

From: ["Mochrie, Paul" <Paul.Mochrie@vancouver.ca>](mailto:Paul.Mochrie@vancouver.ca)

To: ["Direct to Mayor and Council - DL"](#)

Date: 5/16/2022 12:45:59 PM

Subject: [Federal 2030 Emissions Reduction Plan and the IPCC 2022 Report](#)

Attachments: [Memo to Mayor & Council - Federal 2030 Emissions Reduction Plan and the IPCC 2022 Report.pdf](#)

Dear Mayor and Council,

Please find attached a memo from Theresa O'Donnell that provides a high level summary of the federal government's new climate plan *2030 Emissions Reduction Plan – Canada's Next Steps for Clean Air and a Strong Economy* (released March 29th, 2022) and how it aligns with the City's climate priorities. Highlights from the UN's Intergovernmental Panel on Climate Change (IPCC) 2022 report *Mitigation of Climate Change* (released April 4th, 2022) are also included to provide additional context.

In summary:

- This is the first sector based climate plan released by the federal government and it represents strong national climate leadership.
- Despite the progressive work here the federal government continues to invest in and support large scale fossil fuel expansion, contrary to the IPCC recommendations.
- There are some notable gaps in the federal plan as identified in the memo.
- Vancouver's work aligns well with this plan and we are seeking funding as described in the plan.

Best,
Paul

Paul Mochrie (he/him)
City Manager
City of Vancouver
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The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the x^wməθk^wəyəm (Musqueam), Skwxwú7mesh (Squamish), and səlilwətał (Tsleil-Waututh) Nations.

MEMORANDUM

May 16, 2022

TO: Mayor and Council

CC: Paul Mochrie, City Manager
Karen Levitt, Deputy City Manager
Armin Amrolia, Deputy City Manager
Katrina Leckovic, City Clerk
Lynda Graves, Administration Services Manager, City Manager's Office
Maria Pontikis, Director, Civic Engagement and Communications
Lon LaClaire, General Manager, Engineering Services
Anita Zaenker, Chief of Staff, Mayor's Office
Neil Monckton, Chief of Staff, Mayor's Office
Alvin Singh, Communications Director, Mayor's Office

FROM: Theresa O'Donnell
General Manager, Planning, Urban Design and Sustainability

SUBJECT: Federal 2030 Emissions Reduction Plan and the IPCC 2022 Report

RTS N/A

Purpose

The purpose of this memo is to provide Council a high level summary of the federal government's new climate plan *2030 Emissions Reduction Plan – Canada's Next Steps for Clean Air and a Strong Economy* (released March 29th, 2022) as it pertains and aligns with the City's climate priorities.

Highlights from the International Panel on Climate Change (IPCC) 2022 report *Mitigation of Climate Change* (released April 4th, 2022) are included to add additional context and a framework for mitigating the global consequences of a warming climate.

Highlights from the IPCC 2022 Report Mitigation of Climate Change

The Report "Mitigation of Climate Change" is the third part of the IPCC's four-part Sixth Assessment written by hundreds of scientists and based on 18,000 scientific papers.

The 2010-2019 average annual global greenhouse gas emissions (GHGs) were at their highest levels in human history. The rate of growth of GHGs has slowed, but continues to increase. The report emphasized that emissions must be reduced by 43% by 2030 and 100% by 2050 to avert catastrophic harm to people and the planet. The IPCC report emphasizes the importance of cities in climate mitigation, and there was overall alignment with the City's Climate Emergency Action Plan (CEAP). Examples include:

- **Cities are major contributors to climate change but they offer significant opportunities for reductions through transitioning infrastructure and urban form.** Vancouver needs to continue building an effective active transportation network as well as complete communities, both of which are priorities in the draft Vancouver Plan and Broadway Plan.
- **Buildings policies must combine efficiency and renewable energy measures, and remove barriers to switching from fossil fuels.** Vancouver's green building policies focus on both energy efficiency and renewable energy and are quickly moving us away from relying on the fossil fuel, natural gas, in new buildings. However, while Vancouver is supporting retrofits more work is needed to reduce natural gas use in existing buildings.
- **Effective and equitable climate governance builds on engagement with elected officials, businesses, youth, labour, media, Indigenous Peoples and local communities.** Vancouver has used its position as a climate leader to influence other levels of government to accelerate climate action across Canada and internationally. While at the same time local stakeholders, appropriately continue to hold the City of Vancouver and others accountable for not moving fast enough.

