AGENDA

GAS, POWER AND TELECOMMUNICATIONS COMMITTEE

October 18, 2018, 1:00 PM
LEGAL TRADITIONS COMMITTEE ROOM

<u>Members</u>

Councillor S. Chu, Chair
Councillor D. Farrell, Vice-Chair
Councillor D. Colley-Urquhart
Councillor J. Davison
Chief Financial Officer E. Sawyer
Mayor N. Nenshi, Ex-Officio

1. <u>CALL TO ORDER</u>

2. <u>OPENING REMARKS</u>

3. <u>CONFIRMATION OF AGENDA</u>

4. <u>CONFIRMATION OF MINUTES</u>

   4.1   Minutes of the Regular Meeting of the Gas, Power, and Telecommunications Committee, 2018 September 20

5. <u>POSTPONED REPORTS</u>
   (including related/supplemental reports)

   None

6. <u>ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES</u>

   6.1   Federal Review of Telecom, Broadcasting and Radio Act, GPT2018-1069

   6.2   Fibre Infrastructure Strategy Annual Update, GPT2018-1094
           Attachment 3 held confidential pursuant to Section 24 of *FOIP*.

   6.3   Status of Outstanding Motions and Directions, GPT2018-1128

7. <u>ITEMS DIRECTLY TO COMMITTEE</u>

   7.1   REFERRED REPORTS
           None

7.2   NOTICE(S) OF MOTION
        None

8. <u>URGENT BUSINESS</u>

9. <u>CONFIDENTIAL ITEMS</u>

    9.1   ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

            9.1.1   Summary of Current Proceedings, GPT2018-1129
                    Held confidential pursuant to Sections 23 and 24 of *FOIP*.

    9.2   URGENT BUSINESS

10. <u>ADJOURNMENT</u>

MINUTES

GAS, POWER AND TELECOMMUNICATIONS COMMITTEE

September 20, 2018, 1:00 PM
IN THE LEGAL TRADITIONS COMMITTEE ROOM

PRESENT: Councillor S. Chu, Chair
                             Councillor D. Farrell, Vice-Chair
                             Councillor J. Davison
                             Acting Chief Financial Officer C. Male
ALSO PRESENT: Senior Regulatory Analyst R. Holberton
                             Chief Information Technology Officer H. Reed-Fenske
                             Acting City Clerk D. Williams
                             Legislative Assistant J. Lord Charest

1.   CALL TO ORDER

      Councillor Chu called the Meeting to order at 1:01 p.m.

2.   OPENING REMARKS

      No opening remarks were provided at today's Meeting.

3.   CONFIRMATION OF AGENDA

      Moved by Councillor Farrell

      That the Agenda for today's Meeting be amended, by adding Item 9.2.1,
      Reconsideration of The Gas, Power and Telecommunications Committee Mandate,
      GPT2018-0770, as Confidential Urgent Business.

      MOTION CARRIED

      Moved by Councillor Davison

      That the Agenda for the 2018 September 20 Regular Meeting of the Gas, Power and
      Telecommunications Committee be confirmed, **as amended**.

      MOTION CARRIED

4.   CONFIRMATION OF MINUTES

      4.1   Minutes of the Regular Meeting of the Gas, Power, and
             Telecommunications Committee, 2018 June 21

             Moved by Councillor Davison

That the Minutes of the 2018 June 21 Regular Meeting of the Gas, Power and Telecommunications Committee, be confirmed.

MOTION CARRIED

5.   POSTPONED REPORTS

6.   ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

    6.1   Status of Outstanding Motions and Directions, GPT2018-0857

    Moved by Chief Financial Officer Male

    That the Gas, Power and Telecommunications Committee:

    1.   Receive this report for information.

MOTION CARRIED

7.   ITEMS DIRECTLY TO COMMITTEE

    7.1   REFERRED REPORTS

    None

    7.2   NOTICE(S) OF MOTION

    None

8.   URGENT BUSINESS

None

9.   CONFIDENTIAL ITEMS

Moved by Councillor Farrell

That the Gas, Power and Telecommunications Committee move into Closed Meeting, at 1:05 p.m., to consider confidential matters with respect to the following items subject to Sections 23 and 24 of the *Freedom of Information and Protection of Privacy Act*:

- 9.1.1 Report GPT2018-1004
- 9.1.2 Report GPT2018-0276;
- 9.1.3 Report GPT2018-1013; and
- 9.2.1 Reconsideration of Report GPT2018-0770.

MOTION CARRIED

    9.1   ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

        9.1.1   Status of Expenditures on Regulatory Interventions, GPT2018-1004

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        Administration in attendance during the Closed Meeting discussions with respect to Report GPT2018-1004:

Clerks: D. Williams, J. Lord Charest. Advice: R. Holberton, B. Whyte, S. Russell, O. Shyllon, H. Reed-Fenske.

Moved by Councillor Farrell

That with respect to Report GPT2018-1004, the following be approved:

That the Gas, Power and Telecommunications Committee:

1. Approve Administration Recommendation 1; and

2. Direct that the Report, Attachment and closed meeting discussions remain confidential pursuant to Sections 23 and 24 of the *Freedom of Information and Protection of Privacy Act,* until all the currently active proceedings, including any appeals, are complete

MOTION CARRIED

9.1.2   Summary of Current Proceedings, GPT2018-0854

Administration in attendance during the Closed Meeting discussions with respect to Report GPT2018-0854:

Clerks: D. Williams, J. Lord Charest. Advice: R. Holberton, B. Whyte, S. Russell, O. Shyllon, H. Reed-Fenske.

Moved by Chief Financial Officer Male

That with respect to Report GPT2018-0854, the following be approved:

That the Gas, Power and Telecommunications Committee:

1. Approve Administration Recommendations 1 and 2; and

2. Direct that the Report, Attachment and closed meeting discussions remain confidential pursuant to Sections 23 and 24 of the *Freedom of Information and Protection of Privacy Act,* until three years after the proceedings and any related proceedings are complete.

MOTION CARRIED

9.1.3   Industry Update on Electricity, Natural Gas, and Telecommunications, GPT2018-1013

Administration in attendance during the Closed Meeting discussions with respect to Report GPT2018-1013:

Clerks: D. Williams, J. Lord Charest. Advice: R. Holberton, B. Whyte, S. Russell, O. Shyllon, H. Reed-Fenske.

Moved by Councillor Farrell

That with respect to Report GPT2018-1013, the following be approved:

That the Gas, Power and Telecommunications Committee:

1. Approve Administration Recommendations 1 and 2; and

2. Direct that the Report, Attachment and closed meeting discussions remain confidential pursuant to Section 24 of the *Freedom of Information and Protection of Privacy Act,* until three years after the proceedings are completed.

MOTION CARRIED

9.2 URGENT BUSINESS

9.2.1 Reconsideration of the Gas, Power and Telecommunications Mandate, GPT2018-0770

That Addendum A be received for the Corporate Record, with respect to Report GPT2018-0770.

Administration in attendance during the Closed Meeting discussions with respect to Report GPT2018-0770:

Clerks: D. Williams, J. Lord Charest. Advice: R. Holberton, B. Whyte, S. Russell, O. Shyllon, H. Reed-Fenske.

