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**TO:** CHAIR AND MEMBERS  
FINANCIAL MANAGEMENT COMMITTEE

**DATE:** 2021 March 01

**FROM:** DIRECTOR FINANCE  
DIRECTOR CORPORATE SERVICES

**FILE:** 33000-02

*Reference: Internal Carbon Pricing Policy*

**SUBJECT: INTERNAL CARBON PRICING POLICY FOR THE CITY OF BURNABY**

**PURPOSE:** To present an Internal Carbon Pricing Policy for approval by Council.

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#### RECOMMENDATIONS:

1. **THAT** the Financial Management Committee recommend Council approve the Internal Carbon Pricing Policy.
2. **THAT** a copy of this report be sent to the Environment Committee.

#### REPORT

##### 1.0 INTRODUCTION

On 2019 September 9, the Burnaby Council adopted a resolution declaring a climate emergency. To demonstrate an understanding of and commitment towards the climate crisis along with the necessity of an energy transition, the City set community-wide carbon reduction targets. These targets include a 45% carbon emission reduction by 2030, 75% reduction by 2040, and achieving carbon neutrality by 2050. In addition, staff were directed to bring forward a separate Climate Action Framework that would outline 'Big Moves and Fast Track Actions' to ensure that climate action remains an area of focus within the City across all sectors at a pace commensurate with the City's updated community carbon emission reduction targets.

On 2020 July 6, Council approved the Framework presented by staff that acts as a roadmap for the City's climate action response. The Framework is organized into Seven Big Moves; the first of which, Climate Leadership, identifies a quick start action item for developing an internal carbon price. Developing an internal carbon price will provide a mechanism to assess the long-term life cycle costs of projects through a climate lens and integrates this assessment into corporate decision making.

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In support of the Framework, the City advanced the City Energy Strategy that was also approved by Council on 2020 July 6. The Strategy guides the energy transition for corporate operations in order to meet the City's 2040 target for carbon neutrality. An internal carbon price within the Strategy is a key input in creating a positive business case for low carbon projects and initiatives. The end result being a more justifiable position for moving forward with replacement of the City's fleet and equipment with electric alternatives or replacing building components with systems that are not dependent on fossil fuels.

Following Council's approval of the Framework and the Strategy, an Internal Carbon Pricing Policy has been prepared for Council approval.

## **2.0 POLICY SECTION**

The Internal Carbon Pricing Policy aligns with the City of Burnaby's Corporate Strategic Plan by supporting the following goals and sub-goals of the Plan:

- A Healthy Community
  - Healthy Environment – Enhance our environmental health, resilience and sustainability.
- A Dynamic Community
  - Community Development – Manage change by balancing economic development with environmental protection.
  - City Facilities and Infrastructure – Build and maintain infrastructure that meets the challenges of climate change.
- A Thriving Organization
  - Organizational Culture – To incorporate consideration of the social and environmental costs of carbon emissions in the evaluation process of all major City decisions.

## **3.0 INTERNAL CARBON PRICING POLICY**

Attachment 1 includes an Internal Carbon Pricing Policy for the City of Burnaby.

The purpose of the Internal Carbon Pricing Policy is to establish organizational guidelines by incorporating carbon emission costs into applicable City decisions and processes. Before proceeding, each of the alternatives considered for a project or initiative that is defined as being 'in-scope' by the policy will be required to estimate the volume of emissions released or sequestered (held). The identified emissions will be multiplied by the carbon price and then incorporated into a formal, full-lifecycle financial assessment for options available.

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Although the inclusion of a carbon price will appear to increase the cost of projects and initiatives associated with high levels of carbon emissions, it should be noted that the inclusion of carbon prices should be viewed as a *shadow price* used to assess the true cost of a project or initiative over its lifetime. The concept of a *shadow price* is that it will not result in an actual cash outlay and is intended to influence decision-making only.

Projects and initiatives defined as being in-scope are those that involve direct, as opposed to indirect, carbon emissions released during the full-life cycle of facilities and their components, vehicles, mobile equipment, and other small equipment whether leased or owned by the City of Burnaby or 3<sup>rd</sup> parties on Burnaby's behalf. In-scope projects and initiatives also include those resulting in quantifiable sequestration of carbon as related to the acquisition of land for habitat restoration. Indirect emissions, not covered by this policy, are those that result from assets or activities that the City does not directly control.

The departmental annual capital program submissions must identify all in-scope projects and initiatives taking into account the impact of carbon emissions and whether a low-carbon option was selected. In the event that the lowest emission option was not selected, justification must be provided.

