



Priorities and Planning Committee

**Wednesday, September 23, 2020
2:00 PM**

Henry Baker Hall, Main Floor, City Hall



OFFICE OF THE CITY CLERK

**Public Agenda
Priorities and Planning Committee
Wednesday, September 23, 2020**

Approval of Public Agenda**Adoption of Minutes**

Minutes of the special meeting held on July 6, 2020

Administration Reports

PPC20-13 Economic Development Regina's Growth Plan

Recommendation

That the Priorities and Planning Committee receive and file Economic Development Regina's growth plan, *The Regina Advantage – A Plan for Economic Growth 2020 – 2030*.

PPC20-14 Energy & Sustainability Framework Update

Recommendation

The Priorities and Planning Committee recommends City Council:

- a. Direct the Administration to develop a community-wide Energy & Sustainability Framework and Action Plan that includes:
 - a. Community and municipal wide action plans, with timelines and targets to achieve a renewable Regina by 2050.
 - b. Actions focused on land use and transportation planning, development and building permit guidelines, energy efficient building design, transportation demand management, waste management, energy conservation, regulatory tools, financial tools, advocacy for legislative change, as well as public education and awareness.
 - c. Community engagement through the development and implementation.
 - d. A regular and ongoing progress reporting framework that includes community reporting at regular intervals.
 - e. A preliminary estimate of the financial and economic impacts associated with implementing an action plan.



OFFICE OF THE CITY CLERK

- b. Remove items MN18-11, MN18-4 and MN18-1 from the List of Outstanding Items of City Council.
- c. Approve these recommendations at its meeting on December 16, 2020.

PPC20-15 Water Utility Rate Information

Recommendation

That Priorities and Planning Committee receive and file this report.

Resolution for Private Session

AT REGINA, SASKATCHEWAN, MONDAY, JULY 6, 2020

AT A MEETING OF PRIORITIES AND PLANNING COMMITTEE
HELD IN SPECIAL SESSION

AT 2:30 PM

These are considered a draft rendering of the official minutes. Official minutes can be obtained through the Office of the City Clerk once approved.

Present: Mayor Michael Fougere, in the Chair
Councillor Lori Bresciani (Videoconference)
Councillor Sharron Bryce (Videoconference)
Councillor John Findura (Videoconference)
Councillor Jerry Flegel
Councillor Bob Hawkins (Videoconference)
Councillor Joel Murray (Videoconference)
Councillor Jason Mancinelli (Videoconference)
Councillor Mike O'Donnell (Videoconference)
Councillor Andrew Stevens (Videoconference)
Councillor Barbara Young (Videoconference)

Also in Attendance: City Clerk, Jim Nicol
Council Officer, Tracy Brezinski
City Manager, Chris Holden
Legal Counsel, Chrystal Atchison (Videoconference)
Executive Director, Citizen Experience, Innovation & Performance, Louise Folk
Executive Director, Citizen Services, Kim Onrait
Executive Director, City Planning & Community Development, Diana Hawryluk
Executive Director, Financial Strategy & Sustainability, Barry Lacey
Director, Transit & Fleet, Brad Bells (Videoconference)
Manager, Transit Administration, Nathan Luhning (Videoconference)

APPROVAL OF PUBLIC AGENDA

Councillor Bob Hawkins moved, AND IT WAS RESOLVED, that the agenda for this meeting be approved, as submitted.

ADOPTION OF MINUTES

Councillor Jerry Flegel moved, AND IT WAS RESOLVED, that the minutes for the meeting held on June 17, 2020 be adopted, as circulated.

TABLED ADMINISTRATION REPORT

PPC20-11 Transit Master Plan

Recommendation

The Priorities and Planning Committee recommends that City Council:

1. Approve funding of \$440,000 for the development of a Transit Master Plan as follows:
 - a) \$100,000 from the approved 2020 Operating Budget; and
 - b) \$340,000 from the 2021 Operating Budget.
2. Remove PP20-2 from the List of Outstanding Items for the Priorities and Planning Committee.
3. Approve this recommendation at its June 24, 2020 meeting.

Councillor Bob Hawkins moved that City Council:

1. Approve funding of \$440,000 for the development of a Transit Master Plan as follows:
 - a) \$100,000 from the approved 2020 Operating Budget; and
 - b) \$340,000 from the 2021 Operating Budget.
2. Remove PP20-2 from the List of Outstanding Items for the Priorities and Planning Committee.
3. Approve this recommendation at its July 29, 2020 meeting.

Councillor Barbara Young moved, in amendment, that Administration ensure that a “sustainability, accessibility and age friendly lens” be applied to the review and consideration of the goals of the Transit Master Plan.

Councillor Barbara Young	Yes
Councillor Bob Hawkins	Yes
Councillor Andrew Stevens	Yes
Councillor Lori Bresciani	Yes
Councillor John Findura	Yes
Councillor Joel Murray	Yes
Councillor Sharron Bryce	Yes
Councillor Mike O'Donnell	Yes
Councillor Jason Mancinelli	Yes
Councillor Jerry Flegel	Yes
Mayor Michael Fougere	Yes

The motion was put and declared CARRIED.

Councillor Bob Hawkins	Yes
Councillor Barbara Young	Yes
Councillor Jerry Flegel	Yes
Councillor Jason Mancinelli	Yes
Councillor Mike O'Donnell	Yes
Councillor Sharron Bryce	Yes
Councillor Joel Murray	Yes
Councillor John Findura	Yes
Councillor Lori Bresciani	Yes
Councillor Andrew Stevens	Yes
Mayor Michael Fougere	Yes

The main motion, as amended, was put and declared CARRIED.

TABLED COMMUNICATION

PPC20-12 Economic and Preliminary 2021 Budget Development Update

Recommendation

That the Priorities and Planning Committee receive and file this communication.

Barry Lacey, Executive Director, Financial Strategy & Sustainability, made a PowerPoint presentation, a copy of which is on file in the Office of the City Clerk.

(Councillor Mancinelli left the meeting.)

(Councillor Stevens left the meeting.)

(Councillor Murray temporarily left the meeting.)

Councillor Bob Hawkins moved that this report be received and filed.

Councillor Bob Hawkins	Yes
Councillor Lori Bresciani	Yes
Councillor John Findura	Yes
Councillor Sharron Bryce	Yes
Councillor Mike O'Donnell	Yes
Councillor Jerry Flegel	Yes
Councillor Barbara Young	Yes
Mayor Michael Fougere	Yes

The motion was put and declared CARRIED.

RESOLUTION FOR PRIVATE SESSION

Councillor Jerry Flegel moved, AND IT WAS RESOLVED, that in the interest of the public, the remainder of the items on the agenda be considered in private.

RECESS

Councillor Jerry Flegel moved, AND IT WAS RESOLVED, that the Committee recess for 10 minutes.

The Committee recessed at 4:30 p.m.

Chairperson

Secretary

Economic Development Regina's Growth Plan

Date	September 23, 2020
To	Priorities and Planning Committee
From	City Manager's Office
Service Area	City Manager's Office
Item No.	PPC20-13

RECOMMENDATION

That the Priorities and Planning Committee receive and file Economic Development Regina's growth plan, *The Regina Advantage – A Plan for Economic Growth 2020 – 2030*.

ISSUE

In March 2019, Economic Development Regina's (EDR) Board of Directors endorsed a proposal to create an economic growth plan that responds to the City of Regina's vision to be Canada's most vibrant, inclusive, attractive, sustainable community, where people live in harmony and thrive in opportunity. That plan was completed early in 2020 and approved by the EDR board in March 2020. This report provides the Planning and Priorities Committee with insight into the plan's status and the implications for the City of Regina.

IMPACTS

Policy/Strategic Impact

1. EDR will play a leadership role and champion the plan. EDR, in partnership with the City of Regina, will create an implementation oversight group who will lead the development of an implementation plan, including tactics and phasing. The plan will also require that the City of Regina implement some elements directly where other elements will require community leadership from outside both EDR and the City.
2. The plan was developed prior to the COVID-19 pandemic. Since then, the pandemic has had a significant effect on Regina's economy. The pandemic will be a key contextual consideration in the development of the implementation plan. EDR has

described implementation planning in three phases: *Survive, Recover* and *Thrive*.

3. The Plan is focused on economic growth, but also touches other policy areas that the City of Regina is currently working on such as a community well-being plan and a Plan to respond to Council's target that Regina be fully renewable by 2020. The implementation process for each of these plans, as well as master plans for various City services need to be integrated to ensure coherent and congruent action. The City Administration will play a role in ensuring this occurs.

Financial Impact

1. The Plan will require that the City of Regina, EDR and other organizations and businesses interested in the community's economic success invest in its tactics. Neither the required investment nor its timing will be understood until a full implementation plan is developed. Council will be advised of the progress of implementation planning and any financial implications for the City of Regina.
2. It is anticipated that new resources required to implement the plan's priorities will begin to be included by EDR in budget discussions with the City for 2021.

OTHER OPTIONS

None with respect to this report.

COMMUNICATIONS

EDR will be responsible for communication regarding this plan and will serve as the plan's lead and champion.

DISCUSSION

Led by a Steering Committee (appointed by EDR) of 21 key community stakeholders, the plan was developed from June to December 2019. EDR has completed extensive engagement and thorough research in support of the plan with Praxis Consulting.

- Over 200 individuals participated in 16 roundtables and focus groups to provide important insights that helped shape the strategic direction of the plan.
- An online survey was shared across various channels in November and was completed by over 1,400 Regina residents. It captured the critical thinking of the community and validated the roundtable research.

The plan will provide direction, inform future decisions and encourage community leaders to align their priorities to advance our civic priorities to drive economic growth and prosperity. The plan's core principles are community-led, inclusive and ambitious.

There are 19 actions outlined in the economic growth plan. In order to be successful, these will need to be prioritized. An implementation plan, including phasing and financial resources required, will be developed by a team of community leaders, including the Administration in the coming months. The implementation plan will be an important part of EDR's 2021 Business Plan, reflecting the priorities chosen for action within the next year.

DECISION HISTORY

None with respect to this report.

Respectfully submitted,



Louise Folk
Executive Director,
Citizen Experience, Innovation & Performance

Respectfully submitted,



Chris Holden
City Manager

Prepared by: Dawn Martin, Manager, Public Policy

ATTACHMENTS

EDR Growth Plan 2020-2030



THE REGINA ADVANTAGE

A PLAN FOR ECONOMIC GROWTH
2020 - 2030



Economic
Development Regina Inc.

*THE
SKY
IS
THE
LIMIT*





CANADIAN WESTERN PLACE

POUTINERIE
BURGERS

POUTINERIE
Best Food Truck
Experience Regina

#GrowYQR

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OUR STORY

Join us in building a brighter future

The City of Regina has a progressive, optimistic and welcoming vision of the future; to be Canada's most vibrant, inclusive, attractive, sustainable community, where people live in harmony and thrive in opportunity.

Our foundation is strong, and we have reason to be optimistic about our future. However, to achieve the quality of life and prosperity required for our city to thrive, we must plan and act.

Our local economy is diversified and stable, yet the core industries are largely tied to Saskatchewan's commodity and export-driven sectors, which experience volatility. Our population is growing and we must create new jobs to sustain our prosperity.

The Board of Directors of Economic Development Regina (EDR) recognized the importance of developing an economic growth plan. EDR led the charge to appoint a steering committee comprised of 21 local community leaders that collaborated to create and oversee this plan.

The Regina 2030 Economic Growth Plan aims to define priorities that will drive the city's economic growth and prosperity for the next ten years. Our collective aim is to promote the Greater Regina Area (GRA) as a leading destination for visitors, talent, businesses and investment in our community. The plan presents the opportunity for the GRA to thrive and to improve the lives of Reginans today and in the future. The plan is specific and contains solid, meaningful actions.



Regina's Economic Growth Plan positions us to capitalize on opportunities outlined in Saskatchewan's 2020-2030 Growth Plan

Over the next decade, the population in Saskatchewan will grow to over 1.4 million. Together with the province, we will support a decade of growth by creating new jobs and economic opportunities to help families and communities thrive.

Action: Partner with the Government of Saskatchewan to execute the 2020-2030 Growth Plan.

OUR FRAMEWORK

The Core Principles of the Economic Growth Plan

COMMUNITY-LED

INCLUSIVE

AMBITIOUS

We are building on our success.

The great cities of the world are those whose communities share a vision for their city, and work together to achieve it. The outcome of that shared vision is enhanced social and economic prosperity for all.

Economic Development Regina sought to embrace and share the insights of our community, to deliver a plan that ultimately unites and benefits everyone.

Led by a steering committee of key community stakeholders between August to December 2019, the plan is a result of extensive engagement and thorough research. Over 200 residents participated in roundtables and focus groups providing important insights that helped shape the strategic direction of the plan. An online survey completed by over 1400 Regina residents captured the thoughts of our community.

The Economic Growth Plan outlines specific, practical actions to increase prosperity and economic potential. There is great opportunity to transform Regina.





ESTABLISHED SECTORS

Our city has a strong foundation of talent and infrastructure in these many sectors and they will continue to be strong economic drivers for Regina.

Events, Conventions and Trade Shows

Our city is known across the country for its passion, welcoming spirit, committed volunteers and a work ethic that allows us to thrive in markets above our weight class. Along with being awarded the Canadian Sport Tourism Alliance's Sports Tourism Organization of the Year Award, we are nationally and internationally recognized for our ability to host Canada's most prominent events.

Manufacturing

We know how to build. Utilizing our culture of innovation, Regina's manufacturers span across 17 industries, generating \$3.3B in sales annually while employing over 6,000 people. Regina is home to many agricultural manufacturing companies that are known for their ability to produce world-class and innovative machinery and technologies for the agriculture industry.

Mining

Regina is surrounded by many mine sites, making it a convenient place for supply and service companies in the industry to locate. Generating approximately \$2B in GDP annually, our service and supply companies range from engineering technologies, underground mining equipment, to custom manufacturing.

Agriculture and Food

Regina is surrounded by some of the best agricultural land and top livestock and crop producers in the world. We're more than just the breadbasket of Canada, we're home to innovative companies across the supply chain that clean, process, provide ingredients, export, finance, manufacture equipment, and create new technologies. Together, they contribute over \$2B in GDP to the Greater Regina Area.

Finance and Insurance

Regina is headquarters for national and international financial institutions such as Farm Credit Canada, Saskatchewan Workers' Compensation Board, Public Employees Benefits Agency, TD Asset Management, Saskatchewan Government Insurance, and more. This industry generates 14.2% of the GDP of Regina, employing over 7,500 people.

Oil and Gas

Regina is located at the edge of the world-class Bakken Oil Formation, adjacent to the Shaunavon and Viking oil plays. The Co-op Refinery fuels Western Canada and Regina is home to various specialized firms that contribute over \$1B in GDP in Regina. The city is also home to the Petroleum Technology Research Centre, a leader in enhanced oil recovery and carbon capture and storage research.

Tourism

Regina is a choice destination for regional leisure travelers, events, trade shows, including national and international business travelers. Regina has over two million visitors coming to the city each year and has been able to attract major sporting events such as the Canadian Football League's Grey Cup championship, the CP Women's Open international golf tournament and the Tim Hortons NHL Heritage Classic.



Regina's vision to be:

COMPETITIVE

In 2030, Regina businesses and residents thrive in opportunity.

The population has grown to 300,000 and through bold leadership, the entire city has championed the implementation of the Economic Growth Plan and supported it with meaningful resources. Businesses have moved up the value-chain in our key industry sectors, resulting in enhanced capital investment and economic output.

The business environment is thriving, with a city that delivers competitive and efficient policy frameworks and processes. Entrepreneurs excel here, our city is full of driven and passionate people, changing the world from right here in our backyard. Regina has a variety of supports for entrepreneurs; from coworking spaces, to incubators, and programs to ensure Regina's entrepreneurs are successful.

