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The Regional Municipality of Durham Report

To: Finance and Administration Committee
From: Chief Administrative Officer
Report: #2020-A-14
Date: June 3, 2020

Subject:
Climate Mitigation and Environmental Initiatives Reserve Fund Investment Plan

Recommendations:

- A) That Regional Council approve general allocations in the total amount of \$5.0 million from the Climate Mitigation and Environmental Initiatives Reserve Fund to the priority project categories outlined as follows:
 - i) High-performance new buildings (Regional portfolio) - \$1.5 million
 - ii) Deep energy retrofits of existing buildings (Regional portfolio) - \$2.5 million
 - iii) Deep energy retrofits of existing buildings (Community-wide) - \$350,000
 - iv) Region-wide nature-based climate solutions - \$500,000
 - v) Adaptation vulnerability and risk assessments - \$150,000
- B) That Chief Administrative Officer and Commissioner of Finance be authorized to determine specific project funding allocations within the recommended allocation of \$5.0 million using the outcome-based principles described in this report.

Report:

1. Purpose

- 1.1 This report outlines an investment plan for the newly created Climate Mitigation and Environmental Initiatives Reserve Fund, and an approach to allocate funding to specific projects within identified priority project categories.

2. Background

- 2.1 In October 2019, Regional Council approved the recommendations of Report #2019-F-33, including the establishment of the Climate Mitigation and Environmental Initiatives Reserve Fund (the Reserve Fund) to invest in projects that enhance the Region's response to climate change. The Reserve Fund received a transfer of \$5.0 million from the General Levy Stabilization Reserve Fund, with ongoing support to be determined through the annual business planning and budget process based on priorities highlighted in annual Climate Change Report or future equivalent.
- 2.2 In January 2020 Regional Council declared climate change an emergency and directed staff to report back on a plan for the Reserve Fund to meet identified corporate and community implementation priorities.
- 2.3 An inter-departmental staff working group from the CAO's Office, Works and Finance developed the following outcome-based principles to prioritize projects:
 - a. Alignment with with policy direction established in Durham's Council-endorsed climate change plans, including the Durham Community Energy Plan (DCEP), the Durham Community Climate Adaptation Plan (DCCAP), the Regional Energy Conservation and Demand Management Plan, 2019 to 2024 (where applicable), the Long-Term Financial Plan and the Asset Management Policy, and the forthcoming Durham Standard for Facilities Design, Construction and Asset Management;
 - b. Prioritize investment in long-lived capital assets, including buildings and infrastructure systems, where investment now will support long-term corporate and community emissions reductions and/or enhanced asset resilience;
 - c. Leverage resources (financial or otherwise) from public or private sector partners, where possible;
 - d. Support capital projects that reduce future operating costs where possible; and
 - e. Support project development work (i.e. assessments, audits, feasibility studies, etc.) that support the identification and scoping of corporate and community emissions reduction opportunities or resilience building measures.
- 2.4 The use of the Reserve Fund to support and advance project work that reduces GHG emissions and/or addresses climate resilience may also assist the Region in developing 'shovel ready' projects that can attract green stimulus or related infrastructure funding from senior levels of government.

3. Reserve Fund Project Categories

3.1 Based on of the objectives of DCEP's low carbon pathway, the following project cluster categories have been identified for corporate and community investment:

- a. **High-performance new buildings** – Increasing the energy and emissions performance of new buildings is much more cost effective than trying to retrofit them after they have been constructed. DCEP indicates that new construction should strive for net zero energy performance through sustainable building design, including thermal efficiency (e.g. airtightness), building automation systems, and on-site renewable energy generation opportunities (e.g. solar photovoltaic, heat pumps, etc.). New buildings should also be designed with electric vehicle (EV) charging infrastructure to enable the ongoing transition to low carbon vehicle fleets. Project funding from the Reserve Fund will also support implementation of the Durham Standard for Facilities Design, Construction and Asset Management, which is currently under development and considers building design aspects including: sustainability, asset resilience, accessibility and space modernization.

The Region has an opportunity to demonstrate corporate leadership by investing in high energy and emissions performance in any new buildings constructed within the Corporate portfolio. Low carbon energy feasibility studies are underway for new Regional construction projects, including the future Seaton Paramedic (RDPS) facility and Clarington Police Complex Phase 2, which will provide low carbon technology options for consideration.

- b. **Deep energy retrofits of existing buildings** – the low carbon pathway outlined in DCEP considers retrofitting nearly all residential, commercial and institutional buildings in the Region over the next 30 years, focusing on deep whole building retrofits and on-site renewable energy generation. Such retrofits will reduce energy demand and costs for building owners, while also potentially serving as a local job creation engine to address economic challenges, including those caused by the COVID-19 crisis.

Facilitating the development of a climate-literate construction workforce will be an important aspect of the low carbon transition in Durham Region. Investments in building climate-related construction skills, in partnership with local post-secondary institutions, provides a key opportunity to expand the workforce to support the transition in the existing built environment.