Summary of the Federal 2030 Emissions Reduction Plan

The 2022 Federal Budget was released on April 7th, 2022 and supports the initiatives outlined in the Emissions Reduction Plan (ERP - released March 29th, 2022).

The ERP is the first plan released under the Canadian Net-Zero Emissions Accountability Act, which enshrines in legislation Canada's commitment to achieve net-zero greenhouse gas emissions by 2050, and provides a framework of accountability and transparency to deliver on it. The ERP describes current and new measures that will help Canada reach its interim emissions reduction target of 40-45% below 2005 levels by 2030. For the first time the federal government has outlined sector-specific targets, which include 37% below 2005 levels from buildings, 11% from transportation, 47% from waste and 88% from electricity.

Also of note, the ERP and Budget 2022 announced a new \$15 B Canada Growth Fund - a new public investment vehicle operating at an arms-length from the federal government to attract private sector investment in low-carbon industries and new technologies. Details of how this fund will operate will be released following consultations later this year.

Altogether, Budget 2022 announced approximately \$12.4 B in new climate and clean-tech related investments and initiatives over the next five years.

Homes and Buildings

The ERP recognizes the need for a massive retrofit of the existing building stock, and construction to zero carbon standards. Much of the work will be identified in the upcoming Canada Green Buildings Strategy. The completed Strategy will set out new policy, programs, incentives and standards needed to drive a retrofit of the existing building stock and zero carbon new-construction standards.

Budget 2022 allocated \$150 M over five years to develop the Green Buildings Strategy, which will include the following:

- A Low Carbon Building Materials Innovation Hub to drive research, reform, and promote the use of lower carbon construction materials.
- Regulatory, standards and incentives to support the transition off of fossil-fuel heating systems
- A requirement for EnerGuide labeling of home at the time of sale
- A new Net Zero Building Code Acceleration Fund to increase adoption of the highest tiers of the national model energy codes and incentivize consumer participation, and increase support to local governments as they seek to increase climate resilience in buildings.

Budget 2022 allocated \$200 M over five years, through Natural Resources Canada to create the Deep Retrofit Accelerator Initiative, which will accelerate the pace of deep retrofits in Canada, including a focus on low-income affordable housing.

The ERP also provides \$458.5 M for a Canada Greener Homes Loan program (operated by CMHC) to provide homeowner grants up to \$5,000 to improve energy efficiency. For businesses, Budget 2022 proposes to expand the accelerated tax deductions for investments in clean energy equipment to include air-source heat pumps. Investments in multifamily heat pump retrofits have the potential to significantly reduce carbon pollution and start to provide resilience to climate changes for families and vulnerable populations.

An additional \$33 M was allocated to establish a Greener Neighbourhoods Pilot Program, which will retrofit homes or units in up to six communities across the country using an aggregated building retrofits approach based on the Dutch "Energiesprong" model. The City seeks to leverage this program and are working with the Pembina Institute, BC Housing and number of additional BC Partners to develop an Energiesprong retrofit program (focused on social and co-op housing).

In a Feb 2022 letter to Minister Guilbeault, the City requested \$30 M over the next four years to help lower emissions from City-owned facilities. An example of an eligible project is the renewal of the Marpole Community Centre to achieve near-zero emissions in operational emissions and 40% lower embodied carbon. Another is the construction of a new city-owned, zero emission facility that will include a school, childcare and affordable housing.

ERP Gaps

- The Retrofit Accelerator program is earmarked for “large projects” only and excludes the detached homes that contribute to 28% of Vancouver’s building emissions.
- The low-income stream of the Greener Homes Loan Program requires low-income households to take on debt, making this inaccessible to those that cannot take on this burden.