Technology and innovation drive Regina's key sectors. The city has blossomed on the world stage as a place to pilot new agriculture and food technologies. Collaboration across various industries has positioned Regina as a food and technology hub.

Strengths

- We support each other with easy access to decision-makers and community leaders, in a city that rallies around great ideas, businesses and events
- Our unique work force is truly resilient, adaptable and innovative
- We have a quality of life you can afford to enjoy
- We have strong educational institutions and robust training programs
- One of the most diversified economies in Canada

To be competitive we will:

- Position the Greater Regina Area as a food hub for Canada and the world
- Develop and implement a strategy to train, attract and retain talent to meet labour market needs
- Continue and expand the multi-year brand campaign that promotes the Greater Regina Area as a great place to live, work, play and invest
- Create a multi-stakeholder concierge service to provide guidance and expedite business services and requests
- Create a roadmap to transform and accelerate growth of the technology industry

Impact: Businesses thrive here

What can I do? **As a stakeholder:**
Mentor and guide entrepreneurs and business owners.

As a resident:
Buy, hire and support local.

*AREAS OF OPPORTUNITY: **FOOD***

The Greater Regina Area will play a key role in sustaining the growing global population that will rise to 8.5 billion people in 2030. Surrounded by some of the world's most productive farmland and skilled producers in the world, the city will drive innovation across the supply chain. We will build on our transportation and trade infrastructure to expand agriculture, manufacturing and technologies related to food.

*AREAS OF OPPORTUNITY: **ENTREPRENEURSHIP***

Entrepreneurs thrive here! Regina is home to over 26,000 small businesses as well as headquarters for national and multi-national companies. The city is full of driven and passionate people who are creating global transformation. The Audacity YQR movement connects these bold entrepreneurs, energizes their ideas, and celebrates their successes.



Regina's vision to be:

VIBRANT

In 2030, Regina is Canada's most vibrant city.

We are a year-long festival and event city that is known as the **best host for events, conventions and tradeshow**s in Canada. The economic impact of the tourism and visitor economy is understood and its benefits widely shared. Our Downtown and Warehouse Districts are connected, and people move easily between Evraz Place and its amenities. Not far from the city centre is Wascana Lake, the city's crown jewel. The community is full of energy with rich and lively recreational activities, music, food and shopping experiences.

Regina is a place where entrepreneurs, artists, and the public sector have become a trifecta of collaboration and impact. There is an energy in the city that promotes healthy lifestyles, creativity and community well-being.

Strengths

- Community leaders and volunteers collaborate to welcome and host world class events
- We are down to earth, can-do people
- Arts and Culture in Regina provide opportunities for everyone to participate
- We welcome diversity and strive for inclusion

Areas of Opportunity: **Visitor Economy**

The benefits of strengthening the visitor economy is compelling. Tourism Saskatchewan's Destination Development Strategy notes that if the province were to grow its visitation and expenditures by 3% per annum through to 2030, it would mean an almost 50% increase in real expenditures and jobs.

With the strength of Regina's attractions and amenities such as Mosaic Stadium and the International Trade Centre, we can provide the foundation of that growth and enjoy its economic prosperity. The visitor economy includes the business traveler, tourist, and those attending events, trade shows and conventions.

As Canada's most vibrant city we will:

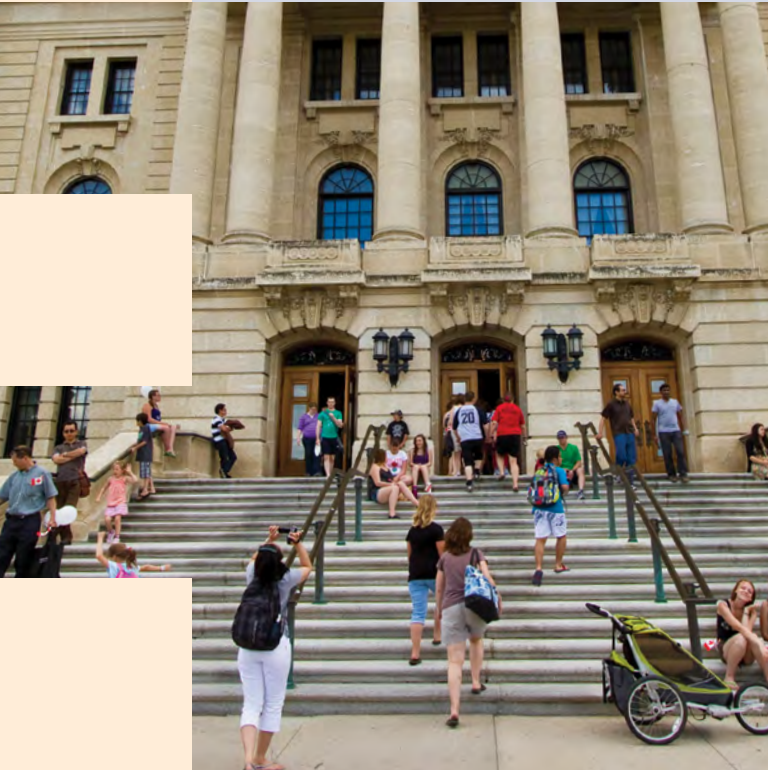
- Establish an event fund to attract, host and activate events, conventions and tradeshow
- Establish a multi-agency committee to implement a collective vision between the City of Regina, Regina Downtown Business Improvement District, Regina Exhibition Association Ltd. and the Regina Warehouse Business Improvement District
- Execute a winter strategy that will create and promote indoor and outdoor winter activities
- Grow and develop the usage of Wascana Park in partnership with the Provincial Capital Commission
- Explore and implement innovative, efficient and sustainable solutions to enhance connectivity and transportation throughout the city

Impact: Regina is interconnected, flexible and inviting

What can I do?

Get involved!

Learn what is happening in Regina, so you can participate or share information with visitors, friends and family.





Regina's vision to be:

INCLUSIVE AND WELCOMING

In 2030, Regina is Canada's most inclusive city.

The community has built upon the strong foundation of collaboration across organizations to create a safe and accessible city. Indigenous and newcomer employment at all levels are representative of our city. Regina's story of inclusiveness, open-mindedness and quality of life is celebrated at home and abroad.

Our diverse community feels at home, and proud of our cultural amenities and social gathering places. There is better pathfinding for newcomers to Regina and new cultural spaces.

Regina is committed to supporting indigenous engagement in order to advance employment and prosperity. We have created a level playing field where Indigenous peoples are barrier free from participating in economic development opportunities. We acknowledge our past and rise together.

Strengths

- We have social gathering places and activities that cater to diverse needs
- We welcome you with open arms
- The community mobilizes to support progressive initiatives

AREAS OF OPPORTUNITY: **INDIGENOUS ENGAGEMENT**

Regina is dedicated to increasing employment participation, education and investment opportunities for Indigenous peoples. Regina is home to First Nations University of Canada (FNUniv), Canada's only national First Nations owned post-secondary institution. Investment in developing innovative business ventures, advancing employment and continued collaboration will pave the way for sustainable prosperity in the future.

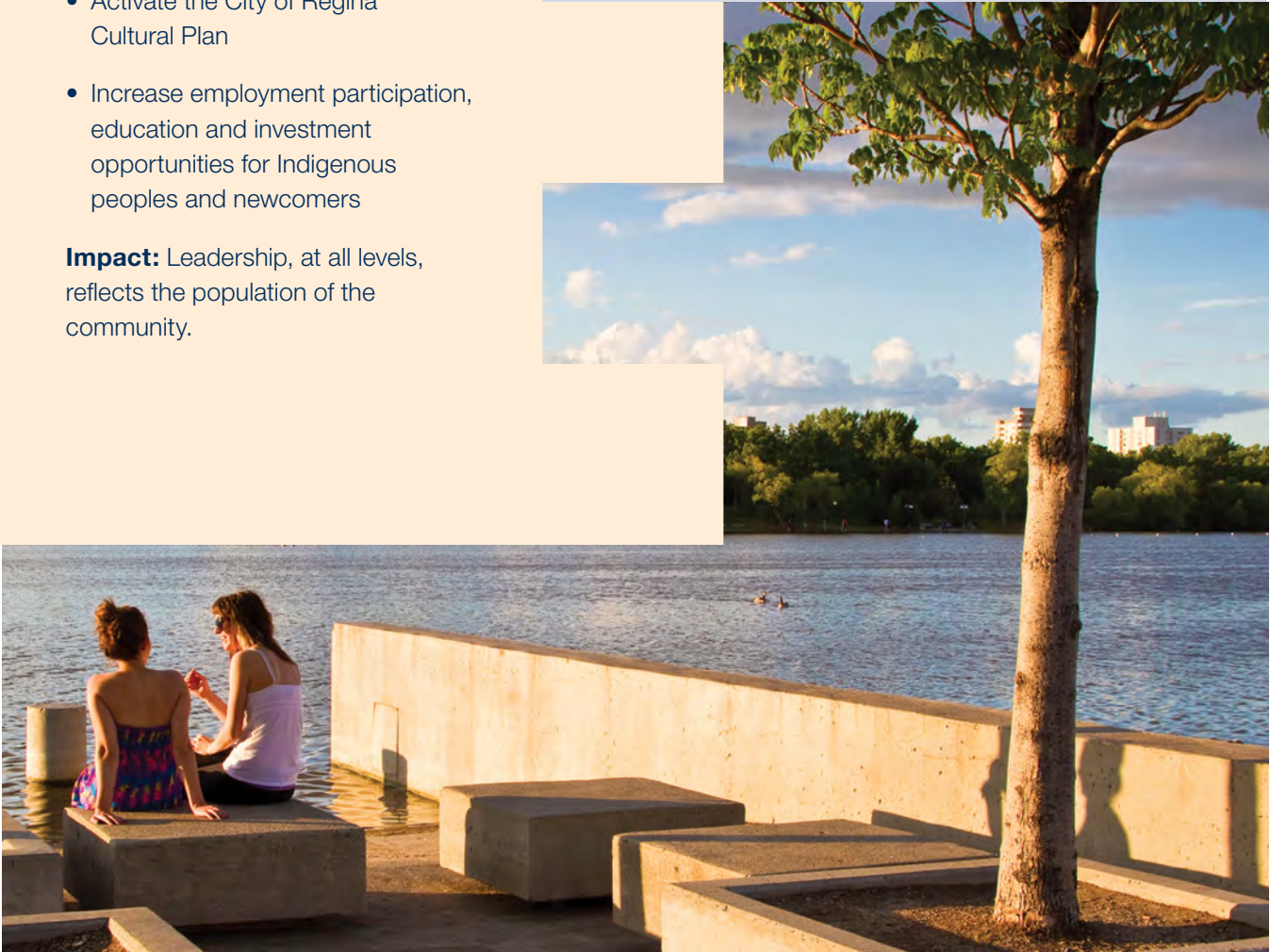
To be inclusive and welcoming we will:

- Increase and enhance the number and quality of community gathering spaces that are accessible, age-friendly, safe and inclusive
- Activate the City of Regina Cultural Plan
- Increase employment participation, education and investment opportunities for Indigenous peoples and newcomers

Impact: Leadership, at all levels, reflects the population of the community.

What can I do?

Be welcoming, support diverse businesses, and embrace diversity





Regina's vision to be:

SUSTAINABLE

By 2030, Regina will become one of Canada's most sustainable cities.

Deeply rooted in the land, Regina is rich in natural resources. We will always feed and fuel the world, but we will also embrace modern sustainable practices.

In 2030, Regina will be a shining example of how both renewable and non-renewable resources create prosperity. Researchers and industry will develop the most innovative and sustainable solutions to explore, extract and transport energy of all kinds.

Regina is recognized internationally as a smart city for its generous green space, environmentally sound building standards, sustainable operational practices, energy efficient public transportation system, and best-practice waste management. As proud stewards of air, land, water and biodiversity, we will create sustainable prosperity.

Strengths

- We are rich with sun and wind—Canada's best solar and wind energy production capacity
- Strong political and community leadership have declared environmental leadership as critical
- Local industry and business can rapidly advance and support a green economy
- A strong entrepreneurial ecosystem addressing the climate change and creating prosperity with environmental initiatives

To be environmental leaders we will:

- Develop the Greater Regina Area as a living lab where innovative sustainable solutions are tested and adopted through collaboration between the city, the private sector and research community
- Create a strong ecosystem that leverages and supports renewable energy resources
- Showcase Regina companies as world-leading providers of environmentally aligned energy and mining products and solutions

Impact: Regina is recognized as a sustainable city

What can I do? Do your part to rethink and re-evaluate your environmental choices

AREAS OF OPPORTUNITY: **ENERGY AND RESOURCES**

Saskatchewan's natural resources are instrumental to the city and province's growth. Saskatchewan's 2020-2030 Economic Growth Plan outlines goals to grow our natural resource advantages such as oil, natural gas, uranium, potash and forestry. The plan outlines investments to drive innovations that will improve efficiencies and support the advancement of new technologies and methods that reduce environmental impacts, while contributing to employment opportunities. The Greater Regina Area is home to energy, oil and natural gas companies that are leaders in advancing technologies and will be instrumental to supporting the province in becoming a global energy leader.

AREAS OF OPPORTUNITY: **RENEWABLE ENERGY & GREEN ECONOMY**

Regina will focus on decreasing our carbon footprint for a healthier planet by taking steps to adopt new technologies, practices and policies to drive towards using and producing more responsible energy sources. The City of Regina is working towards a bold target for City-owned assets to become 100% renewable by 2050. As Saskatchewan's primary power company, SaskPower has also established a goal of having a generation mix of 50% renewable electricity by 2030. Wind, hydro, solar and other renewable energy potential will contribute to a green economy. Private and public investments into projects and businesses that reduce carbon emissions and pollution, enhance energy and resource efficiency will help drive income and employment growth.



Regina's vision to be:

COLLABORATIVE

In 2030, Regina is a place where people live in harmony.

Community leaders have created a climate of collaboration and risk-taking, where the private and public sectors work closely together to create opportunities, policies and programs that advance the economic prosperity for the Greater Regina Area.

Regina has grown its visitor economy, which in turn has resulted in increases in expenditures in the city and job creation. New business clusters have emerged, and the city benefits from new international air connections.

Private businesses, non-profits, and community organizations work together to enact innovative changes that improve economic prosperity and community.

Strengths

- We are small enough that we can communicate across sectors and share information
- We can access leadership with a single email or phone call
- We have a proven track record of bringing people together to accomplish more than we should for our size of community

AREAS OF OPPORTUNITY: TALENT AND TRAINING

We are living through a fundamental transformation in the way we work. Industries require a high volume of skilled workers—and as demand outpaces supply, competition for qualified candidates is soaring. Regina's post-secondary enrollments for international and Indigenous students are the highest they have ever been and we are creating partnerships between industry and education to develop the best home-grown talent that chooses to stay here. Regina is more than a place to live, it's a place to learn, grow and thrive.

To be collaborative we will:

- Establish a community leadership group to enhance collaboration and cultivate relationships in the community around high impact common economic growth goals
- Develop and implement a strategy to promote active citizen participation and engagement in community planning and initiatives

Impact: We work across organizations and interests to impact more people with positive change

What can I do?

Learn about what others are doing and look for ways to come together to do more



THE REGINA 2030 ECONOMIC GROWTH PLAN IS MULTI-FACETED

It will require city-wide and region-wide collaboration to deliver.

That's why we need strong and effective partnerships with many organizations in Regina.

This includes other levels of government, non-profit organizations and businesses.

MOST IMPORTANTLY, IT INCLUDES EVERY CITIZEN – AND THAT INCLUDES YOU.