Moved by Councillor Farrell

That with respect to Report GPT2018-0770, the following be approved:

That the Gas, Power and Telecommunications Committee:

1. Reconsider the Committee decision from the Minutes of the 2018 June 21 Regular Meeting of the Gas, Power and Telecommunications Committee, with respect to Report GPT2018-0770;

2. Direct Administration to provide a lunch and learn to Members of Council at the 2018 October 09 Public Hearing Meeting of Council at their scheduled lunch recess and proceed with the direction contained in Addendum A; and

3. Forward Report GPT2018-0770 and Attachments to the 2018 October 15 Regular Meeting of Council, Closed Meeting.

4. Recommend that Council approve the Recommendations, as contained in Addendum A; and

5. Direct that Addendum A and the closed meeting discussion remain confidential pursuant to section 23 of the *Freedom of information and Protection of Privacy Act*, until all matters referred to are completed or resolved.

MOTION CARRIED

10. ADJOURNMENT

Moved by Chief Financial Officer Male

That this meeting adjourn at 2:20 p.m.

MOTION CARRIED

That the following be forward to the 2018 October 15 Regular Meeting of Council:

Closed Meeting

The Gas, Power and Telecommunications Committee Mandate, GPT2018-0770.

The next Regular Meeting of the Gas, Power and Telecommunications Committee is scheduled to be held 2018 October 18 at 1:00 p.m.

CONFIRMED BY COMMITTEE ON

_____   _____

CHAIR   ACTING CITY CLERK

Chief Financial Officer's Report to   ISC: UNRESTRICTED
Gas, Power and Telecommunications   GPT2018-1069
2018 October 18

Federal Review of Telecom, Broadcasting and Radio Act

EXECUTIVE SUMMARY

On 2018 June 5, the Government of Canada Innovation, Science and Economic Development Canada and Canadian Heritage launched its review of the *Telecommunications Act, Broadcasting Act* and *Radiocommunications Act*. This review was proposed in the Government of Canada's strategy called "Canada's Digital Future" which addresses the rate of adoption of new technologies with the understanding that "…[Canada's] legislation has not kept pace". The call for comments, which will form the heart of the consultation process, will allow the Broadcasting and Telecommunications Legislative Review Panel to receive written submissions from stakeholders and other interested parties. These written submissions are due on 2018 November 30. The final report and recommendations will be completed by January 2020.

Though advanced wireless networks are attractive to any modern city, a careful balance between municipal and industry interests are important considerations. By participating in the review, The City of Calgary ("The City") may help shape opportunities for new revenue sources such as pole and building attachment licenses and fibre-optic licenses while providing installation standards that preserve safety and aesthetics of the community. Early indications suggest that some proposed legislative amendments will have significant ramifications to municipalities - impacts that could last for decades. The most significant risk that municipalities face is loss of jurisdictional control over some components of municipal infrastructure and assets. This is mainly driven by the proliferation of wireless technologies like 5G/Small Cell, whereby the wireless carriers want access to municipal assets (i.e. streetlight poles, buildings) to install antennas.

The review process is still unclear and may involve multiple consultations until the final report is due in 2020. Administration has no insight into the scope or breadth of the process. Resources are in place to fulfill the first consultation which is a prerequisite to participate in the process.

ADMINISTRATION RECOMMENDATION:

That Gas, Power and Telecommunications Committee:

1. Direct Administration to proceed with preparing and submitting a response to the review questions applicable to Calgary as provided in Attachment 1.

PREVIOUS COUNCIL DIRECTION / POLICY

Council has previously directed Administration to participate in similar undertakings such as:

a. Canadian Radio-television and Telecommunications Commission (CRTC) Telecom Notice of Consultation CRTC 2013-551 – Review of wholesale services and associated policies;
b. Petition to the Governor in Council concerning Telecom Regulatory Policy CRTC 2015-326;
c. Telecom Regulatory Policy CRTC 2017-182 – Next-generation 9-1-1 – Modernizing 9-1-1 networks to meet the public safety needs of Canadians;
d. Telecommunications Policy Review 2005/2006 – Review of the policy objectives and regulations of *Telecommunications Act*; and
e. Various other CRTC interventions related to municipal rights of way and municipal infrastructure.

Chief Financial Officer's Report to
Gas, Power and Telecommunications
2018 October 18

ISC: UNRESTRICTED
GPT2018-1069

Federal Review of Telecom, Broadcasting and Radio Act

BACKGROUND

In its 2017 Budget, the Government of Canada announced a new multi-year strategy called "Canada's Digital Future". The stated objective of the strategy is to position Canada's Internet and wireless service providers, creative entrepreneurs and cultural leaders to deal with "…the disruptive changes and increased competition due to globalization".[1] A key element of that strategy is to completely overhaul and modernize the laws governing television, telecommunications and the Internet. Early indications suggest that some proposed legislative amendments will have significant ramifications to municipalities, impacts that could last for decades.

On 2018 September 24, Innovation, Science and Economic Development Canada launched the "Review of the Canadian Communications Legislative Framework". This review will be conducted by the Broadcasting and Telecommunications Legislative Review Panel which will "…review the suite of legislation that governs the telecommunications and broadcasting sectors, with a view to ensuring that the Canadian communication sector achieves world-class standards".

The panel will be reviewing each act against these four themes:

   a. Reducing barriers to access to advanced telecommunications networks for all Canadians;
   b. Supporting creation, production and discoverability of Canadian content;
   c. Improving the rights of the digital consumer; and
   d. Renewing the institutional framework for the communications sector.

Of greatest relevance to The City is "reducing barriers to access by all Canadians to advanced telecommunications networks", as this potentially impacts access onto municipal assets and lands.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

The United States has recently undergone similar regulatory changes. The Federal Communications Commission, which is the American version of the CRTC, enacted a new policy on 2018 August 2 for "Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment". This policy removed municipal authority, which resulted in a limit on the amount of fees that could be applied to the occupation of wireless equipment on poles or facilities and "shock clocks" which grant automatic approval of any application for access that exceeds 60 days.

Stakeholder Engagement, Research and Communication

An internal engagement through a facilitated session was conducted with all business units that responded to the invitation. Business unit priority and interest was assessed through a survey. Information Technology, Corporate Analytics and Innovation, Intergovernmental Affairs, Finance, Law, Transportation (Roads, Transit), Planning and Development and Calgary 9-1-1 communicated a high interest in the consultation.

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[1] Government of Canada, *Budget 2017*, p. 107.

Chief Financial Officer's Report to   **ISC: UNRESTRICTED**
Gas, Power and Telecommunications   **GPT2018-1069**
2018 October 18

Federal Review of Telecom, Broadcasting and Radio Act

Strategic Alignment

Maintaining jurisdictional authority over municipal assets and lands strategically align with all programs and objectives of The City. Legislative changes will likely impact the extent to which municipalities retain operational control over municipal assets and the ability of the municipality to manage the deployment of 5G and other micro-cell technology.

Social, Environmental, Economic (External)

The orderly deployment of 5G and other wireless technology will mitigate risks to the aesthetics of the community, right-of-way exhaust, road degradation from multiple installations, adverse public perception and potential health and safety risks.

5G deployment has tremendous economic benefits as the technology is being promoted to enable autonomous and connected vehicles, industrial Internet of Things, higher mobile broadband and machine-to-machine communications.

Financial Capacity

Current and Future Operating Budget:

There are no operating budget implications as the work will be completed by City staff already engaged.

Current and Future Capital Budget:

There are no capital budget implications as the work will be completed by City staff already engaged.

Risk Assessment

See Attachment 1 - Questions as set out by the Review Panel. Each question is listed along with a recommendation whether The City should participate in answering the question or not.

REASON(S) FOR RECOMMENDATION(S):
The City has had success when participating in past national consultations. Continued participation in this review process will ensure that municipal interests are heard and preserved at the Federal level.

