

CLIENT ALERT

FCC Actions Facilitate Next-Generation Wireless Technologies

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At its recent November Open Commission Meeting, the Federal Communications Commission (the Commission) continued its efforts to facilitate the deployment of next-generation wireless technologies, commonly referred to as 5G. Specifically, the Commission voted to make additional spectrum available for next-generation wireless services and took steps intended to facilitate the deployment of broadband infrastructure that could be used to support 5G. The Commission will take additional action in December intended to further facilitate wireless infrastructure deployment.

What is 5G?

The term 5G encompasses a broad array of potential fixed and mobile wireless services, and is likely to address a broad range of use cases and business models. While it is not clear exactly what form these networks will take, there is widespread agreement that 5G will offer higher speeds, faster response times, and the ability to connect many more devices than today's 4G networks. Many expect 5G networks to bring significant new capabilities to individual consumers, governments at all levels, and a wide range of industries, including, but not limited to, transportation, healthcare, energy, manufacturing, and agriculture.

5G networks will rely on a range of spectrum frequencies and deployment models, with significant focus on high-band spectrum, also known as millimeter wave (mmW) spectrum, and small cell infrastructure. Due to recent technological advances, high-band spectrum, which was previously considered to be largely unusable for broadband networks due to its physical characteristics, will form an important component of 5G networks. Although mmW spectrum has a limited

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transmission range compared to low- and mid-band frequencies, it is capable of carrying vast amounts of data over those short distances.

In contrast to traditional wide-area network deployments in place today, 5G technologies will rely on small, densely clustered cells, commonly referred to as small cells. And unlike large, free-standing cell towers, small cells likely will be placed on existing structures such as utility poles and street lamps. 5G networks will also require sufficient access to backhaul, the intermediate portion of the network between the backbone and the edge of the network, to enable the highest possible speeds. As a result, 5G networks are likely to dramatically increase demand for both wireless and wireline infrastructure to support many of the expected applications, such as connected cars, for example, one of the most highly anticipated use cases.

Spectrum Actions

The Commission has prioritized making additional spectrum available for 5G networks, including low-, mid-, and high-band spectrum. In 2016, the Commission adopted an [Order and Further Notice of Proposed Rulemaking](#) in its *Spectrum Frontiers* proceeding that made available 11 gigahertz of mmW spectrum. The Order authorized licensed fixed and mobile operations in the 28 GHz, 37 GHz, and 39 GHz bands, and authorized unlicensed operations in the 64-71 GHz band. In the November *Spectrum Frontiers* [Second Report & Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order](#), the Commission built on its previous action by:

- Making available an additional 1,700 megahertz of high-band spectrum in the 24 GHz and the 47 GHz bands;
- Affirming its decision to permit unlicensed use of the 64-71 GHz band; and
- Declining to cap the amount of spectrum in the 24 GHz and 47 GHz bands that a single bidder can acquire in an auction.

In addition, in the Second Further Notice of Proposed Rulemaking, the Commission:

- Seeks comment on ways in which performance requirements could be adjusted to accommodate Internet of Things (IoT) deployments and other innovative services; and
- Proposes to eliminate the limitation on the amount of spectrum in the 28, 37, and 39 GHz bands that a single bidder can acquire in an auction.

Comments on the Second Further Notice are due on January 23, 2018.

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Infrastructure Action

In order to facilitate 5G deployment, the Commission adopted the *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment* Report and Order ([Replacement Utility Poles R&O](#)), which eliminates the need for historic preservation review when utility poles are replaced with substantially identical poles that can support antennas or other wireless communications equipment in instances where there is no potential effect on historic properties. This action is expected to make deployment of small cell infrastructure more efficient and less prone to unnecessary delay, while still respecting historic properties.

In the *Replacement Utility Poles* R&O, noting that “enhancing the nation’s wireless infrastructure is essential to . . . delivering the next generation of applications using transformative new network technologies,” the Commission encourages the swift installation of additional wireless infrastructure. Specifically, the Commission:

- Eliminates the requirement for historic preservation review when utility poles are replaced with substantially identical poles that can support antennas or other wireless communications equipment;
- Excludes from review replacement utility poles where the original pole is not itself a historic property, and the replacement pole will be placed in the same hole, will have a consistent appearance with the original, and will cause no new ground disturbance; and
- Consolidates the historic preservation review procedures into a single rule.

Finally, the Commission also acted to streamline the deployment of wireline infrastructure that may be used for 5G network backhaul, among other things. In the *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment* [Report and Order, Declaratory Ruling, and Further Notice of Proposed Rulemaking](#), the Commission sought to accelerate the deployment of next-generation networks and services by removing regulatory barriers to infrastructure investment; speeding the transition from legacy copper networks and services to next-generation fiber-based networks and services; and eliminating Commission regulations that could raise costs and slow broadband deployment.

Expected Infrastructure Action in December

At its December 14, 2017, Open Commission Meeting, the Commission will consider a [Public Notice](#) seeking comment on a proposed solution intended to address long-standing barriers to collocating wireless communications equipment on “Twilight Towers”—towers constructed between March 2001 and March 2005—that may not have completed the historic preservation review required by Section 106 of the National Historic Preservation Act (NHPA). This solution, if implemented, would make thousands of existing towers available for collocations without the need for a lengthy historic

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review process, making additional infrastructure available for wireless deployments, including 5G small cells, and would decrease the need for new construction.

NHPA requires federal agencies to consider historic preservation in executing, funding, or licensing projects with the potential to affect historic properties. The Advisory Council on Historic Preservation (ACHP) has the authority to issue a "Program Comment" setting out an alternate method for federal agencies to meet their Section 106 obligations. If adopted by the Commission, the Public Notice would solicit public input on a draft Program Comment that would exclude collocations on Twilight Towers from Section 106 historic review, provided that certain conditions are met. Following receipt of comments, the Commission intends to formally request that the ACHP issue the Program Comment. For its part, the Commission also clarifies in the Public Notice that it will not take enforcement action related to the good-faith deployment of Twilight Towers.

If the Public Notice is adopted, comments would be due 30 days after publication in the Federal Register.

If you have any questions regarding this client alert, please contact the following attorneys or the attorney with whom you regularly work.

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