



The Regional Municipality of Durham

Committee of the Whole Agenda

Council Chambers
Regional Headquarters Building
605 Rossland Road East, Whitby

Wednesday, December 15, 2021

9:30 AM

1. Roll Call

2. Declarations of Interest

3. Statutory Public Meetings

There are no statutory public meetings

4. Delegations

There are no delegations

5. Presentations

5.1 Sandra Austin, Director, Strategic Initiatives, re: Durham Region Nuclear Sector Strategy 2022-2032 (2021-COW-37) [Item 7. F]]

5.2 Paul Frizado, Director, Broadband Services, and Riaz Razvi, Broadband Specialist, re: Establishing a Municipal Services Corporation to Build and Operate the Regional Broadband Network (2021-COW-32) [Item 7. B]]

6. Correspondence

7. Reports

A) Request for Funding from Central Lake Ontario Conservation Authority for the Acquisition of Land adjacent to the Stephen's Gulch Conservation Area in the Municipality of Clarington (2021-COW-31)

- | | | |
|----|---|-----------|
| B) | Establishing a Municipal Services Corporation to Build and Operate the Regional Broadband Network (2021-COW-32) | 8 - 104 |
| C) | Approval to Award a Five-Year Sole Source Negotiated Agreement with Yardi Canada Ltd. for Upgrading Property Management Software and Data Migration to Cloud-based Storage System for Durham Regional Local Housing Corporation (DRLHC) (2021-COW-34) | 105 - 108 |
| D) | Durham Region Local Housing Corporation (DRLHC) Seniors Building Portfolio Energy Retrofit Funding Strategy (2021-COW-35) | 109 - 117 |
| E) | 2021 Canada Community-Building Fund Allocation (2021-COW-36) | 118 - 122 |
| F) | Durham Region Nuclear Sector Strategy 2022-2032 (2021-COW-37) | 123 - 180 |
| G) | Unbudgeted Provincial Funding from the Ministry of Long-Term Care to Develop and Maintain a Community Paramedicine Program (2021-COW-38) | 181 - 185 |

8. Confidential Matters

- | | | |
|----|---|----------------------|
| A) | Confidential Report of the Commissioners of Works and Finance – Proposed or Pending Acquisition or Disposition of Land for Regional Corporation Purposes as it relates to the Acquisition of Property in the City of Oshawa (2021-COW-33) | Under Separate Cover |
|----|---|----------------------|

9. Other Business

10. Adjournment

Notice regarding collection, use and disclosure of personal information:

Written information (either paper or electronic) that you send to Durham Regional Council or Committees, including home address, phone numbers and email addresses, will become part of the public record. This also includes oral submissions at meetings. If you have any questions about the collection of information, please contact the Regional Clerk/Director of Legislative Services.



The Regional Municipality of Durham Report

To: The Committee of the Whole
From: Commissioner of Finance and Commissioner of Planning and Economic Development
Report: #2021-COW-31
Date: December 15, 2021

Subject:

Request for Funding from Central Lake Ontario Conservation Authority for the Acquisition of Land adjacent to the Stephen's Gulch Conservation Area in the Municipality of Clarington

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That in response to the request for funding from Central Lake Ontario Conservation Authority, that funding in the amount of \$486,200, representing 40 per cent of the estimated eligible acquisition costs for approximately 41.3 hectares (102 acres) of land located adjacent to the Stephen's Gulch Conservation Area in the Municipality of Clarington, be approved and financed from the Region's Land Conservation and Protection Reserve Fund; and
 - B) That the Commissioner of Finance be authorized to adjust the total payment amount to Central Lake Ontario Conservation Authority pending a review of the eligibility of final costs incurred pursuant to the Region's Land Acquisition Funding Policy.
-

Report:

1. Purpose

- 1.1 The purpose of the report is to advise Council of, and seek approval for, Central Lake Ontario Conservation Authority's request for funding under the Durham Region Land Acquisition Funding Policy for Conservation Authorities for the purchase of approximately 41.3 hectares (102 acres) of land adjacent to the Stephen's Gulch Conservation Area.

2. Previous Reports and Decisions

- 2.1 In October 2007, Regional Council adopted the recommendations of Report 2007-J-36 entitled “Durham Region Land Acquisition Funding Policy for Conservation Authorities”. This report identified a process and eligibility requirements by which the Region’s five Conservation Authorities could apply for funding from the Region’s Land Acquisition Reserve Fund to finance the acquisition of properties for conservation purposes.
- 2.2 A goal of this policy is to ensure that land acquisition efforts of Regional Council in partnership with Conservation Authorities in Durham Region, will contribute to the protection, enhancement and restoration of the natural environment in Durham Region.

3. Central Lake Ontario Conservation Authority’s Request for Funding

- 3.1 Central Lake Ontario Conservation Authority is requesting approval for \$615,500 in funding from the Region, representing 50.6 per cent of the total estimated eligible acquisition costs of \$1,215,500 as outlined in Table One. Central Lake Ontario Conservation Authority has been awarded \$600,000 in funding from Environment and Climate Change Canada’s Nature Smart Climate Fund for the acquisition of this property. Regional Council’s approved Land Acquisition Funding Policy caps Regional funding for eligible land acquisitions at 40 per cent of total eligible acquisition costs. Based on the estimated eligible costs identified by Central Lake Ontario Conservation Authority, staff is recommending approval of \$486,200 in funding, consistent with the Region’s Land Acquisition Funding Policy. This is also consistent with Regional funding approved for recent land acquisitions by Kawartha Conservation ([Report 2021-COW-21](#)) and Lake Simcoe Region Conservation Authority ([Report 2021-COW-27](#)).

Table One

Description	Total Estimated Cost \$	CLOCA’s Funding Request \$	Recommended Estimated Regional Portion (40 per cent) \$
Purchase Price	1,180,000	613,000	472,000
Appraisal Cost, land transfer and legal costs	35,500	2,500	14,200
Total	1,215,500	615,500	486,200

- 3.2 Central Lake Ontario Conservation Authority has negotiated an agreement of purchase and sale for the acquisition of a 41.3 hectare (102 acre) parcel, known as Part Lot 5, Concession 4 in the Municipality of Clarington (former Darlington Township), adjacent to the Stephen's Gulch Conservation Area. This property is identified as a Key Natural Heritage Feature and Key Hydrologic Feature in the Regional Official Plan. It is located within the Greenbelt Natural Heritage System and contains key natural heritage and hydrologic features. Central Lake Ontario Conservation Authority has indicated that the property is identified within their Board approved Land Acquisition Strategy.
- 3.3 This land acquisition was authorized by Central Lake Ontario Conservation Authority's Board of Directors at their November 16, 2021 Board meeting.

4. Advancing Regional Planning Objectives

- 4.1 In accordance with the Land Acquisition Funding Policy for Conservation Authorities, Regional Planning staff have reviewed Central Lake Ontario Conservation Authority's request and concluded that the request meets the primary planning criteria for eligibility.
- 4.2 Specifically, the acquisition of this property meets the objectives of the Durham Regional Official Plan as this property:
- is being purchased for conservation purposes;
 - is located within or contributes to the enhancement of the Regional Official Plan Greenlands System outside of urban areas;
 - contains key natural heritage and/or key hydrological features; and
 - supports the long-term planning and growth management of the Region.

5. Financial Considerations

- 5.1 The Region of Durham has established the Land Conservation and Protection Reserve Fund to, in part, make funding available to the Region's five Conservation Authorities for the purpose of acquiring environmentally sensitive lands.
- 5.2 The request from Central Lake Ontario Conservation Authority for \$615,500 in funding towards the eligible acquisition costs represents approximately 50.6 per cent of the total estimated eligible acquisition costs of \$1,215,500. This request exceeds the maximum amount of Regional funding allowed within the Council approved Conservation Land Acquisition Funding Policy of 40 per cent of the total eligible costs. Staff is recommending the approval of \$486,200 in funding towards this land purchase, consistent with Council's approved Land Acquisition Funding Policy. It is recommended continued adherence to the established policy as, in this case for example, the Central Lake Ontario Conservation Authority is not funding any portion of the acquisition. Having the conservation authorities' responsible for a share of the funding, in general, assists in ensuring both prioritization of requests as well as prudence in the negotiation process.

- 5.3 There are sufficient uncommitted funds available in the Land Conservation and Protection Reserve Fund to finance the recommended funding of \$486,200 for Central Lake Ontario Conservation Authority's land acquisition.

6. Relationship to Strategic Plan

- 6.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
- Goal 1.3 Environmental Sustainability – to protect, preserve and restore the natural environment, including greenspaces, waterways, parks, trails, and farmlands; and
 - Goal 5.1 Service Excellence – to provide exceptional value to Durham taxpayers through responsive, effective and financially sustainable service delivery.

7. Conclusion

- 7.1 Staff is recommending the approval of \$486,200 in funding towards the acquisition of approximately 41.3 hectares (102 acres) of land adjacent to the Stephen's Gulch by Central Lake Ontario Conservation Authority as it meets the requirements of the Durham Region Land Acquisition Policy for Conservation Authorities.

8. Attachments

Attachment #1: Map from Central Lake Ontario Conservation Authority identifying the subject property

Respectfully submitted,

Original Signed by

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance

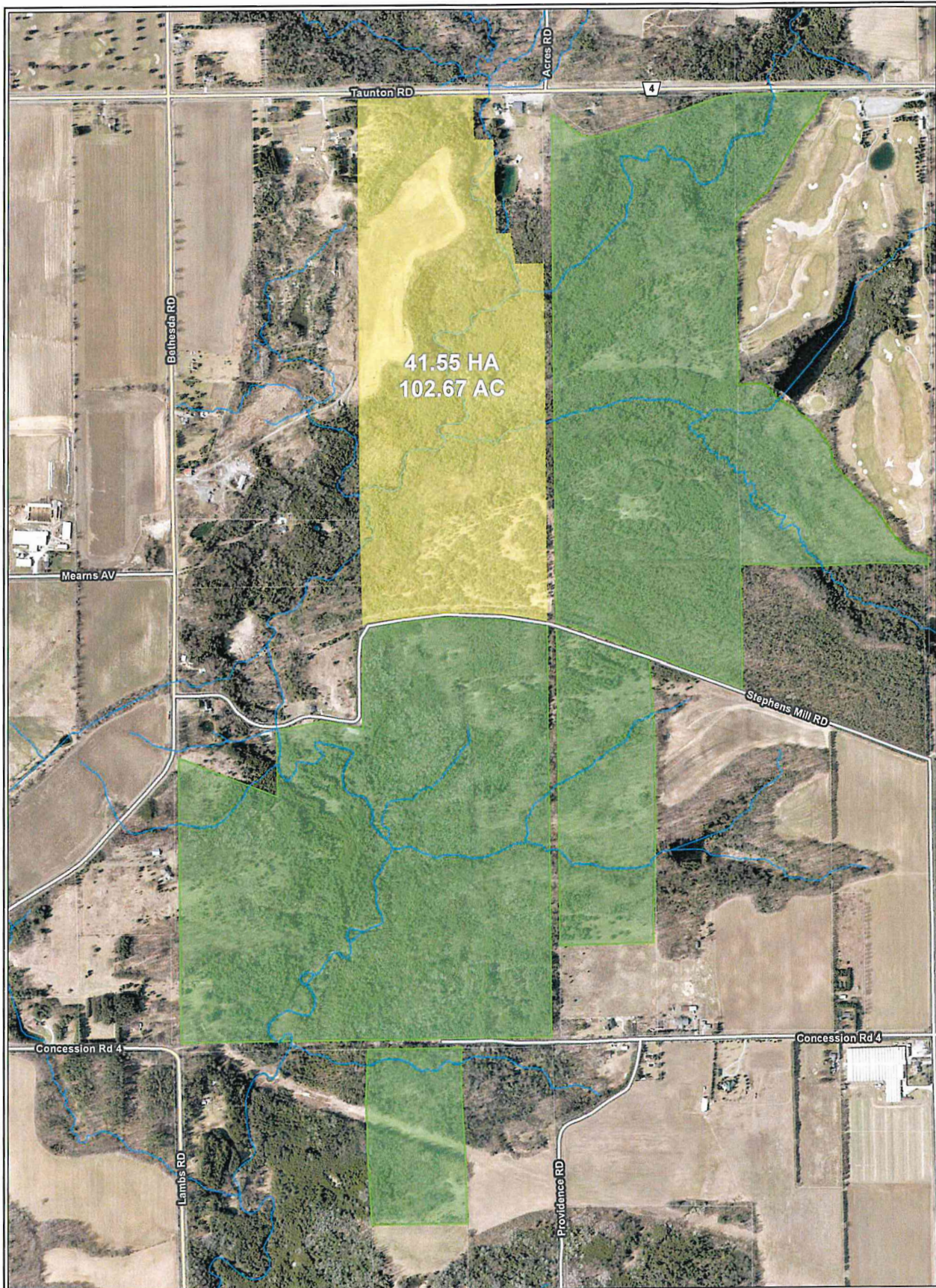
Original Signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and Economic
Development

Recommended for Presentation to Committee

Original Signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer



(c) Copyright, Central Lake Ontario Conservation Authority, 2021.

Map Compiled by the Central Lake Ontario Conservation Authority, 100 Whiting Ave., Oakawa, Ontario, L1M 3T3

This map is for information purposes only and the Central Lake Ontario Conservation Authority takes no responsibility for, nor guarantees, the accuracy of all the information contained within the map.

Source: CLOCA, 2021, Regional Municipality of Durham, 2021.

Ortho Photo: First Base Solutions, April 2017.

Projection: NORTH AMERICAN DATUM 1983 UNIVERSAL TRANSVERSE MERCATOR (8 DEGREES) PROJECTION, ZONE 17, CENTRAL MERIDIAN (81 DEGREES WEST)

Date Printed: September 2, 2021

Proposed Acquisition **Stephen's Gulch Conservation Area** **CON 4 PT LOT 5** **Municipality of Clarington**

Legend

- Proposed Acquisition
- Assessment Parcel
- Stephen's Gulch CA



If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2564.



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Commissioner of Planning and Economic Development, Commissioner of Works, Commissioner of Corporate Services, and Commissioner of Finance
Report: #2021-COW-32
Date: December 15, 2021

Subject:

Establishing a Municipal Services Corporation to build and operate the Regional Broadband Network

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That the Region establish a Regional Broadband Network (the “Network”) through developing, constructing, and commercially operating a fibre optic network to provide open access fibre connectivity across Durham Region to deliver Regional services and to enable economic development and innovation across the Durham Region through improved broadband connectivity;
- B) That staff be authorized to incorporate a wholly-owned Municipal Services Corporation (“MSC”, or the “Corporation”), being an Ontario Business Corporation Act (“OBCA”) corporation pursuant to Section 203 of the *Municipal Act, 2001* to develop, construct, and commercially operate the Network;
- C) That the following documents, substantially in the form attached, be approved and adopted to incorporate and support the establishment of the MSC:
 - i) MSC Enabling By-law (Attachment #2)
 - ii) Name Consent (Attachment #3)

- iii) MSC By-law No. 1 (Attachment #4)
 - iv) Organizational Resolutions (Attachment #5)
 - v) Consent to Act as First Director (Attachment # 6)
 - vi) Authorization to file Articles of Incorporation (Attachment #7)
 - vii) Articles of Incorporation (Attachment #8)
 - viii) Municipal Capital Facilities By-law (Attachment #9)
 - ix) Municipal Capital Facilities Agreement (Attachment #10)
 - x) Asset Transfer Policy (Attachment #11)
 - xi) Shareholder's Direction (Attachment #12)
 - xii) Shareholder Resolution for Election of Director (Attachment #13)
- D) That the Initial Business Plan for the MSC (Confidential Attachment #14 under separate cover) for the purposes outlined in the Shareholder's Direction be approved;
- E) That in order to support the establishment and operations of the new MSC, capital expenditures for the planned first-year 60km build of the Network in the estimated amount of \$5.1M and related operating expenditures in the estimated amount of \$1.1M be referred to the 2022 Business Plans and Budgets process;
- F) That Council authorize expenditures up to \$500,000 to support the early establishment and network pre-build activities of the new corporation prior to the approval of the 2022 Business Plan and Budgets process, with financing to be provided at the discretion of the Commissioner of Finance;
- G) That staff be authorized to negotiate a Municipal Access Agreement with the MSC;
- H) That staff be authorized to negotiate a Corporate Services Agreement as outlined in Section 6.3 of the Shareholder's Direction with the MSC to the satisfaction of the Regional Solicitor, the Commissioner of Finance, and the CAO;
- I) That the Regional Chair and Clerk be authorized to execute any required documentation to implement the recommendations of this report; and
- J) That a copy of this report be provided to the Area Municipalities, Innovation Science and Economic Development Canada, Ontario Ministry of Infrastructure, and Infrastructure Ontario.
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Report:**1. Purpose**

1.1 The purpose of this report is to:

- a. Provide an update on the rationale and design of the Network;
- b. Set out the rationale for the MSC and activities undertaken in support of it; and
- c. Outline the activities and approvals necessary to establish the MSC to develop, construct, and commercially operate the Network.