ATTACHMENT(S)

1.   Attachment 1 – Questions as set out by the Review Panel

Review of the Canadian Communications Legislative Framework

September 24, 2018
Broadcasting and Telecommunications Legislative Review Panel

Introduction
…A world-class communications sector should enable Canadians to connect with each other and the world, be competitive, be innovative, contribute to economic growth, and provide reliable services at affordable rates to Canadians across the country.

...The proliferation of devices, operators and users that will emerge in the era of 5G wireless networks—and beyond—requires a legislative framework that is able to ensure the provision of adequate spectrum for advanced services, safe and efficient radio apparatus, and access to the 'passive infrastructure' (i.e. poles, ducts and rights-of-way) required to accommodate the advanced and ubiquitous networks of tomorrow.

Broadcasting and Telecommunications Legislative Review Panel,
Terms of Reference, 5 June 2018
https://www.ic.gc.ca/eic/site/110.nsf/eng/00003.html#sa

The following are questions within the scope of the Review and Administrative recommendations.

Telecommunications Act and Radiocommunication Act
1. Universal Access and Deployment
1.1 Are the right legislative tools in place to further the objective of affordable high quality access for all Canadians, including those in rural, remote and Indigenous communities?
Recommendation: Participate - Though this applies to more remote areas than Calgary, the digital ecosystem is not isolated and legislative continuity across the country is necessary.

1.2 Given the importance of passive infrastructure for network deployment and the expected growth of 5G wireless, are the right provisions in place for governance of these assets?
Recommendation: Participate - The most relevant topic to municipalities as the threat of new legislation could undermine local authority to manage its rights-of-way and assets (poles, facilities, etc)

2. Competition, Innovation, and Affordability
2.1 Are legislative changes warranted to better promote competition, innovation, and affordability?
Recommendation: Participate - As digital services converge both public and private networks begin to rely on the same underlying infrastructure, systems and frameworks. Legislative changes are required to facilitate the evolution of next generation government services.

3. Net Neutrality
3.1 Are current legislative provisions well-positioned to protect net neutrality principles in the future?
Recommendation: Participate - Municipalities interact with citizens over the public Internet. Net Neutrality provides assurances that citizens can obtain Council content like the streaming of Council sessions.

4. Consumer Protection, Rights and Accessibility
4.1 Are further improvements pertaining to consumer protection, rights, and accessibility required in legislation?
Recommendation: Participate - as citizens increase their online activities they increase their exposure to threats against their personal information. Governments also collect personal information and a municipal perspective is required.

5. Safety, Security and Privacy
5.1 Keeping in mind the broader legislative framework, to what extent should the concepts of safety and security be included in the *Telecommunications Act/Radiocommunication Act*?
Recommendation: Participate - Currently not adequately addressed in the Act's, security and privacy are an escalating issue for both public and private actors.

6. Effective Spectrum Regulation
6.1 Are the right legislative tools in place to balance the need for flexibility to rapidly introduce new wireless technologies with the need to ensure devices can be used safely, securely, and free of interference?
Recommendation: Participate - Spectrum is critical to the digital ecosystem which is more than just retail wireless service providers. Government agencies also require access to dedicated spectrum for private and mission critial wireless networks. E.g. First responders

7. Governance and Effective Administration

7.1 Is the current allocation of responsibilities among the CRTC and other government departments appropriate in the modern context and able to support competition in the telecommunications market?

Recommendation: Participate - Anticipating new legislation will impose on local authority with respect to ROW's and municipal assets participation in this discussion may preserve municpal interests.

7.2 Does the legislation strike the right balance between enabling government to set overall policy direction while maintaining regulatory independence in an efficient and effective way?

Recommendation: Participate - Anticipating new legislation will impose on local authority with respect to ROW's and municipal assets participation in this discussion may preserve municpal interests.

Broadcasting Act

Recommendation: Not Participate - All questions related to Broadcasting have little or no relavance to municipal assets, ROW's or services, but are presented here for review.

8. Broadcasting Definitions

8.1 How can the concept of broadcasting remain relevant in an open and shifting communications landscape?

8.2 How can legislation promote access to Canadian voices on the Internet, in both official languages, and on all platforms?

9. Broadcasting Policy Objectives

9.1 How can the objectives of the *Broadcasting Act* be adapted to ensure that they are relevant in today's more open, global, and competitive environment?

9.2 Should certain objectives be prioritized? If so, which ones? What should be added?

9.3 What might a new approach to achieving the Act's policy objectives in a modern legislative context look like?

10. Support for Canadian Content and Creative Industries

10.1 How can we ensure that Canadian and non-Canadian online players play a role in supporting the creation, production, and distribution of Canadian content?

10.2 How can the CRTC be empowered to implement and regulate according to a modernized *Broadcasting Act* in order to protect, support, and promote our culture in both official languages?

10.3 How should legislative tools ensure the availability of Canadian content on the different types of platforms and devices that Canadians use to access content?

11. Democracy, News and Citizenship

11.1 Are current legislative provisions sufficient to ensure the provision of trusted, accurate, and quality news and information?

11.2 Are there specific changes that should be made to legislation to ensure the continuing viability of local news?

12. Cultural Diversity

12.1 How can the principle of cultural diversity be addressed in a modern legislative context?

13. National Public Broadcaster

13.1 How should the mandate of the national public broadcaster be updated in light of the more open, global, and competitive communications environment?

13.2 Through what mechanisms can government enhance the independence and stability of CBC/Radio-Canada?

13.3 How can CBC/Radio-Canada play a role as a leader among cultural and news organizations and in showcasing Canadian content, including local news?

13.4 How can CBC/Radio-Canada promote Canadian culture and voices to the world, including on the Internet?

13.5 How can CBC/Radio-Canada contribute to reconciliation with Indigenous Peoples and the telling of Indigenous stories by Indigenous Peoples?

13.6 How can CBC/Radio-Canada support and protect the vitality of Canada's official languages and official language minority communities?

14. Governance and Effective Administration

14.1 Does the *Broadcasting Act* strike the right balance between enabling government to set overall policy direction while maintaining regulatory independence in an efficient and effective way?

14.2 What is the appropriate level of government oversight of CRTC broadcasting licencing and policy decisions?

14.3 How can a modernized *Broadcasting Act* improve the functioning and efficiency of the CRTC and the regulatory framework?

14.4 Are there tools that the CRTC does not have in the *Broadcasting Act* that it should?

14.5 How can accountability and transparency in the availability and discovery of digital cultural content be enabled, notably with access to local content?

Chief Financial Officer's Report to
Gas, Power and Telecommunications
2018 October 18

ISC: UNRESTRICTED
GPT2018-1094

Fibre Infrastructure Strategy Annual Update

EXECUTIVE SUMMARY

This report serves as the third annual update on the implementation of The City of Calgary's Fibre Infrastructure Strategy.

The City has made progress on all areas of the strategy, including:

- Connecting more City facilities and assets, avoiding costs from third-party entities;
- Building more fibre within the downtown core, while reaching more traffic controllers;
- Implementing in greenfield developments as part of the Four-Party Shallow Utility Consortium;
- Licensing out City fibre to external agencies;
- Building relationships, educating and collaborating with many internal and external agencies; and
- Continuing to participate in Canadian Radio-Television and Telecommunications Commission's policies and reviews.