Clean Energy/Electricity

The ERP renews the Low Carbon Economy Fund with an additional \$2.2 B to leverage further climate actions within local and provincial governments and across public/non-profit agencies.

In late March, the City submitted an Expression of Interest for \$4 M under the Low Carbon Economy Fund towards building retrofits at 2 libraries and 4 community centres. The Low Carbon Economy Fund will include a new \$140 M Indigenous Leadership Fund to support energy efficiency projects led by First Nations.

The ERP commits to increasing the supply of clean electricity to ensure that all electricity generation is net-zero emissions by 2050. To achieve this, the government will establish a Regional Strategic Initiatives group to work with provinces and stakeholders to develop a regional net-zero energy plan. The government will also work with provinces and utilities to establish a Pan-Canadian Grid Council to promote clean electricity infrastructure investments. An additional \$600 M is invested in the Smart Renewables and Electrification Pathways Program.

ERP Gaps

While the Federal government as stated that no more tax based funding will be committed for the Trans Mountain Pipeline, there is significant concern that this project is still proceeding considering the climate crisis and the direct risk of a spill in Burrard Inlet. In addition, two days after the release of the IPCC report, the Bay du Nord offshore oil and gas production project in Newfoundland was approved just after the UN Secretary General called investment in new fossil fuel infrastructure “moral and economic madness”.

While there is positive climate work committed to in the ERP, these large scale fossil fuel infrastructure investments do not align with the recommendations of the IPCC and risk becoming stranded assets that taxpayers will eventually have to backstop.

Electric Vehicles and Transportation

Budget 2022 announced approximately \$900 M for zero-emissions vehicles (ZEV) charging and refueling infrastructure. Ottawa will also provide \$1.7 B to extend an incentive for buying light-duty electric vehicles. By introducing a mandate that 60% of light-duty vehicles sold in 2030 must be zero-emissions, rising to 100% by 2035, the zero-emissions vehicle mandate is more ambitious than in the US.

In a Feb 2022 letter to Minister Guilbeault, the City requested \$20 M over the next four years to help lower greenhouse gas emissions from City-owned fleet vehicles and equipment. Investments will be focused on funding the incremental transition cost to replace approximately 200 existing end-of-life internal combustion engine vehicles and equipment with electric, as well

as funding the installation of approximately 200 new electric vehicle charging stations for the City's fleet.

Additionally, the City will be submitting an application to the Investing in Canada Infrastructure Program – CleanBC Stream in May 2022 for an Electric Vehicle Infrastructure Charging project.

The ERP makes a number of additional commitments to expand electric vehicle use including:

- Aiming for 35% of sales of Medium and Heavy Duty Vehicles (MHDVs) to be zero-emission vehicles by 2030.
- \$547.5 M for a purchase incentive program for MHDVs. The purchase eligibility date will be announced in Budget 2022.
- Supporting transit agencies and school boards in transitioning their bus fleets to zero-emission technology through planning the purchase of at least 5,000 zero emission buses.

ERP Gaps

- The ERP did not make any commitments on home charging, either in terms of investment for retrofits or building code requirements.
- The commitment to support the electrification of 5,000 buses nationally is quite modest. TransLink alone has over a thousand vehicles in its fleet that run at least partially on diesel or natural gas.
- Although the ERP notes light-duty cars (33.2%) and light-duty trucks (54.3%) are some of the largest contributors to transportation emissions, the plan focuses on a switch to ZEVs and a modal shift to transit, rather than a modal shift to walking, rolling or cycling through infrastructure improvements, changes to building design or more compact communities.
- Although not noted in the ERP report, Ottawa has committed \$400 million over five years to capital and planning projects for walking and cycling through the Active Transportation Fund.)
- Two-thirds of Vancouverites live in multi-family dwellings. Retrofitting such buildings with EV charging can be up to 10 times more expensive than including it in new construction. This added cost is a significant barrier to EV adoption. Including EV charging in new construction standards, like Vancouver requires, deploys a vastly larger amount of charging infrastructure than could ever be accommodated through public charging deployments, and reduces the cost of owning an EV for individual Canadians.
- While Vancouver and many nearby municipalities have introduced requirements for new residential buildings to include EV charging, these requirements are not broadly in use outside of southwestern BC. Any plans by the federal government to fund residential retrofit incentive programs that may be accessed by provincial or municipal governments should include requirements that new construction standards for EV infrastructure be in place.