2. Background

2.1 Regional staff has been actively pursuing opportunities to achieve the vision of the [Broadband Strategy](#) which was approved by Council in 2019. The vision articulates that “Durham’s residents, businesses, and institutions will have access to fast, reliable and affordable broadband services so that they may fully participate, compete and thrive in the 21st century.”

2.2 Staff have been pursuing several senior government funding opportunities to fund the development and construction of the Network, including:

- a. Investing in Canada Infrastructure Program – Federal and Provincial Governments;
- b. Improving Connectivity for Ontario – Provincial Government; and
- c. Universal Broadband Fund – Federal Government.

2.3 To date, the Region has been successful in being awarded grants from all of the above listed grant programs and is in the process of negotiating or meeting the conditions of the respective funding agreements.

2.4 In January 2021 (#2021-COW-18), Council directed staff to explore the formation of an MSC for the purpose of operating the Network.

2.5 Staff engaged the support of third party technical and legal subject matter experts and have undertaken a detailed examination of the benefits and considerations of creating an MSC to operate the Network.

2.6 As noted in #2021-COW-18, one of the legislative requirements to establish an MSC was developing a Business Case Study for a Broadband MSC and conducting public consultation on the matter. This Business Case Study was developed by staff

and made available for public consultation on the Regional website and advertised in local media requesting public review and feedback. One comment was received from the Whitby Chamber of Commerce supporting the initiative in contributing to the viability of our communities. This report and its attachments are also available to the public through the Region's broadband web page and members of the public will be afforded the opportunity to make delegations at the meeting of the Regional Council which will consider this report.

3. Previous Reports and Decisions

- [#2019-P-3](#) - Connecting Our Communities; A Broadband Strategy for the Region of Durham;
- [#2020-INFO-5](#) - Durham Region Broadband Program Update;
- [#2020-EDT-6](#)- Regional Broadband Network Business Case Development and Endorsement of Grant Funding Application;
- [#2020-INFO-91](#) - Durham Region Broadband Program Update – Improving Connectivity for Ontario (ICON) Program, Stage 1 Application Status;
- [#2020-COW-29](#) - Durham Broadband Stage Two Funding Application for the Provincial Improving Connectivity for Ontario (ICON) Program;
- [#2020-EDT-11](#) – Pickering-Uxbridge Broadband Fibre Trunk Project;
- [#2021-COW-2](#) - Regional Broadband Network, Applications for Provincial and Federal Funding;
- [#2021-COW-18](#) – Update on Regional Broadband Program; Authority to Accept Improving Connectivity for Ontario (ICON) or Universal Broadband Fund (UBF) Grant Awards; and Authority to Make Project Commitments During Summer Recess; and
- #2021-COW-23 – **CONFIDENTIAL** Regional Broadband Program: Grant Application Status Update.

4. Update on the Rationale and Design of the Regional Broadband Network

- 4.1 In 2017, the Economic Development Strategy and Action Plan was endorsed by Regional Council, recognizing the importance of broadband as an indispensable

component of infrastructure required to drive economic growth across Durham Region.

- 4.2 Access to reliable Internet connectivity in underserved areas is critical for achieving most, if not all, of the other policy objectives the Region has outlined in its Strategic Plan (2020-2024). These include environmental sustainability, quality of life, improving health outcomes of vulnerable populations, building an inclusive, age friendly, safe community, leverage Durham Region's location, high-quality jobs, support agriculture, poverty reduction, value for money and quality of public service delivery.
- 4.3 Since the advent of the COVID 19 pandemic, broadband has become an essential service as it has been the means through which students have been accessing online education, individuals accessing healthcare, employees being able to work remotely, and businesses to service and reach their customers and suppliers.
- 4.4 The digital divide that exists in Durham Region and across Canada is too large for the private sector to solve on its own. The private sector has been primarily focused on enhancing broadband service availability in densely populated urban areas and communities, where acceptable rates of return can be more readily realized.
- 4.5 Both federal and provincial governments have recognized this issue and have launched several grant funding programs investing billions of dollars over the past number of years to help address the growing digital divide.
- 4.6 These programs have begun to show success, especially where regional and municipal governments have gotten involved. Regional initiatives such as SWIFT, and efforts in Peel Region and York Region have successfully leveraged existing network assets, expanded them, and made them available to private-sector internet service providers ("ISPs") to support their communities.
- 4.7 The needs of the Region are no different than other businesses. Demand for bandwidth continues to increase with the continued advances in efficiency and collaboration tools, remote video meeting applications and other internet accessed applications. It is forecasted that the Region's aggregate need for bandwidth at existing Regional sites is expected to grow by 200+% over the next 5 years.
- 4.8 The ability to meet the bandwidth needs in rural Region sites is a concern as some of those sites currently rely on more traditional low-speed connectivity solutions at relatively high prices. This is no different from other businesses and residences in those areas as they are currently considered either unserved or underserved by the

CRTC with respect to broadband access. Many of these areas and communities have no view or timeframe on when a sustainable broadband solution will be available to meet current needs or the increased bandwidth needs in the not-so-distant future.

- 4.9 The Region's existing fibre network is currently used in urban areas for traffic signal control and monitoring as well as traffic camera surveillance. The expansion of this network into rural areas has begun with the launch of the Uxbridge-Pickering backbone project. In addition, this backbone is planned to be further extended as part of senior government funding applications awards noted in #2021-COW-23 in 2022-2023. Evolving into the Network, this backbone is envisioned to grow to approximately 700km to serve the increasing need for more sites to be connected including depots, water and waste treatment plants, transit shelters, emergency and police facilities and provide the foundation for a more intelligent community.
- 4.10 In addition to connecting the Region's facilities, the Network will bring high-speed fibre connectivity to underserved communities across Durham and be built as an open access network, one that allows multiple service providers to use a common underlying fibre infrastructure. The Network will be made available to ISPs, under commercial agreements, enabling them to accelerate the delivery of retail broadband services to those communities. It should be noted that it is the ISPs that will deliver broadband service to individual homes and businesses, not the MSC.

5. Rationale for a Broadband Municipal Services Corporation

- 5.1 Staff, with support from third party technical subject matter experts, developed a comprehensive Business Case Study for a Broadband MSC which included a jurisdictional scan and best practices on possible ownership models and governance structures for the Network.
- 5.2 The Region set the following objectives in establishing possible ownership and governance structures for the Network infrastructure and services:
- a. Establishing an entity that builds value through collaboration with other levels of government and the private sector, that strengthens the individual and collective position of Region-owned and other assets;
 - b. Establishing a business and governance environment that provides focus and flexibility to react quickly to market needs and attract private sector broadband management expertise at the board and staff levels;
 - c. Providing a mechanism through which to encourage private sector investment and secure senior levels of government funding; and

- d. Delivering transparency and accountability to the Region, as the sole shareholder.
- 5.3 From the analysis conducted and contained in the Business Case Study, the MSC model was identified as being best aligned with the Region's objectives and guiding principles and is consistent with best practices adopted by many municipalities across Canada.
- 5.4 The recommended ownership and governance structure to develop, construct, and commercially operate the Network involved establishing the MSC under the Ontario Business Corporations Act (OBCA) with the Region of Durham being the sole shareholder.

6. Legislative Requirements in Support of Establishing the MSC

- 6.1 The firm of WeirFoulds LLP was been engaged to assist the Region to incorporate a wholly-owned OBCA corporation pursuant to Section 203 of the *Municipal Act, 2001* to develop, construct, and commercially operate the Network. The remainder of this section outlines the legislative requirements and highlights select pertinent details of each of the documents that have been produced to establish the MSC.
- 6.2 Durham Region Business Case Study for a Broadband MSC and Public Consultation (Attachment #1):
- a. A Durham Region Business Case Study for a Broadband MSC was developed by staff and made available for public consultation on the Regional website and advertised in local media requesting public review and feedback; and
 - b. The posted public consultation period was advertised from September 2, 2021 to September 17, 2021. Staff extended the comment period for an additional two-week period. One comment was received from the Whitby Chamber of Commerce supporting the initiative in contributing to the viability of our communities.
- 6.3 MSC Enabling By-law (Attachment #2):
- a. A by-law to establish the MSC for the purposes of establishing, creating, and operating a Regional Telecommunications and Broadband Network in the Regional Municipality of Durham; and
 - b. The Regional Chair John Henry is nominated and authorized to act as the incorporator and initial director and to elect Elaine Baxter-Trahair, Chief

Administrative Officer, as a second director to serve with the Regional Chair on the board of directors.

6.4 Name Consent (Attachment #3):

- a. A Name Consent request to the Ministry of Government Services is required to use a specified corporate name. As part of the Name Consent and the Articles of Incorporation process, a newly upgraded automated name search for “Durham OneNet Inc.” was completed to investigate if this name can be used as the legal registered name of the Corporation. The search results indicated no reasonable risk of conflict and “Durham OneNet Inc.” is recommended and is used in the Name Consent request.

6.5 By-Law No.1 (Attachment #4):

- a. By-law #1 addresses matters generally pertaining to the transaction of the business and affairs of the Corporation and to establish the duties and powers of the directors and officers of the Corporation.

6.6 Organizational Resolutions (Attachment #5):

The following Organizational Resolutions be adopted:

- a. The Region, as the initial shareholder, be issued one hundred (100) common shares in the capital of the Corporation for the consideration of ten dollars (\$10.00), so that the Region is the shareholder of the Corporation.
- b. Regional Chair John Henry be appointed as the initial director, Chair, and initial President of the Corporation until such time a President is hired by the Board.
- c. Regional Solicitor Jason Hunt be appointed as the initial Secretary of the Corporation.
- d. WeirFoulds LLP be appointed solicitors for the Corporation.
- e. Deloitte Canada is appointed as auditors of the Corporation.

6.7 Consent to Act as First Director (Attachment #6):

- a. Form 2 of the OBCA that Chair John Henry consents to act as the first director of Durham OneNet Inc.

6.8 Authorization to file Articles of Incorporation (Attachment #7):

- a. Authorization by Regional Chair John Henry to file Articles of Incorporation with the Ministry of Government & Consumer Services.

6.9 Articles of Incorporation (Attachment #8):

- a. Incorporate “Durham OneNet Inc.” as the name of the Corporation located at 605 Rossland Rd East, Whitby, Ontario Canada, L1N 6A3 with the initial first director as Regional Chair John Henry.

6.10 Municipal Capital Facility By-law and Municipal Capital Facility Agreement (Attachment #9 and Attachment #10):

- a. The *Municipal Act, 2001* prohibits “bonusing” any commercial enterprise through the granting of financial assistance, unless certain circumstances exist. One such circumstance is that the enterprise has entered into an agreement with the municipality to provide “municipal capital facilities”;
- b. Accordingly, WeirFoulds LLP has prepared a Municipal Capital Facilities Agreement between the Region and the Corporation to allow for the transferring of network facilities in the future and assistance by the Region to the Corporation for items including without limitation: funding of annual capital and operating expenses; support services; office space; and access to Regional rights of way; and
- c. The *Municipal Act, 2001* requires that Council enact a bylaw authorizing that a municipal capital facilities agreement be entered into and requires that the Clerk provide notice of the by-law to the Ontario Minister of Finance and any other party to whom notice is required to be given pursuant to the Act or Regulations.

6.11 Asset Transfer Policy (Attachment #11):

- a. The applicable Regulation under section 203 of the *Municipal Act, 2001* requires the Region to adopt and maintain policies on asset transfers to corporations, and for such a policy to be in place before any assets are transferred to a corporation and only following Council approval. There are no assets being transferred at this time.

6.12 Shareholder's Direction (Attachment #12):

- a. The Shareholder's Direction sets out for the board of directors, the Region's expectations of and objectives for the Corporation and the Corporation's mandate; scope of responsibility and reporting requirements; the relationship between the Corporation and the Region; and constitutes, where applicable, a unanimous shareholder declaration by the Region, as the sole shareholder of the Corporation, pursuant to subsection 108(3) of the OBCA;
- b. A Corporate Services Agreement between the Region and the Corporation will be created under which Regional employees and/or contractors of the Region will provide the necessary services to the Corporation;
- c. The board shall be comprised of a maximum of six directors which will consist of up to one elected member of Regional Council and up to one senior management staff of the Regional Municipality of Durham. The remaining board members will be comprised of the President of the Corporation and select independent members with expertise needed on the board;
- d. Remuneration of the directors of the Corporation will be determined by the Region from time to time and will be initially set as follows:
 - Board members who are neither members of Council nor Regional staff may receive remuneration of up to \$20,000 per annum;
 - Members of Council will receive additional remuneration for their service on the board in the same amounts as Council members who are Chairs of Standing Committees or members of the Police Services Board (per By-Law # 08-2004), which is currently \$6,000 per annum; and
 - Regional staff who serve as members of the board shall receive no additional remuneration beyond their salaries.

6.13 Shareholder Resolution for Election of Director (Attachment #13):

- a. Resolution to elect Elaine Baxter-Trahair, Chief Administrative Officer, as a director to serve with John Henry, Regional Chair, as the two (2) initial directors of the Corporation.

7. Financial Implications

- 7.1 The MSC for the Network will be a wholly owned subsidiary of the Region. This new business entity will be responsible for both the acquisition of capital assets and ongoing operational expenditures for the delivery of new Regional broadband

services that will require significant financial resources over the 10-year forecast period.

- 7.2 The MSC's funding requirements will eventually be established by the management and board of directors of the new entity and addressed through an annual business plan and budget process which will be subject to the Region's approval as the sole shareholder. These requirements will be revisited on an annual basis, in consideration of senior government funding program opportunities (e.g., Improving Connectivity for Ontario, Universal Broadband Fund Grant Awards), alignment with other Regional capital projects and potential partnerships with the private sector, including arrangements for fibre swaps or joint builds to reduce capital and ongoing operational costs.
- 7.3 Upon Regional Council approval of the MSC, funds will be required to establish the new Corporation and hire staff. Regional funding in the amount of up to \$1.1M is required to cover the cost of management and staff, incorporating the organization, and developing the tools, processes, and procedures necessary to launch the new entity by January 1, 2022.
- 7.4 Financing arrangements of MSC expenditures will be defined by the following key principles:
- a. Continue to pursue and secure senior level government funding from existing and new programs promoting broadband connectivity in unserved and underserved areas. In 2021 the Region:
 - Secured \$2.8M from Invest in Canada Infrastructure Program for the 38km Uxbridge-Pickering build.
 - Received senior levels of government grant awards for broadband funding that will partially fund the 2022-2023 build program.
 - Regional staff are currently pursuing ways to participate in the Provincial Government's Accelerated High Speed Internet Program for 2023+ builds.
 - b. Seek partnership opportunities with private sector carriers/ISPs on joint builds to share network construction and operating costs.
 - Currently working on a joint network build opportunity with an ISP as part of the proposed 2022-2023 build program that could significantly reduce network construction and operating costs.

