

BRIEFING

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Deputy City Manager's Office Briefing to
Gas, Power and Telecommunications
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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.

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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 CRTC published its decision (Telecom Regulatory Policy CRTC 2021-130).

The CRTC 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 CRTC's determinations are significant because they acknowledge the important role of municipalities and of municipal consent as a fundamental statutory prerequisite.

TELUS has sought leave to appeal aspects of CRTC's recent Regulatory Policy – Review of Mobile Wireless Services decision including the access to public property, filing an application with the Federal Court of Appeal. The appellant says the CRTC had boundary issues in its recent Wireless Review, failing to exercise its authority in one case; overreaching its jurisdiction in another. The appellant asserts that CRTC has the right to permit carriers to affix its equipment onto public places (e.g. light standards, lamp posts, bus shelters, and buildings) if a carrier is unable to obtain consent from municipalities. Yet at the same time, the appellant argues that CRTC overreached when it imposed new conditions on the national wireless carriers which conflict with the conditions of licence for spectrum licences; the power to issue this sort of condition lies solely with the Minister of Innovation, Science and Economic Development and that department.

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 were 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 subsequently 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.