

## **A CLIMATE PROGRAM FOR THE CITY OF CALGARY**

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### **EXECUTIVE SUMMARY**

Calgary is becoming more vulnerable to a range of impacts from climate change including floods, droughts, rising temperatures and more frequent and intense storm events as a result of increasing temperatures and changing precipitation. Recently the provincial and federal governments announced mandated climate actions such as the Alberta Climate Leadership Plan and the Federal Government's cap on greenhouse gas (GHG) emissions and adaptation measures - requirements to which The City must adhere.

The City has undertaken, and continues to take action in its corporate operations through energy efficiency measures, reducing city-wide GHG emissions and decreasing risks from extreme weather events. The Climate Program (CP) is a renewed, Corporate-wide commitment and approach to carbon and energy management and addressing climate risk, and is led by Environmental and Safety Management. Actions are developed in collaboration with all business units including Corporate Analytics and Innovation, Resilience and Infrastructure, Transportation, Planning and Information Technology to name a few. The Program provides strategic direction to activities preparing for climate resilience by developing a mitigation and adaptation plan to manage the risk climate change poses to the corporation and community. Corporate alignment allows for increased efficiencies and effectiveness in spending and decision-making as it relates to climate change actions.

Administration committed to climate actions (adaptation and mitigation) in Action Plan 2015–2018. Building on these actions, the CP will also incorporate new opportunities and align with the direction set by the provincial and federal governments.

This report provides an update on planned activities to develop the Climate Program in preparation for the 2019-2022 business planning and budget process (Attachment 1).

### **ADMINISTRATION RECOMMENDATIONS:**

That the SPC on Utilities and Corporate Services receive this report for information.

### **PREVIOUS COUNCIL DIRECTION**

Council approved the 2015 – 2018 Action Plan on 2014 November 24 (C2014-0863), which included key actions related to climate change mitigation and adaptation:

- H2.1 - Design and deliver programs to engage the community to advance the goal of reducing community greenhouse gases.
- H2.2 - Identify partnership and funding opportunities for energy efficiency and air quality-related initiatives throughout the community.
- H3.2 - Develop a comprehensive climate adaptation plan and implementation tools to reduce future impacts.
- H6.1 - Assume leadership role in educating and engaging the public to create awareness of links between energy consumption and GHGs, air quality, and climate change.
- H10.1 - Minimize the environmental impacts from City operations and capital projects, showcasing innovative and practical solutions to show leadership.

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- H10.3 - Reduce GHG emissions from corporate sources to be an example for other corporations and municipalities.

### **BACKGROUND**

As of October 2016, 190 countries (including Canada) and the European Union have signed on to the Paris Agreement that was negotiated at the 21<sup>st</sup> Conference of the Parties of the UNFCCC in Paris in 2015. This agreement aims to keep global temperatures from rising less than 2°C from pre-industrial levels in an effort to reduce catastrophic climate impacts.

Annual temperature in Calgary is expected to increase and precipitation is expected to become more intense. Fall, winter and spring will be wetter, while summers will be drier. Impacts of these changes include increasing frequency and magnitude of climate-related extreme events such as the 2013 flood, “Snowtember”, droughts and hail storms; events that will intensify and become more frequent in the future as the release and accumulation of GHGs persist. Since 2010, catastrophic insured losses have increased to over \$8billion in Alberta alone with Calgary becoming the hail capital of Canada from an insurance industry perspective. These risks place an increasing demand on The City to provide leadership in preparing for and managing the risks from changing climate conditions.

In Canada, action on climate change will be accelerated by a federally mandated transition to a low carbon economy supported by national and provincial-level climate action plans. The Federal government is mandating a number of actions over the next five years including a carbon levy of \$50 per tonne of carbon by 2022 and the introduction of Canada-wide building labelling by 2019.

The Alberta Climate Leadership Plan announced in 2016 set out policies to increase energy efficiency and develop a diversified economy. A key feature of the plan was the introduction of carbon pricing across the economy, making energy efficiency planning and programming key leverage points. Furthermore The City will be required to take action based on the authorities given through the City Charter, including the development of a mitigation and adaptation plan.

Climate change is a complex risk that requires linear as well as multi-dimensional strategies and solutions. Planning ahead is more likely to lead to cost-effective adaptation than responding to changes as they happen.

### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**

Climate change risks are managed through mitigation and adaptation. Mitigation is action to reduce GHG emissions and includes energy efficiency and use of renewables. Adaptation is a risk management strategy and reduces the damages from climate change impacts that cannot be avoided.

The City of Calgary has been a leader and is well prepared to build resiliency in the face of climate change. Existing plans such as the Flood Resilience Plan, Corporate Energy Management Plan, Calgary Transportation Plan, and Community Greenhouse Gas Reduction Plan support energy efficiency, carbon and cost reduction and improve infrastructure and services to protect Calgarians and the Corporation.