ADMINISTRATION RECOMMENDATION:

That Gas, Power & Telecommunications Committee:

1. Receive for information the Fibre Infrastructure Strategy Annual Update (Attachment 1)
2. Direct that the Fibre Infrastructure Strategy Updated Risk Assessment (Attachment 3) remain confidential pursuant to Section 24(1)(a) and (b) of the Freedom of Information and Protection of Privacy Act for a period of 15 years.

PREVIOUS COUNCIL DIRECTION / POLICY

In 2015 September, Council approved the Fibre Infrastructure Strategy (GP2015-0485) with an annual update.

BACKGROUND

For the last 18 years, The City of Calgary Information Technology (IT) business unit has been leveraging capital works projects to take advantage of economies of scale to deploy fibre optic to support City services. The Fibre Cable Duct and Wireless (FCDW) Steering Committee was established in 2002 to provide governance for The City's fibre infrastructure. Membership of the FCDW committee includes the Directors of Transit, Roads, Water Services, Transportation Infrastructure, Facility Management and IT. This has enabled over 450 kms of fibre optic to be deployed throughout Calgary.

The primary focus is to connect all City buildings, facilities and assets. The excess capacity in City fibre optic has been licensed to civic partners, universities, school boards, businesses and carriers. All revenue is transferred to the Information Technology Reserve for future fibre builds for City services and to support operating costs.

Chief Financial Officer's Report to
Gas, Power and Telecommunications
2018 October 18

ISC: UNRESTRICTED
GPT2018-1094

Fibre Infrastructure Strategy Annual Update

INVESTIGATION: ALTERNATIVES AND ANALYSIS

Fibre Infrastructure Strategy Annual Report

To provide an annual update on the elements of the fibre strategy with key elements including:

- Monitoring and participating in regulatory and/or policy related events with the top concern being the federal announcement of The Modernization of the Telecommunications, Broadcasting and Radiocommunications Act. Changes to this suite of legislation can impose restrictions on how municipalities govern their rights-of-way and assets, such as poles and facilities, and these sweeping changes could last for decades.
- The general progress of connecting City assets to the fibre network and the estimated cost avoidance achieved.
- The City operates as a fibre-optic provider and City IT licenses out excess fibre-optic capacity to other public-sector organizations, businesses or carriers. Revenues are transferred to the IT Reserve - Fibre Optic Program #751 to fund fibre deployments for City services and cover operating costs of the fibre plant.
- Supporting our local Internet Exchange (IX). IXs are found in the most prominent business centers in Canada such as Toronto and Vancouver. An IX supports fast, affordable internet and enables new business capabilities. The Calgary Internet Exchange (YYCIX) began in 2012 and is a non-profit organization run by volunteers. It is growing and gaining momentum and The City has been supporting the YYCIX by providing fibre and hosting equipment in one of The City's communication rooms.
- An updated risk assessment and mitigating strategies.

Stakeholder Engagement, Research and Communication

Governance for The City's fibre infrastructure is provided by the FCDW Steering Committee, which includes representatives from Transit, Roads, Water Services, Transportation Infrastructure, Facility Management and IT.

The City's Fibre team is continually researching the field of Information Communication Technology.

Information about The City's Fibre Strategy is available to cities and communities across Canada through press releases and regulatory interventions.

Strategic Alignment

The Fibre Infrastructure Strategy is aligned with Council Priorities, the Corporate Services 2015-2018 Action Plan, IT's 2015-2018 Business Plan and IT's future One Calgary Service Plan.

Alignment with Sustainability Direction 2020

Prosperous Economy
Objective: A city that attracts, develops and retains

Sustainable Environment
Objective: Existing developments (Existing development remediation and redevelopment support efficient land use and environmental protection in Calgary)

Approval(s): Male, Carla and Reed-Fenske, Heather concur with this report. Author: Basto, David

Chief Financial Officer's Report to
Gas, Power and Telecommunications
2018 October 18

ISC: UNRESTRICTED
GPT2018-1094

Fibre Infrastructure Strategy Annual Update

Smart Growth and Mobility Choice
Objective: Provide safe, reliable and affordable public infrastructure

Financial Capacity
Objective: Cost efficiency & risk management

Sustainable Corporation
Objective: Efficiency, infrastructure management, effective service delivery

Social, Environmental, Economic (External)

Social: City business units rely on connectivity to deliver services to the citizens. Fibre optic is the path that information takes to reach the desired endpoint whether that is a building, like the Emergency Operation Center (EOC), or a server for analytics. City services play an important role in the social well-being of the community.

Environmental: City fibre optic has a positive effect on the environment through a number of channels. Through smart infrastructure and highly-connected devices, The City can better manage assets and increase the performance of services like intelligent traffic systems. By licensing dark fibre, companies have an option to obtain fibre services without building their own – reducing disruptive construction activities. Many utilities and organizations require fibre connectivity to deliver enhanced services to manage efficiency like smart grids or intelligent building management systems. All these contribute to a better environment.

Economic: The digital economy is dependent on connectivity infrastructure, like fibre optic, as the fundamental infrastructure to support it. This enablement allows the community to prosper through equal access and inclusion. The City of Calgary's fibre infrastructure strategy focuses on providing fibre for City services and leasing excess capacity to other organizations.

Financial Capacity

Current and Future Operating Budget:

Current

The 2018 annual operating expenditure budget for the City Fibre Team is $1.9 million.

Future

Future additional operating costs are estimated to be approximately two per cent of construction costs. Revenues derived from dark fibre licenses are applied to the operating funding source and are directly related to the capital funds allocated to build fibre to customers. Due to capital budget constraints in 2019-2022, new fibre builds and revenue are expected to level off. Modest increases in revenue are expected, but self-funding is no longer anticipated as previously forecast.

Current and Future Capital Budget:

Current

Total capital budget approved for 2016-2018 was $19.1 million.

These funds were committed for new fibre projects such as intelligent intersections, stranded facilities and next-generation City infrastructure.

Chief Financial Officer's Report to
Gas, Power and Telecommunications
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ISC: UNRESTRICTED
GPT2018-1094

Fibre Infrastructure Strategy Annual Update

Future

Due to capital budget constraints going into the 2019-2022 business cycle, capital will be sourced through the IT Technology Reserve of $1 million annually and leveraging capital projects. See Attachment 2 – Project Cost and Funding Sources.

Risk Assessment

Through the Integrated Risk Management process, additional risks were identified along with mitigating strategies. See Attachment 3 - Fibre Infrastructure Strategy Risk Assessment.

REASON(S) FOR RECOMMENDATION(S):

The telecommunications environment is constantly evolving, and the annual report serves to keep Council apprised of the progress, challenges and future strategic directions regarding the City's fibre infrastructure.

ATTACHMENT(S)

1. Attachment 1 – Fibre Infrastructure Strategy Annual Update
2. Attachment 2 – Project Cost and Funding Sources
3. Attachment 3 – Fibre Infrastructure Strategy Risk Assessment - CONFIDENTIAL

The City of Calgary Fibre Infrastructure Strategy Annual Update

2018 October 18

Chief Financial Officer's Department - Information Technology

Executive Summary

On 2015 September 28, the Fibre Infrastructure Strategy was presented and unanimously approved by Council. This report serves as the 2018 annual update.

By Q4 of 2018, over **600** facilities and assets (e.g. traffic controllers) will be fibre-connected and **avoiding** third-party communication costs estimated to be **$7 million per year.**

2018 revenues are on track for **$900 thousand** which represents a **58% increase** from 2015 and is well above the **$180 thousand** originally projected in the strategy.

New opportunities for revenue exist with the evolution of mobile networks to 5G/Small Cell and possible collaboration with Enmax for automated meter reading.