- Continue to engage with all private carriers operating in Durham Region on joint build opportunities to significantly reduce network construction and operating costs.
 - c. Leverage existing and expanded network fibre infrastructure capacity and engage in network fibre swaps with other fibre network operators to eliminate the need for new builds where possible.
 - d. Pursue opportunities to negotiate lower cost construction methods in rural areas (e.g., trenching vs horizontal boring) to reduce overall build costs.
 - e. Seek 'Dig Once' opportunities and coordinate fibre deployments with other capital works infrastructure projects led by the Region, Municipalities and Province.
- 7.5 By pursuing these key principles, it is estimated that approximately \$20M to \$40M could be realized in potential cost savings to reduce the total estimated cost of the current proposed network build over the 10-year forecast period, as outlined in the Initial Business Plan.

Capital Plan

- 7.6 Over the first ten years of operation, the primary capital assets to be acquired by the MSC include dark fibre for the backbone network, connections, and networking equipment.

Year 1 (2022)	Year 1 - Year 5 (2022 to 2026)	Year 1 - Year 10 (2022 to 2031)
\$6.7M Total	\$62.0M Total	\$79.7M Total
<u>-\$1.6M Grant funded*</u>	<u>-\$3.6M Grant funded*</u>	<u>-\$3.6M Grant funded*</u>
\$5.1M MSC funded	\$58.4M MSC funded	\$76.1M MSC funded

* This is based on the current grant funding that has been awarded and is being negotiated with senior levels of government. No additional grant funding has been factored into the capital forecast.

Operating Plan

- 7.7 Over the ten-year operating plan, the primary expenditures for the MSC will include network operations, leases, insurance, human resource, support services, OSS/BSS, and marketing.

Year 1 (2022)	Year 1 - Year 5 (2022 to 2026)	Year 1 - Year 10 (2022 to 2031)
\$1.1M	\$11.6M	\$28.5M

Revenue Projections

7.8 Revenue for the MSC will be generated from leasing connectivity to Regional and other MUSH customers as well as to private sector carriers and ISPs.

7.9 Over the ten-year forecast period, the primary sources of revenue for the MSC will include Regional IT connections, other MUSH circuits, traffic connections, dark fibre to ISPs, conduits, and connection fees.

Year 1 (2022)	Year 1 - Year 5 (2022 to 2026)	Year 1 - Year 10 (2022 to 2031)
\$0	\$8.9M	\$43.5M

7.10 Based on the current business plan, including the assumptions for capital, operating, and revenue projections, it is anticipated that by year 5 the MSC revenues will cover the operating expenses and the MSC will be cash flow positive position by year 8.

Total Costs

7.11 As outlined in the Initial Business Plan, the estimated total costs (excluding grants) of the proposed RBN and MSC will be the sum of the estimated capital and operating expenses less anticipated revenues.

Year 1 (2022)	Year 1 - Year 5 (2022 to 2026)	Year 1 - Year 10 (2022 to 2031)
\$7.8M	\$64.7M	\$64.7M

7.12 It is recommended that in order to support the establishment and operation of the new MSC, capital infrastructure for the planned Network in the estimated amount of \$5.1M and related operating expenditures in the estimated amount of \$1.1M be referred to the 2022 Business Plans and Budgets process. Companion Report #2021-COW-36 provides a recommended application for the 2021 federal gas tax allocation to broadband initiatives.

7.13 In order to support the early establishment and network pre-build activities of the new corporation prior to the approval of the 2022 Business Plan and Budgets process, it is recommended that authorization be granted to incur expenditures up to \$500,000 with financing to be provided at the discretion of the Commissioner of Finance.

8. Risks

- 8.1 A comprehensive risk analysis exercise has been conducted and a list of the most common risks along with their likelihood of occurrence and severity is included in the Initial Business Plan.
- 8.2 For each risk identified, a risk mitigation strategy has been developed to reduce the likelihood of occurrence or the severity of its impact in the case of occurrence.
- 8.3 The high-impact risks to consider fall under the following categories and include the following:
- a. Financial and Funding Risks
 - The current cost modeling is based on preliminary designs. As more detailed designs evolve there is a risk that project costs may increase. To mitigate this risk, staff have engaged professional services providers to provide advice and market information to build a robust financial model. The expertise of these consultants will continue to enable staff to update the financial model as the detailed design is completed. Additionally, lessons learned from the Region's ongoing Uxbridge-Pickering fibre backbone project will be applied to the model to increase the confidence in our estimates.
 - General economic conditions and competing priorities can limit access to Regional funding causing a slowdown in construction activity. To address this risk the MSC will have to adopt a conservative business plan for initial years and maintain accurate long-term forecasts.
 - Due to the extensive competition for broadband funding, there is a risk that the MSC may be unsuccessful in securing significant external funding through future grant programs, and as such there has not been any new grant funding factored into the 10-year capital plan forecast. Without additional grant funding, the Region will need to be willing to self-fund the capital outlined in the capital plan and rely on the other financing key principles outlined in Section 7.4 to reduce the amount of required capital to build the target Network.
 - There is also the risk that the MSC may need ongoing operating subsidies, if there is not a strong uptake within the current proposed network, or the related services fails to be competitive with existing carriers or ISP offers in the market.

b. Construction Risks

- Due to increased government funding of broadband projects, it is expected that there will be a high volume of broadband construction activity nationally and specifically across Ontario over the next 3 years. This increase in demand may impact the availability of material and/or resources which may adversely impact the project schedule and/or impact the construction cost. To mitigate this risk, the MSC will seek to accelerate design activities and place early orders for some long-lead time material and plan out network builds well in advance to allow greater participation in contractor bidding and securing contractor resources.

c. Business and Market Risks

- There is a risk of overbuilding where areas in which the MSC had planned a build may already be served by a carrier/ISP or situations where a carrier/ISP may start building in response to the MSC's plans. The MSC is open to partnering with interested carriers/ISPs to carry out joint builds or negotiate network fibre swaps. This will further reduce the MSC's capital build costs.
- There is a risk that the proposed network will not cover all areas leading to a negative public sentiment from residents who are left unserved. It should be noted that the MSC is only building a backbone network and the building of the last-mile network that services homes and businesses is left to ISPs. As one of the MSC's mandates, it will collaboratively work with both carriers and ISPs to maximize their reach to all underserved premises across Durham Region.
- There is a risk that due to increased competition, the revenues forecasted may not be realized. The MSC will actively monitor the competitive landscape and the pricing strategies employed by other carriers and ISPs.
- There is the risk that as the Network buildout may be viewed as competitive threat by private ISPs. To mitigate this risk, the MSC has positioned its buildout primarily to serve Regional requirements and providing the backbone into communities. The delivery of Internet services to the end customer will be left to the retail ISPs.

d. Operational Risks

- There is a risk that the MSC may not have the appropriate experience to enable it to operate the Network assets in a manner that is satisfactory to paying customers. To mitigate against this risk the MSC intends to hire qualified staff with prior telecommunications experience and leverage best practice operational processes.
- In light of the impacts of climate change, there is an additional risk of service impact caused by Network outages due to weather events. These risks can be mitigated by adopting an underground design that is less prone to wind and ice storm events. Additionally, by keeping accurate as-built records of installed infrastructure and providing precise locate services, the MSC aims to reduce the chances of accidental damage by other parties.

9. Relationship to Strategic Plan

9.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Economic Prosperity

- Section 3.1 Position Durham Region as the location of choice for business; and
- Section 3.3 Enhance communication and transportation networks to better connect people and move goods more effectively, supporting a full-service broadband network across the region.

b. Service Excellence

- Section 5.1 Optimize resources and partnerships to deliver exceptional quality services and value; and
- Section 5.4 Drive organizational success through innovation, a skilled workforce, and modernized services.

10. Conclusion

10.1 The establishment of the MSC and the implementation of the Network is expected to deliver numerous economic and social benefits to Durham Region which includes bridging the digital divide by connecting Durham's underserved communities with

high-speed fibre optic backbone and setting the stage for ISPs to build superior services to both residents and businesses.

10.2 Building and operating the Network will be most effectively achieved by the MSC that is wholly owned by the Region as it enables flexible partnerships in a competitive landscape.

10.3 The MSC will provide the necessary agility to make decisions quickly to grow the business within the defined strategy and defined budgets while allowing for future joint ventures, strategic partnerships, and pilot projects.

10.4 Through this work, the Region can achieve its broadband vision where Durham Region's residents, businesses and institutions will have access to fast, reliable, and affordable broadband services so that they may fully participate, compete, and thrive in the 21st century.

11. Attachments

Attachment #1: Durham Region Business Case Study for a Broadband MSC

Attachment #2: MSC Enabling By-law

Attachment #3: Name Consent

Attachment #4: By-law No. 1

Attachment #5: Organizational Resolutions

Attachment #6: Consent to Act as First Director

Attachment #7: Authorization to file Articles of Incorporation

Attachment #8: Articles of Incorporation

Attachment #9: Municipal Capital Facilities By-law

Attachment #10: Municipal Capital Facilities Agreement

Attachment #11: Asset Transfer Policy

Attachment #12: Shareholder's Direction

Attachment #13: Shareholder Resolution for Election of Director

Attachment #14: Initial Business Plan (Confidential under separate cover)

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and Economic
Development

Original signed by

Susan Siopis, P. Eng.
Commissioner of Works

Original signed by

Don Beaton, BCom, M.P.A.
Commissioner of Corporate Services

Original signed by

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance/Treasurer

Recommended for Presentation to Committee

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer



Durham Region Business Case Study for

Broadband Municipal Services Corporation (MSC)

September 2, 2021

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1 Introduction

In 2017, the Economic Development Strategy and Action Plan was endorsed by Regional Council, recognizing the importance of broadband as an indispensable component of infrastructure required to drive economic growth across the region. Stakeholder consultations highlighted the exponential growth of demand across the Region, as well as the state of penetration of broadband services, which were focused primarily within urban areas. With the reluctance of internet service providers to upgrade infrastructure to deliver broadband services to more rural areas of the region, the viability of businesses in those areas, over the long-term, was noted to be hindered due to the inability to leverage new and innovative internet-based technologies.

The Region has identified the first steps for the delivery of a Regional Broadband Network and services. In an effort to ensure that strong governance practices are adopted to guide the development and oversight of the Regional Broadband Network, the Region proposes establishing a Municipal Services Corporation (MSC) that is intended to serve as a governance vehicle to support the Region's plans for a broadband network. The development of such an entity is permitted under the 2001 Municipal Act Legislation and has become a common best practice for many municipalities as a preferred governance vehicle for municipal broadband networks. Throughout the remainder of this document, the proposed Durham Regional Broadband MSC will be referred to as DRB- MSC.

2 Purpose

This document provides additional information on the proposed new governance model, setting out the objectives, mandate, and guiding principles of DRB-MSC. It further discusses governance options, structure, required support, relationship to the Region, and reporting activities; constituting the provincially required business case study for a proposed Municipal Services Corporation.

Further details regarding the specific role of the Region, DRB-MSD and other entities including private sector participants, will be developed and brought back to Council for decisions and direction at a later time.

3 Objectives

The Region's objectives in establishing the DRB-MSD for broadband infrastructure and services are as follows:

- Establish an entity that builds value for the Region through collaboration with other levels of government and the private sector, that strengthens the individual and collective position of Region-owned and other assets.
- Establishing a business and governance environment that provides flexibility to react quickly to market needs and attract private sector broadband management expertise at the board and staff levels.
- Provide a mechanism through which to encourage private sector investment.
- Provide a mechanism through which to secure senior government funding.
- Provide transparency and accountability to the Region, as the sole shareholder.

4 Guiding principles

The Directors and Officers of all Ontario Business Corporations Act (OBCA) corporations have a duty to act honestly, in good faith and in the best interests of the corporation. DRB-MSD will be wholly owned by the Region of Durham and will be subject to established objectives aligned with the Region's interests. The following six (6) principles will govern the operations, services, and activities of DRB-MSD in that context:

1. **Ubiquitous:** Encouraging Internet Service Providers (ISPs) to be in rural areas and assessing opportunities to provide “last mile” connectivity where ISPs do not see opportunities.
2. **Affordable and Inclusive:** Broadband should be available at affordable rates, and the DRB-MSC should seek opportunities to influence and offer affordable services.
3. **Open Access:** The network should be open for all ISPs to deliver services, and foster competition with the private sector.
4. **Fast and Reliable:** Design a future-proof, scalable and resilient network to cater to future demand.
5. **Improve Service Delivery:** Leverage the network as a Regional Asset to enable more impactful services for residents.
6. **Collaborative:** Achieving the ambitious outcome requires private and public partnership(s) aligned to the vision of a Regional Broadband Network connecting our communities. The DRB-MSC will advocate other levels of government for funding.

The Region will support the DRB-MSC in achieving its objectives and adhering to the guiding principles delineated above. It will:

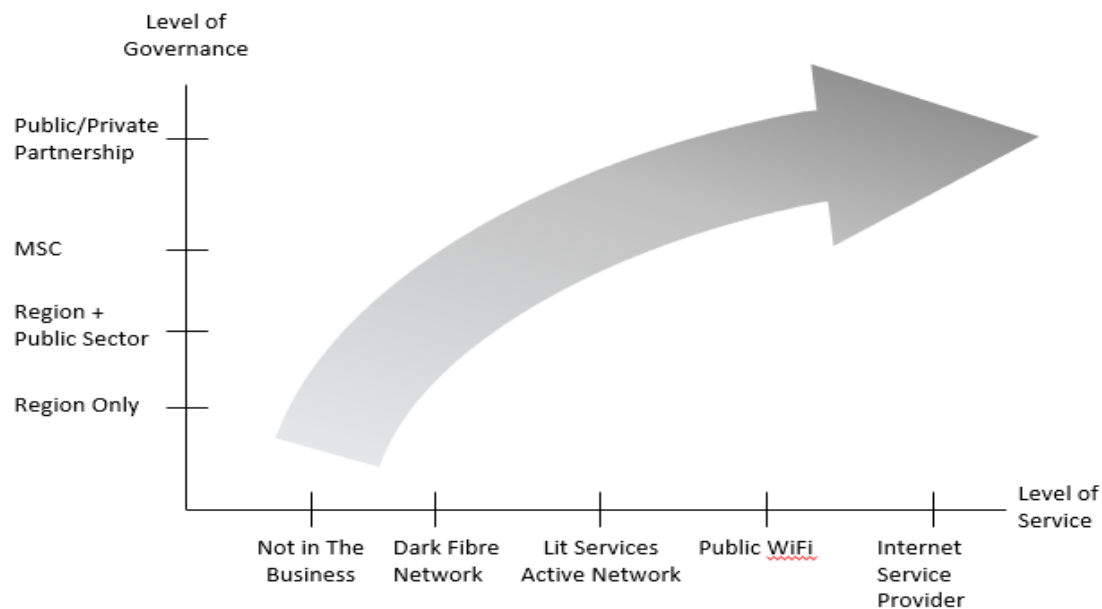
- Make available its existing fibre optic infrastructure assets, in part or in whole, (while maintaining control of those assets for which it has incurred debt), to the DRB-MSC to influence the development of a broadband network across the region.
- Consider lowest lifecycle cost of capital in acquisition of assets.
- Provide support to the DRB-MSC on a full cost-recovery basis.

As a corporation established under the OBCA, the DRB-MSC will have a full business and financial plan, and experienced board of directors. The Region will provide funding during the setup and early subscription phase.