To become Canada's most vibrant, collaborative, inclusive & welcoming, competitive and environmental leaders we will:

- Create a roadmap to transform and accelerate growth of the technology industry
- Establish an event fund to attract, host and activate events, conventions and tradeshow
- Establish a multi-agency committee to implement a collective vision between the City of Regina, Regina Downtown Business Improvement District, Regina Exhibition Association Ltd. and the Regina Warehouse Business Improvement District
- Execute a winter strategy that will create and promote indoor and outdoor winter activities

- Grow and develop the usage of Wascana Park in partnership with the Provincial Capital Commission
- Explore and implement innovative, efficient and sustainable solutions to enhance connectivity and transportation throughout the city
- Increase and enhance the number and quality of community gathering spaces that are accessible, age-friendly, safe and inclusive
- Activate the City of Regina Cultural Plan
- Increase employment participation, education and investment opportunities for Indigenous peoples and newcomers
- Develop the Greater Regina Area as a living lab, where innovative sustainable solutions are tested and adopted through collaboration between the city, the private sector and research community

- Create a strong ecosystem that leverages and supports renewable energy resources
- Showcase Regina companies as world-leading providers of environmentally-aligned energy and mining products and solutions
- Establish a community leadership group to enhance collaboration and cultivate relationships in the community around high impact common economic growth goals
- Develop and implement a strategy to promote active citizen participation and engagement in community planning and initiatives
- Develop and implement a strategy to train, attract and retain talent to meet labour market needs

- Position the Greater Regina Area as a Food Hub for Canada and the World
- Continue and expand the multi-year brand campaign that promotes the Greater Regina Area as a great place to live, work, play and invest
- Create a multi-stakeholder concierge service to provide guidance and expedite business services and requests
- Partner with the Government of Saskatchewan to execute the 2020-2030 Growth Plan



Thank you to key contributors

“Regina is perfectly positioned to sell to the world the things the world needs. The world needs food and ag-technology, as well as fantastic visitor and amazing cultural experiences.”

Murad Al Katib

“On behalf of City Council, to all those who contributed to this visionary report, I sincerely thank you on behalf of our great city and its people. Like you, I look forward to seeing this exciting vision become a reality and create jobs and opportunities for current and future generations.”

Mayor Michael Fougere

“This plan emphasizes the importance of collaboration and coordination of our efforts to grow the economy. It clearly identifies growth sectors we need to work with, and highlights the need for engagement with the next generation, who will be our future leaders.”

Frank Hart, EDR Board Chair

Economic Development Regina Board of Directors

- **Frank Hart** – EDR Board Chair, GiGn’ Inc.
- **Tina Svedahl** – Vice-President, Investments, Harvard Developments Inc.
- **Murad Al-Katib** – President and CEO, AGT Food & Ingredients Inc.
- **David Brundige** – Willows, Wellsch, Orr & Brundige, LLP
- **Eric Dillon** – CEO, Conexus Credit Union
- **Jason Drummond** – Managing Partner, York Plains Investment Corp.
- **Michael Fougere** – Mayor, City of Regina
- **Eleah Gallagher** – President and Structural Engineer, J.C. Kenyon Engineering Inc.
- **Dr. Gina Grandy** – Dean, Hill-Levene Schools of Business, University of Regina
- **Mark Lang** – Managing Partner, KPMG
- **Rachel Mielke** – Founder and CEO, Hillberg & Berk
- **Bradyn Parisian** – CEO, Mo’ Solar Company Ltd.
- **Ryan Urzada** – Chief Experience Officer, The Atlas Hotel

We thank the Steering Committee members for their leadership in helping to shape the 2030 Economic Growth Plan.

Co-Chairs

- Mayor Michael Fougere
- Murad Al-Katib President & CEO, AGT Food and Ingredients Inc., and Past Board Chair of Economic Development Regina Inc.

Committee Members

- **Aaron Murray** – Derek Murray Consulting and Associates/Regina Downtown Business Improvement District
- **Ahmed Malik** – Miller Thomson LLP/Regina Chamber of Commerce
- **Ben Tingley** – Bravo Tango
- **Chris Holden** – City of Regina
- **Eric Dillon** – Conexus Credit Union/EDR
- **James Bogusz** – Regina Airport Authority
- **John Lee** – Economic Development Regina Inc.
- **Mark Heise** – Rebellion Brewing Co/Regina Warehouse BID
- **Pam Klein** – Phoenix Group
- **Peter Jackson** – Mosaic Company
- **Ruth Smillie** – Globe Theatre
- **Ryan Urzada** – Atlas Hotel/EDR
- **Tanya Derksen** – Regina Symphony Orchestra
- **Thomas Benjoe** – FHQ Developments
- **Tim Reid** – Regina Exhibition Association Limited
- **Tracy Fahlman** – Regina Hotel Association
- **Vianne Timmons** – University of Regina
- **Victoria Flores** – Regina Open Door Society
- **Wayne Morsky** – The Morsky Group of Companies

The Steering Committee would sincerely like to thank the individuals connected to the hundreds of different businesses, organizations and associations who contributed so much to this plan.

Special thank you to Praxis Consulting for their research support, partnership and collaboration.



Economic
Development Regina Inc.

Economic Development Regina Inc. (EDR) is the lead agency for economic development and tourism marketing for the Greater Regina Area. EDR is a not-for-profit funded by the private and public sectors and governed by a volunteer Board of Directors.

Regina is a city with both the big city buzz and a small-town vibe.
Learn more at economicdevelopmentregina.com

Energy & Sustainability Framework Update

Date	September 23, 2020
To	Priorities and Planning Committee
From	Citizen Experience, Innovation & Performance
Service Area	Technology & Digital Innovation
Item No.	PPC20-14

RECOMMENDATION

The Priorities and Planning Committee recommends City Council:

- a. Direct the Administration to develop a community-wide Energy & Sustainability Framework and Action Plan that includes:
 - a. Community and municipal wide action plans, with timelines and targets to achieve a renewable Regina by 2050.
 - b. Actions focused on land use and transportation planning, development and building permit guidelines, energy efficient building design, transportation demand management, waste management, energy conservation, regulatory tools, financial tools, advocacy for legislative change, as well as public education and awareness.
 - c. Community engagement through the development and implementation.
 - d. A regular and ongoing progress reporting framework that includes community reporting at regular intervals.
 - e. A preliminary estimate of the financial and economic impacts associated with implementing an action plan.
- b. Remove items MN18-11, MN18-4 and MN18-1 from the List of Outstanding Items of City Council.
- c. Approve these recommendations at its meeting on December 16, 2020.

ISSUE

At the June 17, 2020 Priorities and Planning Committee meeting, Administration was directed to return to the Priorities and Planning Committee meeting on September 23, 2020 with the following:

1. A plan for a forum to be held in Q1 of 2021 with space for youth and local community engagement.
2. Report back to Council by September 30, 2020 on the implementation of Motion 18-1 (Autonomous Vehicles) and Motion 18-4 (Solar Panels).
3. Report on engagement with SaskPower or a plan to move forward without them - what generation potential does the City have through wind solar and other renewable sources?
4. Report on engagement with other cities on best practices from their experience.
5. A project plan to build an Energy and Sustainability Framework that includes the following elements:
 - Details on how City and municipal wide action plans, with specific and aggressive timelines, could forward the commitment of a transition towards a 100% community-wide renewable Regina by 2050.
 - Details on how building codes, new subdivision design and green building design like LEED standards could be built into the Sustainability Framework.
 - Details on how infrastructure including transportation infrastructure, public transit and other public vehicles, waste management, the new water treatment plant and park and urban forest could be built into the Sustainability Framework.
 - Details on how platforms for community and resident engagement including engagement by marginalized communities, Indigenous communities, advocacy and neighbourhood planning committees can be built into the Sustainability Framework.
 - Details on how platforms for effective monitoring of the City's environmental and environmental programs could be included in the Sustainability Framework.
 - Other specifics that this debate has suggested for inclusion in the Sustainability Framework, including a definition of sustainability and a review of equity and collaborative partnerships.
 - A preliminary estimate of financial and other implications associated with this initiative.

IMPACTS

Energy & Sustainability Framework and *Design Regina: The Official Community Plan*

The OCP goals and policies were developed through extensive community consultation and are focused on building a sustainable community. A sustainable community is the product of a holistic approach that focuses on the community's economic, social, and environmental health collectively. To be successful and achieve an enhanced quality of life, communities are taking approaches that integrate policies and action plans in all three spheres.

Our OCP includes environmental policies related to sustainable development and climate change mitigation. The OCP guides the City to work with stakeholders to build “*a resilient city and minimize Regina’s contributions to climate change*.” The actions identified in the OCP to achieve this policy goal are:

1. Promote more energy-efficient new construction.
2. Improve Regina’s air quality, including reduction of corporate and community greenhouse gas (GHG) emissions.
3. Monitor changes in climate and its impact on the city and develop mitigation strategies.
4. Encourage green building design.
5. Encourage the reduction of greenhouse gas emissions through the use of alternative energy sources.

The policy goal and the actions outlined above are the starting point for building Regina’s Energy & Sustainability Framework and Action Plan. Work to advance environmental sustainability overlaps with policy goals and action plans focused on economic and social development. Policies and actions within each sphere are integrated.

In addition to building an Energy & Sustainability Framework, Economic Development Regina is in the process of finalizing a 10-year growth strategy for the community. Reconciliation Regina has also just launched a Community Action Plan and the City is in the process of developing a Community Health and Well-being Strategy. To achieve a sustainable community, this work requires community commitment and coordination.

International, National, Provincial and Local Action

There are many international, national, provincial and local energy and climate change initiatives underway that seek to transition the world to a low-carbon economy by 2050. These initiatives have cascaded from the *2015 Paris Agreement* and the *2016 Pan Canadian Framework on Clean Growth and Climate Change* and work completed by the International Panel on Climate Change (IPCC).

Across Canada, all levels of government have begun creating plans for reducing GHG emissions and reliance on non-renewable fossil fuels. In 2018, the Government of Saskatchewan proclaimed *The Management & Reduction of Greenhouse Gases Act* with the associated regulations. The first annual report on climate resilience was published in April 2019. To date, the focus in Saskatchewan has been primarily on industry and public utilities.

City Authority for Environmental Regulation in Saskatchewan

Under *The Cities Act*, cities have a number of stated purposes that include: (a) providing good government; (b) developing and maintaining a safe and viable community; (c) fostering, economic, social and environmental well-being, and (d) providing wise stewardship of public assets.

Within these stated purposes, cities have the jurisdiction to enact bylaws for a number of purposes including: (a) the peace, order and good government of the city; (b) the safety, health and welfare of people and the protection of people and property; (c) transport and transportation systems, including carriers of people and goods; (d) business, business

activities and those engaged in business; and (e) public utilities.

The Environmental Management and Protection Act, 2010 is the legislative foundation for regulation of the environment in Saskatchewan. The Provincial Act covers a range of topics and includes specific regulatory codes for different activities and industries. In many cases it sets minimum regulatory standards that may be expanded by city bylaw.

Public Utilities in Saskatchewan

Cities have the authority to establish and manage public utilities. Public utilities are defined in *The Cities Act* as “a system or works used to provide for public consumption, benefit, convenience or use”. The definition lists a number of possible utilities including both electricity and natural gas. A city may provide for public utility service either directly, through a controlled corporation or by contract with an external party. Any contract with an external service provider cannot exceed 30 years.

The ability to create a public utility for electricity or natural gas is subject to other provincial requirements. Section 38 of *The Power Corporation Act* (“the Act”) gives SaskPower the exclusive right to supply, transmit, distribute and sell electrical energy within the province of Saskatchewan. The Act does grant SaskPower the authority to waive these rights subject to any conditions SaskPower considers advisable.

OTHER OPTIONS

Administration can continue to focus initial efforts on building a Framework and Action Plan for municipal operations while taking a leadership role in community education around energy, sustainability and renewability.

Working together with stakeholders and other municipalities, Administration has developed an understanding of our climate and environmental characteristics, policies of other levels of government and our municipal energy profile. The information gathered for the Energy & Sustainability Conference is continuing to be used to inform action planning efforts. A focus on municipal operations is seen as an important first step in a longer-term plan to achieving the goal of renewability by 2050 for the broad community. Appendix A includes the City’s municipal energy and emissions inventory for 2019. With this in place, Administration is positioned to set targets for our operations and make data driven policy and investment recommendations for specific actions.

This option includes community engagement following the municipal election and the delivery of a Framework and Action Plan in the second quarter of 2021. This option would continue to be completed with internal resources and include actions that are policy based and short-term (1 to 5 years) in nature.

This option is not recommended as it does not align with the direction provided by Priorities & Planning Committee on June 17, 2020.

COMMUNICATIONS

Administration is continuing to meet with individuals, community organizations, stakeholders and other municipalities to discuss this work and partnership opportunities. The Clerk’s

Office provided copies of this report and notified interested parties of the date for Committee consideration of this report.

DISCUSSION

The information requested by Priorities and Planning Committee on June 17, 2020 is provided in the sections that follow.

A plan for a forum to be held in Q1 of 2021 with space for youth and local community engagement

As requested through Council's motion, community engagement will include a forum in Q1 2021 that includes space for youth and the local community. The engagement will be informed by a reference group that will include representation from groups already engaged through a number of community initiatives including but not limited to the Enviro Collective Regina, Regina Public Interest Research Group, Mother Earth Justice Advocates, Regina Blue Dot and Charged Up/David Suzuki Foundation. This group will be broadened to include the Regina Chamber of Commerce, SaskPower, SaskEnergy, Government of Saskatchewan, Economic Development Regina, the conventional energy industry, and the Regina & Region Home Builders' Association.

Community engagement is a vital component of the majority of framework and action plans in communities across Canada. The Administration is committed to ensuring the Framework builds on the work being done in the community and continues to be informed by the community at large and impacted stakeholders. This commitment extends beyond hosting a forum in Q1 of 2021.

Appendix B includes Administration's recommended objectives for community engagement and outlines a four-phased approach which includes the creation of a community advisory committee. Administration will consult with the community advisory committee throughout the Framework and Action Plan's development. Membership will include residents from the community, non-profit organizations, business and industry. The committee will be established following the municipal election and provide a voice for obtaining feedback on analysis, alternatives and decisions - particularly during action planning and when evaluating alternatives. This engagement would involve a commitment that members are kept informed and provided feedback on how their input influenced decisions made in the Framework and Action Plan.

Report back to Council by September 30, 2020 on the implementation of Motion 18-1 (Autonomous Vehicles) and Motion 18-4 (Solar Panels)

These motions were part of best practice research and content planned for the Energy and Sustainability Conference. A report back on each item is found in Appendix C and D, respectively.

Report on engagement with SaskPower or a plan to move forward without them - what generation potential does the City have through wind, solar and other renewable sources?

Administration is working with SaskPower and continues discussions about opportunities for partnerships and a community-wide Energy & Sustainability Framework and Action Plan. A

more detailed explanation of how the City of Regina is working with SaskPower can be found in Appendix E.

Report on engagement with other cities on best practice from their experience

Most local or municipal frameworks and action plans across Canada are based on the approach of *Reduce, Improve, Switch*. According to Ontario, “the logic of the approach is that by avoiding energy consumption, retrofit requirements (improve) and the need to generate renewable energy (switch) are both reduced. If switch occurred first, the capacity of the renewable energy installed would be greater, implying a higher cost; and once improve and reduce had been implemented, renewable energy capacity would be greater than demand”.

Each framework and plan includes inventories, targets, actions, scenarios, implementation plans and a process for evaluating and monitoring. Actions plans are built based on detailed scenario planning. The scenario planning seeks to identify the actions with the greatest savings per tonne of emissions reduced for both municipal operations and the community at-large, as well as how to best achieve renewability.