The current 2019 - 2022 capital budget constraints resulted in a reduction of the capital budget from $4 million per year to $1 million per year, funded entirely from the Information Technology (IT) Reserve which is partially sourced from the fibre revenues.

Under these new constraints, opportunities to reach City facilities will slow and revenue will plateau. All programs, systems and initiatives that benefit from new fibre builds will be impacted. Prioritization will be key to ensuring best value for investment.

Background

On 2015 September 28, the Fibre Infrastructure Strategy was presented and unanimously approved by Council.

The Fibre Infrastructure Strategy is critical to ensure The City of Calgary continues to provide fibre optic to deliver next-generation municipal services in a cost-effective manner.

Investment in City fibre is even more important today and into the next business cycle as our dependence on technology and data increase. City fibre is fundamental to delivering City services which contributes to **resiliency**, service **growth** and innovation and is the **foundation** of all networks which City business units rely on to ensure Calgary continues to excel as a smart, safe and prosperous city now and into the future.

2015 – 2018 Accomplishments
a. Connecting Assets
By Q4 of 2018, over **600** facilities and assets (e.g. traffic controllers) will be fibre-connected, increasing business-unit capabilities with unlimited bandwidth and **avoiding** third party communication costs estimated to be **$7 million per year.**

	Progress in 2015-2018	Total Fibre Connected Assets 2001-2018	Notes
City buildings connected	86	236	Approximately $7M annual cost avoidance
City field assets connected	37	114	LRT Stations, Water Plants, Help Phones, Digital Signs, Parks, Underpasses, Airport Tunnel, BRT's.
Traffic intersections, signs, and sensors.	264	300	Approximately $1.5M in annual cost avoidance

Table 1: 2018 Estimated Number of Assets Connected with City Fibre

b. Enabling Networks

City fibre enables numerous networks for City business units, Civic Partners, post-secondary institutions and external agencies. The City alone has more than 20 different networks specific to its applications; as an example, the network that operates the Light Rail Transit is much different than the network that ensures clean water, but both rely on City fibre.

Figure 1: CCN: Bandwidth Consumption for City services [1 Petabyte (PB) = 1 million Gigabyte]

The Calgary City Net (CCN) is The City's largest, most resilient network which provides high bandwidth, redundancy and security for business units. CCN's success is represented by the rate of adoption by business units. During the last budget cycle, the CCN's bandwidth demands have increased **550%** (*see Figure 1*) as business units deploy connected devices to enrich and modernize their services.
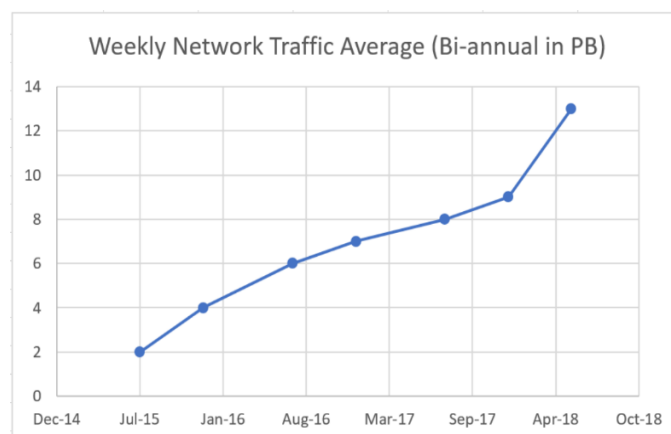
c. Increasing Resiliency

City fibre increases the resiliency of City services which, in turn, enriches citizen confidence. When a city **owns** its fibre, it can respond with greater agility during

extreme events. This was exemplified during the 2013 flood where a catastrophic loss in network resources was mitigated due to the control, agility and capacity afforded through City fibre. This could not have been achieved without full control of the fibre asset.

City fibre increases the resiliency of all services that leverage it. As an example, during the last business cycle, City fibre reached over **300** traffic controllers, resulting in an

Figure 2: Traffic Network Uptime

increase of service uptime by **22%** (*see Figure 2)* improving the traffic flow through the city.

d. **Other Notable Accomplishments**:
- 2018 revenues exceeded projected estimates by 58%.
- Calgary Police Service (CPS) exclusively uses City fibre to build their core network.
- The Calgary Public Library has standardized on City fibre.
- The City won the Ministers Award for Municipal Excellence for Municipal Owned Fibre Infrastructure (2016).
- University of Calgary research on Quantum Key Distribution published their findings in Nature Photonics in 2016. Access to City fibre was acknowledged in the research paper "Quantum teleportation across a metropolitan fibre network" to assist in testing their research in a real-life environment.
- The City won the Ministers Award for Municipal Excellence for Municipally Owned Internet of Things (IoT) Wireless Network (2018). This network is enabled by City fibre.
- The Calgary Internet Exchange is rapidly growing, in part, due to City fibre, making Internet faster for everyone.
- Participated in a number of Canadian Radio-television and Telecommunications Commission consultations influencing policy to include municipal interests.
- Calgary Economic Development (CED) includes City fibre as a technology enabler to attract companies to Calgary (e.g. Amazon bid).
- Participated in regional efforts to increase the importance of municipal fibre through speaking engagements, presentation to rural council and local meetings.
- Contribute and respond to provincial consultations like the Provincial Broadband Strategy.

- City fibre transports video from over 3,000 cameras used by Corporate Security, Transit, Roads and Calgary Parking Authority.
- Fibre infrastructure plays an important role in security by design.
- City fibre is a key element to delivering on business-friendly initiatives for Living Labs in conjunction with CED.

City Fibre Strategy Alignment

The City fibre strategy aligns with corporate and affiliated initiatives underway, including Calgary Economic Strategy, One Calgary and Resilient Calgary. Calgary Economic Development recognizes City fibre as an incentive to attracting high-tech companies to Calgary to support our community's economic diversification.

City fibre is the foundational communications infrastructure that can accelerate Calgary's journey as a "Smart City".

In addition to enabling municipal services, City fibre enables industry and entrepreneurs to innovate and accelerate ideas to commercialization contributing to the diversity of Calgary's economy.

Stranded Facilities

Connectivity demands for Field Computing, IoT, 5G and Smart City solutions are increasing every day, and this should be considered the new normal. These new demands emphasize the change in society and how cities need to adapt quickly.

Smart and resilient cities will be impacted by the rapid evolution and adoption of technology and reliance on data. What this means for The City of Calgary is that connectivity through fibre and wireless will experience **sustained and continuous** demand incenting a greater integrated approach in the planning process for both public and private actors. By incorporating digital infrastructure into an integrated solution, The City can mitigate new technology being "bolted on" to assets with a preferred, seamless and aesthetically attractive solution emerging.

Lesson Learned: Stranded facilities are no longer finite as sustained and continuous demands for connectivity is the new normal.

Greenfield

Greenfield communities offered an opportunity to advance City fibre with additional cost reduction by taking advantage of the four-party trench agreement with Atco, Enmax, Telus and Shaw. By leveraging this opportunity, The City experienced a **75% savings** in traditional construction costs. Greenfield opportunities and investment were less than projected due to the reduction of residential development and investment.

Lesson Learned: Leveraging the four-party trench is a cost-effective method of expanding City fibre.

Business Parks and Transit-Oriented Developments (TOD)
Business Parks & Transit-Oriented Developments were also opportunities to expand City fibre. Though only one opportunity was leveraged, there has been no indication of future undertakings. IT continues to work towards strengthening the value proposition with Real Estate and Development Services (RE&DS).

