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4.9 GHz Issue Brief

SUMMARY

In September 2020, the Federal Communications Commission (FCC, Commission) approved new rules expanding eligibility to utilities and other critical infrastructure industries as one way to encourage more effective use of the 4.9 GHz band (4940-4990 MHz) of the radio portion of the electromagnetic spectrum. Historically, this band has been allocated to public safety exclusively, but is only lightly used by those entities.

The radio portion of the electro-magnetic spectrum is needed to enable wireless applications for utilities, public safety, and telecommunications providers, among others. This radio spectrum is subdivided into various bands (measured by hertz) that have different properties.

Electric utilities use spectrum as part of their Information and Communications Technology (ICT) networks which underpin their transmission and distribution systems. These networks are essential for day-to-day reliability, situational awareness storm response and recovery, grid modernization, and cybersecurity. Additionally, utility ICT networks are the central piece of the industry's transition to "Utility 2.0," a more responsive, resilient, and interactive utility system.

UTC POSITION

The Utilities Technology Council (UTC) has long supported efforts to expand access to the 4.9 GHz band and has worked with the National Public Safety Telecommunications Council (NPSTC) to develop a proposed plan which

would include utilities as eligible entities to hold licenses. UTC believes that expanding eligibility to include utilities and other critical infrastructure entities will improve emergency response and partnerships between utilities and public safety.

The FCC's decision permits expanded use of up to 50 MHz of spectrum in the 4.9 GHz band. The new rules allow states to lease this spectrum to third parties, including utilities and other critical-infrastructure industries.

BACKGROUND

The FCC first allocated the 4.9 GHz band for exclusive use by public safety in 2002, and at the time it was anticipated that the band would be used for "hot-spot" communications on a temporary basis during emergencies. The Commission noted that the band's proximity to some of the unlicensed bands would allow public safety to leverage the equipment in those bands for use in the 4.9 GHz range. The Commission adopted service rules for the band permitting it to be lightly licensed and coordinated by Regional Planning Committees (RPCs).

Because the band was lightly used, the Commission launched a proceeding in 2007 to make more effective use of it. UTC has long supported the idea of giving utilities and other CII eligibility to hold licenses in the band. Throughout the last several years, UTC has worked with NPSTC and other public safety organizations to gather support for the inclusion of utilities and CII as eligible entities to use the 4.9 GHz band.

In its September 2020 order, the FCC permits one

statewide 4.9 GHz band licensee per state to lease some or all of its spectrum rights to third parties—including utilities and other commercial and public safety users—in those states that the FCC has not identified as a diverter of 911 fees. The order does not limit or modify the rights of any incumbent public safety licensees, so they will be able to continue to provide existing services. These new rules also eliminate the requirement that leased spectrum must be used to support public safety but would require lessees to adhere to the informal coordination requirements applicable to the band.

SITUATIONAL AWARENESS

UTC believes that sharing the 4.9 GHz spectrum is an opportunity for utilities to deploy fixed point-to-point connectivity in a band that is lightly used in order to support their private utility networks that enhance the operational efficiency, safety and reliability of the electricity system. The process of sharing the band with public safety and the potential for using up to 50 MHz of licensed spectrum will promote partnerships between utilities and public safety that will create synergies as well as more effective use of the band.

Utilities would use the 4.9 GHz band for numerous mission-critical operations, including communications backhaul, SCADA applications, advanced metering, distributed generation

management, protective relaying, and much more.

ABOUT UTC

The Utilities Technology Council (UTC) is a global trade association dedicated to serving critical infrastructure providers. Through advocacy, education and collaboration, UTC creates a favorable business, regulatory and technological environment for companies that own, manage or provide critical telecommunications systems in support of their core business.

History: UTC was founded in 1948, to advocate for the allocation of additional radio spectrum for power utilities. Over the last 70 years, UTC has evolved into a dynamic organization that represents electric, gas and water utilities, as well as natural gas pipelines, critical infrastructure companies and other industry stakeholders.

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