There are significant funding opportunities now available through the Federation of Canadian Municipalities' Green Municipal Fund (FCM GMF) to implement retrofits on social housing buildings, as well as to develop community-wide residential energy efficiency programs. For corporate-owned facilities, feasibility studies and energy audits are underway to clarify and prioritize cost-effective options for emissions reductions in the existing asset portfolio.

To support community-wide retrofits, Regional staff are preparing a funding application to the FCM GMF under its newly-released Community Efficiency Financing (CEF) stream to support program start-up and an initial four-year implementation phase of the Durham Home Energy Savings Program (refer to Report #2020-A-12 for more details on this proposed community retrofit program).

- 3.2 Based on of the objectives of DCCAP, the following project categories have been identified for corporate and community investment from the reserve fund:
- a. **Region-wide nature-based climate solutions** – DCCAP identified the need to enhance natural capital to build climate resilience in both urban and rural landscapes across the Region. The adaptation plan highlighted the need for region-wide stewardship and outreach programs to encourage natural restoration projects on both public and private lands, which support biodiversity, ecosystem-based carbon sequestration and stormwater management. The Region has an opportunity to work with its Conservation Authority partners, local area municipalities, as well as non-profits like Forests Ontario, Ducks Unlimited Canada, and Highway of Heroes Tree Campaign to leverage significant government and private sector funding to help increase total tree canopy cover across the Region. Reserve Fund investment will support implementation of natural capital programs emerging from these partnership opportunities.
 - b. **Vulnerability and risk assessments** – DCCAP highlighted several opportunities to address the impact of climate change on key Regional infrastructure systems and more broadly on community health and well-being. staff have identified specific priorities for vulnerability and risk assessments relating to flood risk assessment, and public health climate risk assessment.

4. Recommended Reserve Fund Allocation

Table 1 Recommended Allocation by Project Category¹

#	Project	Estimated Investment (\$M)
1	High performance new buildings <ul style="list-style-type: none"> • Incremental additional investment required to meet net zero energy performance in new corporate facilities 	\$1.5

¹ It is recommended that the Commissioner of Finance and Chief Administrative Officer be authorized to reallocate up to 25% of funding between project categories and/or for new projects that fit within the outcome-based principles described in this report provide flexibility to respond to operational requirements and/or take advantage of external funding opportunities.

#	Project	Estimated Investment (\$M)
2	<p>Deep energy retrofits of existing corporate facilities, including on-site renewable energy generation</p> <ul style="list-style-type: none"> • Installation of rooftop solar PV on select Regional facilities Regional Headquarters and Fairview Lodge • 45+ facility energy audits that recommend energy efficiencies, emissions performance improvements, and improvements • Funding for social housing retrofits to leverage available FCM GMF Social Affordable Housing Fund grants 	\$2.5
3	<p>Deep energy retrofits of existing community buildings</p> <ul style="list-style-type: none"> • Funding for launch of Durham Home Energy Savings Program - see Report #2020-A-12 for more details 	\$0.350
4	<p>Region-wide nature-based climate solutions program</p> <ul style="list-style-type: none"> • Funding to enhance tree planting and stewardship programs in partnership with Conservation Authorities and non-profit partners (e.g. Forests Ontario, Highway of Heroes Tree Campaign) 	\$0.5
5	<p>Adaptation studies</p> <ul style="list-style-type: none"> • Urban flood risk vulnerability assessment & public health climate vulnerability assessment 	\$0.150
	Total	\$5.0

5. Financial Implications

5.1 Project costs are recommended to be funded by the Region's Climate Mitigation and Environmental Initiatives Reserve Fund. Community-wide investments, such as the Durham Home Energy Savings program will create broader economic and financial benefits for residents and local skilled trades. All operating and life-cycle cost implications will be considered as part of the project screening, evaluation and prioritization process and any financial impacts will be considered as part of the financial and business planning and budget process.

- 5.2 Recommended measures for implementation with the support of the Region's Climate Mitigation and Environmental Initiatives Reserve Fund will be reported back to Council along with a summary of full project cost implications and quantification of anticipated environmental benefits, where applicable. All project procurement will be conducted in accordance with the Region's purchasing by-law.
- 5.3 As part of normal project due diligence processes to manage project risks, Regional staff will include contingency amounts in project budgets, and seek legal and financial risk management advice as appropriate, including entering into necessary partnership agreements with external partners. Regional staff will identify and apply for any available grant funding to offset costs.

6. Conclusion

- 6.1 It is recommended that \$5 million in funding from the Climate Mitigation and Environmental Initiatives Reserve Fund be allocated to the project categories outlined in this report. Some of these investments may provide opportunity to leverage external investment from the federal government and other public and private sector funding partners. They will contribute significantly towards achieving corporate and community-wide climate change objectives.

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Respectfully submitted,

Original signed by

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Recommended for Presentation to Committee

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