Cap on Oil and Gas Sector

The government expects the oil and gas sector to cut carbon emissions 31% below 2005 levels by 2030, which is a 42% cut from current levels. The ERP also looks to reduce oil and gas fugitive methane emissions by at least 75% by 2030.

Natural Climate Solutions

Budget 2022 announced \$780 M for the Nature Smart Climate Solutions Fund to support projects that conserve, and enhance Canada's wetlands, peatlands, and grasslands to store and capture carbon. Protocols are in development under the Federal GHG Offset System to launch projects that will help sequester carbon. A noticeable gap here is that the federal gov't should consider setting their own negative emission target, as is recommended in the IPCC.

In a Feb 2022 letter to Minister Guilbeault, the City requested \$61 M over the next four years to complete three major green infrastructure and natural climate solutions projects that will reduce combined sewer overflows, improve climate resiliency and sequester carbon. The projects are:

1. Alberta St-Columbia Park District Scale Green Infrastructure Project.
2. Lost Lagoon Restoration to reconnect Stanley Parks former tidal salt marsh to the ocean
3. Trout Lake Wetland and rainwater integration that will construct a wetland and targeted sewer separation to treat storm water runoff.

Waste and Plastic Pollution

The ERP identifies the following ongoing and new initiatives related to reducing emissions from waste and linear consumption patterns:

- New regulations under the Canadian Environmental Protection Act (CEPA) are being proposed to significantly reduce methane emissions from municipal solid waste landfills by 2030.
- Food waste is identified as an issue requiring additional attention. The Government will be examining opportunities to reduce food waste along the entire food supply chain, from commercialization to prevention and diversion.
- Circular economy is identified as an opportunity to achieve increased GHG reductions. The Government will work with others to explore what opportunities greater circularity offer in a Canadian context.
- The government plans to finalize the Single-Use Plastics Prohibition regulation, and is playing a leadership role in the development of a *new* international legally binding agreement on plastic pollution through the United Nations Environment Assembly.

These federal initiatives that address climate impacts of waste and linear consumption align with the City's work including:

- Investing significantly in new landfill gas collection infrastructure and optimization solutions at Vancouver Landfill to maximize the collection of remaining methane, and partnering with FortisBC and Village Farms to supply two new renewable gas facilities. In the coming decades, the carbon neutral renewable gas produced will heat Landfill operation buildings, and displace 100,000's of gigajoules of natural gas annually used to heat residential and commercial buildings.
- The City, in collaboration with the Vancouver Economic Commission initiated a study to measure the current state of food circularity in Vancouver. Direct work with food businesses through the Circular Food Innovation Lab (April 2022 to January 2023) will generate food waste solutions to be tested by industry. The City's ongoing partnership

with Love Food Hate Waste Canada highlights food waste's impact on the climate through public awareness and behaviour change campaigns.

- The City's single-use item by-laws are among the first regulations in Canada for reducing the use and disposal of single-use items, including plastics. The proposed federal bans on single-use plastics generally complement or align with Vancouver's single-use item by-laws, except for flexible plastic straws needed for accessibility.

ERP Gaps

- There are no actions aimed at reducing construction and demolition waste. Actions could include funding to supporting innovation and developing federal standards for recycled or salvaged materials as a way to reduce carbon emissions associated with producing new building materials.

Carbon Pricing and Offsets

The Federal Government is exploring legislative approach to supporting a long term and durable price on carbon pollution. Border carbon adjustments (essentially a carbon based import/export tariff) will be explored and a domestic carbon offset program developed. This demonstrates significant international leadership and Vancouver is very supportive of this approach to properly price carbon globally.

Any questions or comments can be directed to Theresa.O'Donnell@vancouver.ca.



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