5 Alternatives

5.1 Potential Models

To accomplish the objectives set forth for Durham Region, several structures and governance models were explored, including Region-only, Region and public sector partnerships, and several options for public/private collaboration/partnerships. In general, the required level of governance varies with the complexity of services delivered, requiring some form of public/private partnership to successfully deliver internet broadband services to the retail market, as depicted below:

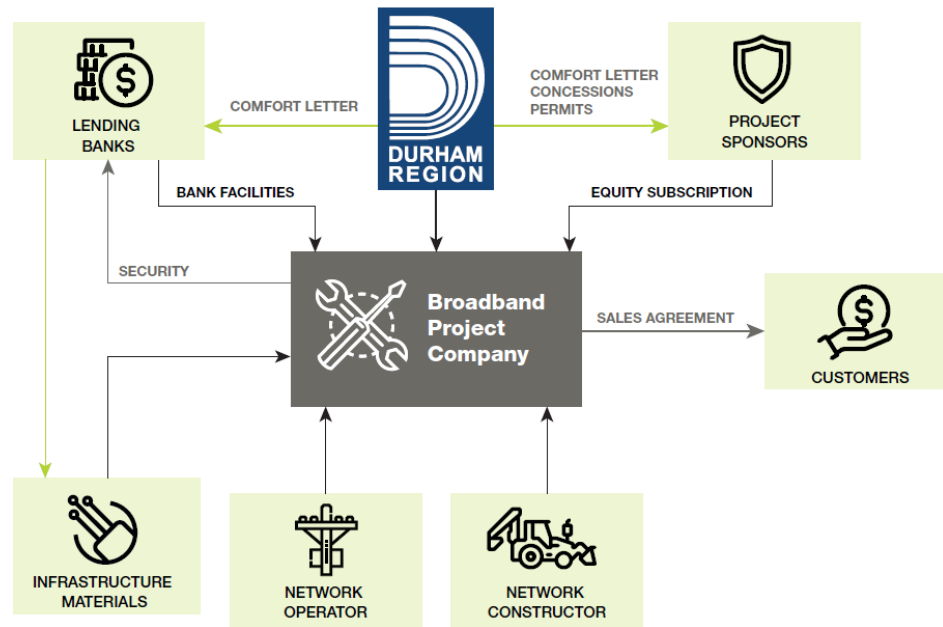


Several governance models exist that would provide the Region with the ability to influence broadband rollout, including:

- Region-only
 - The Region builds fibre infrastructure and operates the network for its own use, and leases some spare capacity to the wholesale service providers and Municipality, Universities, School boards, Health (MUSH) customers.

- Budgets and business plans are set and approved by Council.
- Assets are held by the Region.
- The organization is accountable to the Region.
- This structure does not permit private equity ownership and therefore largely prevents private co-investment.
- Region-Public Sector Partnership (Not for Profit)
 - This option would most likely be structured as a not-for-profit corporation, jointly owned by the Region and other public sector entities such as lower-tier MUSH entities, and is focused on providing benefits to the MUSH sector only.
 - Assets are held by the not-for-profit corporation, but a third neutral party could be contracted to manage and maintain the network.
 - The organization is accountable to the multiple shareholders.
 - This structure does not allow for private equity ownership and therefore largely prevents private co-investment.
- Municipal Services Corporation
 - The Region establishes a Municipal Services Corporation under OBCA to collaborate with private sector ISP(s) (through project agreements), to build and manage a network, focused on a variety of markets (MUSH, Commercial, Residential) throughout the region.
 - The Region maintains control of its assets and may license or transfer assets to the MSC to use them for various projects.
 - The ISP(s) maintain control of their assets related to the project but licence the project to use them.
 - Ability to partner with private sector in many grant funding programs.

- The MSC provides some insulation for the Municipality with respect to project/ business risk, as well as on telecommunications regulatory compliance.
- Public-Private Partnership



Source: Universita Bocconi – Financing and Investing in Infrastructure

- A Public-Private Partnership (P3) is defined as a contractual partnership agreement that is formed between private and public partners. P3s are a structure commonly found in project finance deals, whereas the public sector partner, in this case the Region of Durham, as the host government and major project stakeholder, and would provide concessions, permissions to construct and potentially become a financial sponsor of the project (equity, debt, grants). The private sector partners include industry sponsors who would provide operational knowledge and expertise to design, build and operate the project assets, along with possibly contributing financial support to alleviate the public sector partner from bearing all of the financial risk of the project.





- If we consider the diagram above, the project company or what is often referred to as a Special Purpose Vehicle (SPV), is a separate legal entity and commonly structured as a partnership.
- This SPV would be formed to own the infrastructure, and have the benefit of non-recourse financing, as the credit risk (risk of default) is specific to the project and its assets, and is not secured to the assets on the balance sheet of the sponsor. Therefore, if the project fails, the sponsor's other assets are insulated. This does not apply if the sponsor provides guarantees, and if the value of the debt exceeds the value of the collateral assets.
- As this applies to Durham Region, the Region would need to establish an MSC as a contracting vehicle to sponsor the Broadband Service Company as financial sponsor (debt, equity and grant), along with providing the necessary permits to build the infrastructure. The Region would establish contracts with industrial sponsors to provide the design, build and operate elements of the project. The Region can be a co-financial sponsor with an industrial sponsor (likely Telecom/ISP providers) and leverage external financing from other financial sponsors, such as Infrastructure Ontario, Canada Infrastructure Bank etc. as needed.
- The creation of an MSC is an important prerequisite for the Region to participate in a future P3 project structure and carries benefits of some insulation for the Municipality with respect to project/business risk, as well as on telecommunications regulatory compliance.




5.2 Best Practice Summary

Several reference organizations have been observed, providing beneficial insight to current industry best practices. There are several key themes that can be taken from these and others within the industry. Below is a summary of these key themes, the associated best practice, and related references.

Although it is understood that these entities are not identical to Durham, these themes and best practices provide a good sense on how the Region could foster the development of network connectivity and increase bandwidth to meet the needs of the region moving forward.

MANDATE OF THE BOARD OF DIRECTORS	
Best Practice:	Board approves strategy, evaluates, and mitigates risk, and approves annual business plan, operating budgets, and large opportunities not foreseen in the annual budget. Board appoints Officer(s) of the Corporation (President/CEO/Secretary/General Manager).
Reference Entity:	   

COMPOSITION OF BOARD OF DIRECTORS	
Best Practice:	<p>Board is comprised of the Corporate Officer(s), representation from elected officials*, private sector industry members with industry expertise, and the MUSH sector.</p> <p>*Note: QNet and Kingston do not have elected officials on their respective Board of Directors.</p>
Reference Entity:	   

TERM OF BOARD OF DIRECTORS	
Best Practice:	<p>Corporate Officer(s) with role/position(s) appointed by the Board. Staggered terms of no less than two (2) years for elected officials, members of the public and MUSH sector.*</p> <p>*Note: QNet and Kingston do not have elected officials on their respective Board of Directors.</p>
Reference Entity:	  

































LEGAL STRUCTURE	
Best Practice:	<p>For profit corporation under OBCA to provide for maximum flexibility in future mandate. Owned by the Region as a sole shareholder.</p>
Reference Entity:	   

































ROLE OF MUNICIPAL COUNCIL	
Best Practice:	Informed of strategy, and business plan and operating budget, as recommended by the Board of Directors. Receive regular updates from Corporate Officer(s) on progress towards plan.
Reference Entity:	

ASSET OWNERSHIP	
Best Practice:	Corporation holds the assets (fibre optic cable and duct).
Reference Entity:	

6 Proposed Structure

The four representative models were assessed to identify the level to which each model meets the stated objectives and aligns with the guiding principles, as exhibited below.

Objective/Guiding Principal	Region- only	Region- Public Sector Partnership (Not for Profit)	Municipal Services Corporation (MSC)	Public- Private Partnership (P3)
Ubiquitous:				
Improve broadband coverage to unserved/underserved areas				
Influence delivery of retail services but not necessarily be a retail service provider				
Leverage existing relationships with MUSH sector, establishing anchor clients to provide a stable revenue stream				
Collaborative:				
Leverage funds from higher levels of government to improve broadband coverage to unserved/underserved areas				
Partner with experienced private sector parties to operate network				
Joint applications with ISP(s) for senior government grants				
Affordable and Inclusive:				
Enable delivery of affordable services to all market segments				
Consider lowest cost of capital in acquisition of assets				

Objective/Guiding Principal	Region-only	Region-Public Sector Partnership (Not for Profit)	Municipal Services Corporation (MSC)	Public-Private Partnership (P3)
Entity to have an independent, transparent, and sustainable financial plan				
Provide mechanism to influence private-sector investment				
Region to provide support on cost-recovery basis				
Maintain control of existing assets				
Improve Service Delivery:				
Improve connectivity to municipally-owned assets to enable improved delivery of public services				
Open Access:				
Encourage ISP(s) to use the network where possible				
Fast and Reliable:				
Attract private sector broadband management expertise				
Flexibility to react quickly to market needs				



From the analysis, the model most closely aligned with the stated objectives and guiding principles is one of an MSC.

6.1 Legal Entity

The proposed structure would involve establishing the MSC under the OBCA, that would have access to Region-owned fibre assets and would be charged with influencing the rollout of broadband infrastructure across the region, especially to unserved and underserved rural areas. The resulting network could be operated under contract by a qualified network operator. The MSC would also be charged with collaborating with one or more ISP(s) to deliver retail services to public sector, residential and commercial customers.

6.2 Entity Ownership

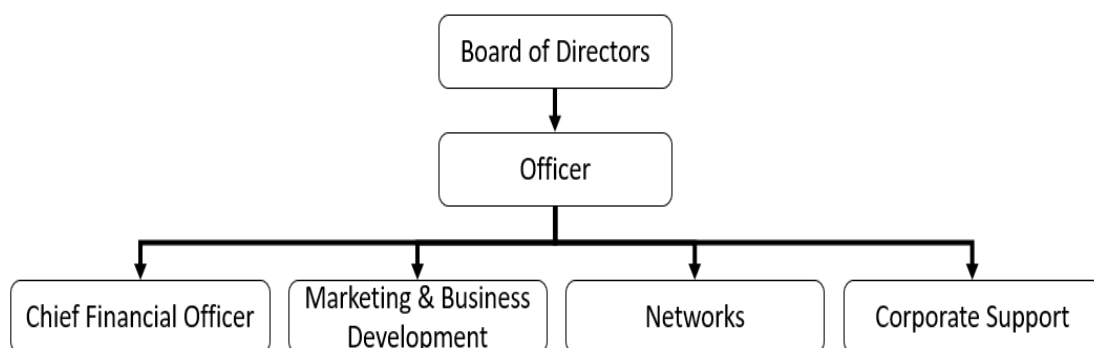
The Region of Durham would be the sole shareholder of the DRB-MSC.

7 Governance

7.1 Organizational Structure

The proposed organizational structure of DRB-MSC should factor in the creation of a Board of Directors, Officer and management of the DRB-MSC

The following exhibit provides a high-level functional organizational structure for the DRB-MSC.



7.2 Board of Directors

For purposes of establishing the DRB-MSC, it is recommended to appoint an inaugural board to establish the DRB-MSC and utilize the board nomination committee to attract and nominate the remaining board positions.

7.3 Strategic Governance Considerations

To conclude the governance discussion, the Region is focused on the following key strategic considerations when ultimately deciding to proceed with the DRB-MSB for broadband infrastructure and services.

- 1. Create the ability to attract private sector industry specific management, and governance expertise to an independent and skills-based board of directors and management team.**
- 2. Enable agility to make decisions quickly to grow the business within the defined strategy and to-be-defined budgets.**
- 3. Keep council and public informed, providing public transparency without allowing special interests to derail the corporation's mandate/strategy.**
- 4. Allow for future joint ventures, strategic partnerships and pilot projects.**
- 5. Create future exit strategy for Council (leave options open to sell/divest).**

8 Conclusions

Risks associated with the approach to establish a DRB-MSB are low. In fact, most other regions across the province have proceeded in the same manner to address broadband demand and improve management of Regional assets.

Approval to proceed does not imply that the Region is going to spend Regional funds on broadband. It does not imply that the Region will partner with any specific service provider(s), nor market services to specific market sectors. It simply acknowledges that an MSB is the preferred vehicle through which to execute the Region's plan for the deployment of broadband infrastructure and services, and authorizes staff to take the necessary preliminary steps to set up that vehicle.

It is therefore recommended that the Region:

- Secure approval for staff to establish a DRB-MSD, with the Region as the sole shareholder.
- Appoint the inaugural board of the corporation; and
- Provide direction to staff to complete due diligence and return to Council with a detailed recommendation report.

By-law Number **-2021
of The Regional Municipality of Durham

Being a by-law to establish a Municipal Services Corporation for the purposes of establishing, creating, and operating a Regional Telecommunications and Broadband Network in the Regional Municipality of Durham.

Whereas under subsection 203 of the Municipal Act, 2001, S.O. 2001, c.25 a municipality may establish a municipal services corporation for the purpose of providing a municipal service and may nominate and authorize a person to act as an incorporator, director, officer or member of a municipal services corporation and may acquire securities in such municipal service corporation and exercise powers as the holder of such securities.

And Whereas under Regulation 599/06, a municipality may establish and create a municipal service corporation by following the requirements under Regulation 599/06 including the requirement to pass an enabling by-law for the municipal service corporation.

Now therefore, the Council of The Regional Municipality of Durham hereby enacts as follows:

Municipal Services Corporation

1. That Regional Municipality of Durham be authorized to establish, incorporate and create a municipal services corporation for the purpose of providing a telecommunications and broadband service and network, including the service of installing, maintaining and operating all required infrastructure to operate a telecommunications and broadband network in the Regional Municipality of Durham, and to acquire and hold shares in the capital of the municipal services corporation as the sole shareholder thereof.
2. That Regional Municipality of Durham staff be authorized to prepare all materials and corporate documents and minutes and take all steps necessary to establish a municipal services corporation for the purpose of providing a telecommunications and broadband service and network in the Regional Municipality of Durham, including, without limitation, the completion and filing of Articles of Incorporation for the municipal services corporation, the corporate by laws of the municipal services corporation and the documents necessary or desirable to organize the municipal services corporation to give effect to paragraph 1 above.

3. The Regional Chair is nominated and authorized to act as the incorporator and initial director of the municipal services corporation and to sign (both in the Regional Chair's capacity as the incorporator and initial director of the municipal services corporation and on behalf of Regional Municipality of Durham as shareholder, as required) the Articles of Incorporation of the municipal services corporation, the corporate by laws of the municipal services corporation and initial organizational minutes and proceedings required or desirable to give effect to paragraph 1 above (including those set out in paragraph 2 above) and to elect Elaine Baxter-Trahair, Chief Administrative Officer, as a second director to serve with the Regional Chair on the board of directors of the MSC pending the further constitution of the Board.
4. The Regional Municipality of Durham is authorized to execute and deliver a Shareholder's Direction to the MSC which is to take effect in accordance with and subject to the terms and conditions of the Shareholder's Direction.

This By-law Read and Passed on the ----th day of -----, 2021.

J. Henry, Regional Chair and CEO

R. Walton, Regional Clerk

CONSENT

TO: MINISTRY OF GOVERNMENT & CONSUMER SERVICES

**Re: Articles of Incorporation under the *Business Corporations Act* (Ontario) for
DURHAM ONENET INC.**

The undersigned hereby consents to the following name for use by a corporation,
pursuant to the *Business Corporations Act* (Ontario):

DURHAM ONENET INC.

DATED the ____ day of _____, 2021.

