



**Committee of the Whole Report  
For the Meeting of December 14, 2017**

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**To:** Committee of the Whole **Date:** December 8, 2017  
**From:** Fraser Work, Director of Engineering and Public Works  
**Subject:** Climate Action – Proposed Change Leadership Plan – Draft for Public Comment

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**RECOMMENDATION**

That Council:

1. Approve this Climate Leadership Plan as a draft for public comment, and direct staff to engage with the community for feedback and input,
2. Approve the allocation of \$460,000 from the Climate Action Reserve Fund to commit funding for temporary staffing and priority actions, and
3. Direct staff to report back with the final Climate Leadership Plan on June 1, 2018, with a long term funding strategy and program update.

**EXECUTIVE SUMMARY**

This report provides an overview of the City's draft Climate Leadership Plan (CLP). The CLP describes the goals, targets and short-term actions required to progress towards our bold GHG emissions reduction targets and the steps required to substantially address the climate change impacts to the community.

A series of GHG reduction projects are currently underway, which include building energy code implementation (new buildings), a plan to address affordable energy retrofits in existing building stock, active transportation programs, electric vehicle charging strategy development, transit improvements, organic waste management strategies, and fleet and facilities electrification. In 2018, further work is planned that will complete the CLP and scale-up efforts to align with overall goals.

The Climate Leadership Plan (CLP) is the City's action plan to reduce greenhouse gases by 80% before 2050, and transition to a future powered by renewable fuels. The draft plan is presented to Council for consideration, and then public comment starting in January 2018. A set of actions are also recommended for immediate and ongoing implementation. The City is committed to working with community stakeholders to define bold and meaningful plans to reach a low-carbon and prosperous future for all Victorians and prepare for the effects of Climate Change.

Staff recommend approving this draft plan for public comment, and funding the resource requirements to accelerate the necessary planning and implementation to advance key initiatives and plans that aim to deliver deep GHG reductions in order to meet mid-century targets. Staff recommend drawing funds from the Climate Action Reserve, to advance the most important

projects, and staff will return to Council in June 2018, with the final Climate Leadership Plan, and program update.

## **PURPOSE**

The purpose of this COTW report is to provide Council with a draft Climate Leadership Plan (CLP) for review, and approval to release for public comment and engagement, before the final plan is brought to Council for approval in June 2018. The report also includes a recommended suite of Climate Action Program initiatives for consideration.

## **BACKGROUND**

In August 2016, Council committed to a long-term greenhouse gas (GHG) reduction target for both corporate and community emissions of 80% GHG reduction by 2050, including a corresponding specific target of 100% renewable energy. These targets align with Provincial, Federal and international requirements set forth by the United Nations Framework Convention on Climate Change (UNFCCC), and mirror commitments made from hundreds of worldwide cities, some of whom have committed to earlier adoption and even bolder targets. Victoria's targets are consistent with those adopted by other orders of government.

Council passed the following motion on August 18, 2016:

- Establish a long-term GHG Reduction target for both corporate and community emissions consistent with global reduction goals of 80% GHG reduction and by 2050, including a corresponding target of 100% renewable energy.

And direct staff to take a several steps including:

Develop an action plan based on our existing work done to date, in support of meeting reduction targets. This plan will include:

- a. Priority actions / programs for consideration;
- b. Governance and documentation renewal plan;
- c. Resource plan; and
- d. Internal / external stakeholder communication, education and engagement plans.

In December 2016, staff returned to brief Council with an update on completed actions and further work on the Climate Action Program, which included a commitment of funds to support a temporary 2-year Community Energy manager position and enable a suite of priority climate actions for 2017, including development of the CLP.

In September 2017, staff provided council with an update on the development of the CLP and an overview of it's structure, approaches and content, with a commitment for a completed draft in December 2017, to be released for community and public comment. This report outlines the completed draft plan, and the next steps of public commentary, review and refinement, before a final and improved plan is brought to Council in June 2018, alongside a progress / status report on overall Climate Action ongoing programs.

## **CLIMATE LEADERSHIP PLAN DRAFT (CLP) - SUMMARY**

The Climate Leadership Plan is in draft and requires community input before a final copy can be reviewed and endorsed in June 2018. The current plan has the following key highlights, while are described in detail in Annex A:

## Introduction:

### 1. Vision - “LOW-CARBON PROSPERITY”

The City’s vision for 2050 is of a vibrant, healthy, and prosperous community, fueled by renewable low-carbon energy systems, designed and integrated in such a way to promote the highest quality of life for all Victorians.