Building frameworks and action plans require modelling that uses a consistent methodology that considers energy profiles, emissions reductions, introduction of renewable energy sources and financial analysis of specific actions. This analysis is used to guide municipalities when making recommendations on strategic investments, as well as to inform decisions within the community at large. Appendix F provides a summary of Frameworks from other Canadian cities.

In planning the agenda for the Energy & Sustainability Conference, the Administration was in contact with many organizations and municipalities. Based on this work, Administration has developed relationships with these groups and is exploring innovative solutions and taking action to address challenges we are either currently experiencing or will likely experience in the future. These innovative solutions are informing action planning today and will continue into the future. For example, the City prioritized an Energy Monitoring and Optimization Infrastructure Project in its MEEP funding request as a result of discussions with the energy monitoring vendor community and successes achieved in other municipalities. A summary of those initial conversations can be found in Appendix G.

A project plan to build an Energy & Sustainability Framework

Administration is recommending developing a community-wide Energy & Sustainability Framework and Action Plan for Regina. The project plan to complete this work is based on a widely accepted energy and sustainability planning process outlined in the Government of Ontario’s *Community Energy Planning Guidebook*. The diagram below provides an overview of the planning process which provides a step by step “project plan” for local and municipal governments.

Diagram 1: Energy and Sustainability Planning Process



Based on experience of other municipalities, the Administration expects to deliver a fulsome Framework and Action Plan in December 2021. This requires an investment in 2021 of up to \$250,000 for third party, specialized consulting services, as well as aligning the appropriate internal resources to carry out the scope of this work.

Phase 1: Preparation (current to December 2020)

This phase ensures the City and community are prepared to advance the work and typically takes 10 per cent of the total work effort. The key deliverables include developing a project charter and establishing a governance structure. In addition, a “situational analysis” is completed to describe the current planning. Administration has completed 80 per cent of the “situational analysis”, including:

- Climate and ecosystem
- Demographics
- Policies by other levels of government
- Policies and strategies of the local government
- Built environment characteristics
- Transportation systems
- Other relevant factors

Phase 2: Inventory (current to March 2021)

This phase involves creating a community-wide energy and emissions inventory and takes 15 per cent of the total work effort. The inventory is a snapshot of energy use and emissions production, and their driving factors. The inventory provides a baseline that informs the rest of the framework: it is used to inform GHG reduction targets and to measure progress once implementation begins.

In other communities that has been completed by specialized consultants who identify and establish partnerships needed to produce the inventory. A University of Regina professor is collaborating with the University of Victoria and a modelling team there. There are three researchers focused on modelling energy futures in Regina, each focusing on one of the following: electricity, transportation, buildings. Administration looks forward to reviewing what their modelling efforts reveal about the cost and feasibility of lowering Regina's GHG emissions.

Administration has completed an energy and emissions inventory (Appendix A) for municipal operations which is enabling Administration to strategically plan its operations, make decisions and recommend policy and investment options to Council with the renewable goal in mind.

Phase 3: Target Setting (March 2021 to May 2021)

The third phase is establishing energy and emissions reduction targets. Administration plans to engage key stakeholders in the target setting process with the goal of building community and stakeholder commitment to working towards achieving the targets. Setting targets requires 5 per cent of the total work effort and once set, they are explained to the community.

The overarching goal for Regina's Energy & Sustainability Framework is to transition to 100 per cent renewable energy by 2050. Consistent with other local or municipal frameworks, it is recommended that targets to reduce GHG emissions also be included for the short, medium and long-term. This aligns with *Reduce, Improve, Switch* approach and other frameworks across Canada.

Phase 4: Actions and Scenarios (March 2021 to December 2021)

In phase four, scenarios that model policy choices and actions from now until 2050 are built and decisions are made about which scenario to implement. This is the first step in producing a preliminary estimate of the financial and economic impacts associated with becoming a renewable community.

This phase accounts for 30 per cent of the total work. Administration is recommending building advanced scenarios. Advanced scenarios include 1) actions that are identified more broadly in the community through crowdsourcing and focus groups with key stakeholders; 2) a range of land use policies; 3) a number of future scenarios; and 4) financial analysis. It is at this stage where the City and community begin to see how actions work in tandem with the OCP, as well as economic and social development strategies, master plans and the City's long-term financial plan.

Best practice for energy and sustainability planning suggests actions in focused areas achieve benefits that build sustainable communities. These areas include:

- Land use and transportation planning (eg. new subdivision design)
- Energy efficient building strategies for new and existing buildings (eg. green building design)
- Transportation demand management (eg. transit, alternate vehicles)
- Waste management
- Energy conservation
- Renewable energy generation
- Regulatory tools (eg. building codes)
- Development permit guidelines
- Financial tools
- Advocacy for senior government legislation
- Public education and awareness

Phase 5: Implementation (January 2022 to 2050)

This phase accounts for 35 per cent of the total level of effort and initially focuses on implementing short-term actions which could include implementing identified policies, partnerships, bylaws and other opportunities. In addition to evaluating the financial requirements for the short-term actions, other cities have also developed an overall investment strategy in the early years of the plan.

Phase 6: Monitoring and Evaluation (Annually beginning in 2022)

The final step is to ensure there is a formal monitoring and evaluation process in place. The goal of this phase is to ensure we are providing transparent reporting progress and continuously improving the plan. Establishing this process requires 5 per cent of the total level of effort. At a minimum, Administration is recommending a series of annual indicators that are reviewed with annual updates to action plans and reporting to Council and the community.

Course of Action

Administration recommends developing a community-wide Energy & Sustainability Framework and Action Plan that includes:

- a. Community and municipal wide action plans, with timelines and targets to achieve a renewable Regina by 2050.
- b. Actions focused on land use and transportation planning, development and building permit guidelines, energy efficient building design, transportation demand management, waste management, energy conservation, regulatory tools, financial tools, advocacy for legislative change, as well as public education and awareness.
- c. Community engagement through the development and implementation.
- d. A regular and ongoing progress reporting framework that includes community reporting at regular intervals.
- e. A preliminary estimate of the financial and economic impacts associated with implementing an action plan.

This requires securing third party, specialized consulting services to complete the technical analysis and write the plan. Upon Council's approval of the recommended option, Administration will tender a Request for Proposals to secure this third-party support and begin implementing the community engagement plan with an initial milestone being the formation of the community advisory committee by the end of Q4 2020.

DECISION HISTORY

Item MN18-11 Make Regina a Renewable City, considered at the October 29, 2018 meeting of City Council stated:

1. That Administration return to Council by Q4 of 2019 with a proposed framework and implications for the City of Regina to join the growing number of municipalities from around the world and commit to be a 100 per cent renewable city by 2050.
2. That Administration seek external funding sources, such as grants made available through the Federation of Canadian Municipalities, to finance the report and any future costs incurred from this commitment.
3. Said report include at least four possibilities of new and concrete actions for

improving the environmental sustainability of the City of Regina that could be considered by Council for implementation by Q4 of 2023.

In response, at the June 20, 2019 Planning and Priorities Committee meeting, the Administration recommended:

1. That the City of Regina host an Energy and Sustainability Conference in May 2020 to provide input into the development of an Environmental Sustainability Framework, which among other initiatives, would include a roadmap for the organization to move to more renewable energy sources, autonomous vehicles and solar panels.
2. That the return date for item MN18-11, MN18-1 and MN18-4 be updated to Q3 of 2020 on the List of Outstanding Items of City Council.

These recommendations were approved by the Committee and forwarded to the July 29, 2019 City Council meeting where they were approved. The *Reimagine Conference* was scheduled for May 20-21, 2020. The Conference agenda was focused on best practices in energy management and environmental sustainability. The content would have provided input into the development of Regina's Framework/Roadmap.

On March 13, 2020, the Energy and Sustainability Conference Planning Group made the decision to postpone the Conference until Fall 2020. The scope and duration of the unfolding public health emergency was unknown but significant enough that all levels of government-imposed restrictions on most aspects of society including travel and public gatherings.

Respectfully Submitted,



Carole Tink, Director
Technology & Digital Innovation

Respectfully Submitted,



Louise Folk, Executive Director
Experience Innovation & Performance

Prepared by: Energy & Sustainability Working Group

ATTACHMENTS

Appendix A - Municipal Operations 2019 Energy and Emissions Inventory

Appendix B - Objectives for Community Engagement

Appendix C - Autonomous Vehicles

Appendix D - Solar Panels

Appendix E - Engagement with SaskPower

Appendix F - Summary of Frameworks from other Canadian Cities

Appendix G - Best Practice Research Completed for the Energy and Sustainability Conference

Municipal Operations 2019 Energy and Emissions Inventory

Becoming a Renewable City

Regina City Council voted unanimously for Regina to join the growing number of municipalities around the world and commit to becoming a 100 per cent renewable city by 2050.

The City of Regina will take a holistic approach that focuses on the community's economic, social and environmental health collectively. The City of Regina is committed to being informed by the community at large to develop policies and action plans that support growth, sustainability and build on work that is already being done to achieve its renewable goals.

City of Regina's Municipal Energy Sources

86%
Conventional
Non-Renewable

14%
Renewable

Landfill Gas to Energy **4%**

City Biogas **5%**

Green from SaskPower **5%**

**Total Energy Generated:
11,700,000 kWh***

** Reflects municipal operations only*

** Equivalent to powering 2,700 homes*

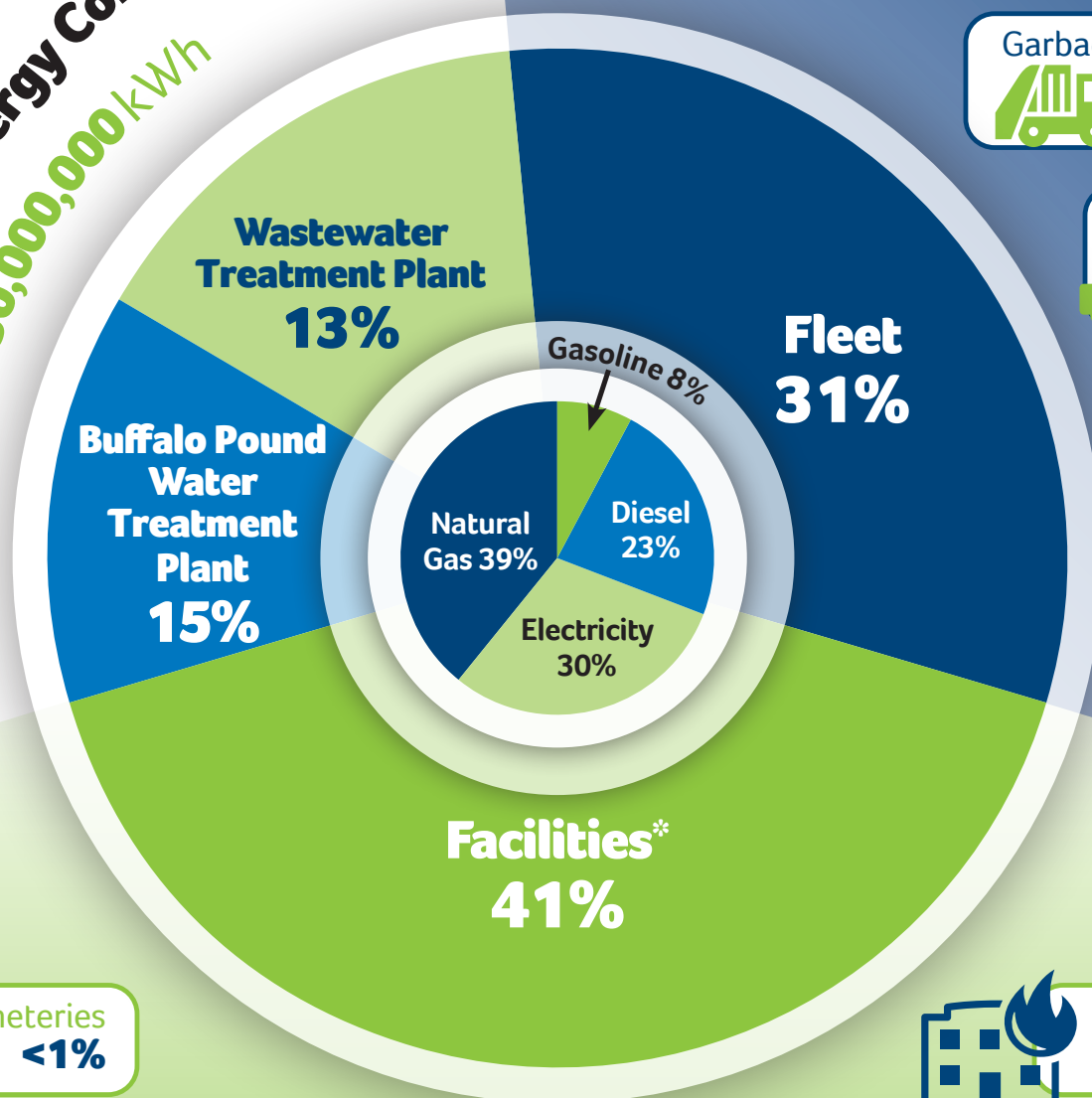
2,700

Definition: A renewable city is one whose annual energy consumption is equal to or less than the amount of renewable energy generated or sourced in alternative to non-renewable energy sources.

City of Regina

REGINA
Infinite Horizons

TOTAL Municipal Energy Consumption:
230,000,000 kWh



*does not include Evraz Place and Mosaic Stadium

Regina's Renewable Journey

The City of Regina's commitment to being renewable by 2050 is reinforced by policies in *Design Regina: The Official Community Plan* (OCP) which outlines a community vision for Regina to be "Canada's most vibrant, inclusive, attractive, sustainable community, where people live in harmony and thrive in opportunity."

As with the OCP, which was developed through extensive community consultation with citizens and stakeholders, community engagement is a vital component to achieving Regina's renewable goal. The first step is the creation of an Energy & Sustainability Framework. This will outline the guiding principles and resulting action plan needed to facilitate greater reliance on renewable sources of energy throughout Regina. The City will seek community input to guide the creation of this Framework and will ensure that the input is representative of Regina's diverse population and interests.

Operationally, the City has continued to advance OCP policies through projects that have reduced emissions, energy consumption and the organization's environmental impact, and which bring us closer to a renewable Regina.