**THE REGIONAL MUNICIPALITY
OF DURHAM**

Per: _____
Name:
Title:

I have authority to bind the Municipality

BY-LAW NO. 1

A by-law relating generally to the
transaction of the business and affairs of
DURHAM ONENET INC.
(herein called the "**Corporation**")

CONTENTS

One	Interpretation
Two	Directors
Three	Committees
Four	Officers
Five	Protection of Directors, Officers and Others
Six	Meetings of Shareholders
Seven	Securities
Eight	Dividends and Rights
Nine	Notices
Ten	Borrowing Powers of the Directors
Eleven	Business of the Corporation

BE IT ENACTED as a by-law of the Corporation as follows:

ARTICLE 1 INTERPRETATION

- 1.1 Definitions. In this by-law, unless the context otherwise requires:
- (a) "**Act**" means the *Business Corporations Act* (Ontario), and includes the regulations made pursuant thereto, and every other act or statute incorporated therewith or amending the same, or any act or statute substituted therefor, and in the case of such substitution the reference in the by-laws of the Corporation to non-existing acts or statutes shall be read as referring to the substituted provisions in the new act or statute;
 - (b) "**board**" means the board of directors of the Corporation;
 - (c) words and expressions defined in the Act shall have the applicable definitions when used herein; and
 - (d) in all by-laws of the Corporation where the context so requires or permits, the singular shall include the plural and the plural shall include the singular. The word "**person**" shall include firms and corporations, and the masculine gender shall include the feminine and neuter genders.

ARTICLE 2 DIRECTORS

2.1 Powers. Subject to any unanimous shareholder agreement, the board shall manage or supervise the management of the affairs and business of the Corporation. So long as a quorum of directors remains in office no vacancy or vacancies in the board shall affect the power of the continuing directors to act.

2.2 Number and Quorum. The board of directors shall consist of such number of persons as are from time to time determined by special resolution or, if the special resolution empowers the board to determine the number, by resolution of the board. The board of directors shall determine the quorum, provided in no event shall a quorum be less than 2/5 of the number of directors or minimum number of directors, as the case may be, subject to the limitations contained in the Act including the limitation that, if the Corporation has fewer than three (3) directors, the quorum shall consist of all directors.

2.3 Qualification. No person shall be qualified for election as a director if he: (i) is less than eighteen years of age; (ii) is of unsound mind and has been so found by a court in Canada or elsewhere; (iii) is not an individual; or (iv) has the status of a bankrupt. A director need not be a shareholder. At least 25 per cent of the directors of the Corporation shall be resident Canadians provided that if the number of directors is less than four at least one director shall be a resident Canadian.

2.4 Election and Term of Office. Unless the Articles otherwise provide, the directors shall be elected yearly at the annual meeting of the shareholders and shall hold office until the annual meeting next following. The whole board shall be elected at each annual meeting and all the directors then in office shall retire, but, if qualified, shall be eligible for re-election. The election may be by a show of hands or by resolution of the shareholders unless a ballot be demanded by any shareholder. If after nomination there is no contest for election, the persons nominated may be elected by declaration of the chairman to that effect. If an election of directors is not held at the proper time, the directors then in office shall continue in office until their successors are elected or appointed.

2.5 Vacancies. Subject to the Act, a quorum of the board may fill a vacancy in the board, except a vacancy resulting from an increase in the number of directors or in the maximum number of directors or from a failure of the shareholders to elect the number of directors required to be elected at any meeting of shareholders. In the absence of a quorum of the board, or if the vacancy has arisen from the failure of the shareholders to elect the number of directors required by the Articles, or if the vacancy has resulted from an increase in the number of directors or in the maximum number of directors, the board shall forthwith call a special meeting of shareholders to fill the vacancy. If the board fails to call such a meeting or if there are no such directors, then in office, any shareholder may call such meeting. A director appointed or elected to fill a vacancy holds office for the unexpired term of his predecessor.

2.6 Vacation of Office. A director ceases to hold office when: (i) he dies; (ii) he is removed from office by the shareholders; (iii) he ceases to be qualified for election as a director; or (iv) his written resignation is received by the Corporation provided if a time subsequent to its date of receipt by the Corporation is specified in such written resignation the resignation shall become effective at the time so specified. Until the first meeting of shareholders, no director named

in the Articles shall be permitted to resign his office unless at the time the resignation is to become effective a successor is elected or appointed.

2.7 Removal of Directors. Subject to the provisions of the Act, the shareholders may by resolution passed at an annual or special meeting remove any director before the expiration of his term of office and the vacancy created by such removal may be filled at the same meeting failing which it may be filled by the directors pursuant to Section 2.5 of this By-law.

2.8 Place of Meetings. Meetings of the board may be held at any place within or outside Ontario. The board need not hold any meetings within Canada.

2.9 Calling of Meetings. Meetings of the board may be held at any time without formal notice being given if all the directors are present, or if a quorum is present and those directors who are absent signify their consent to the holding of the meeting in their absence. Any resolution passed, or proceeding had, or action taken at such meeting shall be as valid and effectual as if it had been passed at or had been taken at a meeting duly called and constituted.

Subject to the Act, no notice of a meeting of the board shall be necessary if the meeting is the first meeting of the board held immediately following a meeting of shareholders at which such board was elected or if the meeting of the board is a meeting which follows immediately upon a meeting of shareholders at which a director was appointed to fill a vacancy on the board, provided at any such meeting of the board a quorum of directors is present.

2.10 Notice of Meeting. The Chairman, the President or a Vice-President who is a director or any two directors may at any time by notice call a meeting of the board. Such notice shall be given in the manner provided in Section 9.1 to each director not less than forty-eight (48) hours before the time when the meeting is to be held. A notice of a meeting of directors need not specify the purpose of or the business to be transacted at the meeting except where the Act requires such purpose or business to be specified. A director may in any manner and at any time waive notice of or otherwise consent to a meeting of the board. Attendance of a director at such a meeting is a waiver of notice of meeting except where the attendance is for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called.

2.11 Adjourned Meeting. Notice of an adjourned meeting of the board is not required if the time and place of the adjourned meeting is announced at the original meeting or the adjourned meeting preceding the applicable adjourned meeting, if the original meeting is adjourned on more than one occasion.

2.12 Regular Meetings. The board may appoint a day or days in any month or months for regular meetings of the board at a place and hour to be named. A copy of any resolution of the board fixing the place and time of such regular meetings shall be sent to each director forthwith after being passed, but no other notice shall be required for any such regular meeting except where the Act requires the purpose thereof or the business to be transacted thereat to be specified.

2.13 Absent Directors. Any director of the Corporation may file with the Secretary of the Corporation a written waiver of notice of any meetings of the directors and may at any time withdraw such waiver, and until such waiver is withdrawn, no notice of meetings of directors need be sent to such director, and any and all meetings of the directors of the Corporation shall (provided

a quorum is present) be validly constituted notwithstanding that notice shall not have been given to such director.

2.14 Chairman. Subject to Section 4.7 hereof, the chairman of any meeting of the board shall be the President and, in his absence, a director who is a Vice-President present at the meeting. If no such officer is present, the directors present shall choose one of their number to be chairman.

2.15 Voting at Meetings. Questions arising at any meeting of directors shall be decided by a majority of votes. In the case of an equality of votes, the chairman of the meeting, in addition to his original vote, shall not have a second or casting vote.

2.16 Resolution in Writing. A resolution in writing, signed by all the directors entitled to vote on that resolution at a meeting of directors or a committee of directors, is as valid as if it had been passed at a meeting of directors or a committee of directors.

2.17 Meetings by Telephone. If all the directors present at or participating in a meeting consent, a meeting of the board or of a committee of the board may be held by means of such telephone, electronic or other communication facilities as permit all persons participating in the meeting to communicate with each other simultaneously and instantaneously, and a director participating in such a meeting by such means is deemed to be present at the meeting. Any such consent shall be effective whether given before or after the meeting to which it relates and may be given with respect to all meetings of the board and of committees of the board held while a director holds office.

2.18 Interest of Directors and Officers in Contracts. Provided the applicable director or officer shall have complied with the applicable requirements of the Act in respect of disclosure of interest and otherwise, no director or officer shall be disqualified by his office from contracting with the Corporation nor shall any contract or arrangement entered into by or on behalf of the Corporation with any director or officer or in which any director or officer is in any way interested be liable to be voided nor shall any director or officer so contracting or being so interested be liable to account to the Corporation for any profit realized by any such contract or arrangement by reason of such director's or officer's holding that office or of the fiduciary relationship thereby established.

ARTICLE 3 COMMITTEES

3.1 Managing Director and Committee of Directors. The board may in its discretion appoint a managing director and such committees of the board as it deems appropriate, and delegate to such managing director and committees any of the powers of the board except those which the board is prohibited by the Act from delegating.

3.2 Transaction of Business. The powers of a committee of directors may be exercised by a meeting at which a quorum is present or by resolution in writing signed by all the members of such committee who would have been entitled to vote on that resolution at a meeting of the committee. Meetings of such committee may be held at any place within or outside Ontario.

3.3 Procedure. Unless otherwise determined by the board, each committee shall have the power to fix its quorum at not less than a majority of its members, to elect its chairman and to regulate its procedure.

ARTICLE 4 OFFICERS

4.1 Appointment. Subject to the Act, this by-law and any other applicable by-laws of the Corporation and any unanimous shareholder agreement:

- (a) the directors may designate the offices of the Corporation, appoint officers, specify their duties and delegate to them powers to manage the business and affairs of the Corporation;
- (b) a director may be appointed to any office of the Corporation; and
- (c) two or more offices of the Corporation may be held by the same person.

4.2 The President. The President shall be the chief executive officer of the Corporation and, subject to the authority of the board, shall be charged with the general supervision of the business and affairs of the Corporation. He shall be ex officio a member of all standing committees and, if no chairman of the board has been appointed, or if appointed is not present, chairman of all meetings of shareholders and of all meetings of directors of the Corporation, if a director. The President shall perform all duties incident to his office and shall have such other powers and duties as may from time to time be assigned to him by the board of directors.

4.3 Vice-President. During the absence or disability of the President his duties may be performed and his powers may be exercised by the Vice-President, or if there are more than one, by the Vice-Presidents in order of seniority (as determined by the board), save that no Vice-President shall preside at a meeting of the board or at a meeting of shareholders who is not qualified to attend the meeting as a director or shareholder, as the case may be. If a Vice-President exercises any such duty or power, the absence or disability of the President shall be presumed with reference thereto. A Vice-President shall also perform such duties and exercise such powers as the President may from time to time delegate to him or the board may prescribe.

4.4 Secretary. The Secretary shall give, or cause to be given, all notices required to be given to shareholders, directors, auditors and members of committees provided that the validity of any notice shall not be affected by reason only of the fact that it is sent by some person other than the Secretary. He shall attend all meetings of the directors and of the shareholders and shall enter or cause to be entered in books kept for that purpose minutes of all proceedings at such meetings. He shall, subject to any specific appointment to the contrary, be the custodian of the stamp or mechanical device generally used for affixing the corporate seal of the Corporation, if any, and of all books, papers, records, documents and other instruments belonging to the Corporation, and he shall perform such other duties as may from time to time be prescribed by the board.

4.5 Treasurer. The Treasurer shall keep or cause to be kept proper books of account and accounting records with respect to all financial and other transactions of the Corporation and, under the direction of the board, shall control the deposit of money, the safekeeping of securities and the disbursement of the funds of the Corporation. He shall render to the board at the meetings thereof, or whenever required of him, an account of all his transactions as Treasurer and of the financial position of the Corporation and he shall perform such other duties as may from time to time be prescribed by the board.

4.6 Assistant-Secretary and Assistant-Treasurer. The Assistant-Secretary and the Assistant-Treasurer or, if more than one, the Assistant-Secretaries and the Assistant-Treasurers, shall respectively perform all the duties of the Secretary and Treasurer in the absence or disability of the Secretary or Treasurer, as the case may be. The Assistant-Secretary and the Assistant-Treasurer shall also have such powers and duties as may from time to time be assigned to them by the board.

4.7 Chairman of the Board. The directors may from time to time appoint a Chairman of the Board who shall be a director. If appointed, the board may assign to him any of the powers and duties that are by any provisions of this by-law assigned to the President, and he shall, subject to the provisions of the Act, have such other powers and duties as the board may specify. The Chairman of the Board shall act as chairman of all directors and shareholders meetings at which he is present. During the absence or disability of the Chairman of the Board, his duties shall be performed and his powers exercised by the managing director, if any, or by the President.

4.8 Power and Duties of Other Officers. The powers and duties of all other officers shall be such as the terms of their engagement call for or as the board may specify. Any of the powers and duties of an officer to whom an assistant has been appointed may be exercised and performed by such assistant, unless the board otherwise directs.

4.9 Duties may be Delegated. In case of the absence or inability to act of the President, a Vice-President or any other officer of the Corporation or for any other reason that the board may deem sufficient, the board may delegate all or any of the powers of such officer to any other officer or to any director for the time being.

4.10 Remuneration and Removal. The board may determine the remuneration to be paid to the directors, officers, agents and employees of the Corporation. Any officer, agent or employee of the Corporation may receive such remuneration as may be determined notwithstanding the fact that he is a director or shareholder of the Corporation. The board may by resolution award special remuneration to any officer of the Corporation undertaking any special work or service for, or undertaking any special mission on behalf of the Corporation other than routine work ordinarily required of such office. If any director or officer of the Corporation shall be employed by or shall perform services for the Corporation otherwise than as a director or officer or shall be a member of a firm or a shareholder, director or officer of a corporation which is employed by or performs services for the Corporation, the fact of his being a director or officer of the Corporation shall not disentitle such director or officer or such firm or corporation, as the case may be, from receiving proper remuneration for such services. All officers, in the absence of written agreement to the contrary, shall be subject to removal by resolution of the board at any time with or without cause. Until such removal each officer shall hold office until his successor is elected or appointed or until his earlier resignation.

4.11 Agents and Attorneys. The board shall have power to appoint, from time to time, agents or attorneys for the Corporation in or out of Canada with such powers of management or otherwise (including the power to sub-delegate) as may be thought fit.

4.12 Fidelity Bonds. The board may require such officers, employees and agents of the Corporation as the board deems advisable to furnish bonds for the faithful discharge of their duties, in such form and with such surety as the board may from time to time prescribe, but no director

shall be liable for failure to require any bond or for the insufficiency of any bond or for any loss by reason of the failure of the Corporation to receive any indemnity thereby provided.

ARTICLE 5 PROTECTION OF DIRECTORS, OFFICERS AND OTHERS

5.1 Protection of Directors and Officers. Except as otherwise specifically provided in the Act, no director or officer of the Corporation shall be liable for the acts, receipts, neglects or defaults of any other director or officer or employee, or for joining in any receipt or other act for conformity, or for any loss, damage or expense happening to the Corporation through the insufficiency or deficiency of title to any property acquired by order of the board of directors for or on behalf of the Corporation or for the insufficiency or deficiency of any security in or upon which any of the monies of the Corporation shall be invested or for any loss or damage arising from the bankruptcy, insolvency or tortious act of any person, firm or corporation with whom any monies, securities or effects of the Corporation shall be deposited, or for any loss, conversion, misapplication or misappropriation of or damage resulting from any dealings with any monies, securities or other assets belonging to the Corporation or for any loss occasioned by any error of judgment or oversight on his part or for any other loss, damage or misfortune whatever which may happen in the execution of the duties of his office or in relation thereto unless the same shall happen by failure to exercise the powers and to discharge the duties of his office honestly and in good faith with a view to the best interests of the Corporation and in connection therewith to exercise that degree of care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

Subject to the foregoing, the directors may rely upon the accuracy of any statement or report prepared by the Corporation's auditors or accountants and shall not be responsible or held liable for any loss or damage resulting from the payment of any dividends or otherwise acting upon such statement or report.

The directors of the Corporation are hereby authorized from time to time to cause the Corporation to give indemnities to any director or other person who has undertaken or is about to undertake any liability on behalf of the Corporation and to secure such director or other person against loss by mortgage and charge upon the whole or any part of the real and personal property of the Corporation by way of security. Any action from time to time taken by the directors under this paragraph shall not require approval or confirmation by the shareholders.