Our Mission is to lead our transition to a low-carbon, prosperous future. We have a responsibility to inspire our community’s shift to sustainable, renewable transportation, waste and buildings systems. Together, we must take bold action now to unlock the barriers and take the opportunities that can deliver 80% GHG reductions, and 100% renewable energy.

### 2. Key Principles

- a. **Lead and inspire** – The City will be a regional and national leader on climate mitigation and adaptation. We will take urgent action; creatively and collaboratively with other leaders and key stakeholders to drive innovative GHG reductions, while carefully and wisely balancing social, economic, and environmental sustainability and prosperity.
  - b. **Harmonize climate and other co-benefits** - Consider GHG reduction actions alongside other important health, safety, affordability, quality of life, and other City planning priorities.
  - c. **Energy is visible** – Our community’s energy use, performance, trends, and impacts are clearly known, owned, and actioned.
  - d. **All Victorians are accountable:** All Victorian’s (residents, businesses, employees, and visitors) are accountable for through-life GHG performance, and take meaningful action for their GHG responsibilities and reductions.
  - e. **Renewable energy for all** – We will work to remove barriers to ensure that our community has access to affordable, renewable, and efficient energy options. All City planning efforts act to deliver a low carbon, renewable energy future.
  - f. **Smarter energy choices are easier** – We will act to ensure our community understands the value of clean energy and reduced GHGs, and we will systematically remove the barriers preventing a seamless transition to a renewable energy future. Our actions are intelligent, scientific, and socially minded and they deliver real results that achieve the highest benefits, per dollar investment.
  - g. **Climate resilience is developed early** – We must act with a sense of urgency and take early and meaningful action to avoid the most disruptive through-life economic, social, and environmental impacts imposed by both slow and abrupt climate change and its effect on our human-made and natural ecosystems.
  - h. **Think globally, change locally, partner regionally** – All Victorians understand the implications of their habits and decisions on climate, the environment, and on other Victorians. The CLP focuses on change-management activities and acts using an understanding of barriers and opportunities to transition to a low carbon community successfully and smoothly.
3. **Co-Benefits and Prosperity:** Energy and greenhouse gas reductions should also unlock potential in other areas, to make our community:
    - a. Prosperous and Affordable,
    - b. Healthy and Resilient, and

c. Equitable.

4. **Goals:** The following key goals define the desired outcome for each sector:

Sector	City Climate Goals
Low Carbon, High Performance Buildings	<ul style="list-style-type: none"><li>• Buildings are highly energy efficient, using only a small fraction of their 2017 operational energy needs</li><li>• Buildings are powered by renewable energy</li></ul>
Low Carbon Mobility	<ul style="list-style-type: none"><li>• Vehicles are powered by renewable energy.</li><li>• Victorians enjoy a high-performing, affordable, sustainable, and fully integrated multi-modal transportation system.</li><li>• Transportation emissions are minimized through smart land-use planning that optimises urban mobility and quality of life.</li></ul>
Low Carbon Waste Systems	<ul style="list-style-type: none"><li>• All residual organic materials are reduced, recovered, and reused.</li><li>• Systems are in place to optimise the continual use and reuse of materials, to eliminate landfill waste and related greenhouse gases.</li></ul>
Adaptation	<ul style="list-style-type: none"><li>• All climate-related risks are minimized through early and wise planning and action.</li><li>• Local, natural habitats flourish in a changing climate.</li><li>• Victorians are prepared for all climate related events and emergencies.</li></ul>
Low Carbon Municipal (City) Operations Leadership	<ul style="list-style-type: none"><li>• The City is a recognized leader in climate mitigation and adaptation action.</li><li>• City climate action is informed by a full understanding of through-life social, environmental, and economic costs, risks and benefits.</li><li>• Victorians have access to timely and accurate data to support strong climate mitigation and adaptation actions.</li><li>• Climate action is integrated across City programs.</li></ul>

5. **Targets, Strategies and Actions:** Targets for each sector, along with their strategies and actions are detailed in the CLP. All targets and actions act to reduce energy, replace fossil fuels with renewable fuel, redesign systems to be more sustainable, or add resiliency to systems to protect against a changing climate. The CLP defines the time based and quantified targets for each sector, and defines a list of priority actions to reach the overall goals above.