Revenues
As part of the Fibre Infrastructure Strategy, The City operates as a dark fibre optic provider and IT licenses excess fibre-optic capacity to other public-sector organizations, businesses and/or carriers. This revenue is growing and serves to finance further construction activities while reaching self-funding status. 2018 revenues are on track for **$900 thousand** which represents a **58% increase** from 2015 revenues and is well above the **$180 thousand** originally projected in the strategy. Through Council support of the fibre strategy, a dramatic increase in revenue growth has been achieved (*see Figure 3*). Though revenue growth has been better than anticipated, a better understanding of the market is incenting a more targeted and focused approach to revenues. Emerging markets spurred by the trend to densify networks (5G/Small Cell, IoT) will provide new revenue opportunities.
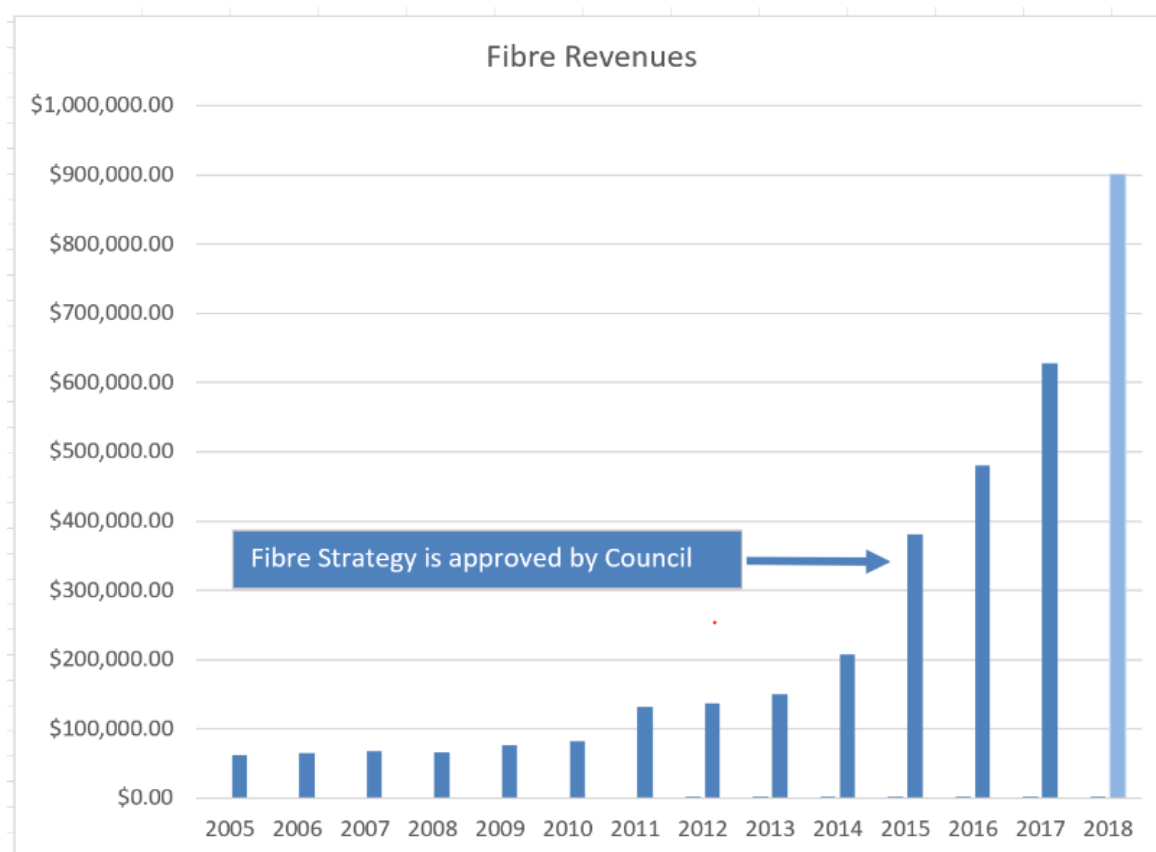

Figure 3: Current Revenues

Dark fibre is a niche market and a greater understanding of the customer profile is enabling a focused approach for the next business cycle. The customers that subscribe to The City's fibre-optic service are typically agencies that require control, redundancy, scalability, security and privacy for their networks. These customers place priority on these requirements over cost. These customers tend to be larger in size and have sophisticated IT departments, including agencies (such as Alberta Health Services), utilities (such as AltaLink or Enmax), and telecommunication carriers.

Over the last business cycle, a better understanding of the customers and the niche market that City fibre supports determined a number of constraints and opportunities:

   a. Fibre customers must be in a state of "readiness" to consider City fibre.
   b. Most customers need dark fibre built to their facilities and in today's economy, few, with exception to large organizations, are able to finance this construction.
   c. Most customers are willing to sign long-term licenses which reduces the risks associated with any investments in last-mile infrastructure by The City.

Understanding that future demand will be continuous, and to mitigate risks arising from capital funding short falls, more emphasis on becoming **self-funded** is highly recommended. Revenues of $3 to 4 million provide a reasonable base to effectively deliver digital infrastructure. The 2018 revenues are estimated at $900 thousand, almost a third of the way to the self-funding objective.

Recommended Strategy Update: Shifting some funding to reach targeted revenue accelerates the path to becoming self-funded. Though there is some additional risk to the funding, the risk is low and mitigated through long-term licenses.

Future Opportunities
5G/Small Cell and the Evolution of Wireless Opportunities
5G/Small Cell is the next advancement in mobile and wireless technology important to connected, resilient and smart cities. It refers to wireless infrastructure that will enable many sectors and drive the digital economy by enabling automation, connected and autonomous vehicles, smart homes and field sensors. 5G/Small Cell represents a major uplift in infrastructure. It's more than a small antenna on a pole, it also encompasses fibre optics, large cabinets, new power cables, power meters, networking equipment, etc.

The drive for advancing wireless infrastructure is both a risk and an opportunity for The City. Successful deployment of 5G will depend on access to municipal assets like streetlight poles and facilities resulting in thousands of third-party assets integrating with City assets. New standards, processes and agreements will manage both operational and financial risks while preserving aesthetics and public safety.

Integrated planning can mitigate the operational and financial risks affiliated with wireless infrastructure deployment on City assets and presents opportunities for new sources of revenues. Wireless infrastructure requires fibre optic to transport data and

some carriers lack sufficient fibre optic to achieve this. Other potential sources of revenue can be found in attachment fees for antennas or co-location fees in City buildings.

It is difficult to predict the viability of this opportunity as it is still in its infancy.

Wireless opportunities also exist with Enmax and other utilities. Automated meter reading is an example whereby The City (water), Enmax (power) and Atco (gas) all have a requirement for meter reading. Joint efforts can drive down costs for new technologies that enable both the provider and the consumer to manage consumption intelligently.

Recommended Strategy Update: Enhance collaboration initiatives with other utility providers like Enmax and Atco who share an interest in enhancing services to citizens through technologies like automated meter reading.

Smart City, Economic Diversity, Digital Economy, Innovation, Collaboration
As The City of Calgary, in collaboration with community stakeholders, builds our communities' smart city strategy, continued investment in digital infrastructure is key to success. A smart city invests in technology and data solutions to provide excellent services to citizens.