This policy will be reviewed annually to assess whether the scope can be expanded and the reasonability of the internal carbon price.

### **3.1 Internal Carbon Price**

Staff are recommending that the internal carbon price be set at \$170/tonne of CO<sub>2</sub>e for both 2021 and 2022. This amount was selected following a review of the internal carbon pricing policies implemented by other public bodies and levels of government. Although the amount chosen was selected to align with Canada's federally-imposed carbon tax that will reach \$170/tonne by 2030, it is similar to the prices used elsewhere in the region. Vancouver's 2021 rate is equal to \$160/tonne and will increase \$170/tonne in 2022. As well, through discussion with Metro Vancouver's staff, Metro Vancouver's current rate of \$150/tonne is expected to increase in the next year.

Changes to Burnaby's Internal Carbon Price will be reviewed annually for reasonability. These reviews will consider how the carbon price compares to other jurisdictions and assess the ability to influence decision making in support of the City's Climate Action Framework. Any proposed changes to the carbon price will be reflected as a policy update requesting approval from Council.

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#### 4.0 RECOMMENDATIONS

The Internal Carbon Pricing Policy was identified as a quick start action item proposed within the Climate Action Framework on 2020 July 6. The inclusion of a carbon price in decision-making processes for projects and initiatives that involve carbon emissions will help the City in reaching its carbon reduction targets.

It is recommended that the Financial Management Committee recommend Council approve the Internal Carbon Pricing Policy and that a copy of this report be sent to the Environment Committee.



Noreen Kassam, CPA, CGA  
DIRECTOR FINANCE



Dipak Dattani  
DIRECTOR CORPORATE SERVICES

NK:DD:RG / md

Attachment: 1 – Internal Carbon Pricing Policy

Copied to: City Manager

## Statement of Policy and Procedure

<b>Department:</b>	Finance	<b>Division:</b>	Budgets & Reporting
<b>Subject:</b>	<b>Internal Carbon Pricing</b>		
<b>Issued to:</b>	All Departments		
<b>Effective Date:</b>	To be determined (subject to Council approval)		
<b>Approved By:</b>	To be approved by Council Resolution		

### 1 PURPOSE

- 1.01 The purpose of this policy is to establish internal carbon pricing into applicable City decisions and processes.
- 1.02 The establishment of this policy will:
  - a. Allow for the incorporation of climate change into decision making for applicable Burnaby projects or initiatives; and,
  - b. Provide a means of reducing the financial risk associated with not meeting carbon reduction targets over the lifetime of projects and initiatives.

### 2 BACKGROUND

- 2.01 On 2019 September 09 the City of Burnaby adopted a resolution declaring a climate emergency which set new carbon reduction targets for the City. The targets are 45% reductions by 2030, 75% by 2040, and to be carbon neutral by 2050.
- 2.02 At the 2019 September 09 council meeting, staff were directed to prepare a Climate Action Framework that would ensure climate action progress across all sectors of the City at a pace that would enable the City to meet its updated carbon reduction targets. In the resulting Climate Action Framework and City Energy Strategy presented on 2020 July 06, Council approved the implementation of an internal carbon pricing policy as a quick start for Climate Leadership.

### 3 SCOPE AND APPLICATION

- 3.01 This policy is applicable to all in-scope City decisions that:
  - a. Involve carbon emissions or sequestrations as related to 3.03 (a) and (b);
  - b. Present more than one option or alternative; and,
  - c. Will impact carbon emissions released by the City.

3.02 Carbon emissions evaluated as part of decisions consist of:

- a. Emissions directly released from an activity (e.g., the tailpipe emissions from a gasoline or diesel vehicle); and,
- b. Emissions directly released from the production of electricity and/or heat that is required for an activity (e.g., the emissions from generating heat in a building via a boiler, furnace or heat pump).

3.03 In-scope decisions that will incorporate internal Carbon Prices include:

- a. Life-cycle cost analyses including the planning, design, procurement, construction, operation, maintenance, and decommissioning (where applicable) of facilities and their components, vehicles, mobile equipment, and small equipment whether leased or owned that are operated by the City of Burnaby or by 3<sup>rd</sup> parties on Burnaby's behalf; and,
- b. Acquisition of land for habitat restoration and/or parkland designation that results in quantifiable emission sequestration.

## **4 POLICY**

4.01 All in-scope projects and initiatives identified as part of the 5-Year Financial Plan will be assessed for options related to carbon emissions reductions.