6. **Target Highlights:**

a. Buildings:

- i. By 2030, all new buildings are “net zero energy ready”
- ii. Before 2050, all existing buildings are retrofitted to new efficiency standards (TBD)\*
- iii. Oil heating is phased-out by 2030,

- iv. Before 2050, all buildings will only use renewable energy
- b. Transportation and Mobility:
  - i. By 2050, 100% personal vehicles are renewably powered
  - ii. By 2030, 30% of commercial vehicles are renewably powered
  - iii. By 2050, 25% of all trips in Victoria are taken by renewably powered public transit.
  - iv. By 2041, 55% of all trips are taken by walking and cycling
  - v. By 2041, 100% of neighbourhoods are complete by design
- c. Waste Management
  - i. Achieve 100% residential organic waste (food and yard) diversion by 2022.
  - ii. Partner with local business to divert 90% of commercial organic food waste by 2025.
  - iii. Partner with the CRD to deliver a regional, industrial composting facility for City organic waste by 2025\*.
  - iv. 100% of the GHGs from collected organic food and garden waste collection is transformed into renewable natural gas, by 2025.
  - v. Ensure less than 5% of local residual materials reach the landfill by 2050.
- d. Climate Adaptation:
  - i. The City's assets and services are ready to protect and respond to the risks associated with a changing climate.
  - ii. Risks, vulnerabilities, and resiliency are measured, monitored, and reported
  - iii. Natural habitats support healthy fish, wildlife, and plant populations and healthy ecosystem function, in a changing climate
  - iv. The community is knowledgeable and prepared to address the impacts from a changing climate.
  - v. Adaptation efforts are shared across the economy and support overall sustainability.
- e. Municipal Operations
  - i. All City's facilities are renewably powered by 2040.
  - ii. All new facilities are renewably powered.
  - iii. 80% of Fleet is electrified or renewably powered by 2040

- iv. All power tools and small equipment is electrified or renewably powered by 2025.
- v. By 2020, the City uses a triple bottom line accounting system for all business planning.
- vi. By 2022 all relevant City plans and policies address GHG emissions reductions and climate risks.
- vii. By 2030, the City has completed a Genuine Progress Indicator Assessment, and uses this information to set a GPI goal for 2030.

## 7. Key Strategies and Actions

The CLP includes priority actions and strategies that must be developed to clearly plot out the course for deep GHG reductions across community. These actions are broken down by sectors, and rely on deliberate and prioritized investments. The priority actions include the development of the retrofit strategy, electric vehicle ecosystem strategy, and also rely on the separate program completion of the Sustainable Mobility Strategy, and Sustainable Waste Management Strategy.

## ISSUES AND ANALYSIS

The CLP has been developed for public comment, and will be improved and presented to Council for their consideration in June 2018. In the meantime, much work is still to be done, to progress the most important work on Climate Action. This work includes the following key priorities:

### a. Staffing Key Positions:

- i. **Climate and Sustainability Change Agent:** sustainability and community change specialist to support climate, mobility, waste, buildings stakeholder needs, and change, across community (\$111,000, 1 year).
- ii. **Embedded ICLEI Climate Expert:** We have an opportunity with ICLEI to house and co-fund a position for their western Canada representative, that would work with both BC municipalities and progress City specific work (50/50). (\$60,000 per annum, for 2 years).
- iii. **BC Hydro Corporate Energy Project Manager:** Work with Hydro to staff an embedded and co-funded 2 year position to accelerate City facilities energy improvements (50/50). (\$50,000 per annum, 2 year)
- iv. **Continue to Support ongoing Fortis Energy Specialist Position:** 1 year extension (\$50,000 extension after July 2018).

### b. Resourcing Key Priorities: The following key priorities should be progressed immediately in the new year to meet planning milestones to support significant GHG reduction in both community and corporate assets. Further :

- i. **Continue the Home Retrofit Strategy and Economic Study:** Continue the MaRRS program to include the development of partnerships, policy and program, and a robust economic assessment and innovative financial recommendations to accelerate uptake of energy rebates, fuel switching, improvement and efficiency programs. (\$50,000).