To support Council's Business-Friendly directive and as part of the Smart City focus of diversifying our economy, The City of Calgary is partnering with CED to create the "Calgary as a Living Lab" initiative. As one of the largest owners of infrastructure in Calgary, The City is formalizing the process to open our infrastructure (where suitable) for companies and researchers to test, try and demo their products in real-world environments. The goal is to accelerate the commercialization of new products, services and research findings. It is not intended as a route for City solutions as there are avenues for those requests through existing procurement channels. For example, The City opened up Shephard Landfill for companies like Lougheed-Martin and NASA to test drone technologies. The Calgary Film Centre was used by an augmented reality software company to demo their products to potential clients.

Access to City fibre is a fundamental enabler for a large number of these technology tests as connectivity is often required. Often these ventures are limited in scope and resources; thus, providing access to municipal infrastructure at rates that encourage its use is critical to success.

Recommended Strategy Update: The City of Calgary's living lab initiative will be enhanced with City fibre to establish cost-effective connectivity in a timely manner. The dark-fibre rate structure will be adjusted for temporary use of City fibre under the living lab initiative. Should permanent use of the fibre be anticipated, then regular fibre rates will apply.

Miscellaneous Opportunities
From time to time, unique opportunities arise which can contribute to the expansion of City fibre. These opportunities can contribute in reducing construction costs, providing conduit (Greenline) and possible funding.

Regulatory, Legislation and Advocacy
Consistent with the 2015 Fibre Infrastructure Strategy, The City's participation as an advocate in the regulatory and legislative domain is still a priority to ensure that municipal interests are represented.

By the time this report is published, the review of the Telecommunications, Broadcasting and Radiocommunications Act will have started and is an important legislative change. (Government of Canada, June 2018)

Early indications suggest that some proposed legislative amendments will have significant ramifications to municipalities - impacts that could last for decades. The most significant risk municipalities face is loss of jurisdictional control over some components of municipal infrastructure and assets. This is mainly driven by the proliferation of wireless technologies like 5G/Small Cell, whereby the wireless carriers want access to municipal assets (streetlight poles, buildings) to install antennas. Though advanced wireless networks are attractive to any modern city, a careful balance between municipal and industry interests are important considerations. By participating in the review, The City may help shape opportunities for new revenue sources such as pole and building attachment licenses and fibre-optic licenses while providing installation standards that preserve safety and aesthetics of the community.

Advocacy and regulatory participation remains a high priority of the Fibre Infrastructure Strategy to protect municipal interests.

2019 – 2022 Business Cycle
The 2015 – 2018 Fibre Infrastructure Strategy was based on a capital requirement of approximately **$7 million** per year till 2023, then **$4 million** per year onward with revenues supporting capital in its entirety by 2030 whereby self-funding status was anticipated to be achieved. Total funding requirement between 2015 – 2030 amounted to **$49.7 million**.

Adjusting for lessons learned and implementing the above recommendations, the same objectives can be achieved from the 2015 strategy with a reduced capital requirement of **$4 million** per year and reducing the total funding requirement between 2015-2030 from **$49.7 million** to **$28.1 million.**

By capitalizing on new revenue sources like wireless opportunities, self-funding status is anticipated to be achieved in **2025** – five years earlier than originally predicted (see Figure 4).
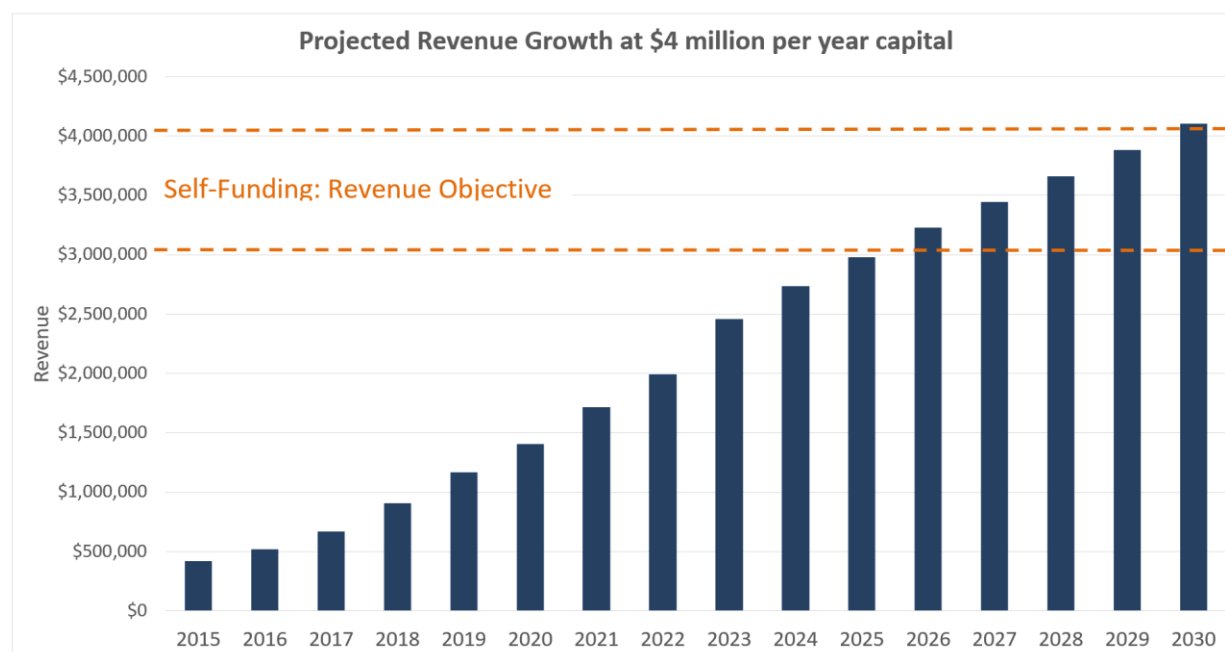

Figure 4: Projected Revenue Growth fully funded

2019- 2022 Capital Budget Constraint
The current 2019- 2022 capital budget constraints resulted in a reduction of the capital budget from $4 million per year to $1 million per year, funded entirely from the IT Reserve which is partially sourced from fibre revenues. In this scenario, the current Fibre Infrastructure Strategy cannot be supported to the level required to achieve all the objectives at the same rate seen in the 2015-2018 period. Revenue is expected to flatline (see Figure 5) with only modest growth as not all opportunities can be pursued. Fibre builds to civic facilities or devices (traffic controllers) will be prioritized but will not achieve the same rate of connectivity.

Under these new constraints. it is unlikely that self-funding can be achieved as forecasted in the 2015 strategy.

Essentially, the Fibre Infrastructure Team will be operating in a similar manner before the Council-approved strategy and additional funding was realized in 2015. Though this is not ideal, the momentum and accomplishments over the last business cycle have resulted in considerable gains. In the 2019-2022 business cycle, the Fibre Infrastructure Team will continue to focus on:

a. Leveraging capital projects such as Greenline, Bus Rapid Transitway's Airport Trail, etc.