5.2 Indemnity. Subject to the limitations contained in the Act, the Corporation hereby indemnifies each past, present and future director and officer of the Corporation, and each individual who is now or may hereafter be, acting or have heretofore acted, at the Corporation's request, as a director or officer or in a similar capacity of another entity and his heirs and legal representatives (each an "**Indemnified Person**"), against all costs, charges and expenses, including any amount paid to settle an action or satisfy a judgment, reasonably incurred by him in respect of any civil, criminal, administrative, investigative or other proceeding in which he is involved because of that association with the Corporation or entity, if:

- (a) he acted honestly and in good faith with a view to the best interests of the Corporation or, as the case may be, to the best interests of the other entity for which he acted as a director or officer or in a similar capacity at the Corporation's request; and

- (b) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, he had reasonable grounds for believing that his conduct was lawful.

Subject to the limitations contained in the Act, if any, the Corporation may advance money to each Indemnified Person for the reasonable costs, charges and expenses of any civil, criminal, administrative, investigative or other proceeding in which he is involved because of his association with the Corporation or other entity, provided that such director, officer or other individual shall repay the money if he did not act honestly and in good faith with a view to the best interests of the Corporation or, as the case may be, to the best interests of the other entity for which he acted as a director or officer or in a similar capacity at the Corporation's request.

5.3 Insurance. Subject to the limitations contained in the Act, the Corporation may purchase and maintain such insurance for the benefit of each Indemnified Person against any liability incurred by him in his capacity as a director or officer of the Corporation, or in his capacity as a director or officer, or a similar capacity, of any other entity, if he acts or acted in that capacity at the Corporation's request, as the board may from time to time determine.

ARTICLE 6

MEETINGS OF SHAREHOLDERS

6.1 Annual Meeting. Subject to the Articles and any unanimous shareholder agreement, the annual meeting of the shareholders shall be held at any place within or outside Ontario on such day and at such time as the board, may from time to time determine, for the purpose of hearing and receiving the reports and statements required by the Act to be read to and laid before shareholders at an annual meeting, electing directors, appointing the auditor and fixing or authorizing the board to fix the auditor's remuneration, and for the transaction of such other business as may properly be brought before the meeting.

6.2 Special Meetings. Subject to the Articles and any unanimous shareholder agreement, the board shall have the power at any time to call a special meeting of shareholders to be held at such time on such day and at any place within or outside Ontario as may be determined by the board. The phrase "special meeting of the shareholders" wherever it occurs in this by-law shall include a meeting of any class or classes of shareholders, and the phrase "meeting of shareholders" wherever it occurs in this by-law shall mean and include an annual meeting of shareholders and a special meeting of shareholders.

6.3 Notice of Meetings. Notice of the time and place of each meeting of shareholders shall be given in the manner provided in Section 9.1, and

- (a) if the Corporation is at the time of such notice offering any of its securities to the public, not less than twenty-one (21) days, and
- (b) if the Corporation is at the time of such notice not offering any of its securities to the public, not less than ten (10) days,

and in any event, not more than fifty (50) days before the date on which the meeting is to be held, to the auditor of the Corporation, to the directors of the Corporation and to each shareholder of record at the close of business on the day on which the notice is given who is entered on the

securities register of the Corporation as the holder of one or more shares carrying the right to vote at the meeting. Notice of a meeting of shareholders called for any purpose other than consideration of the financial statements and auditor's report, election of directors and reappointment of the incumbent auditor shall state the nature of such business in sufficient detail to permit the shareholder to form a reasoned judgment thereon and shall state the text of any special resolution to be submitted to the meeting.

6.4 List of Shareholders Entitled to Notice. For every meeting of shareholders, the Corporation shall prepare a list of shareholders entitled to receive notice of the meeting, arranged in alphabetical order and showing the number of shares held by each shareholder. If a record date for the meeting is fixed pursuant to Section 6.5, the shareholders listed shall be those registered at the close of business on a day not later than ten (10) days after such record date. If no record date is fixed, the shareholders listed shall be those registered at the close of business on the day immediately preceding the day on which notice of the meeting is given, or where no such notice is given, the day on which the meeting is held. The list shall be available for examination by any shareholder during usual business hours at the registered office of the Corporation or at the place where the securities register is kept and at the place where the meeting is held.

6.5 Record Date for Notice. The board may fix in advance a record date, preceding the date of any meeting of shareholders by not more than fifty (50) days and not less than twenty-one (21) days, for the determination of the shareholders entitled to notice of the meeting, provided that notice of any such record date is given not less than seven (7) days before such record date, by newspaper advertisement in the manner provided in the Act. If no record date is so fixed, the record date for the determination of the shareholders entitled to notice of the meeting shall be the close of business on the day immediately preceding the day on which the notice is given.

6.6 Waiving Notice. A shareholder and any other person entitled to attend a meeting of shareholders may in any manner and at any time waive notice of a meeting of shareholders, and attendance of any such person at a meeting of shareholders is a waiver of notice of the meeting, except where such person attends a meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called.

6.7 Persons Entitled to be Present. The only persons entitled to be present at a meeting of the shareholders shall be those entitled to vote thereat, the directors and auditors of the Corporation and others who, although not entitled to vote, are entitled or required under any provision of the Act or the Articles or by-laws to be present at the meeting. Any other person may be admitted only on the invitation of the chairman of the meeting or with the consent of the meeting.

6.8 Quorum. Two persons entitled to vote at a meeting of shareholders present in person constitute a quorum.

6.9 Right to Vote. Subject to the Act, the articles and Section 6.5 hereof, each person registered as a shareholder of the Corporation at the date of any meeting of shareholders shall be entitled to one vote for each share held.

6.10 Representatives. An executor, administrator, committee of a mentally incompetent person, guardian or trustee and where a body corporate is such executor, administrator, committee, guardian or trustee, any person duly appointed by proxy for such body corporate, upon filing with

the secretary of the meeting sufficient proof of his appointment, shall represent the shares of the testator, intestate, mentally incompetent person, ward or *cestui que* trust in his or its stead at all meetings of the shareholders of the Corporation and may vote accordingly as a shareholder in the same manner and to the same extent as the shareholder of record. If there be more than one executor, administrator, committee, guardian or trustee, the provisions of clause 6.12 shall apply.

6.11 Proxies. Every shareholder, including a shareholder that is a body corporate, entitled to vote at a meeting of shareholders may by means of a proxy appoint a person, who need not be a shareholder, as his nominee to attend and act at the meeting in the manner, to the extent and with the power conferred by the proxy.

Subject to the Act, a proxy shall be executed by the shareholder or his attorney authorized in writing or, if the shareholder is a body corporate, under its corporate seal, if any, or by an officer or attorney thereof duly authorized.

A proxy may be in any form which may be prescribed from time to time by the board of directors or which the chairman of the meeting may accept as sufficient, provided that such form complies with the provisions of the Act.

Proxies shall be deposited with the secretary of the meeting before any vote is cast under the authority thereof or at such earlier time and in such manner as the board may prescribe in accordance with the provisions of the Act. A proxy in the form of a facsimile transmission may also be so deposited.

6.12 Joint Shareholders. Where two or more persons hold the same share or shares jointly, any one of such persons present at a meeting of shareholders has the right in the absence of the other or others to vote in respect of such share or shares, but, if more than one of such persons are present or represented by proxy and vote, they shall vote together as one on the share or shares jointly held by them.

6.13 Scrutineer. At each meeting of shareholders one or more scrutineers may be appointed by a resolution of the meeting or by the chairman with the consent of the meeting to serve at the meeting. Such scrutineers need not be shareholders of the Corporation.

6.14 Votes to Govern. Unless otherwise required by the provisions of the Act, the Articles or by-laws of the Corporation, at all meetings of shareholders every question shall be decided by the majority of the votes duly cast on the question.

6.15 Show of Hands. At all meetings of shareholders every question shall be decided by a show of hands unless a poll thereon is required by the chairman or be demanded by a shareholder present in person or represented by proxy and entitled to vote or unless a poll is required under the provisions of the Act. Upon a show of hands every shareholder present in person or represented by proxy and entitled to vote shall have one vote. After a show of hands has been taken upon any question the chairman may require or any shareholder present in person or represented by proxy and entitled to vote may demand a poll thereon. Whenever a vote by show of hands has been taken upon a question, unless a poll thereon is demanded, a declaration by the chairman of the meeting that the vote upon the question has been carried or carried by a particular majority or not carried and an entry to that effect in the minutes of the proceedings at the meeting shall be prima facie evidence of the fact without proof of the number or proportion of the votes

recorded in favour of or against any resolution or other proceedings in respect of the said question, and the result of the vote so taken shall be the decision of the Corporation in annual or general meeting, as the case may be, upon the question. A demand for a poll may be withdrawn at any time prior to the taking of the poll.

6.16 Polls. If a poll is required by the chairman of the meeting or under the provisions of the Act or is demanded by any shareholder present in person or represented by proxy and entitled to vote and the demand be not withdrawn, a poll upon the question shall be taken in such manner as the chairman of the meeting directs. Upon a poll each shareholder who is present in person or represented by proxy shall, unless the Articles otherwise provide, be entitled to one vote for each share in respect of which he is entitled to vote at the meeting and the result of the poll shall be the decision of the Corporation in annual or general meeting, as the case may be, upon the question.

6.17 Casting Vote. In case of an equality of votes at any meeting of shareholders either upon a show of hands or upon a poll the chairman of the meeting shall not be entitled to a second or casting vote.

6.18 Chairman. Subject to Section 4.7 hereof, the President or, in his absence, a Vice-President who is a director shall preside as Chairman at a meeting of shareholders. If there is no President or such a Vice-President, or if at a meeting, none of them is present within fifteen minutes after the time appointed for holding of the meeting, the shareholders present shall choose a person from their number to be the Chairman.

6.19 Adjournment of Meetings. The Chairman of any meeting of shareholders may, with the consent of the meeting and subject to such conditions as the meeting may decide, adjourn the same from time to time and from place to place, and no notice of such adjournment need be given to the shareholders except as required by the Act. Any business may be brought before or dealt with at an adjourned meeting which might have been brought before or dealt with at the original meeting in accordance with the notice calling such original meeting.

6.20 Resolution in Writing. A resolution in writing signed by all of the shareholders entitled to vote on that resolution at a meeting of shareholders is as valid as if it had been passed at a meeting of the shareholders unless a written statement with respect to the subject matter of the resolution is submitted by a director or the auditors in accordance with the Act.

6.21 Only One Shareholder. Where the Corporation has only one shareholder or only one holder of any class or series of shares, the shareholder present in person or by proxy constitutes a meeting.

6.22 Procedure. At all meetings of shareholders questions of procedure shall be settled by reference to such publication relating to the conduct of company meetings as shall be acceptable to the chairman of the meeting.

ARTICLE 7 SECURITIES

7.1 Registers. The Corporation shall keep or cause to be kept such registers of security holders and of transfers as required by the Act.

7.2 Allotment. Subject to the provisions, if any, of the Articles, the board may from time to time allot or grant options to purchase the whole or any part of the authorized and unissued shares in the capital of the Corporation to such person or persons or class of persons as the board determines by resolution provided that no share shall be issued until it is fully paid as prescribed by the Act.

7.3 Commissions. The board may from time to time authorize the Corporation to pay a reasonable commission to any person in consideration of his purchasing or agreeing to purchase shares of the Corporation, whether from the corporation or from any other person, or procuring or agreeing to procure purchasers for any such shares.

7.4 Share Certificates. Every holder of one or more shares of the Corporation shall be entitled, at his option, to a share certificate, or to a non-transferable written acknowledgement of his right to obtain a share certificate, stating the number and class or series of shares held by him as shown on the securities register. Share certificates and acknowledgements of a shareholder's right to a share certificate, respectively, shall be in such form as the board shall from time to time approve. Any share certificate shall be signed in accordance with Section 11.4 hereof, provided that, unless the board otherwise determines, certificates representing shares in respect of which a transfer agent or registrar has been appointed shall not be valid unless countersigned by or on behalf of such transfer agent or registrar. A share certificate shall be signed manually by at least one director or officer of the Corporation or by or on behalf of the transfer agent or registrar if there is one. Any additional signatures required may be printed or otherwise mechanically reproduced. A share certificate executed as aforesaid shall be valid notwithstanding that one of the directors or officers whose facsimile signature appears thereon no longer holds office at the date of issue of the certificate.

7.5 Replacement of Security Certificates. The board or any person designated by the board shall direct the issue of a new security certificate in lieu of and upon cancellation of a security certificate that has been mutilated or in substitution for a security certificate claimed to have been lost, apparently destroyed or wrongfully taken on payment of such fee and on such terms as to indemnity, reimbursement of expenses and evidence of loss and of title as the board may from time to time prescribe, whether generally or in any particular case.

7.6 Transfer Agent and Registrar. The directors may from time to time by resolution appoint or remove a transfer agent and a registrar (who may, but need not be the same individual or body corporate) and one or more branch transfer agents and registrars (who may, but need not be the same individual or body corporate) for the securities of the Corporation and may provide for the transfer of securities in one or more places and may provide that securities will be interchangeably transferable or otherwise.

7.7 Transfer of Securities. Securities in the capital of the Corporation shall be transferable only on the register of transfers or on one of the branch registers of transfers (if any) kept by or for the Corporation in respect thereof by the registered holder of such securities in person or by attorney duly authorized in writing upon surrender for cancellation of the certificate representing such securities properly endorsed or accompanied by a properly executed transfer, subject to the provisions of the Act and subject to the restrictions on transfer (if any) set forth in the Articles.

7.8 Corporation's Lien on Shares. The Corporation shall have a first and paramount lien upon all the shares registered in the names of each shareholder whether solely or jointly with others for his debts, liabilities and engagements solely or jointly with any other person, to or with the Corporation, whether the periods for payment, fulfillment or discharge thereof have actually arrived or not. Any such lien shall extend to all dividends from time to time declared in respect of such shares. Unless otherwise agreed the registration of a transfer of shares shall operate as a waiver of the Corporation's lien, if any, on such shares. However, the Corporation shall not be entitled to enforce such lien against a transferee of the share who has no actual knowledge of it, unless such lien is noted conspicuously on such share certificate.

For the purpose of enforcing such lien, the board may sell the shares subject thereto in such manner as it thinks fit; but no sale shall be made until notice in writing of the intention to sell has been served on such shareholder, his executors or administrators, and default has been made by him or them, in payment, fulfillment or discharge of such debts, liabilities or engagements for ten days after the date of mailing of such notice.

The net proceeds of any such sale shall be applied in or towards satisfaction of the debts, liabilities or engagements, and the residue, if any, paid to such shareholder, his executors or administrators or assigns.

Upon any such sale in purported exercise of the powers hereinbefore given, the directors may cause the purchaser's name to be entered in the register in respect of the shares sold and the purchaser shall not be bound to see to the regularity of the proceedings or to the application of the purchase money, and after his name has been entered in the register in respect of such shares, the validity of the sale shall not be impeached by any person and the remedy of any person aggrieved by the sale shall be in damages only and against the Corporation exclusively.

7.9 Refusal to Register Transfer. Except in the case of shares listed on a stock exchange recognized by the Ontario Securities Commission, the board may refuse to permit the registration of a transfer of shares in the capital of the Corporation against which the Corporation has a lien until all of the debt represented by that lien has been paid to the Corporation.

7.10 Joint Shareholders. If two or more persons are registered as joint holders of any share, any one of such persons may give effectual receipts for the certificate issued in respect thereof, and for any dividend, bonus, return of capital or other money payable or warrant issuable in respect of such share, but all the joint holders of a share shall be severally as well as jointly liable for the payment of all demands payable in respect thereof.

