

700 MHz Public Safety Broadband Network Issue Brief

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SUMMARY

The radio portion of the electromagnetic 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 in “hertz”) that have different properties. The 700 MHz (megahertz) public safety broadband network (PSBN) appears to be suitable for sharing with electric, gas and water utilities. It would provide access to 20 MHz of capacity in a frequency range that would deliver favorable coverage over wide areas.

UTC POSITION

As a practical matter, the Utilities Technology Council (UTC) believes utilities could compatibly share the network along with public safety. At the same time, utilities need priority access, particularly during emergencies when reliable communications are essential for restoring power and water services. As a policy matter, sharing the network with utilities makes sense, because it would create synergies that enhance public safety and emergency response while making efficient use of resources, such as utility infrastructure, which could help to support the construction, maintenance and operation of the 700 MHz PSBN.

Yet the outlook for utility access to the 700 MHz PSBN is uncertain, because FirstNet has not clarified the extent to which utilities would have priority access during emergencies. This issue will be critically important as an incentive for utilities to share utility infrastructure and invest in the network.

BACKGROUND

In 2012, Congress established FirstNet to oversee the construction, maintenance and operation of

the 700 MHz PSBN. FirstNet initiated a solicitation process and in March 2017 selected AT&T to build the network. Additionally, Congress allowed individual states to opt-out from FirstNet's RFP and develop their own plans for deploying the 700 MHz PSBN. Congress permitted “secondary users” to access the 700 MHz PSBN on a secondary basis for non-public safety services under covered leasing agreements and utilities could access the network through these covered leasing agreements.

Moreover, Congress expressly directed FirstNet to leverage existing commercial and other communications network infrastructure to the maximum extent when deploying the PSBN. Consistent with these provisions, FirstNet could leverage utility infrastructure (often termed “private networks”), which is often located where commercial services are hard to find and which has the hardened nature FirstNet needs for its operations. This would accelerate the deployment of the PSBN and reduce the cost of the network.

Congress also directed the Federal Communications Commission (FCC) and stakeholders to develop technical rules for interoperability. The resulting rules established LTE (“long-term evolution,” which is a standard for high-speed wireless communication) as the standard for the PSBN.

In addition to promoting interoperability, LTE also enables greater capabilities for prioritization of communications. As a practical matter, LTE should enable utilities to share the 700 MHz PSBN without having their communications preempted. LTE is capable of assigning many different levels of prioritization of traffic on the network, enabling utility communications to be

assigned very high levels of priority access, which would ensure service reliability and availability.

Prioritization is important for utilities because utility operations demand high levels of reliability for mission critical communications that could impact the safety, integrity and security of not only the grid, but of utility crews and the public at large. They cannot afford to compromise on communications coverage, capacity and availability, particularly during emergencies, which is fundamentally why utilities own, operate and maintain their own extensive private internal communications networks.

SITUATIONAL AWARENESS

UTC believes that there should be constructive incentives for utilities to participate in the 700 MHz PSBN, which will create synergies with public safety by leveraging existing utility infrastructure and allowing utilities to share capacity on the network with public safety. Utilities could partner with public safety, particularly in rural areas, where utilities have suitable communications networks and other infrastructure that could be used by FirstNet to improve coverage and reduce the deployment costs for the 700 MHz PSBN. Access by utilities would also help to make the 700 MHz PSBN more economically sustainable. Utilities would help to make effective use of the network while it is not in use for public safety communications. Finally, utilities need access to reliable broadband capacity in support of smart grid and other communications needs, including during emergencies, which the 700 MHz PSBN would provide.

The extent to which utilities will use the 700 MHz PSBN will depend on the availability of priority access during emergencies and how well the network is designed to meet utility standards for reliability.

These two issues are still unclear. UTC looks forward to working with FirstNet and AT&T to promote utility access on a priority basis and network reliability and resiliency for the 700 MHz PSBN.

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 68 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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