Environment

Goal D2:

"To protect, promote and expand Regina's urban forest and street tree canopy"



Transportation

Goal D3:

"To create sustainable transportation choices"

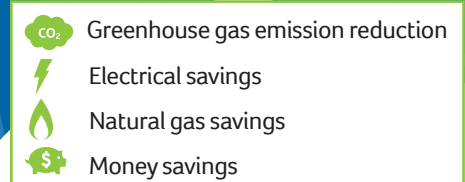
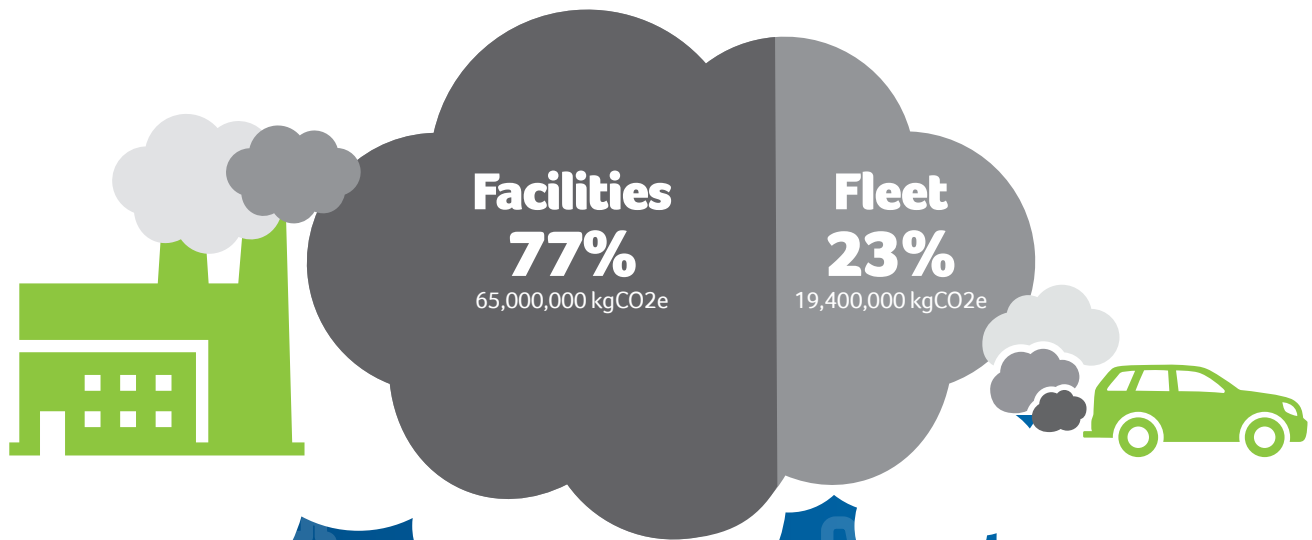


Infrastructure

Goal D4:

"To design infrastructure that conserves resources and minimizes impacts on the environment"

2019 Municipal Greenhouse Gas (GHG) Emissions From Energy Consumption



What We've Done So Far:



Regina's Urban Forest

Named one of the Tree Cities of the World, Regina has more than 500,000 hand-planted trees that are responsible for assisting with flood reduction, natural cooling, and removing the CO₂ equivalent of 3,330 mid-sized vehicles from the atmosphere.

12,500 tonnes CO₂e/year



Wastewater Treatment Plant (WWTP)

Designed for efficiency, the new WWTP was completed in 2018. Electrical consumption has been reduced through more efficient pumping equipment. Geothermal energy is the primary source of office space heating in the winter, reducing natural gas usage; and renewable biogas is used to heat the digesters.

2,600,000 kgCO₂e
 11,100,000 kWh
 1,300,000 m³
 \$300,000/year



Fire Hall 4

Received LEED (Leadership in Energy and Environmental Design) Gold Standard certification in 2013. Designed with high-efficiency heating and cooling technology, plus energy efficient doors, windows and lighting installations.

average 10,400 kgCO₂e/year
 15,960 kWh average (average reduction from 2013-2019 compared to 2012 consumption)
 average \$2,000/year



Landfill Gas to Energy Facility

Since 2017, the City of Regina has operated a 1MW gas engine/generator that uses the methane gas resulting from waste decomposition at the landfill for power generation. This renewable energy source feeds SaskPower's grid and produces revenue for the City.

30,000 tonnes of CO₂e each year or the equivalent of 8,000 cars
 7,800,000 kWh, enough to power 1,000 homes

Current Projects:



Transit Master Plan

A Transit Master Plan is being developed that will chart the path forward for the City's transit services, which includes exploring alternative fuel sources and new technologies to improve the overall efficiency and sustainability of the system.



Transit Fleet Maintenance Facility

The Transit Fleet Maintenance Facility will enable the City to deliver expanded transit services to existing and new neighbourhoods. The facility is being designed and constructed to contemporary energy, environmental and sustainability standards to improve the working environment and reduce greenhouse gas emissions.



On-Demand Transit

An on-demand transit pilot project will run from September to December 2020. It will assess route optimization through the use of software that enables transit riders to request service when needed on select routes.



Waste Management Centre

The new Waste Management Centre blends operational, environmental and energy efficiencies between the Solid Waste branches by sharing crew spaces, office support areas and vehicle and equipment storage.



Maple Leaf and Wascana Pools

Energy efficiency and environmental sustainability are a priority for these planned outdoor pools. This will include water conservation features such as filtration systems and low consumption plumbing fixtures, as well as high efficiency heaters, LED lighting, variable speed pumps and solar panels to reduce electricity and natural gas consumption.



Solar Lighting Pilot Project

This five-year project will test LED and solar lights along pathways throughout Regina.



Automated Meter Infrastructure

This technology will help the City and water users to better understand water consumption in real time and to detect and fix leaks sooner. Less unintentional water consumption also means less energy consumed in the treatment and delivery of the service.



Telematics

Data acquired from City fleet through GPS will help improve route efficiency and reduce fuel consumption.



Energy Monitoring and Optimization Infrastructure

The City is initiating a pilot for energy monitoring technology to reduce energy consumption in City facilities. Realtime energy consumption data will help the City identify where and how energy is being used and support Administration in making decisions about how and where to implement change to reduce overall consumption.

Appendix B – Objectives for Community Engagement

Over time, practice has found successful, community-wide Energy & Sustainability Frameworks and Action Plans are anchored on community engagement. Most communities have engaged a wide range of organizations and provided opportunities for broad community participation throughout the process. Typically stakeholders in energy and sustainability planning include the general public, subject matter experts, consultants, electricity, natural gas and other utility/energy suppliers, as well as representatives from the building development and real estate sectors, non-profit and community organizations, institutional organizations, vulnerable populations, First Nations, business and industry communities and other local governments.

Administration's recommended objectives for engagement include:

- To gather diverse citizen and stakeholder views in developing and finalizing community-based guiding principles that will inform the Energy and Sustainability Framework.
- To gather citizen and stakeholder feedback on action plans and scenarios that will guide Regina to its 100 per cent renewable by 2050 goal.
- To ensure that the input is representative of the City's diverse population and interests.

Administration proposes a four-phased approach to meet the engagement objectives.

1. Broad engagement on the community guiding principles that will inform the Framework. Stakeholders and citizens will be engaged directly to ensure that concerns and aspirations are consistently understood and considered. This engagement would involve a commitment that concerns, and aspirations are directly reflected in the alternatives. Best practices from other municipalities will provide the baseline for developing the principles.
2. The creation of a community advisory committee to consult throughout the Framework's development. Membership will include residents from the community, nonprofit organizations, and business and industry. The committee will provide a voice for obtaining feedback on analysis, alternatives and decisions – particularly during action planning and evaluating alternatives during scenario planning. This engagement would involve a commitment that members are kept informed and provided feedback on how their input influenced decisions made in the Framework.
3. Input into the creation of the City's action plan. Engagement opportunities will invite idea generation for the action plan from stakeholders and citizens. In particular, the Administration will involve the community in the development of community-focused action items.
4. Feedback on the action plans in the Framework. Stakeholders and citizens will be engaged to obtain feedback on decisions and to keep those consulted informed of how their feedback is used. The community advisory committee will also be consulted on feedback from the broader engagement activities. The City's energy audit work as well as leading practices from other municipalities will be a key input into these discussions.

Appendix C – Autonomous Vehicles

Council Motion MN18-1 from the January 29, 2018 City Council meeting stated:

1. The City of Regina monitor the research and trials that are currently underway and will shortly be undertaken with regards to autonomous and connected vehicles.
2. The Administration report back to Regina City Council in the second quarter of 2019 with analysis as to the impacts or potential impacts upon the City of Regina of these type of vehicles and to take into account any impact of a large number of vehicles powered by batteries and the need for charging stations.
3. The Administration consider any advantage the City of Regina may have with being one of the leading-edge communities with regard to testing of autonomous vehicles given our varied climate.

The following information responds to that motion.

Research and Trials

Research suggests autonomous vehicle technology, like other new technologies, will follow a path of development, testing, approval, commercial release, product improvement, market expansion, differentiation, maturation, and eventually saturation and decline. Autonomous vehicles (AV) are currently in development and testing stages. Current in-market vehicles have some limited autonomous technologies such as cruise control, hazard warning and automated parallel parking. Tesla's Autopilot offers automated steering and acceleration in limited conditions, although deployment was delayed after it caused a fatal crash in 2016. Several companies have more advanced pilot projects testing AV in specific conditions, but many technical improvements are needed before vehicles can operate autonomously under all normal conditions. Research suggests that AV development and testing will continue throughout the next decade before entering the marketplace. In the 2030s, AV is predicted to make up 1-2 per cent of the total vehicle fleet and that share is expected to grow to 10-20 per cent in the 2040s and 20-40 per cent in the 2050s.

Autonomous Shuttle Trials

The City of Beaumont in 2019 was Canada's first city to pilot an autonomous electric shuttle within mixed traffic use (traffic signaling and human interaction) in its community under a six-month pilot project in partnership with Pacific Western Transportation. The pilot vehicles interacted with pedestrians and traffic infrastructure such as lights, intersections, and road signage. The six-month pilot ran May through October 2019 on a one kilometre route travelling north and south on the east lane of 50th Street. Although without significant problems, the City of Beaumont has stated that it is too soon to determine if, when and how electric autonomous transportation can become a permanent option in their community. More broadly, it has not been determined when autonomous transportation will move beyond the testing stage. This pilot project is a calling card showing others across Canada and abroad that Beaumont is open to partnering with innovators in advancing and commercializing new technologies. The City of Edmonton projects that autonomous public transportation could become part of transit infrastructure in the next 10 to 15 years.

Autonomous Vehicles (AV) Impacts on Regina and Planning

A range of immediate policy issues require investigation and resolution by national and provincial government regulatory bodies before AV technology enters the consumer marketplace. Research

indicates that data for other policy issues such as traffic congestion and impacts on travel habits and roadway design will take much longer. Like other emerging policy issues, such as ride sharing or legalization of marijuana, other levels of government need to create legislation and regulation. Currently, Saskatchewan Government Insurance is in the preliminary stages of developing insurance-related policy and Transport Canada, on behalf of the federal government, is in the early stages of developing safety regulations. Although high-level regulations and legislations will come from the federal government, it is likely that provincial jurisdictions will be responsible for imposing specific regulations around different testing, approval and as well as licensing. Using ride sharing and the legalization of marijuana as examples, it is likely that the AV landscape will see varying rates of deployment across Canada.

Electric Vehicle (EV) Charging

As electric vehicles currently make up a small share of total vehicles, the City of Regina does not have a specific policy or mandate to increase the availability of EV charging. The City's near-term and future-term approach to EV will be a part of the Energy & Sustainability Framework. There are businesses in Regina, such as gas stations, that have installed EV charging stations. Developers could also make this part of new build infrastructure; however, the City is not aware of this currently taking place. Of note, there are currently 84 electric vehicles registered in Regina. It is likely that as EV becomes more prevalent, SaskPower and other related provincial government bodies will ensure adequate electricity infrastructure is in place.

Connected Vehicles (CV)

Traffic Signal Preemption

The City currently uses technology that enables traffic signal preemption for Fire and Protective Services vehicles, helping reduce response time to emergency calls and enhance public safety. The City is planning to adopt newer technology that will enable traffic signal changes based on GPS positioning of approaching vehicles.

Effective traffic signal priority and preemption improves public safety by reducing the chance of vehicle collisions and personal injury in situations where emergency vehicles would be required to cross through an intersection during a red light. This technology can be leveraged by Fire & Protective Services, and potentially Regina Police Service and EMS ambulance services.

There is also the potential to use a new traffic signal priority and preemption technology with fixed route buses to help improve route schedule adherence. The Transit Master Plan will identify under what conditions this technology would be ideally suited (for example, future use of rapid transit). The Transit Master Plan is tentatively planned to start fall 2020 and be completed before 2022.

Snow removal is another service that could benefit from traffic signal priority and preemption. The technology would eliminate the need for graders and plows to stop at red lights in the middle of the night. Preempting the traffic signal lights during a snow event would help ensure Priority 1 street clearing meets the Service Level Agreement (SLA) of 24 hours as well as Priority 2 street clearing to meet the 48 hours SLA. Use of this technology will also reduce fuel costs and greenhouse gas emissions from reduced idle times at red lights.

Telematics

Telematics is another example of connected vehicle technology that involves acquiring data from vehicles and their systems, in conjunction with the vehicle's position. The use of telematics allows for vehicle route optimization, improved vehicle utilization, and increased customer service all because specific work and information can be traced back to specific vehicles. Telematics has been successfully used by the City of Regina for a decade and is currently implemented in the following ways:

- a. Winter Road Maintenance – Snow Removal and Road Sanding. The City can track activity progress for priority street clearing, confirm service delivery, plowing activities, where sand is spread, and optimize routes.
- b. Summer Road Maintenance – Potholes and Road Sweeping. The City tracks Asphalt patching of pothole locations as well as where asphalt patching has occurred, street and alley sweeping, and route optimization.

A telematics project is currently underway involving the City's solid waste collection vehicles. The project will improve the 25-vehicle fleet and is expected to provide an operational savings of: \$45,000 from reductions in missed collection service requests; \$164,000 from a 30-minute reduction in route completion times; \$80,000 from a reduction in the amount of vehicles required and \$66,000 from a reduction of one less vehicle operator. The project is expected to produce a return on investment within 18 months, realizing a total savings of \$355,000.

The table below provides an overview of how connected vehicle technology is used throughout City services as well as future opportunities the City is currently exploring.

Services currently using telematics		
Service Area	Activity	Opportunities
Winter Road Maintenance	Snow Removal	<ul style="list-style-type: none">Track priority street clearing progress to enhance quality of serviceMonitor plowing activities such as whether the blade is up or down
	Sanding	<ul style="list-style-type: none">Track where and how much sand is spreadTrack vehicle locations for route optimization
Summer Road Maintenance	Sweeping	<ul style="list-style-type: none">Track route completions to ensure areas are not missedTrack vehicle locations for route optimization
Landfill	Solid Waste Disposal	<ul style="list-style-type: none">Optimize placement and compaction of garbage to better utilize landfill space
Transit	Public Transit	<ul style="list-style-type: none">Real-time location of bus operators to ensure personal safety considerationsPublicly viewable real-time location of buses through transit app
Fleet	Vehicle Information	<ul style="list-style-type: none">Track engine hours, engine idling, vehicle diagnostic codes, fuel management and preventative maintenance

Future telematics opportunities		
Service Area	Activity	Opportunities
Parking	Parking Enforcement	<ul style="list-style-type: none"> • Manage 3rd party contracts for performing parking enforcement
Parks and Opens Spaces	Pest Control, Pruning, Watering and Mowing	<ul style="list-style-type: none"> • Remote monitoring of pesticide application, pruning, watering and mowing • Track route completions to ensure areas are not missed • Track vehicle locations for route optimization
Fire & Protective Services	Emergency Response	<ul style="list-style-type: none"> • Validate routing data against actual performance, with interest in ability in real time vehicle location to improve deployment of closest vehicle

Regina as a Testing Community

According to research, the following criteria are all required to become a leading-edge community for new technologies including specifically for testing autonomous vehicle technology:

- Strong partnerships with the private sector
- Strong partnerships and involvement with universities and academia
- Strong research ecosystem
- Federal funding support

Existing realities indicate that Ontario has already established market dominance as the go-to Canadian destination for AV and CV testing, research and development. Not only does Ontario meet the above criteria, it is also the home of Canada's automotive sector. Since 2017, nearly \$1.5 billion of private sector investment related to the research and development of automated vehicles has been announced for Ontario. Additionally, the Ontario provincial government has committed \$80 million in funding over five years for the Autonomous Vehicle Innovation Network (AVIN), and the federal government has allocated millions for other Ontario initiatives through the Program to Advance Connectivity and Automation in the Transportation System (ACATS). Moreover, Regina's weather is not unique enough to create the competitive advantage necessary to attract groups away from established hubs such as those throughout Ontario. A unique aspect to the AVIN initiative is the recently launched WinterTech Development Program, which focuses on refining the technology to meet Ontario's challenging winter climate.

