

City of Mississauga
Corporate Report



<p>Date: October 16, 2020</p> <p>To: Chair and Members of General Committee</p>	<p>Originator's files:</p>
<p>From: Gary Kent, CPA, CGA, ICD.D, Commissioner of Corporate Services and Chief Financial Officer</p>	<p>Meeting date: November 4, 2020</p>

Subject

5G Assessment Update

Recommendation

That the report from the Commissioner of Corporate Services and Chief Financial Officer dated, October 16, 2020 and entitled, "5G Assessment Update" be received for information.

Report Highlights

- In Canada, Telecommunication providers are progressing with 5G deployment with expectations that full 5G implementation will start in 2021 and take several years with billions of dollars of investment to implement 5G across Canada.
- City staff has been actively assessing the implications of 5G for the City of Mississauga through the engagement of key internal and external stakeholders including benchmarking across Canada and globally.
- Members of Council and 311 will be provided current information regarding 5G to assist with answering inquiries. The information will also be published on the Smart City web site at www.smartcity.mississauga.ca/.
- The 5G Assessment, including recommendations, will be reported back to General Committee in first quarter of 2021.

Background

The Smart City Master Plan, endorsed by Council July 2019, included several strategic initiatives including an assessment of the 5G technology standard for cellular networks, for the City of Mississauga.

The term 5G can be defined as the "fifth generation technology standard for cellular networks" and is heralded for providing ultrafast and reliable communications for a growing and

demanding smart phone customer base. It is also seen as the future framework for connecting the Smart City for use cases such as autonomous vehicles, the Internet of Things (IoT) and will transform the speed, reliability, and access to data.

The introduction of 5G is happening around the world with varying degrees of implementation ranging from full-scale implementation to small-scale pilot projects. In Canada, Telecommunication providers are progressing with 5G deployment with expectations that full 5G implementation will start in 2021 and take several years with billions of dollars of investment to implement 5G across Canada. The provision of 5G is a commercially provided competitive business model that is introducing new pressures on municipal infrastructure.

Comments

City staff has been actively assessing the implications of 5G for the City of Mississauga through the engagement of key internal and external stakeholders including benchmarking across Canada and globally. A Project Steering Committee with key stakeholders from City service areas that have an interest ranging from City planning to the approvals and operational impacts of the supporting infrastructure for 5G.

The 5G Assessment will include:

- The impacts on the Built Environment looking at the types of radio and antenna technology and related infrastructure to support the technology
- Where and how 5G will be implemented City-wide so we can anticipate how to best influence and inform the decision making process
- Health related concerns following closely Public Health Canada, CSA and Industry standards as well as any independent studies
- The operational and economic opportunities of 5G considering future use such as Autonomous Vehicles and other Smart Sensor technologies.
- Recommendations and opportunities to influence how 5G is implemented in the City of Mississauga.

Currently there are 5G pilots underway in Canada to test various use cases, the technology and the capabilities. Rogers and the University of British Columbia have embarked on a pilot rendering UBC Canada's first 5G smart campus. A 5G Pilot in partnership with Post-Secondary Institutions is the typical approach observed in neighbouring municipalities and across Canada. Additional pilots of varying scale are underway in the following municipalities; Brampton, London, Toronto, Hamilton, Kitchener, Waterloo, Ottawa, Montreal, Kelowna, and the Region of Peel. The merits of a pilot for the City of Mississauga will be considered as part of the 5G Assessment recommendations.

Recently the Region of Peel Health Department took a report to Regional Council (Appendix 1 Region of Peel Health Report) regarding 5G and have identified that 5G, when implemented to

the specifications identified and regulated by ISED, meets Health Canada's requirements and aligns with a standard known as Code 6.

The governance and licensing of cellular spectrum is managed by Innovation, Science and Economic Development Canada (ISED) and it is expected that the broader implementation of 5G across Canada will begin in 2021.

The Federation of Canadian Municipalities has issued a guide "Getting it right: Preparing for 5G deployment in your municipality" which can be found at www.fcm.ca. The guide provides a comprehensive overview of 5G, how FCM has been involved in the regulation commenting process and then implementation advice that municipalities should consider as 5G rolls out across Canada. The following is a message from Bill Karsten, President FCM that captures the essence their position on 5G:

"Connectivity has become essential for any community's economic, cultural and social development. Even though important challenges remain in terms of access to basic broadband and wireless services in many smaller and rural municipalities—challenges which FCM continues to address in its work—the next wave of innovation is upon us. Telecommunications carriers, the federal government and the CRTC are gearing up for the deployment of the first components of the fifth generation of wireless technology (or "5G")—a necessity if Canada is to remain competitive on the world stage."

The Association of Municipalities of Ontario (AMO) President, Jamie McGarvey, wrote to the Broadcasting and Telecommunications Legislative Review Panel in January of 2019 with AMO's position on 5G. In the letter, AMO identifies key issues including the municipality's role in managing the right-of-way and also advocates for universal and affordable access. Below is an excerpt from the letter dated January 11, 2019:

"Today AMO is writing in support of the submissions made to the Panel by the Eastern Ontario Wardens' Caucus (EOWC), the Eastern Ontario Regional Network (EORN), and the Federation of Canadian Municipalities (FCM). We recognize that the Acts being reviewed are matters of federal jurisdiction. However, it is important to AMO as municipal governments play a pivotal logistical role as the owners and managers of the right-of way space where telecommunication infrastructure in Canada is installed. To that end, our comments are restricted to the Telecommunications Act and Radio communication Act."

This information and the resources made available from FCM and AMO will be referenced and inform the City of Mississauga's 5G Assessment; we will not reinvent the wheel!

Staff will continue to collaborate with internal and external key stakeholders using the data and analysis to complete the 5G Assessment which will provide recommendations and opportunities for the implementation. In the interim, members of Council and 311 will be provided current information regarding 5G to assist with answering inquiries. The information will also be

published on the Smart City web site at www.smartcity.mississauga.ca/. Staff will bring back a report and the 5G Assessment to General Committee in first quarter of 2021.

Financial Impact

There are no financial impacts.

Conclusion

The introduction of 5G technologies promises to provide high-speed wireless connectivity, create economic opportunity and be the data transport for the Smart City movement globally. As a City we have an opportunity to influence the implementation of 5G being well informed and well prepared to make good decisions in a timely manner.

Attachments

Appendix 1: Region of Peel Health Report



Gary Kent, CPA, CGA, ICD.D, Commissioner of Corporate Services and Chief Financial Officer

Prepared by: Yeliz Ali, Strategic Advisor Digital Transformation, Information Technology