4.02 Any in-scope project or initiative will use the Carbon Price to identify the impact of each option on applicable carbon and carbon-dioxide equivalent emissions; collectively also referred to as Greenhouse Gas emissions. The inclusion of Carbon Price should be viewed as a Shadow Price that will be used to assess the true cost of a project or initiative over its lifetime. The Shadow Price shall not be viewed as an actual cash outlay.

4.03 The value of emissions will be expressed as a cost while the value of sequestered emissions will be expressed as revenue. Carbon emissions for the entire duration of the option's life cycle must be included.

4.04 In-scope projects or initiatives initially proposed for inclusion in the 5-Year Financial Plan must summarize the following for each selected option when presented for approval:

- a. Identification of all options;
- b. Anticipated cash outflows not including carbon pricing;
- c. Anticipated cash outflows including carbon pricing; and,
- d. If no viable alternative exists, it must be identified as such. When such projects and initiatives are identified, the lack of an alternative must be noted and revisited bi-annually to ensure similar future replacement decisions will eventually incorporate low carbon options.

- 4.05 Each Department must take into account the adjusted cost of incorporating carbon pricing when determining which option to proceed with. Non-financial measures may also impact the decision and if so, should be explained within the 5-Year Financial Plan submission justification.
- 4.06 The 5-Year Financial Plan must identify which in-scope projects and programs took into account the impact of carbon and whether a low-carbon option was selected. In the event that the lowest emission option is not selected, justification must be included in the 5-Year Financial submission.
- 4.07 For in-scope capital projects included in the approved 5-Year Financial Plan, all subsequent formal requests for funding to Council must reference that the impact of carbon was considered and how it influenced the implementation of the project.
- 4.08 This policy is to be reviewed annually to assess whether the scope can be expanded or the internal Carbon Price raised.

## **5 CARBON PRICE**

- 5.01 The Carbon Price selected has been based on review/consideration of internal carbon pricing policies at other levels of government.
- 5.02 The Carbon Prices for 2021 & 2022 are \$170/tonne of CO<sub>2</sub>e.
- 5.03 Notes:
  - a. The internal Carbon Price schedule provides the incremental cost per tonne of carbon dioxide equivalent (CO<sub>2</sub>e) emissions to be incorporated into decisions between two or more alternatives for in-scope projects and initiatives.
  - b. The BC Carbon Tax, currently set at \$40 per tonne of carbon dioxide equivalent, is included in the purchase price of fossil fuels within the province. The incremental costs included in the internal Carbon Price schedule are intended to encompass this carbon tax when conducting Life Cycle Cost Analyses. Any analyses including both at their full amounts will require the carbon tax to be removed in order to avoid double counting.
  - c. The Carbon Prices are to be reviewed annually for continued alignment with other levels of government.

## **6 RESPONSIBILITIES**

- 6.01 The Green Fleet Asset and Equipment Manager is responsible for the preparation of a Carbon Price schedule that provides the incremental unit cost of purchased energy (e.g., litres of gasoline, GJ of natural gas) and the cost per unit of any applicable Greenhouse Gas Emissions. This schedule will be updated annually prior to commencement of the target budget's preparation.

- 6.02 All Departments are responsible for ensuring that in-scope projects and initiatives include the impact of carbon emissions and identify comparisons to alternatives when presented to Council.

## **7 DEFINITIONS**

- 7.01 Applicable Greenhouse Gas (GHG) Emission: GHG emissions associated with Burnaby projects or initiatives and GHG emission reductions related to carbon storage/sequestration.
- 7.02 Carbon Dioxide Equivalent (CO<sub>2</sub>e): The common, aggregated metric used to quantify GHG emissions utilized in British Columbia for local government GHG quantifications, and specifically defined as: “The universal unit of measurement to indicate the global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one unit of carbon dioxide. (GHG Protocol)”
- 7.03 Carbon Sequestration: The long-term removal or capture of carbon dioxide from the atmosphere.
- 7.04 Life Cycle Cost Analysis: The process to establish the Net Present Value of all costs and revenues associated with a Burnaby project or initiative over its expected life.
- 7.05 Shadow Price: A voluntary price representing the cost per tonne of applicable greenhouse gas emissions that is incorporated into internal corporate financial analyses and decision-making processes to help assess the true cost of a project. It does not represent an actual cost that will be incurred.

## **8 REFERENCES**

- 8.01 Metro Vancouver Board Policy GV-015: Carbon Price; June 23<sup>rd</sup>, 2017
- 8.02 Vancouver Policy ADMIN-019: Internal Corporate Carbon Pricing
- 8.03 Dawson Creek Carbon Fund Policy

## **9 ATTACHMENTS**

- 9.01 None