The City of Regina's current approach has been focused on seeking innovative solutions to existing or near-term service-related issues. Economic Development Regina (EDR) is the City's development arm. The Administration will continue to work with EDR to attract the economic development opportunities to our community that align with the City's growth plan.

Appendix D – Solar Panels

Council Motion MN 18-4 from the April 30, 2018 meeting of City Council stated:

1. The Administration investigate the potential of installing solar panels on various City of Regina facilities and analyze the cost benefit of removing select city facilities from the power grid to be self-sustaining, and determine if there is a financial benefit in selling the power that would be generated.
2. The Administration investigate the possibility of installing a large number of solar panels on city owned land with the expressed desire to generate revenue for the City of Regina.
3. The Administration also determine if there are partnerships available regarding the installation of solar panels resulting in revenue generation for the City of Regina, with, but not limited to, SaskPower.
4. The Administration report back to Regina City Council no later than December 2019.

Power Generation

Details about generation programs offered by SaskPower can be found in *Engagement with SaskPower (Appendix E)*.

Power Generation Partner Program (PGPP): The program allows customers to develop power generation projects to sell electricity to SaskPower. Projects are selected through a competitive procurement process. Generation options under the PGPP include solar, geothermal, hydro, flare gas, biomass/biogas, and waste heat recovery power.

Eligible solar generation projects must be between 100kW and 1MW. A detailed assessment of a solar installation under the PGPP has not been completed. Rough estimates suggest this would be a multi-million-dollar project. Given the private sector's interest in this type of solar installation, it can be assumed such a project would be profitable. However, this would be a new line of business for the City of Regina and the organization may be challenged to run a solar facility as efficiently as a purpose-specific solar power generation company.

Net Metering Program (NMP): This program allows customers to produce electricity for their own consumption and provide excess electricity to the grid for credit on their SaskPower bill.

The cost/benefit analysis for Net Metering projects is currently being addressed on a case-by-case basis. Generally, the larger the solar system, the faster the return on the original capital investment. For example, a 30 kW system would have a capital payback of approximately 29 years. While a 45 kW system would have a payback of about 21 years.

A preliminary assessment for the feasibility of a net meter solar installation on City Hall shows that a 100 kW system could be installed on the first floor roof (a structural assessment to determine that the roof can handle the weight has not yet been completed). The installation would offset about 6 per cent of City Hall electricity usage, based on 2019 consumption data. Using an assumed supply and installation cost of between \$2500 - \$3000/kW of capacity, the system would pay off the capital investment in between 19 and 23 years. It is worth noting that the cost of operating the system is currently unknown as is the cost of dismantling and disposing of the solar panels at the end of their life. These additional costs would extend the payback period for the initial investment.

In 2019, City Hall consumed approximately 3,062,400 kWh of electricity, the same as over 400 homes. Preliminary estimates show that approximately 11,500 m² of solar panels would be required to provide enough power for City Hall. This would require a solar panel surface area of roughly two football fields and would cost several million dollars.

Disposal Implications

Currently, there are no cost-effective recycling opportunities for solar panel waste. While research continues and investment is being made in technologies around the globe, in the near-term most solar panels will end up in landfills. Solar panels often contain lead, cadmium, and other toxic chemicals that cannot be removed without breaking apart the entire panel. About 90 per cent of solar panels are made up of glass. However, this glass often cannot be recycled due to impurities including plastics, lead, cadmium and antimony.

When solar panels end up in landfills, there is risk that these toxic chemicals can leach into the soil. As such, disposal in regular landfill is not recommended.

Some government authorities are implementing legislation that puts the responsibility for disposal on solar panel manufacturers, mandating that they offer a recycling solution or charge a disposal fee.

As solar installations increase in Regina, the City of Regina will need to determine disposal parameters and considerations as part of our Solid Waste Master Plan.

Disconnecting from the SaskPower Grid

Removing facilities from the SaskPower grid means disconnecting from the electricity network and relying on the City's own electricity generation, without the grid as back-up. This option is considered high risk as there would be no ability to count on the reliable baseload power that is supplied by SaskPower.

For any facility that would be removed from the grid, a high capacity storage system or battery would be required to provide electricity in the case of reduced generating capacity. Additional considerations for disconnecting from the grid, include:

- Upfront cost to install solar panels, battery storage, and inverter equipment.
- Whether or not there is generation potential (space) to meet the facility's peak demand.
- Installation of a backup power generation option (such as a diesel or natural gas generator) for when back-up battery power expires.
- Spikes in power use and whether the system can handle them.
- What changes to the facility might be required to operate off the grid (what equipment might need to be turned off to reduce demands).
- Battery safety risks such as explosion, fire, and chemical leakage.
- Ongoing costs to maintain and operate the generation equipment, including replacement at end of life.

There are some facilities and services, such as water and wastewater facilities, or emergency services, that cannot be removed from the SaskPower grid due to healthy, safety, and risk related regulatory requirements. SaskPower has never encountered a situation where a client has completely disconnected from the grid. Even in cases where customers generate their own power, they remain connected to the

grid as back-up. If the City of Regina did disconnect facilities from the grid, there may be a cost-recovery fee charged by SaskPower to recoup the costs of infrastructure that was built to support the City of Regina. This would require further discussion with SaskPower and the intention of any charges would be to not burden other SaskPower customers with higher costs.

A preferable option is to leverage Behind the Meter generation (see Appendix E) to offset our reliance on SaskPower supplied electricity, while still having access to baseload power.

Partnership Opportunities

Many other cities with 100 per cent renewable goals may seem to have an advantage over Regina due to the availability of hydroelectricity as baseload power in their utility grids. For example, the City of Portland, Oregon has set a target to transition 100 per cent of the electricity used in their City operations to renewable sources by 2030 and are reporting achievement of this goal. This is because approximately 70 per cent of the utility-scale electricity generation in Oregon comes from conventional hydroelectric power plants.

SaskPower is on a journey to sustainability and renewability. SaskPower is working to meet the following targets by 2030:

- Increase renewable electricity generation from about 25 per cent today to as much as 50 per cent.
- Increase wind power capacity from 221 megawatts (MW) to approximately 2,100 MW.
- Add 60 MW of solar generation by 2021.

While SaskPower works to achieve these targets, the City is making decisions and acting today to leverage renewable energy as changes to the supply network evolve in Saskatchewan.

In fact, Portland only generates 700 kW of renewable power (solar), whereas through our partnerships with SaskPower, the City of Regina generates 1 MW of energy at our landfill gas-to energy generator. Additionally, we produce the equivalent of 11,000,000 kWh of energy through use of biogas, and offset office heating costs by as much as 50 per cent through geothermal heating at the wastewater treatment plant.

SaskPower offers several programs that enable individuals, business, and communities in Saskatchewan to generate power (see Appendix E). These programs are the City's best approach to transitioning to renewable energy in a reliable way in order to meet our 100 per cent renewable community by 2050 goal. Unlike cities who have a "head start" on their renewable journey due to hydroelectric baseload power, the City of Regina has a greater opportunity to participate and lead in our community's energy transition.

In order to generate power for revenue purposes, the City of Regina must work with SaskPower as the SaskPower grid is the only power delivery infrastructure in the province and they have the exclusive right to supply, transmit, distribute and sell electrical energy in any area.

Other partnership opportunities include incentives for renewable energy producers, such as the Foxtail Grove Solar implementation, that attract renewable investment in our province.

Appendix E – Engagement with SaskPower

This appendix responds to part three of the referral motion in relation to item PPC20-9: Report on engagement with SaskPower or a plan to move forward without them – what generation potential does the City have through wind, solar and other renewable sources?

SaskPower's Future Power Supply

SaskPower's mandate is to provide reliable, cost-effective, sustainable electricity.

The Government of Canada has passed new laws that require the shut-down of all conventional coal-fired power stations by 2030. SaskPower is evaluating a range of power sources to replace conventional coal and meet its goal to reduce greenhouse gas (GHG) emissions by 40 per cent from 2005 levels by 2030.

To-date, SaskPower has added a combination of carbon capture and storage; natural gas-fired electricity generation; and, wind and solar projects. Northern hydroelectric facilities have been upgraded and SaskPower has increased the amount of hydroelectricity imported from Alberta, Manitoba and the United States.

These sources are supplemented by efficiency and conservation programs and major upgrades to the provincial power grid to improve reliability and enable more customer generation. Biomass and geothermal projects are also being evaluated.

After 2030, to cut GHG emissions by 80 per cent or even 100 per cent by 2050, SaskPower is exploring low or zero emissions sources, including nuclear power from small modular reactors (SMRs), adding more wind and solar combined with battery storage, carbon capture and storage; and, importing more low or non-emitting sources of electricity from Alberta, Manitoba and the United States.

These options would be supported by more upgrades to the province's power grid, which also supports the addition of more customer generation from renewable power sources.

In planning the power system, SaskPower must balance several seemingly competing priorities, including the impact on power rates, service reliability, regulatory risk, emissions, land use, other environmental impacts, as well as social and public acceptability.

Power Generation

Not all power generation methods can produce continual power, or base load power as it is commonly known. For example, 1kW of natural gas generation capacity can produce 1kW of electricity at any moment as long as the system is operational. 1kW of solar generating capacity has the potential to generate 1kW of electricity under optimal conditions but also has the potential to generate zero kW of energy under the most sub-optimal conditions.

SaskPower has adopted national reliability standards for utilities. These federal reliability standards require SaskPower to plan to always have enough electricity available to meet the full electricity demands of the province. This means when adding intermittent energy options such as wind and solar, SaskPower also needs to have enough dispatchable generation to reliably meet demand for electricity. SaskPower's dispatchable power has primarily come from conventional coal, natural gas or hydro. In support of its emissions reduction goal, and to comply with Federal regulations SaskPower continues to evaluate a range of low or non-emitting generation options as it transitions the power system from fossil fuels.

Section 38 of *The Power Corporation Act* gives SaskPower the exclusive right to supply, transmit, distribute and sell electrical energy in Saskatchewan. Only with SaskPower's permission can other parties supply, transmit, distribute or sell electricity.

SaskPower provides three methods for communities and businesses to generate electricity on the SaskPower grid. These are the:

1. Power Generation Partner Program
2. Net Metering Program
3. Unsolicited Power Proposals

The Power Generation Partner Program (PGPP) allows organizations to develop power generation projects to sell electricity to SaskPower. Projects are selected through a competitive procurement process. Generation options under the PGPP include solar, geothermal, hydro, flare gas, biomass/biogas, and waste heat recovery power.

Businesses and communities can submit applications for more than one project. But the total power generated from all renewable projects must be 1 MW or less.

In addition to the cost of the system, applicants are responsible for the following program costs as detailed on SaskPower's website:

Type	Cost
Application Fee (non-refundable)	\$315 (GST included)
Interconnection Study Fee (non-refundable)	\$1050 (GST included)
Interconnection Costs	\$170,000/MW and \$43,000/km
Operation and Maintenance Cost	1.25% of the project's total interconnection costs (2% annual escalation)
Electrical Inspection	Once accepted into the program, you are responsible for your own electrical inspection
Power Supply Rate	Electricity consumed by the Project's generation facility will be charged under the applicable rate code

A bid price must be submitted along with the project application. The bid price is the amount that will be paid for the energy generated by the project. For renewable projects, the bid price can't be more than \$98.30/MWh.

Applications for 2020 are accepted from October 22 through October 30. In order to apply, a pre-application meeting must be booked with SaskPower prior to October 2. Not all applications will be successful. If the City applied under this program, it would be competing against applicants from the private sector. In 2019, the City applied for approval to install a second landfill gas-to-energy system under this program. Unfortunately, our application was denied because SaskPower did not have adequate grid capacity in the area.

SaskPower also offers a Net Metering program where customers can produce energy for their own consumption and then provide any excess power generated to the grid for credit on their bill which can be applied to future consumption of energy from SaskPower. Electrical generation can only be offset. If more electricity is generated than is consumed over the billing period, that difference is not paid out. Additionally, the excess generation provides credit only to the location where it is generated. The City would be unable to use credits from one facility towards other facilities' power consumption.

Under this program, the City of Regina can implement up to 500kW in Net Metering projects (per calendar year), but no one project can be more than 100kW. For context, 500kW of solar generation could power ~120 homes.

In addition to the specific customer generation programs outlined above, SaskPower also accepts one-off proposals for power generation projects intended to sell electricity to the grid. Proposals are evaluated on a case-by-case basis. Criteria for evaluation include the need for electricity on the system, the location of the project, cost and impact on customer rates, reliability, regulatory risk, environmental impact, and impacts to people. It is unlikely that SaskPower would pursue proposals that generate more electricity than is currently needed.

A fourth opportunity for power generation exists where electricity is generated for a customer's own consumption with nothing being put onto the grid. This is called Behind the Meter generation. In this scenario, there is no revenue associated with power generation. The installation would simply offset the amount of SaskPower electricity consumed. A Behind the Meter generation program still requires SaskPower involvement to help size and cost the interconnection between SaskPower and the customer generation facility. The interconnection is used to access electricity to back-up/supplement the customer generation. The recently announced solar generation project in Lumsden is an example of a Behind the Meter project.

When entering into a power production agreement with SaskPower, ownership of environmental attributes such as carbon offsets or credits become the property of SaskPower. This would mean that the City of Regina would not be able to attribute program participation as achieving its emission reduction targets.

In addition to the programs for communities and businesses outlined above, SaskPower is adding renewables to the grid using other providers. The First Nations Power Authority will be adding 20 MW of renewable generation and an additional 20 MW will be purchased through RFP tender.

10 MW of this latter category was awarded to Kruger Energy to develop the Foxtail Grove Solar Energy Project within the City of Regina borders. The City of Regina helped to make this bid successful by way of a tax exemption, as well as exemptions of the transportation, parks and recreation, and administration portions of servicing agreement fees. The project will generate enough electricity to power 2,600 Saskatchewan homes. The project supports Council's goal for Regina to become 100 per cent renewable by 2050 and promotes conservation of energy for long-term sustainability. The City can explore additional partnerships such as this moving forward.

Opportunities for the City of Regina

Within the generation programs available from SaskPower, the City has several opportunities to add renewable sources to the grid.

Opportunities for solar generation are detailed in *Motion 18-4 Solar Panels (Appendix D)*. In addition to solar generation, the City can investigate projects for additional green energy production. Such projects include additional Landfill Gas to Energy Generating capacity and installation of wind turbines at City facilities; renewable natural gas from the Wastewater Treatment Plant, landfill or other organic programs; geothermal heating at city facilities; and in the future possible waste to energy solutions. Opportunities for reducing energy consumption are also being considered as transitioning to non-conventional energy sources will be easier if the amount of energy required is reduced.

SaskPower is investigating new utility scale renewable solutions which may further support the City's objectives. Further discussions are planned between SaskPower and the City as SaskPower develops these new services.