ARTICLE 8 DIVIDENDS AND RIGHTS

8.1 Dividends. Subject to the provisions of the Act, the board may from time to time declare dividends payable to the shareholders according to their respective rights and interests in the Corporation. Dividends may be paid in money or property or by issuing fully paid shares of the Corporation.

8.2 Dividend Cheques. A dividend payable in cash shall be paid by cheque drawn on the Corporation's bankers or one of them to the order of each registered holder of shares of the class or series in respect of which it has been declared and mailed by prepaid ordinary mail to such

registered holder at his last recorded address, unless such holder otherwise directs. In the case of joint holders the cheque shall, unless such joint holders otherwise direct, be made payable to the order of all of such joint holders and mailed to them at their recorded address and if more than one address appears on the books of the Corporation in respect of such joint holding the cheque shall be mailed to such of those addresses as is selected by the person mailing such cheque. The mailing of such cheque as aforesaid, unless the same is not paid on due presentation, shall satisfy and discharge all liability for the dividend to the extent of the sum represented thereby plus the amount of any tax which the Corporation is required to and does withhold.

8.3 Non-receipt of Cheques. In the event of non-receipt of any dividend cheque by the person to whom it is sent as aforesaid, the Corporation on proof of such non-receipt and upon satisfactory indemnity being given to it, shall issue to such person a replacement cheque for a like amount.

8.4 Record Date. The board may fix in advance a date preceding by not more than fifty days the date for the payment of any dividend or the date for the issue of any warrant or other evidence of right to subscribe for shares in the capital or securities of the Corporation as a record date for the determination of the persons entitled to receive payment of such dividend or to exercise the right to subscribe for such securities, as the case may be, and in every such case only such persons as shall be security holders of record at the close of business on the date so fixed shall be entitled to receive payment of such dividend or to exercise the right to subscribe for securities and to receive the warrant or other evidence in respect of such right, as the case may be, notwithstanding the transfer of any securities after any such record date fixed as aforesaid. Where no record date is fixed in advance as aforesaid, the record date for the determination of the persons entitled to receive payment of such dividend or to exercise the right to subscribe for such securities of the Corporation shall be at the close of business on the day on which the resolution relating to such dividend or right to subscribe is passed by the board.

8.5 Unclaimed Dividends. Any dividend unclaimed after a period of six (6) years from the date on which the same was declared to be payable shall be forfeited and shall revert to the Corporation.

ARTICLE 9 NOTICES

9.1 Method of Giving. Any notice, communication or other document to be given by the Corporation to a shareholder, director, officer or auditor of the Corporation shall be sufficiently given if:

- (a) delivered personally to the person to whom it is to be given to the latest address of such person as shown in the records of the Corporation or its transfer agent; or
- (b) if sent by prepaid mail addressed to such address; or
- (c) if sent to such address by any means of transmitted or recorded communication; or

- (d) if sent by facsimile, to the latest facsimile number of the person to whom it is to be given, as shown in the records of the Corporation.

The Secretary or any person authorized by him may change the address or telecopier number on the books of the Corporation of any shareholder in accordance with any information believed by him to be reliable. A notice, communication or document so delivered shall be deemed to have been received by the addressee when it is delivered personally to the address aforesaid; and a notice, communication or document so mailed shall be deemed to have been received by the addressee on the fifth day after mailing; and a notice sent by any means of transmitted or recorded communication shall be deemed to have been received by the addressee when delivered to the appropriate communication company or agency or its representative for dispatch; and a notice sent by facsimile shall be deemed to have been received at the time of transmission; provided however that, notwithstanding the foregoing, in the case of any meeting of directors, verbal notice thereof shall be sufficient notice.

9.2 Computation of Time. In computing the date when notice must be given under any provision of the Articles or by-laws requiring a specified number of days' notice of any meeting or other event, the period of days shall be deemed to commence the day following the date the notice was given and shall be deemed to terminate at midnight of the last day of the period, except that if the last day of the period falls on a Sunday or holiday the period shall terminate at midnight of the day next following that is not a Sunday or holiday.

9.3 Omissions and Errors. The accidental omission to give any notice to any shareholder, director, officer or auditor or the non-receipt of any notice by any shareholder, director, officer or auditor or any error in any notice not affecting the substance thereof shall not invalidate any action taken at any meeting held pursuant to such notice or otherwise founded thereon.

9.4 Notice to Joint Shareholders. All notices with respect to any shares registered in more than one name may, if more than one address appears on the books of the Corporation in respect of such joint holding, be given to such joint shareholders at such address so appearing as is selected by the person giving such notice, and notice so given shall be sufficient notice to all the holders of such shares.

9.5 Persons Becoming Entitled by Death or Operation of Law. Every person who by operation of law, transfer, death of a security holder or by any other means whatsoever, becomes entitled to any security, shall be bound by every notice in respect of such security which prior to his name and address being entered on the books of the Corporation was duly given to the person from whom he derives his title to such security.

On the death of any security holder (not being one of several joint holders of a security) the executors or administrators of such deceased security holder shall be the only persons recognized by the Corporation as having any title to such security.

Any person becoming entitled to a security in consequence of the death, bankruptcy or insolvency of any shareholder (herein referred to as a person entitled by transmission) shall produce to the Corporation such evidence as may be reasonably required by the board to prove his title and declare in writing his election either to be himself registered as a security holder in respect

of the security, or instead of being registered himself, to make such transfer as the deceased or bankrupt person could have made.

Until any person becoming entitled to any security by transmission has complied with the terms aforesaid, the Corporation may retain any dividend or other payment declared or payable upon such security, and shall not be bound to recognize the title of the person claiming under such transmission.

9.6 Proof of Service. A certificate of the Secretary or other duly authorized officer of the Corporation in office at the time of the making of the certificate, or of any agent of the Corporation as to facts in relation to the mailing or delivery or sending of any notice to any shareholder, director, officer or auditor shall be conclusive evidence thereof and shall be binding on every shareholder, director, officer or auditor of the Corporation, as the case may be.

9.7 Waiver of Notice. Any shareholder (or his duly appointed proxy) director, officer or auditor may waive any notice required to be given under any provision of the articles or by-laws of the Corporation or of the Act, and such waiver, whether given before or after the meeting or other event of which notice is required to be given, shall cure any default in giving such notice. Any shareholder (or his duly appointed proxy) may waive any irregularity in any meeting of shareholders.

ARTICLE 10 BORROWING POWERS OF THE DIRECTORS

10.1 Borrowing Power. Without limiting the borrowing powers of the Corporation as set forth in the Act, but subject to the provisions of the Act, the board may from time to time, without authorization of the shareholders:

- (a) borrow money on the credit of the Corporation;
- (b) issue, reissue, sell or pledge debt obligations of the Corporation;
- (c) give guarantees on behalf of the Corporation to secure performance of an obligation of any person; and
- (d) mortgage, hypothecate, pledge or otherwise create a security interest in all or any property of the Corporation owned or subsequently acquired, to secure any obligation of the Corporation.

10.2 The directors may from time to time authorize any director or directors, officer or officers, employee of the Corporation or other person or persons, whether connected with the Corporation or not, to make arrangements with reference to the monies borrowed or to be borrowed as aforesaid and as to the terms and conditions of the loan thereof and as to the securities to be given therefor, with power to vary or modify such arrangements, terms and conditions and to give such additional debt obligations for any monies borrowed or remaining due by the Corporation as the directors of the Corporation may authorize and generally to manage, transact and settle the borrowing of money by the Corporation.

10.3 The directors may from time to time authorize any director or directors, officer or officers, employee of the Corporation or other person or persons, whether connected with the Corporation or not, to sign, execute and give on behalf of the Corporation all documents, agreements and promises necessary or desirable for the purposes aforesaid and to draw, make, accept, endorse, execute and issue cheques, promissory notes, bills of exchange, bills of lading and other negotiable or transferable instruments and the same and all renewals thereof or substitutions therefor so signed shall be binding upon the Corporation.

10.4 The words "**debt obligations**" as used in this Section 10 mean bonds, debentures, notes or other similar obligations or guarantees of such an obligation, whether secured or unsecured.

ARTICLE 11 BUSINESS OF THE CORPORATION

11.1 Registered Office. The registered office of the Corporation shall be in the municipality or geographic township within Ontario specified in its Articles, and at such place therein as the directors of the Corporation may from time to time by resolution determine.

11.2 Corporate Seal. The corporate seal of the Corporation, if any, shall be such seal as the directors of the Corporation may from time to time by resolution adopt.

11.3 Banking Arrangements. The banking business of the Corporation or any part thereof shall be transacted with such chartered banks, trust companies or other financial institutions as the board may by resolution from time to time determine.

Cheques on the bank accounts, drafts drawn or accepted by the Corporation, promissory notes given by it, acceptances, bills of exchange, orders for the payment of money and other instruments of a like nature may be made, signed, drawn, accepted or endorsed, as the case may be, by such officer or officers, person or persons as the board of directors may by resolution from time to time name for that purpose.

Cheques, promissory notes, bills of exchange, orders for the payment of money and other negotiable paper may be endorsed for deposit to the credit of the Corporation's bank account by such officer or officers, person or persons, as the board of directors may by resolution from time to time name for that purpose, or they may be endorsed for such deposit by means of a stamp bearing the Corporation's name.

11.4 Execution of Instruments. Any instruments in writing may be signed in the name of and on behalf of the Corporation by the President and Secretary and any instrument in writing so signed shall be binding upon the Corporation without any further authorization or formality. In the event that the Corporation has only one officer and director, that person alone may sign any instruments in writing in the name of and on behalf of the Corporation. The board of directors shall have power from time to time by resolution to appoint any other officer or officers or any person or persons on behalf of the Corporation either to sign instruments in writing generally or to sign specific instruments in writing. The corporate seal, if any, may be affixed to any instruments in writing on the authority of any of the persons named in this section.

The term "**instruments in writing**" as used herein shall, without limiting the generality thereof, include contracts, documents, deeds, mortgages, hypothecs, charges, security interests, conveyances, transfers and assignments of property (real or personal, immovable or movable), agreements, tenders, releases, proxies, receipts and discharges for the payment of money or other obligations, conveyances, transfers and assignments of shares, stocks, bonds, debentures or other securities and all paper writings.

11.5 Investments. In particular, without limiting the generality of the foregoing, execution as provided in Section 11.4 hereof shall be adequate to sell, assign, transfer, exchange, convert or convey any securities, rights and warrants.

11.6 Voting Securities in Other Companies. All securities carrying voting rights in any other body corporate held from time to time by the Corporation may be voted at all meetings of holders of such securities in such manner and by such person or persons as the board of the Corporation from time to time determines. In the absence of action by the board, the proper signing officers of the Corporation may also from time to time execute and deliver for and on behalf of the Corporation instruments of proxy and arrange for the issuance of voting certificates and other evidence of right to vote in such names as they may determine.

11.7 Solicitors. Either the President or the Secretary shall have power from time to time to instruct solicitors to institute or defend actions or other legal proceedings for the Corporation without any specific resolution or retainer or instructions from the board provided, however, that the board may give instructions superseding or varying such instructions.

11.8 Custody of Securities. The directors may from time to time by resolution provide for the deposit and custody of securities of the Corporation. All share certificates, bonds, debentures, debenture stock certificates, notes or other obligations or securities belonging to the Corporation, may be issued or held in the name of a nominee or nominees of the Corporation (and if issued or held in the name of more than one nominee shall be held in the names of the nominees jointly with right of survivorship) and may be endorsed in blank with endorsement guaranteed in order to enable transfers to be completed and registration to be effected.

11.9 Charging Assets. The board may from time to time charge, hypothecate, mortgage or pledge any or all of the assets of the Corporation not only by means of bonds and debentures by way of fixed charge or charges or by way of floating charge or charges, but also by any other instrument or instruments for the purposes of securing any past or existing or new or future liability direct or indirect of the Corporation or for the purpose of securing any bonds, debentures or other securities or liabilities of the Corporation or of any other body corporate.

11.10 Invalidity of Any Provisions of this By-Law. The invalidity or unenforceability of any provision of this by-law shall not affect the validity or enforceability of the remaining provisions of this by-law.

11.11 Fiscal Year. The fiscal year of the Corporation shall terminate on such day in each year as is from time to time established by the board of directors.

The undersigned, being the sole director of the Corporation, by his signature below resolves pursuant to Section 129(1) of the *Business Corporations Act* that the foregoing by-law shall be and it is hereby made a by-law of the Corporation.

DATED the _____ day of _____, 2021.

John Henry

The undersigned, being the sole shareholder of the Corporation entitled to vote in respect of the foregoing by-law, by his signature below resolves pursuant to Section 104(1) (a) and (b) of the *Business Corporations Act* that the foregoing by-law shall be and it is hereby confirmed as a by-law of the Corporation.

DATED the _____ day of _____, 2021.

**THE REGIONAL MUNICIPALITY OF
DURHAM**

PER _____

SUBSCRIPTION FOR SHARES

TO: **DURHAM ONENET INC. (the "Corporation")**

AND TO: **THE BOARD OF DIRECTORS THEREOF**

The undersigned hereby subscribes for and agrees to take up One Hundred (100) common shares (the "Shares") of the Corporation and tenders herewith the sum of Ten Dollars (\$10.00) in full payment of the subscription price for the Shares.

The undersigned hereby requests that the Shares be allotted to the undersigned, that such Shares be issued as fully paid and non-assessable and that a certificate for the said Shares be issued to the undersigned.

The undersigned hereby represents and warrants that the undersigned is subscribing for the Shares as principal and by initialling where indicated below, the undersigned fits within one of the following categories:

- ☐ (a) a director, officer, employee, founder¹ or control person² of the Corporation;
- ☐ (b) a spouse, parent, grandparent, sibling or child of a director, executive officer, founder or control person of the Corporation;
- ☐ (c) a parent, grandparent, sibling or child of the spouse of a director, executive officer, founder or control person of the Corporation;
- ☐ (d) a close personal friend³ or a close business associate⁴ of a director, executive officer, founder or control person of the issuer;
- ☐ (e) a current shareholder of the Corporation;
- ☐ (f) an "accredited investor" (if this category is applicable, please complete and submit the Accredited Investor Certificate to be provided by the Corporation in addition to this subscription form);
- ☐ (g) a person of which a majority of the voting securities are beneficially owned by, or a majority of the directors are, persons described in categories (a) to (f) above; or
- ☐ (h) a trust or estate of which all of the beneficiaries or a majority of the trustees or executors are persons described in categories (a) to (f) above.

DATED as of the ____ day of _____, 2021.

THE REGIONAL MUNICIPALITY OF DURHAM

PER _____

¹ The term "founder" means a person who takes the initiative in founding, organizing or substantially reorganizing the business of the Corporation and is actively involved in the business of the Corporation as at the date hereof.

² A "control person" means a person that holds more than 20% of the outstanding voting securities of the Corporation.

³ A "close personal friend" is an individual who knows the director, executive officer, founder or control person of the Corporation well enough and has known them for a sufficient period of time to be in a position to assess their capabilities and trustworthiness.

⁴ A "close business associate" is an individual who has had sufficient prior business dealings with a director, executive officer, founder or control person of the Corporation to be in a position to assess their capabilities and trustworthiness.

RESOLUTIONS OF THE BOARD OF DIRECTORS

OF

DURHAM ONENET INC.

(the "Corporation")

APPOINTMENT OF OFFICERS

RESOLVED THAT the offices of the Corporation and the individual or individuals appointed to such offices shall be as follows:

Name	Office
John Henry	President
Jason Hunt	Secretary

FORM OF COMMON SHARE CERTIFICATE

RESOLVED THAT the form of common share certificate annexed hereto is hereby approved and adopted as the form of common share certificate of the Corporation.

REGISTERED OFFICE

RESOLVED THAT the location of the registered office of the Corporation shall be at 605 Rossland Road E. Whitby Ontario, L1N 6A3.