- ii. **Develop the City's Corporate Energy Management Plan:** Consult support to complete the first phases of the City's energy management plan, and detailed strategy and action list and cost estimates for future improvements (\$30,000).
  - iii. **Commence development of the Community Energy and GHG Information management system:** initiate, define and develop the program that will bring energy information to the hearts and minds of all Victorians (\$10,000).
  - iv. **EV Ecosystem Study and Immediate Upgrades:** Partner with BC Hydro to complete the City's EV program, including the immediate installation of additional charging facilities in the City's parkades (\$40,000 (initial study) +\$25,000 for 5 new level 2 chargers).
  - v. **Develop the Climate Leadership Engagement Strategy:** Develop the City's engagement program and implement priority stakeholder communications on the draft CLP, and the next two year plan for community engagement. This program may include a neighbourhood climate ambassador program made from youth/adult/senior representatives, to work closely with City forces on GHG reduction in community (in house resources).
  - vi. **Continue Step Code Implementation:** Report back to Council in January with recommendations on the pace of step code implementation and considerations (in house).
  - vii. **Complete complementary plans and strategies:** Complete new and refine existing plans to incorporate climate planning, which includes the Sustainable Mobility Strategy, the Sustainable Waste Management Strategy, the OCP, Parks Master Plan, Facilities Master Plan, Fleet Master Plan, and others (in house):
- c. **Climate and Energy Modelling and Analysis:** Ongoing work is required to support program development in all areas, using external resources to help define GHG reduction strategies (\$20,000).
  - d. **Completing Final CLP:** Engage with the public and community stakeholders on the draft plan, using point-to-point meetings with groups, residents, business, academia, government etc. Build media awareness and momentum to gain the most feedback from community, including holding public events and symposia. Amend the draft through all input and commentary for final presentation in June 2018 (\$40,000).

Approximately \$460,000 is required in 2018 to execute on the above priorities, and support the implementation of climate programs in all sectors.

## OPTIONS AND IMPACTS

Council may choose to accept this course of action or defer, reduce / descope or implement a different set of actions. If Council supports the current approach and draft plan, then the pace of change can remain high, and GHG reduction strategies can continue, with a focus on building retrofit strategy development, corporate energy reductions, electric vehicle strategy and other priority improvements. Staff can review and reconsider the plan, as Council wishes.

### *Accessibility Impact Statement*

Infrastructure planning will always incorporate both accessibility and climate action design requirements.

### *2015 – 2018 Strategic Plan*

Aligns mainly with objective 12 (Plan for Emergencies including Climate Change, Short and Long Term) and closely with 1, 8, and 13.

### *Impacts to Financial Plan*

Funding the suite of priority, recommended resource requirements can be achieved by drawing funds from the Climate Action Reserve, which has approximately \$700,000 available. Additional monies will also be allocated to the reserve annually from CARIP and LED street light energy savings, which are intended for funding ongoing energy savings initiatives, to maintain healthy reserve levels.

Staff remain focussed on implementing actions that achieve the highest GHG reduction per dollar of investment together with co-benefits to other Council priorities, including health and well being, affordability, and sustainability.

Staff will report back in June 2018 with a comprehensive, longer term financial strategy.

### *Official Community Plan Consistency Statement*

#### OCP Sustainability Vision:

*“Victoria is an urban sustainability leader inspiring innovation, pride and progress towards greater ecological integrity, livability, economic vitality, and community resiliency confronting the changes facing society and the planet today and for generations to come, while building on Victoria’s strengths as a harbour-centred, historic, capital city that provides exceptional quality of life through a beautiful natural setting, walkable neighbourhoods of unique character, and a thriving Downtown that is the heart of the region.”*

#### *Section 12 - Climate Change and Energy Goals:*

- 12(A) Victoria and Victorians are more resilient to climate change and energy scarcity and costs.
- 12(B) New and existing buildings are energy efficient and produce few greenhouse gas emissions.
- 12(C) Transportation options reduce fossil fuel dependence, help conserve energy and produce low greenhouse gas emissions and other air contaminants.
- 12(D) The waste stream to the regional landfill is reduced to a minimum, with recovery, re-use, recycling and composting of resources undertaken as standard practice.
- 12(E) Victoria relies on clean renewable, diverse and efficient energy sources.

#### *Section 12 – Climate Change and Energy Broad Objectives:*

- 12(a) That climate change is mitigated through the reduction of greenhouse gas emissions from buildings, transportation and solid waste.
- 12(b) That the community is prepared for climate change through adaptation planning that reduces future impacts on public health, property and the natural environment.
- 12(c) That community energy consumption and generation are managed to give priority to conservation and efficiency, diversification of supply, renewable energy, and low carbon fuels.
- 12(d) That the supply, distribution and efficient use of energy, including the provision of renewable energy at the district scale, is achieved in alignment with the urban Place Guidelines in this plan



## CONCLUSIONS

The CLP draft has been completed and is recommended for release for public comment. Staff are recommending the resources and actions necessary to accelerate priority programs, even in the nearest term, while finalising the CLP with public feedback and input. The next suite of prudent actions can be funded from current Climate Action Reserve funding lines. .

Respectfully submitted,



Fraser Work,  
Director, Engineering and Public Works

**Report accepted and recommended by the City Manager:**



**Date:** December 8, 2017

## List of Attachments

Annex A – Climate Leadership Plan – Public Comment Draft Ver 2.1