Appendix F - Summary of Frameworks from Other Canadian Cities

		High-level targets		Baseline-data		Action plan					Modeling		Engagement		Other
City	Most recent version	Energy-related	GHG-related	Energy-related	GHG-related	Guiding principles	Themes/Objectives	Actions	Targets	Timing	Technical scenario modeling	Financial scenario modeling	During development	Ongoing	
Charlottetown	2018	100% renewable by 2050	Carbon neutral city by 2050 at the latest 50-65% reduction relative to 2015 levels by 2030 40% reduction in municipal operations by 40% by 2030	Y	Y	N	4	38	Some	N/A	Y Carbon budget	Y Business as usual scenario Low carbon scenarios	Multiple educational related campaigns and feedback campaigns. Engagement w/ SMEs.	Citizen Sensor Network	
Halifax	2020	100% renewable by 2050	N/A	Y	Y	11	18	46	Some	Short, medium, long-term	Y Carbon budget scenarios that integrate actions	Y Business as usual scenario Low carbon scenarios	All levels of government, utilities, nonprofits and advocacy groups, academics and educators, industry, Mi'kmaq peoples, African NovaS cotian Communities, Acadian groups, youth.		\$22B financial benefit \$1.2B electricity savings
Markham	2019	Net zero by 2050	Carbon Budget	Y	Y	Decrease overall local energy consumption in all sectors; 2 Switch to low carbon renewable sources of energy; and, 3 Increase local energy generation from renewable sources.	7 Objective areas	22	Some		Y Creation of 'moderate' and 'ambitious' low carbon scenarios which integrate the actions	Y Business as usual scenario Low carbon scenarios	Sustainability Working Group	Annual, two-year, and five-year updates on implementation.	By 2028, total expenditures are lower in both low carbon scenarios than in the BAU scenario. \$7-8B savings between 2017-2050
Oxford County	2018	100% renewable by 2050	N	Y	Y	N	Some	N	N	N/A	Y Carbon pathways	N	N/A	Identified stakeholder groups	
Saskatoon	2019	100% renewable by 2050	Reducing the City of Saskatoon's emissions by 40% below 2014 levels by 2023; and 80% by 2050. Reducing the community's emissions by 15% below 2014 levels by 2023; and 80% by 2050.	Y	Y	N	Reduce, improve, switch in 6 Objectives	40	Milestones and quantitative	4 phases	Y Carbon budget scenarios that integrate actions	Y Business as usual scenario Low carbon scenarios	Y	Engagement for specific climate change and sustainability initiatives will be ongoing at regular intervals throughout the next 5 years	Cumulative community-wide cost of \$19B with a net return of \$14.6B. City specific cost of \$6.1B with net return of \$5.7B.
Vancouver	2017	Derive 100% of the energy used in Vancouver from renewable sources before 2050	Reduce carbon pollution by 33% below 2007 levels by 2020 Reduce carbon pollution by at least 80% below 2007 levels before 2050	Y	Y	10	Buildings Transportation Waste Cross-sectoral	77	Milestones and quantitative	Short, medium, long-term and ongoing	Y	Some	Renewable City Action Team, made up of representatives from environmental and civil society non-profit organizations, academia, regional and provincial government, the business community, and local utilities.	N/A	

Victoria	2018	100% renewable by 2050	80 percent reduction of community-wide GHGs (based on 2007 levels)	Y	Y	10	4 Action Areas with 12 goals	81	Milestones and quantitative	Action underway Initiate by 2020 Future action	Y	N	N/A	N/A	
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Appendix G - Best Practice Research Completed for the Energy & Sustainability Conference

Presenter	Topic	Summary	Opportunities
Renewi	Rethinking Waste - Fully Integrated Organic Waste Management	The City of Surrey uses biogas as a viable energy source for municipal vehicles. Their 70% diversion rate saves considerable landfill space but also means they have a sizeable amount of biogas to use. Designed to process 115,000 tonnes of organic waste a year, the Surrey Biofuel Facility will be the largest of its kind in North America and will help Metro Vancouver achieve its regional waste diversion objectives under the Integrated Solid Waste and Resource Management Plan. Each year the facility will process organic waste from more than 150,000 Surrey households, local Industrial, Commercial and Institutional operations, and other municipalities in the region. The RNG produced is used to power the City's waste collection trucks, operations vehicle fleet and to feed the City's District Energy System. In addition, the City is able to produce high quality 'closed loop' compost and sell the product to customers including farmers, landscapers and homeowners.	This example suggests that biogas is a viable energy source for municipal vehicles. Organic materials diversion saves considerable landfill space while also producing a viable product in biogas and compost.
Federated Cooperatives Limited	Ensuring Sustainability of Water Resources	Federated Cooperatives Limited Wastewater Improvement Project enables the organization to efficiently and sustainably recover all of the two million gallons of water used at the Regina refinery.	There could be other opportunities for sustainable water recovery by industrial customers. The City could explore incentives and other mechanisms to encourage industrial customers to recycle and/or conserve water as a means to contribute to sustainable resource use.
University of Calgary	Net Zero Building Transformation	The University of Calgary MacKimmie development is one of Canada Green Building Council's pilot projects for a new zero carbon building standard. The MacKimmie project is the beginning of a wider net-zero movement on the U of C campus, and a larger goal to reach carbon neutrality by 2050. The pursuit of the Zero Carbon Building Standard is a tangible demonstration of the University of Calgary's commitment to be a leader in sustainability among Canadian post-secondary institutions. It directly supports the goals of the University's Institutional Sustainability Strategy, and aligns with its Energy Innovations research strategy and forms part of its Climate Action Plan. The project provides important opportunities to use the University of Calgary campus as a learning-laboratory for sustainability research and teaching.	This project can serve as an insight to how building code's can be a mechanism for reducing carbon emissions (lowering GHG emissions), conserving energy usage, and ultimately serving as a tool for achieving renewability by 2050 while following the 1.5C warming pathway.
Municipal Natural Assets Initiative	Low Tech Dumb Cities	A growing body of experience in municipal natural asset management suggest that healthy and well-managed natural assets can provide some of the same services as engineered assets but with lower capital and operating costs, greater resilience to a changing climate and many other benefits.	The City will review the applicability of natural assets as it develops the Renewable Regina Framework.
Federation of Canadian Municipalities	Sustainable Neighborhood Development: Practical Solutions to Common Challenges	The Federation of Canadian Municipalities (FCM) is positioned to support municipalities as they develop sustainable neighbourhoods focused on creating lasting environmental, social and economic value.	FCM has support services, best practices and funding programs that the City will explore during the development and implementation of the Renewable Regina Framework.
GreenWave Innovations	Energy Conservation Through Real-Time Energy Monitoring	Greenwave is a local company that partners with businesses and organizations to implement ROI based energy conservation strategies. They offer real-time energy monitoring of water, electricty, and natural gas consumption. They equip their partners with accurate consumption metrics that allow for informed decision making to reduce utility bills and carbon emissions within buildings.	The City of Regina could explore a pilot project at a City building to determine the ROI and if the solution should be expanded to more facilities. It is best practice to reduce energy consumption prior to switching to renewable energy options. This would be one way of achieving reductions as Regina progresses through its Renewable journey.
Deep Earth Energy	Geothermal Energy for Baseload Electricity	Deep Earth Energy is currently working on a project to develop a 5MW facility near Estevan that would supply energy to SaskPower's grid. Geothermal energy is one of the few renewable options that is also a baseload power supply.	The City could explore geothermal energy projects in conjunction with the current SaskPower partner programs. Currently, the City could only produce 1MW but it could be possible to explore geothermal as an alternative heatsource.
SaskPower	Planning a Sustainable Power Future	SaskPower has a plan and roadmap to move towards a sustainable energy future. SaskPower is on track to meet it's goal of reducing emissions by 40% from 2005 levels by 2030. Beyond 2030, the company expects that even deeper cuts to emissions will be required - as much as 80% or even 100% by 2050. To meet these goals, they're evaluating the full range of cleaner energy options. These options include: carbon capture and storage, importing more hydroelectricity from Manitoba, nuclear power from small modular reactors, biomass, geothermal and wind and solar with battery storage. They are also looking at ways to create a more efficient and modernized grid designed with customer expectations in mind.	Regina's ability to become renewable by 2050 is heavily depenent on SaskPower's energy mix. SaskPower's roadmap will be an input into the Framework's scenario planning and financial modeling. If SaskPower focuses on a quicker transition it allows the City and residents to focus on energy and GHG reductions.

Presenter	Topic	Summary	Opportunities
Natural Resources Canada	SMRs as a way of decarbonizing the energy industry	Natural Resources Canada has a development roadmap for small modular nuclear reactors (SMRs). These reactors can use existing nuclear waste as fuel and unlike traditional reactors, cannot melt down. The reactors can be built in modular form for specific applications, can be stacked together to scale, and also unlike traditional reactors have a reduced cost due to their modular nature. Like traditional nuclear power, they produce a high energy value solution based on the material inputs. There are currently multiple partnerships as well as significant financial investment and technology development exploring the use of SMRs. SaskPower has formed a partnership to review SMR use with provinces of Ontario and New Brunswick.	SMRs are not currently a viable energy source. However, if the technology becomes available, it could provide a viable energy source that SaskPower could use for baseload power production. Although it would not be considered renewable, it would be a significant reduction in greenhouse gas emissions. As a non-renewable energy source it still has potential in helping to decarbonize in order to stay within the 1.5C warming pathway.
Nrstor and Helix GeoConsultants	Compressed Air Energy Storage	Compressed Air Energy Storage (CAES) technology has the capacity to convert a significant portion of Saskatchewan's intermittent, renewable power generating sources like wind and solar to grid-scale power. This would help facilitate the large-scale development of sustainable, low-carbon renewable power resources. Saskatchewan's unique geology means that bedded salts in the deep subsurface supports the development of 'salt caverns' that can be used for storing compressed air.	Saskatchewan has lots of suitable underground salt caverns that already store natural gas. However, at this time it does not seem like SaskPower is pursuing CAES technology. This could be due to low uptake and the existence of only one facility in Canada.
Wascana Solar Co-op	Establishing community solar co-operatives	The Wascana Solar Co-op is experienced at building and supporting a sustainable, community-based solar cooperative. They have an established model for solar use in the community, both at the commercial and consumer levels.	The Wascana Solar Co-op is positioned to provide insights based on their proven history of growing their solar energy footprint. There is likely an opportunity to work together, particularly in promoting solar addoption in the community.
Brett Dolter	Renewable Regina: Residents' Perspectives	Brett Dolter, a University of Regina professor, was working to identify the Regina community's feelings towards becoming a renewable city by 2050. Mr. Dolter was also investigating how much community members were willing to pay and where they wanted investments made.	Brett Dolter's research provides a third-party insight into Regina resident's attitudes towards transitioning to renewable energy. The research looks at how support for transitioning is related to residents' willingness to pay. This will be particularly useful as the Administration works to develop a framework that finds creative ways for the City and residents to finance the renewable transition.
City of Innisfil	Rural Re-Imagined	Innisfil, Ontario, is a town of 30,000 with a plan to enable growth to 150,000. They aim to leverage rapid transit to connect residents to Toronto. The town envisions a community that maintains a small town rural lifestyle while still providing easy access to and urban environment. They are working to develop a complete community through their development plan, The Orbit: Innisfil. By containing and shaping development, they hope to prevent urban sprawl while also supporting sustainability and protecting the environment. Innisfil plan influences development to consider the natural environment and not rip and replace with pavement and concrete	The town has prioritized sustainability alongside growth. Innisfil's pursuits provide an opportunity to rethink what a subdivision looks like and to review how transportation options can impact development.
Town of Raymond	Becoming a Net Zero Community	The Town of Raymond is pursuing a journey to become Canada's first 'Net Zero' community. This means that they produce as much energy as they consume They are relying heavily on solar energy to accomplish this goal and continue to add solar capacity as they expand energy generation to meet residents' needs.	The Town of Raymond is pursuing net-zero through a phased approach. They have focused on municipal operations first and are now working at becoming net-zero throughout the entire community. This could be a useful perspective as the City continues to plan the RRI development.
Cowesses First Nation	The Journey of Cowessess First Nation Renewable Energy	Cowesses First Nation has been developing a 1MW renewable energy generation facility utilizing wind turbines, solar panels and battery storage. They have a unique experience as a governing body that has navigated the rules around power generation in Saskatchewan.	Cowesses could provide insight as to how a similar system could be used for new community developments.
City of Calgary and City of Edmonton	Pursuing Zero Emissions Transit	The City of Edmonton and City of Calgary are currently pursuing contrasting paths towards a more sustainable transit system. The City of Calgary's transit fleet operates on Compressed Natural Gas (CNG) while the City of Edmonton is piloting electric busses.	Both Cities can provide useful information and experiences regarding sustainable/renewable transit. The City of Regina will continue to monitor Edmonton's electric bus pilot program.
City of Calgary	Building Sustainability into Transportation	The City of Calgary has developed a strong program and practices for integrating environmental sustainability considerations into their investment and operational decision-making for Transportation. Third party auditors validate the environmental management system to ensure it delivers measurable results and positive impact in planning, design, construction, operation, maintenance and public use of Calgary's multi-modal transportation system.	Calgary's experience can add insight when thinking about what City operations go together or how development and transportation planning are linked. This can help find opportunities for pooled resource use. Calgary chose a decentralized approach to environmental issues with folks sprinkled in amongst the business areas to avoid silos. Thinking about where the roles of sustainability should reside organizationally will be an important aspect of implementing the Renewable Regina Framework.
Durham York Energy Center	Creating Energy from Waste	The Durham York Energy Centre waste management facility is a regional waste management solution. It supports 7 local governments that chose to consolidate their waste management services into a single facility.	Regina could pursue more regional solutions for service delivery.

Water Utility Rate Information

Date	September 23, 2020
To	Priorities and Planning Committee
From	Financial Strategy & Sustainability
Service Area	Assessment & Property Revenue Services
Item No.	PPC20-15

RECOMMENDATION

That Priorities and Planning Committee receive and file this report.

ISSUE

At the December 9, 2019 City Council meeting, Council requested information on utility bill rates; specifically, an explanation of how the model and rates work, and the implications of lowering the daily base (fixed) rates and shifting the costs to the consumption (variable) rates to assist residents who are struggling with affordability. This report is in response to that request.

IMPACTS

The utility system is comprised of many different components and is complex. Within our current rate structure, the base rate revenue is not sufficient to pay the fixed utility costs. Lowering the base rates in favor of more revenue dependence on the variable rate may result in increased risk to the utility's sustainability due to the unpredictability of water usage (i.e., dry vs. wet summers).

When consumption drops, the fixed costs do not. While the City does want to encourage conservation, we need to ensure that the utility remains financially sustainable. Increased pressure on the variable consumption rate may result in further decreases in per capita consumption, eroding the revenue required to maintain and operate the infrastructure.

Consumption changes may be intentional or unintentional. For example, years with increased rainfall are typically lower water consumption years. This weather-related

variability may also be further impacted by climate change, with extreme and/or more frequent rainfall and times of very dry or drought conditions. These changes may negatively impact revenue stability and financial projections in the Utility Model.

As well, significant changes in overall consumption may result in operational challenges related to system stagnation. For example, decreased water demand may result in longer periods of stagnant, odorous water, thereby affecting the quality of the water. To address, this may require more frequent monitoring and flushing of the system, which would increase operational costs.

In addition to potential funding shortfalls caused by revenue fluctuations, the utility's service delivery is challenged by deteriorating infrastructure, unforeseen weather events and regulatory changes. In order to ensure we continue on a financially sustainable path for our utility, we need to generally ensure the same amount of revenue is collected over the long term.

OTHER OPTIONS

Option 1: Establish Utility subsidy programs to assist customers in financial need.

At the May 27, 2020 meeting of Council, motion 20-6 requested that Administration prepare a report for Public Works and Infrastructure for Q3 of 2021 that:

1. Outlines options to help offset the cost of water and sewer for low income residents by way of means-tested grants, billing options, and fee waivers;
2. Establishes a political advocacy strategy aimed at the federal and provincial governments with the aim of alleviating the financial burden for low-income residents with regards to water and sewer billing and costs.

Option 2: Redevelop the Utility rate structure

With the implementation of the Advanced Metering Infrastructure (AMI) program, which will begin in 2021 and is estimated to be completed by 2024 the City will have more information and better tools to develop a more complex and integrated rate structure to potentially address affordability issues as well as sustainability. For example, an analysis of the data collected from AMI could be used to explore complex rate structures such as:

- Increased Block Rates: encourages conservation as the per unit charge increases as the amount of water used increases.
- Time of Day Pricing: charging a higher rate for water used during peak demand periods, encouraging the change of behavior to lessen the impact on our infrastructure.
- Summer Surcharges: charging a higher rate for households with large lawns and pools.

