

BRIEFING

Page 1 of 2

Item # 5.2.3

Deputy City Manager's Office Briefing to
Gas, Power and Telecommunications
2021 May 13

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Update on 5G Readiness – Wireless Infrastructure on City-Owned Assets

PURPOSE OF BRIEFING

The purpose of this briefing is to provide an update on The City's work to respond to inquiries from wireless service providers seeking access to municipal assets for the installation of small cell antennas and other wireless infrastructure.

SUPPORTING INFORMATION

What is 5G?

5G is a catch-all phrase for the 'fifth generation mobile network'. It is the next evolution in mobile and wireless technology. 4G and earlier generations required the use of macro cell sites such as towers and rooftop antennas.

Unlike previous generations, the successful implementation of 5G will require a densified network of small cell sites, attached to City and private assets. Most notably, City-owned street light poles are ideal support structures due to height, power availability and locations across the city.

Why is 5G important?

As outlined in the *5G and Connectivity* study commissioned by Calgary Economic Development, "While forecasts vary, 5G promises greater speed (to move more data), lower latency (to be more responsive) and the ability to connect far more devices at once (for sensors and smart devices). The 5G Council of Canada, an industry group of telecom operators, characterizes 5G as the 'next generation' of mobile wireless standards and technologies. It says 5G will enable a fully connected mobile society and deliver unprecedented benefits to citizens, industry and government." The study goes further to say, that "5G has great potential, but it is imperative to separate marketing from reality. 5G service offered in Canada in 2021 is a combination of 5G and 4G systems. A true, universal 5G network is still on the horizon."

Are there other factors impacting the rollout of 5G?

The rollout of 5G depends on the wireless service providers' investment commitments, which are generally market driven. An additional factor for the launch of 5G in Canada is related to the necessity for wireless service providers to acquire access to the radio frequency spectrum, which is managed by Innovation, Science and Economic Development Canada. Spectrum auctions began in March 2019 with the 600 MHz band. The auction for 3,500 MHz is scheduled to start on 2021 June 15. Administration anticipates that most of the initial inquiries and installations will enhance the current 4G network and lay the foundation for future 5G equipment.

BRIEFING

Page 2 of 2

Item # 5.2.3

Has there been any changes to the regulatory environment?

On 28 February 2019, the Canadian Radio-television and Telecommunications Commission (CRTC) issued a notice of consultation (Telecom Notice 2019-57) which included a review of the future of mobile wireless services in Canada, with a focus on reducing barriers to infrastructure deployment. On 2021 April 15, the Commission published its decision (Telecom Regulatory Policy CRTC 2021-130).

The Commission determined that there is no persuasive evidence that municipalities systematically act as barriers to deployment and the concept of municipal consent to right-of-way access is built into the Telecommunications Act. The Commissions determinations are significant because they acknowledge the important role of municipalities and of municipal consent as a fundamental statutory prerequisite.

Is The City ready?

To support innovation and remain an attractive city to start or grow a business, The City has established a streamlined approach for wireless service providers (WSPs) to inquire about accessing designated City-owned assets to install WSP-owned wireless equipment.

Under the interim agreements, nearly one hundred feasibility inquiries representing a maximum of 20 sites per inquiry have been submitted by WSPs and reviewed by Administration for feasibility. It is anticipated that the WSPs will only choose a portion of these sites to proceed to the design stage.

Two WSPs have signed a master licence agreement which replaces the interim agreements. Master licence agreements formalize the streamlined and business-friendly processes and standards developed in collaboration with the WSPs, and sets out the framework for the efficient and timely attachment of WSP wireless equipment onto City-owned and operated assets.