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The CP is a broad administrative umbrella that provides strategic direction to reduce carbon and respond to the risks of climate change in a coordinated, planned and timely manner. It provides a “One City, One Voice” approach that will result in effective management practices, business and budget prioritization, and strategic oversight. The CP will focus on five key areas:

- Secure political and administrative leadership to make informed decisions.
- Encourage staff and financial capacity to prepare and invest appropriately.
- Develop a Climate Resilience Plan for mitigation and adaptation.
- Integrate and align climate plans – municipally provincially and federally.
- Inform, educate and prepare citizens, businesses and organizations.

The Climate Resilience Plan is the physical planning document that will include objectives and measures to guide priorities and actions for business units, and opportunities for the industrial, commercial and institutional sectors and community to take collaborative action. It is also the plan that will be developed to meet the Provincial requirements for mitigation and adaptation planning. Engagement and plan development will take place during 2017. It is anticipated that the plan will be presented to Council in Q1 2018. Additional details on the Climate Program and Climate Resilience Plan are provided in Attachment 1. Timeline drivers for the Climate Program include:

1. A readiness to respond: Developing projects that enable The City to capitalize on grant programs annually released by the Province and Federal Government. The City should be in a position to have plans/proposals in place that aligns with funding availability.
2. Impacts of the Carbon Levy: Reducing Corporate and community impacts and capitalizing on opportunities early on will ensure a readiness to offset the impact of the carbon levy.
3. Business plan and budget process 2019 - 2022: This process starts in 2018. Climate risk analysis takes more than a year to conduct. Preparing Administration in advance will increase efficiencies for prioritization and providing recommendations to Council.

Work already underway since 2016 is well suited to set The City up for success in its readiness to respond to, impacts of the carbon levy and business planning for 2019 – 2022 business plan and budget cycle.

### **Stakeholder Engagement, Research and Communication**

Research shows that there is strong citizen support in Calgary for taking action on climate change:

- 78 per cent feel that citizens should do more.
- 74 per cent feel that business and industry should do more.
- 69 per cent feel that The City should do more.
- Calgarians acknowledge that climate change is having an impact on Calgary.
- Calgarians take steps in their personal lives to reduce carbon.
- Calgarians appreciate a message of ‘leadership’, which spoke to Calgary’s can-do attitude, especially where Calgary could lead on a low-carbon economy.
- The City is trusted to address the effects of climate change with local, practical solutions.
- Calgarians want more information and education.

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Targeted engagement will be undertaken in 2017 Q1-Q2. The second half of 2017 will provide an opportunity to analyse inputs and develop reports. Broad public engagement will be initiated in 2018 to support the development of the 2019-2022 business plan and budget.

### **Strategic Alignment**

The 2011 Calgary Community GHG Emissions Reduction Plan was developed in support and consideration of the 2020 Sustainability Direction. The CP will also align with the 100 Resilient Cities initiative, Connect 4 and others. The City Charter provides the legislative framework for The City to govern with clear responsibilities for mitigation and adaptation planning.

### **Social, Environmental, Economic (External)**

It is often the most vulnerable in society who are most affected by climate impacts and who will, therefore, most benefit from municipal action to develop climate resilience. Developing greater resilience to climate impacts can help to avoid costs to The City and lead to savings in the costs of service provision. Actions taken can also support households and businesses to decrease their energy spending.

Extreme weather events have and will continue to cause significant loss in the form of impacts on communities - human, infrastructure, economy and ecosystems. City of Calgary is putting measures in place to reduce carbon, become more energy efficient, and reduce infrastructure, economic, human and environmental risks to the impacts of severe weather events. Capitalizing on growing the clean technology market also supports the creation of high quality local jobs and the attraction and retention of businesses.

### **Financial Capacity**

#### **Current and Future Operating Budget:**

As programs/projects intended to build climate resilience are developed and evaluated, budgetary implications will be considered and brought forward as necessary. Any specific operating budget changes as a result of the carbon levy or energy management will be reported to ALT and Council as required.

#### **Current and Future Capital Budget:**

As programs/projects intended to build climate resilience are developed and evaluated, budgetary implications will be considered and brought forward as necessary. Any capital budget adjustments as a result of provincial, federal or other grants or funds will be reported to ALT and Council as required.

### **Risk Assessment**

Climate change poses reputational, corporate and financial risks to The City. The City is at risk of not meeting its targets and adhering to federal and provincial regulatory requirements. Climate change and severe weather are identified as a high risk requiring management effort. Risk management considerations that need to be addressed include: financial impact of changes required to adapt to and mitigate climate change; uncoordinated or insufficient plans for mitigation and adaptation; and/or insufficient or unbalanced resources being assigned to priority areas related to climate change.

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The development of the CP will better equip the corporation to address climate change risks through the development of an integrated Climate Resilience Plan that encompasses a broader portfolio including both climate change mitigation and adaptation.

### **REASONS FOR RECOMMENDATION:**

This report provides an update on the planned activities to develop the Climate Program in preparation for the 2019 – 2022 business planning and budget process.

### **ATTACHMENTS:**

Attachment 1: A Climate Program for the City of Calgary  
Attachment 2: Presentation