COMMUNICATIONS

None with respect to this report.

DISCUSSION

Regina's residents expect safe, consistent, high-quality water services, delivered in a manner that is fiscally, environmentally and socially responsible. Delivering these services in a sustainable way requires a long-term view that secures sufficient revenue to recover the system costs, buffer against unexpected circumstances, service debts and save for future capital needs.

While many Canadian municipalities still do not have full cost-recovery utility models, Regina has had a full cost-recovery utility for the past 50 years. Some costs are variable but 80 per cent of all costs associated with the utility are fixed costs. There is a water meter installed to measure consumption in every home and business in Regina. The City uses a 25-year financial model along with master plans to help prioritize and meet environmental and system challenges as well as to ensure a sustainable utility for many years to come.

When determining the utility rate required from year to year, the City aims to strike the right balance between sustainability, equity and affordability.

Sustainability

As mentioned previously, the City of Regina currently has a sustainable system, utilizing tools such as our 25-year utility financial model along with master plans to ensure that our systems are sustainable now and into the future. We still have vulnerabilities and will need to continue to adapt.

Equity

General guiding principles are outlined in *Design Regina, The Official Community Plan* (OCP) such that those who use a service are required to pay for it. Using a blend of rates, debt and reserves helps us ensure equity between user groups as well as intergenerational equity.

Affordability

Affordability refers to different types of customers being able to pay for water and wastewater services. It is measured by its cost relative to the amount residents are able to pay.

City of Regina Rates:

Our rates (attached as Appendix A) are structured to support a sustainable utility and to encourage conservation. The current structure uses a blend of approximately 35 per cent fixed fees and 65 per cent variable fees for water and wastewater. Services are charged through a daily base rate and through a volume (usage) charge, which provides an incentive to conserve valuable resources. These rates do not directly correlate to the utility's cost structure.

The fixed operating costs for water and wastewater are about 80 per cent, with variable costs accounting for the other 20 per cent. Fixed costs are relatively unimpacted by the amount of water consumed; however, infrastructure replacement and/or upgrades may be needed due to increased demand, population growth, economic growth, etc. The utility is responsible for infrastructure including water mains, storage reservoirs, pumping stations, building service connections, a wastewater treatment plant, wastewater and storm drainage sewers, and lift stations, as well as drainage channels and creeks. Additionally, the City of Regina is a joint owner of the Buffalo Pound Water Treatment Plant with the City of Moose Jaw.

Variable costs are those that fluctuate with the volume of water that goes through the system. This includes water purchase from Buffalo Pound Water Treatment Plant Corporation and electricity costs to manage water demand.

Under the City's current water rate structure, Regina's water sales have remained steady over the last 10 to 15 years, despite population growth. This is a result of increased conservation by residents and businesses.

The graphic below depicts a comparison of single-family water rates to utility costs for 31 water and wastewater utilities across Canada.

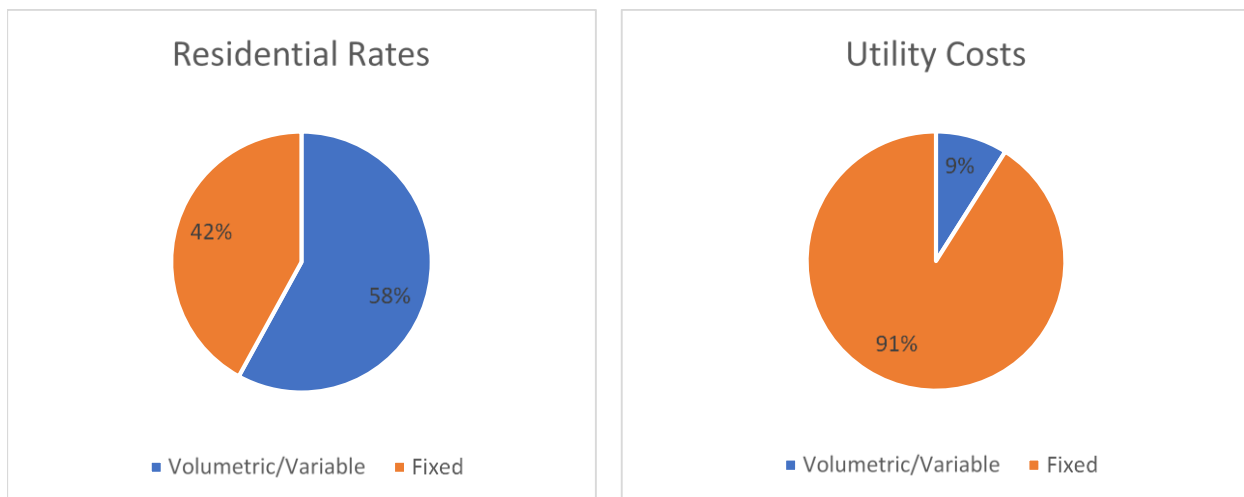


Figure 1 Comparison of single-family household rates to utility costs for 31 utilities in 2013 (Data Source: National Water and Wastewater Benchmarking Initiative (NWWBI))

The City's fixed water rate percentage (approximately 35 per cent) is lower than the average fixed water rate (42 per cent) across 31 utilities in Canada.

Changing the Rate Structure:

Lowering the Fixed Rates; No Adjustment to Variable Rates

The City of Regina's utility rate structure is similar to other utility systems across Canada in that our rates are not in direct alignment with the cost structure. To align, rates would need to shift greatly towards the fixed and away from the variable, rather than the opposite.

The implications of lowering the fixed rate and making no change to the variable rate would result in lack of funding required to maintain a sustainable model. There would need to be consideration as to what other funding sources would make up the difference. (e.g. property taxes), as the utility would no longer be self-sustaining.

Lowering the Fixed Rates; Adjustment to Variable Rates

Chart 1 below outlines the potential impact of decreasing the daily base (fixed) rates by 3, 5, 10, 25, and 50 per cent respectively with the associated increases needed to the consumption (variable) charge to offset the impact.

Chart 1 – Percentage Decreases to the Fixed Rates and the Associated Increases Necessary to the Variable Rates to Offset the Impact

Percent Decrease to Fixed Rate	Percent Increase to Variable Rate
Decrease ↓ 3%	Increase ↑ 8.5%
Decrease ↓ 5%	Increase ↑ 10%
Decrease ↓ 10%	Increase ↑ 14%
Decrease ↓ 25%	Increase ↑ 25%
Decrease ↓ 50%	Increase ↑ 45%

A standard utility bill consists of water, sewer, drainage, and recycling charges. Water and sewer charges consist of both fixed and variable components. Drainage and recycling consist only of a fixed component. Appendix A has the complete breakdown of the 2020 Utility Rates.

Chart 2 below outlines seven types of customers and how they would each be impacted by the potential adjustments to the fixed rates for water, sewer, and drainage along with

variable rates for water and sewer. The figures below are simply meant to provide estimates for different customer types.

Chart 2 – Potential Impacts to Different Customers

*Assuming a typical level of consumption among each customer type

Customer Types	Current Sample Monthly Utility Bill	Same Utility Bill with Changes to Fixed/Variable Utility Rates	Monthly Increase / Decrease in Utility Bill
Customer 1 Single resident living in a condo	\$77.95	Fixed ↓ 3% \$76.76	Decrease ↓ \$1.19
		Fixed ↓ 5% \$75.63	Decrease ↓ \$2.32
		Fixed ↓ 10% \$72.84	Decrease ↓ \$5.11
		Fixed ↓ 25% \$64.36	Decrease ↓ \$13.59
		Fixed ↓ 50% \$50.37	Decrease ↓ \$27.58
Customer 2 Family of 2 living in a single-family dwelling	\$100.64	Fixed ↓ 3% \$101.38	Increase ↑ \$0.74
		Fixed ↓ 5% \$100.60	Decrease ↓ \$0.04
		Fixed ↓ 10% \$98.71	Decrease ↓ \$1.93
		Fixed ↓ 25% \$92.73	Decrease ↓ \$7.91
		Fixed ↓ 50% \$83.28	Decrease ↓ \$17.36
Customer 3 Family of 5 living in a single-family dwelling	\$154.86	Fixed ↓ 3% \$160.21	Increase ↑ \$5.35
		Fixed ↓ 5% \$160.24	Increase ↑ \$5.38
		Fixed ↓ 10% \$160.52	Increase ↑ \$5.66
		Fixed ↓ 25% \$160.51	Increase ↑ \$5.65
		Fixed ↓ 50% \$161.90	Increase ↑ \$7.04
Customer 4 Family of 7 living in a single-family dwelling	\$170.93	Fixed ↓ 3% \$177.64	Increase ↑ \$6.71
		Fixed ↓ 5% \$177.91	Increase ↑ \$6.98
		Fixed ↓ 10% \$178.83	Increase ↑ \$7.90
		Fixed ↓ 25% \$180.59	Increase ↑ \$9.66
		Fixed ↓ 50% \$185.19	Increase ↑ \$14.26
		Fixed ↓ 3% \$1,307.76	Increase ↑ \$84.90

Customer 5 Multi-Residential complex with 2-inch water meter	\$1,222.86	Fixed ↓ 5% \$1,320.31	Increase ↑ \$97.45
		Fixed ↓ 10% \$1,354.32	Increase ↑ \$131.46
		Fixed ↓ 25% \$1,445.78	Increase ↑ \$222.92
		Fixed ↓ 50% \$1,615.83	Increase ↑ \$392.97
Customer 6 Commercial property with 3-inch water meter	\$1,362.68	Fixed ↓ 3% \$1,358.27	Decrease ↓ \$4.41
		Fixed ↓ 5% \$1,342.12	Decrease ↓ \$20.56
		Fixed ↓ 10% \$1,302.53	Decrease ↓ \$60.15
		Fixed ↓ 25% \$1,180.60	Decrease ↓ \$182.08
Customer 7 Large Industrial Water User in Regina	\$211,328.58	Fixed ↓ 50% \$982.66	Decrease ↓ \$380.02
		Fixed ↓ 3% \$228,839.94	Increase ↑ \$17,511.36
		Fixed ↓ 5% \$231,917.70	Increase ↑ \$20,589.12
		Fixed ↓ 10% \$241,158.82	Increase ↑ \$29,830.24
		Fixed ↓ 25% \$263,723.51	Increase ↑ \$52,394.93
		Fixed ↓ 50% \$305,802.09	Increase ↑ \$94,473.51

Adjusting the rates to have more revenue coming from the variable consumption rates would benefit some residents and disadvantage others. The benefit would not necessarily be connected to a customer's ability to pay but rather to their water use profile.

For example, a low-income renter with a five-person household (similar to Customer 3), with outdated plumbing and no low-flow devices would see an increased utility bill if the rate were shifted towards the variable component, whereas a high-income condo-owner (similar to Customer 1) with new plumbing and no yard would see a decrease. Alternatively, a portion of the Customer 1 group may be single seniors on fixed income and a portion of the Customer 3 group may be a family with two incomes having no issues with affordability.

As no customer group above will consist of everyone in the same economic situation, establishing a program to address affordability within a specific demographic or income bracket may be best done through mechanisms other than adjusting the fixed and variable utility rates.

The impacts on Commercial properties will vary based on meter size and water usage. Many Commercial properties with a small meter and low water usage may only see a slight increase or decrease in their utility bills. Commercial properties with very large meters and high-water usage (e.g., Industrial properties) are likely to see significant increases to their utility bills as the variable rate increases.

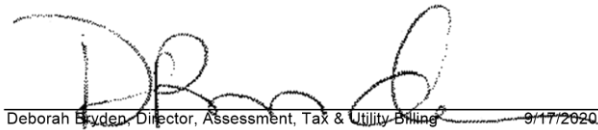
While some customers may benefit to changes in our current rate structure, when we reduce the base rates and rely more heavily on the variable rates we increase the risk the sustainability of the utility model as a whole.

DECISION HISTORY

On December 9, 2019, City Council approved the 2020 Utility Budget with Report CM19-15 2020 General and Utility Operating Budget and 2020 - 2024 General and Utility Capital Plan.

Respectfully submitted,

Respectfully submitted,


Deborah Bryden, Director, Assessment, Tax & Utility Billing 9/17/2020


Barry Lacey, Exec. Director, Financial Strategy & Sustainability 9/17/2020

Prepared by: Tony Petruvias, Manager, Property Tax & Utility Billing

ATTACHMENTS

Appendix A - 2020 Utility Rates

Appendix A – 2020 Utility Rates

Daily Base Charge for Water & Sewer

Meter Size	Water	Wastewater (Sewer)
15mm (5/8") & 20mm (3/4")*	\$0.85	\$0.66
25mm (1")	\$1.19	\$0.92
40mm (1.5")	\$1.53	\$1.19
50mm (2")	\$2.47	\$1.91
75mm (3")	\$9.35	\$7.26
100mm (4")	\$11.90	\$9.24
150mm (5")	\$17.85	\$13.86
200mm (8")	\$24.65	\$19.14

*Most residential properties have 15 or 20mm meter.

Consumption Rates for Water & Sewer

Water Charge per m ³	\$2.04
Sewer Charge per m ³	\$1.81

Daily Base Charge for Storm Drainage

Property Lot Size	Storm Drainage
up to 1000 m ² *	\$0.57
1,001 - 3000 m ²	\$1.14
3,001 - 5,000 m ²	\$2.28
5,001 - 7,000 m ²	\$3.42
7,001 - 9,000 m ²	\$4.56
9,001 - 11,000 m ²	\$5.70
11,001 - 13,000 m ²	\$6.84
13,001 - 15,000 m ²	\$7.98
15,001 - 17,000 m ²	\$9.12
17,001 - 19,000 m ²	\$10.26
19,001 - 21,000 m ²	\$11.40
21,001 - 23,000 m ²	\$12.54
23,001 - 25,000 m ²	\$13.68
25,001 - 27,000 m ²	\$14.82
27,001 - 29,000 m ²	\$15.96
29,001 - 31,000 m ²	\$17.10
over 31,000 m ²	\$18.24

*Most Residential lots are up to 1000 m²

Daily Charge for Recycling

Recycling charge per cart	\$0.25
Additional 240L cart	\$0.32
Additional 360L cart	\$0.43

Special Services

Service fee	\$25.00
Fee for issuing Delinquent Notice	\$15.00
Reconnection fee	\$75.00
Handling fee for NSF cheques	\$20.00
Transfer of Misapplied Payments	\$15.00
Monthly interest rate on overdue accounts	1.25%
Fee for collecting or transferring overdue charges to property taxes	\$25.00
Fee to replace a broken seal	\$35.00
Meter Interface Unit (MXU) only	\$187.00
MXU replaced at the same time as a meter	\$172.00
Removal and testing of water meter 25mm or smaller	\$87.50
Removal and testing of meter larger than 25mm	TBD
Water Meter Repair or Replacements	
- 15mm (⁵ / ₈ ") meter	\$162.50
- 20mm (³ / ₄ ") meter	\$237.50
- 25mm (1") meter	\$262.50
- 40mm (1 ¹ / ₂ ") meter	\$652.50
- 50mm (2") meter	\$950.00
- 75mm (3") meter or larger	TBD
Meter removal & installation of larger/smaller meter	
- Removal of 15mm meter & installation of 20mm meter	\$237.50
- Removal of 20mm meter & installation of 15mm meter	\$162.50
- Removal of 15mm meter & installation of 25mm meter	\$262.50
- Removal of 20mm meter & installation of 25mm meter	\$262.50
- Removal of 25mm meter & installation of 15mm meter	\$162.50
- Removal of 25mm meter & installation of 20mm meter	\$237.50
Bulk Water Rate per m ³	\$2.57