Technology” critical infrastructure sectors are also considered critical infrastructure entities by DHS and, by implication, under Presidential Policy Directive PPD-21 (“Critical Infrastructure and Resilience”);

*Whereas* the 5.925-7.125 GHz spectrum band is used by many different types of entities – including, but not necessarily limited to, utilities, transportation systems, pipeline companies, long distance telephone service providers, commercial wireless service providers, satellite service providers, and public safety enterprises to support mission-critical voice and data communications to remotely and automatically monitor and control systems that are essential for safe, secure and reliable operations and to talk with personnel during system maintenance and service restoration;

*Whereas* electric utilities, for example, use the 6 GHz band for teleprotection, a relay system on transmission and distribution grids which acts to prevent against faults 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;

*Whereas* radiofrequency interference to these mission-critical communications systems in the 6 GHz band risks causing interruptions of the delivery of essential energy and water services as well as the loss of

communications with railroad positive train control systems and police, fire and rescue operations that protect the safety of life, health and property;

*Whereas* in 2018, Congress addressed the critical need for additional mobile and fixed wireless broadband spectrum by directing the Federal Communications Commission (“FCC”) and the National Telecommunications and Information Administration to specifically identify at least 255 megahertz (“MHz”) of federal and non-federal spectrum for mobile and fixed broadband use – including, but not limited to, at least 100 MHz below the 8000 MHz frequency for unlicensed uses and at least 55 MHz below the 8000 MHz frequency “for use on either a licensed or unlicensed basis, or a combination of licensed and unlicensed”;

*Whereas* the FCC initiated a rulemaking proceeding in October 2018 to allow unlicensed operations in the 6 GHz band, which raised widespread concerns about the potential for interference to utility and other CII-licensed systems in the band. The FCC’s proposal represents one way to implement the congressional directive to increase the amount of spectrum available for wireless broadband, but to implement the proposal without robust and rigorous testing of the incidence and significance of interference that may be caused by such authorization, and without assurance that interference to utility and CII-licensed systems can be prevented, is premature if not irresponsible;

*Whereas* the FCC has proposed to use automated frequency coordination (“AFC”) to mitigate potential interference by outdoor unlicensed operations; however, it proposed to allow indoor unlicensed operations without any use of AFC to mitigate potential interference to licensed systems in the band, despite engineering studies submitted on the record in the rulemaking concluding that there is a significant risk of interference to licensed systems from the deployment of unlicensed devices in the 6 GHz band, including some studies which have demonstrated that indoor use is just as problematic as outdoor use;

*Whereas* the U.S. Department of Energy, in a September 2019 letter, has urged the FCC to use the U.S. national laboratories to test the AFC system before proceeding with its proposal;

*Whereas* the FCC relocated utilities in the early 1990s from the 2 GHz band to the 6 GHz band. As a result of this relocation, utilities have invested considerable ratepayer money into developing systems suitable to the 6 GHz band;

*Whereas* the 6 GHz band satisfies the unique needs of utilities due to its ability to transmit data quickly over long distances. If forced out of the band, utilities and other CII licensees have few, if any, reasonable alternatives; meanwhile, there are other spectrum bands that are currently available or that could be made available that would more efficiently serve the needs for unlicensed operations and more efficiently than the 6 GHz;

*Whereas* State regulators have a direct and tangible interest in the safety, reliability and security of electric, gas, and water utilities and other CII, and they have authorized utilities to invest billions of dollars (including funds derived from federal grants from the U.S. Department of Energy) in SCADA and smart grid systems in order to promote, among other public interest objectives, the safety, reliability and security of utilities and other CII, many of which were authorized pursuant to State statutory mandates and deadlines;

*Whereas* many State regulators, legislators, and other government officials also have an interest in promoting the deployment of broadband infrastructure – including, but not limited to, mobile and fixed broadband wireless infrastructure, for both public safety and other purposes;

*Whereas* the National Association of Regulatory Utility Commissioners in previous resolutions has acknowledged the need for utilities to have access to spectrum to promote public safety, and smart grid systems needed for protecting the safe, reliable, and secure delivery of essential public services including energy, water, communications, transportation, and public safety; *now, therefore be it*

*Resolved* that the National Association of Regulatory Utility Commissioners, gathered at its Annual Meeting in San Antonio, in recognizing the criticality of utility and other CII communications in the 6 GHz spectrum band, recommends the Federal Communications Commission modify its proposal to not allow unlicensed operations in the 6 GHz band unless and until such time that it has tested and proven that its AFC system works as intended to protect license holders, including utility and other CII systems, and it is demonstrated that unlicensed operations will not cause harmful interference to license holders as determined by the FCC.

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*Passed by the NARUC Committees on Critical Infrastructure, Telecommunications and Water  
Adopted by the NARUC Board of Directors, November 19, 2019*