b. Collaborating with stakeholders such as Transportation, Water, Facility Management, Integrated Civic Facilities, CPS, Calgary 911, Planning and Development, RE&DS and Enmax.
c. Pursuing alternate funding sources such as grants or joint builds.
d. Establish partnerships to leverage opportunities to expand the fibre plant or generate additional revenues through technology advancements like 5G, automated meter reading, Smart City applications, etc.
e. Reduce deployment costs by leveraging Enmax poles.
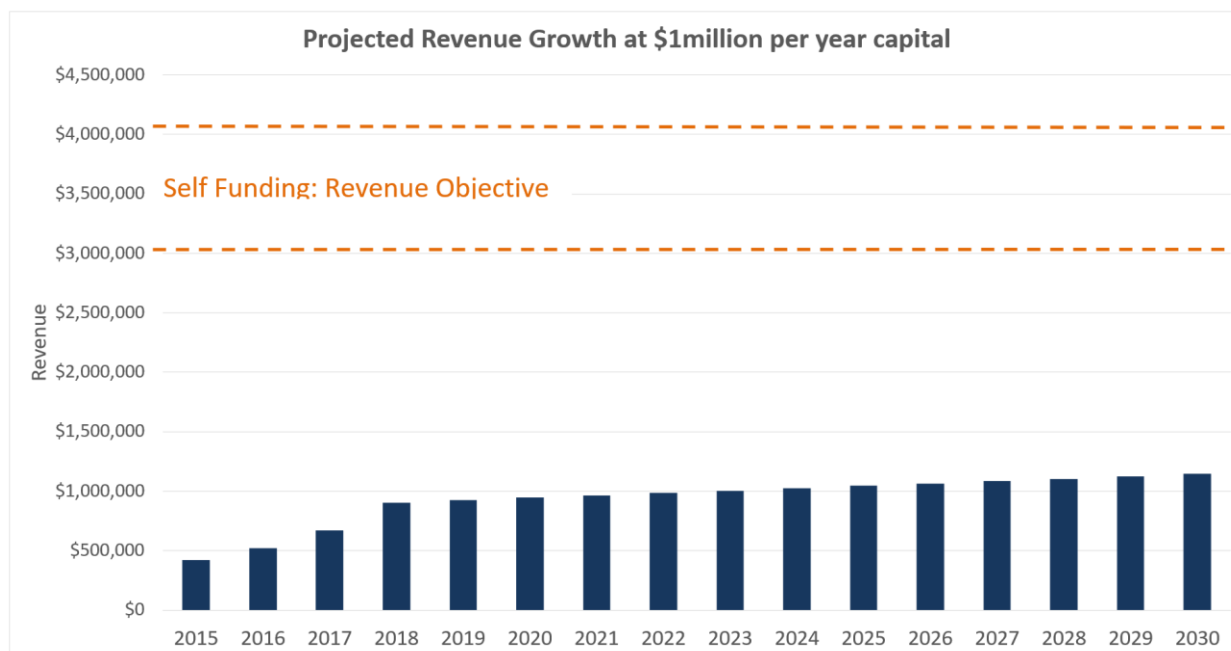f. Promote and market through speaking engagements.

Figure 5: Projected Revenue Growth with reduced capital

Should additional funding of approximately $3 million per year be sourced for the 2019-2022 business cycle, continuity of the 2015 strategy towards self-funding can be achieved.

Works Cited

Government of Canada Innovation, Science and Economic Development Canada and Canadian Heritage, "*Government of Canada launches review of Telecommunications and Broadcasting Acts",* https://www.canada.ca/en/canadian-heritage/news/2018/06/government-of-canada-launches-review-of-telecommunications-and-broadcasting-acts.html, (June 5, 2018).

Project Cost and Funding Sources

The City of Calgary Fibre Network - Base Fibre Network
For 2016 through 2022 ($000's)

Cumulative Years	1	2	3	4	5	6	7	
Year	2016	2017	2018	2019	2020	2021	2022	**Total**
FUNDING REQUIRED								
Construction Cost								
Total Dark Fibre Network Construction Cost	$ (5,003)	$ (7,781)	$ (4,216)	$ (1,000)	$ (1,000)	$ (1,000)	$ (1,000)	$ (21,000)
Operation & Maintenance	$ (100)	$ (255)	$ (309)	$ (329)	$ (349)	$ (369)	$ (389)	$ (2,099)
TOTAL FUNDING REQUIRED	$ (5,103)	$ (8,036)	$ (4,525)	$ (1,329)	$ (1,349)	$ (1,369)	$ (1,389)	$ (23,099)
FUNDING SOURCES								
IT Reserve	$ 853		$ 1,647	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 6,500
IT Capital Program - Calgary City Net	$ 800							$ 800
Corporate Funding Request								
Reserve For Future Capital (1-time) - Stranded Facilities	$ 3,350	$ 7,725	$ 1,069					$ 12,144
Reserve For Future Capital (1-time) - Greenfield		$ 56	$ 1,500					$ 1,556
Corp. Funding TBD - Network Construction								$ -
Revenue - to fund Fibre construction	$ -	$ 255	$ 309					$ 563
Revenue - to increase reserve contribution		$ 514	$ 592					$ 1,107
Other Potential Funding Sources								
Customer Contribution								$ -
Operating - Expense Absorption - Budgeted Operation Capacity	$ 100			$ 329	$ 349	$ 369	$ 389	$ 1,536
Debt								$ -
TOTAL FUNDING SOURCES	$ 5,103	$ 8,550	$ 5,117	$ 1,329	$ 1,349	$ 1,369	$ 1,389	$ 24,206
FUNDING EXCESS/(SHORTAGE)	$ (0)	$ 514	$ 592	$ -	$ -	$ -	$ -	$ 1,107

Chief Financial Officer's Report to   ISC: **UNRESTRICTED**
Gas, Power and Telecommunications   **GPT2018-1128**
2017 October 18

Status of Outstanding Motions and Directions

EXECUTIVE SUMMARY

This report details the outstanding items for the Gas, Power and Telecommunications (GPT) Committee from the meeting of 2018 September 20.

ADMINISTRATION RECOMMENDATION:

That the Gas, Power and Telecommunications Committee:

1.   Receive this report for information.

PREVIOUS COUNCIL DIRECTION / POLICY

The GPT Committee has directed that this report be prepared for each meeting.

BACKGROUND

The background to each item listed in the attachment will be provided in a future report or other requested action dealing with that specific issue.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

This report, with attachment, provides a summary of outstanding items for the GPT Committee. There are no alternatives or analysis required.

Stakeholder Engagement, Research and Communication

This report, with attachment, provides a summary of outstanding items for the GPT Committee. There are no alternatives or analysis required.

Strategic Alignment

This report is in alignment with the mandate of the Gas, Power and Telecommunications Committee.

Social, Environmental, Economic (External)

This report has been reviewed for alignment with The City's Triple Bottom Line (TBL) Policy Framework. No implications are identified.

Financial Capacity

Current and Future Operating Budget:

As the report does not propose a decision there is no direct budget or business plan impacts.

Current and Future Capital Budget:

As the report does not propose a decision there is no direct budget or business plan impacts.

Chief Financial Officer's Report to   **ISC: UNRESTRICTED**
Gas, Power and Telecommunications   **GPT2018-1128**
2017 October 18

Status of Outstanding Motions and Directions

Risk Assessment

This report tracks outstanding motions and directions from the GPT Committee to Administration. No specific risks are associated with this report. Any risks associated with a specific direction or motion will be dealt with in the context of a report on that direction or motion.

REASON(S) FOR RECOMMENDATION(S):

This report assists the Committee in tracking the regulatory work of the GPT Committee.

ATTACHMENT(S)

1.   Status of Outstanding Motions and Directions.

STATUS OF OUTSTANDING MOTIONS AND DIRECTIONS

ITEM	DATE OF REQUEST	REQUEST	COMMITTEE DIRECTION	STATUS
Send Enmax a letter	2018 September 20	Direction	Administration to send Enmax a letter with instruction to provide detail regarding the financial harm it has suffered due to the City's regulatory interventions.	On-going
Hold a lunch and learn session for Council	2018 September 20	Direction	Hold a lunch and learn session to review the GPT committee major functions on October 9.	On-going

GPT2018-1128
ATTACHMENT