FINANCIAL YEAR END

RESOLVED THAT the financial year end of the Corporation shall be on the 31st day of December in each year or on such other date as the Board of Directors may by resolution determine, the first financial year end to terminate on December 31, 2021.

ISSUANCE OF COMMON SHARES

WHEREAS the Corporation has received the following subscription for common shares, together with the aggregate subscription price therefor in the amount of Ten Dollars in the aggregate (\$10.00);

Name	Number of Shares
-------------	-------------------------

The Regional Municipality of Durham 100 common

NOW THEREFORE BE IT RESOLVED THAT:

1. Such subscription is hereby accepted.
2. The Corporation, having received payment in full for such common shares, hereby issues such common shares as fully paid and non-assessable shares in the capital of the Corporation at a price hereby fixed by the Board of Directors of \$10.00 in the aggregate.

SOLICITORS AND AUTHORITY TO SIGN NOTICES

RESOLVED THAT WeirFoulds LLP (the "**Corporation's Solicitors**") are hereby appointed solicitors for the Corporation and any partner, associate or corporate law clerk of the Corporation's Solicitors who has the relevant knowledge of the affairs of the Corporation is authorized to sign and file (electronically or otherwise):

- (i) any initial return;
- (ii) any notice of change; and
- (iii) any annual return,

as required by the *Corporations Information Act* (Ontario).

LOCATION OF MINUTE BOOK

RESOLVED THAT the minute book of the Corporation be maintained at either the Corporation's registered office or at the offices of the Corporation's Solicitors.

The foregoing resolutions are, by the signature below of the sole director of the Corporation, each passed by the Board of Directors of the Corporation pursuant to the provisions of Section 129(1) of the *Business Corporations Act* (Ontario).

DATED as of the _____ day of _____, 2021.

John Henry

RESOLUTIONS OF THE SHAREHOLDER

OF

DURHAM ONENET INC.

(the "Corporation")

NUMBER OF DIRECTORS

WHEREAS the articles of incorporation of the Corporation provide that the Board of Directors shall consist of a minimum of one (1) and a maximum of fifteen (15) directors;

AND WHEREAS Section 125(3) of the *Business Corporations Act* (Ontario) provides that the number of directors shall be determined from time to time by special resolution of the shareholders;

AND WHEREAS the directors, if so empowered by special resolution of the shareholders, may thereafter determine the number of directors of the Corporation by resolution of the board of directors;

RESOLVED, AS A SPECIAL RESOLUTION, THAT:

1. Until otherwise determined, the number of directors of the Corporation shall be one (1); and
2. The directors of the Corporation are hereby empowered to determine the number of directors of the Corporation hereafter from time to time.

ELECTION OF DIRECTOR

RESOLVED THAT John Henry, Regional Chair, is hereby elected as the sole director of the Corporation, to serve until the first annual meeting of shareholders of the Corporation or until his successor is duly elected or appointed in accordance with the *Business Corporations Act* (Ontario) and the Corporation's bylaws.

AUDITORS

 RESOLVED THAT Deloitte Canada are appointed as Auditors of the Corporation.

The foregoing resolutions are, by the signature below of the sole shareholder of the Corporation entitled to vote on such resolutions, passed pursuant to the provisions of Section 104(1) of the *Business Corporations Act* (Ontario).

DATED as of the _____ day of _____, 2021.

THE REGIONAL MUNICIPALITY OF DURHAM

PER _____

CONSENT TO ACT AS A DIRECTOR

TO: **DURHAM ONENET INC.**
(the "**Corporation**")

I, John Henry:

1. consent to act as a director of the Corporation, such consent to continue in effect from time to time until a date upon which I give written notice to the Corporation revoking such consent or cease to be a director of the Corporation;

2. consent to the holding of meetings of directors or of committees of directors by means of such telephone, electronic or other communication facilities as permit all persons participating in the meetings to communicate with each other simultaneously and instantaneously;

3. acknowledge and declare that I am at least 18 years of age and am,

☒ [X] a Canadian citizen ordinarily resident in Canada or a permanent resident within the meaning of the *Immigration and Refugee Protection Act* (Canada) and ordinarily resident in Canada; **or**

☐ [] a Canadian citizen not ordinarily resident in Canada; **or**

☐ [] none of the above;

4. undertake to advise the Corporation in writing of any change in my citizenship or residence forthwith after such change;

5. acknowledge that persons who have been found under the *Substitute Decisions Act, 1992* (Ontario) or under the *Mental Health Act* (Ontario) to be incapable of managing property or who have been found to be incapable by a court in Canada or elsewhere, and persons with the status of a bankrupt, are disqualified from being directors of a corporation and declare that I am not so disqualified;

6. undertake to advise the Corporation in writing forthwith if I become disqualified to act as a director; and

7. acknowledge that the Corporation will rely upon the foregoing information.

DATED as of the _____ day of _____, 2021.

John Henry

Form 2
Business
Corporations
Act

Formule 2
Loi sur les
sociétés par
actions

**CONSENT TO ACT AS A FIRST DIRECTOR
CONSENTEMENT DU PREMIER ADMINISTRATEUR**

I, / Je soussigné(e),

John Henry

(First name, middle names and surname)
(Prénom, autres Prénoms et nom de famille)

address for service
domicile élu

605 Rossland Road East, Whitby, ON L1N 6A3

(Street & No. or R.R. No., Municipality, Province, Country & Postal Code)
(Rue et numéro, ou numéro de la R.R., nom de la municipalité, province, pays et code postal)

hereby consent to act as a first director of
accepte par la présente de devenir premier administrateur de

Durham OneNet Inc.

(Name of Corporation)
(Dénomination sociale de la société)

(Signature of the Consenting Person)
(Signature de l'acceptant)

John Henry, Regional Chair, by his signature hereto is hereby authorizing the filing of the attached Articles of Incorporation with the Ministry of Government & Consumer Services.

Dated the _____ day of _____, 2021.

John Henry, Regional Chair

Reference Info: 18113.00009
Docket Info: DRC

Printed on October 21, 2021 14:31
Requested Incorporation Date: ASAP

Articles of Incorporation

Business Corporations Act

1. Corporation Name

DURHAM ONENET INC.

2. Registered Office Address

605 ROSSLAND ROAD EAST, WHITBY, ONTARIO, CANADA, L1N 6A3

3. Number of Directors

Minimum	1
Maximum	15

4. The first director(s) is/are:

Full Name	JOHN HENRY
Resident Canadian?	Yes
Address for Service	605 ROSSLAND ROAD EAST, WHITBY, ONTARIO, CANADA, L1N 6A3

5. Restrictions, if any, on business the corporation may carry on or on powers the corporation may exercise:

The purpose of the Corporation is to provide a telecommunications system and telecommunications service, including, without limitation, a high speed broadband internet network and service. The Corporation may exercise all rights, powers and privileges of a natural person in relation to the Corporation's purpose and all matters incidental thereto, including, without limitation, carrying on business and engaging in activities in relation to the provision of a telecommunications system and telecommunications service, including, without limitation, a high speed broadband internet network and service, the acquisition, divestiture and charging of or granting a security interest in real or personal property, the development, design, construction, acquisition, operation, repair, replacement, maintenance and divestiture of the whole or any part of a telecommunications system or telecommunications service, including, without limitation, a high speed broadband internet network and service, conducting business and entering into obligations of any nature (including, without limitation, the borrowing of money or the incurring of debt) and entering into contracts of any nature in relation thereto; provided that, notwithstanding the foregoing, the Corporation may not pursue any purpose or exercise any right, power or privilege in contravention of or inconsistent with the Municipal Act, 2001, S.O. 2001, c. 25 (the "Municipal Act"), as amended from time to time, or its successor or replacement, or any regulations now or hereafter from time to time passed pursuant thereto.

6. The classes and any maximum number of shares that the corporation is authorized to issue:

The Corporation is authorized to issue an unlimited number of common shares.

7. Rights, privileges, restrictions and conditions (if any) attaching to each class of shares and directors' authority with respect to any class of shares which may be issued in series:

COMMON SHARES (a) The holders of the common shares shall be entitled to vote at all meetings of shareholders, except meetings at which only holders of a specified class of shares other than common shares are entitled to vote. (b) The holders of the common shares shall be entitled to receive dividends as may be declared from time to time by the Board of Directors. (c) The holders of the common shares shall be entitled to receive the remaining property of the Corporation upon the liquidation or dissolution of the Corporation or upon the distribution of assets for the purpose of winding up its affairs.

8. The issue, transfer or ownership of shares is/is not restricted and the restrictions (if any) are as follows:

The right to transfer shares of the Corporation shall be restricted in that no shareholder shall be entitled to transfer any share or shares of the Corporation without the approval of: (a) the directors of the Corporation expressed by resolution passed by the votes cast by a majority of the directors of the Corporation at a meeting of the board of directors or signed by all of the directors of the Corporation; or (b) the shareholders of the Corporation expressed by resolution passed by the votes cast by a majority of the shareholders who voted in respect of the resolution or signed by all shareholders entitled to vote on that resolution.

9. Other Provisions, if any:

(a) The number of security holders that beneficially own, directly or indirectly, securities of the Corporation, other than non-convertible debt securities, is limited to 50, not including employees or former employees of the Corporation or its affiliates, provided that each person is counted as one beneficial owner unless the person is created or used solely to purchase or hold securities of the Corporation in which case each beneficial owner or each beneficiary of the person, as the case may be, must be counted as a separate beneficial owner. (b) The securities of the Corporation, other than non-convertible debt securities, may be distributed only to persons described in Section 2.4 of National Instrument 45-106-Prospectus and Registration Exemptions, as promulgated by the Canadian Securities Administrators, as the same may be amended, replaced or substituted for from time to time.

10. The name(s) and address(es) of incorporator(s) are:

Full Name	JOHN HENRY
Address for Service	605 ROSSLAND ROAD EAST, WHITBY, ONTARIO, CANADA, L1N 6A3

The articles have been properly executed by the required person(s).

Draft

By-law Number **-2021
of The Regional Municipality of Durham

Being a by-law to authorize a Municipal Capital Facilities Agreement between The Regional Municipality of Durham and Durham OneNet Inc.

Whereas section 110(1) of the Municipal Act, 2001, SO 2001, c. 25, as amended (the “Act”), provides that the council of a municipality may enter into an agreement for the provision of municipal capital facilities by any person.

And Whereas paragraph 5 of section 2 of Ontario Regulation 603/06, as amended (the “Regulation”), provides that such an agreement can be entered into with respect to municipal facilities for the provision of telecommunications systems.

And Whereas The Regional Municipality of Durham (the “Region”) owns certain telecommunications facilities, including, without limitation, broadband fibre facilities (the “Facilities”) through which the Region utilizes for internal broadband connectivity within the Region.

And Whereas the Region has determined that it is in the public interest for the Facilities, in whole or in part, to be owned, operated, maintained, and expanded by Durham OneNet Inc. (“DON”).

And Whereas WHEREAS the Region intends to transfer the Facilities, in whole or in part, to DON and to provide certain financial and other assistance to DON to assist DON to own, operate, maintain, and expand the Facilities.

And Whereas it is the intention of both the Region and DON that the financial and other assistance to be provided by the Region to DON under this Agreement be for the provision of municipal capital facilities under section 110 of the Act and the Regulation.

Now therefore, the Council of The Regional Municipality of Durham hereby enacts as follows:

1. The Council hereby designates the Facilities as municipal capital facilities for telecommunications purposes.
2. The Region is authorized to enter into a Municipal Capital Facilities Agreement with DON in the form attached as Schedule “A” to this Bylaw (the “Agreement”).

3. The Regional Clerk and Regional Chair are hereby authorized to execute the Agreement on behalf of the Region.
4. In accordance with section 110(5) of the Act, the Clerk is hereby directed to give written notice of this Bylaw to the Minister of Finance and any other party to whom notice is required to be given pursuant to the Act or Regulations.
5. Schedule "A" attached is incorporated into and shall form part of this Bylaw.

This By-law Read and Passed on the ----th day of -----, 2021.

J. Henry, Regional Chair and CEO

R. Walton, Regional Clerk

SCHEDULE "A"

THIS AGREEMENT made this **XX** day of **XX**, 2021.

BETWEEN:

THE REGIONAL MUNICIPALITY OF DURHAM
(hereinafter referred to as the "**Region**")

OF THE FIRST PART

- and -

DURHAM ONENET INC.
(hereinafter referred to as "**DON**")

OF THE SECOND PART

MUNICIPAL CAPITAL FACILITIES AGREEMENT

WHEREAS the Region owns certain telecommunications, facilities, including, without limitation, broadband fibre facilities, (defined in this Agreement as the "**Facilities**") through which the Region utilizes for internal broadband connectivity within the Region;

AND WHEREAS the Region has determined that it is in the public interest for the Facilities to, in whole or in part, be owned, operated, maintained and expanded by DON;

AND WHEREAS the Region intends to transfer, in whole or in part, the Facilities to DON and to provide certain financial and other assistance to DON to assist DON to own, operate, maintain and expand the Facilities;

AND WHEREAS it is the intention of both the Region and DON that the financial and other assistance to be provided by the Region to DON under this Agreement be for the provision of municipal capital facilities under Section 110 of the Act and the Regulations thereunder pursuant to Regional By-law No. **XXXXXX** designating the Facilities as such and authorizing this Municipal Capital Facilities Agreement;

NOW THEREFORE in consideration of the mutual covenants and agreements contained in this Agreement and for other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged), the parties hereto covenant and agree as follows:

INTERPRETATION

In this Agreement,

“Act” means the *Municipal Act, 2001*, SO 2001, c. 25, as amended;

“Council” means the Council of the Region as composed from time to time;

“Facilities” means the telecommunications network constructed by and currently operated by the Region and which enables broadband connectivity throughout the Region;

“Municipal Capital Facilities” means municipal capital facilities that meet the requirements of section 110 of the Act and the Regulations;

“Regulations” means the regulations made under the Act; and

“Rights-of-Way” means highways, streets, road allowances, lanes, bridges or viaducts which are under the jurisdiction of the Region.

In this Agreement, unless the context requires otherwise, words importing the singular include the plural, and vice versa, and words importing gender include all genders.

Except where other expressly provided, all amounts in this Agreement are stated in and shall be paid in Canadian currency.

In the event that one or more of the provisions contained in this Agreement shall be invalid, illegal or unenforceable in any respect under any application law, the validity, legality or enforceability of the remaining provisions hereof shall not be affected or impaired thereby. Each of the provisions of this Agreement is hereby declared to be separate and distinct.

This agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

ACKNOWLEDGEMENTS AND COVENANTS

The Region and DON agree and acknowledge that the Region intends to transfer ownership of the whole or part of the Facilities to DON by way of gift or sale, including a sale for nominal less than fair market consideration or no consideration, or to otherwise lease, licence or lend the use of the whole or part of the Facilities to DON. Such transactions and/or assistance shall be at the discretion of the Region as from time to time approved by Council.

The Region covenants and agrees that it will consent to DON's use of and access to the Regional Rights-of-Way as may be required in order to construct, operate, maintain and expand the Facilities. The Region and DON covenant and agree that they will execute such further agreements as are necessary for this purpose.

The Region and DON acknowledge and agree that the Region may, at its discretion from time to time as approved by a by-law enacted by Council, provide financial or other assistance as prescribed by the Act and the Regulations thereunder to DON for the purpose of DON's ownership and operation of the Facilities.

Without limiting the generality of the foregoing, the assistance provided by the Region to DON may include any or all of the following or any other financial assistance from time to time prescribed by the Act or Regulations for Municipal Capital Facilities:

- funding of DON's annual capital and operating expenses; guaranteeing borrowing by DON;

- the use of services of employees of the Region at less than fair market value;

- the use of office space and equipment owned by the Region at less than fair market value;

- exemption of the land on which the Facilities are located from taxation for municipal and school purposes; and

- exemption of the land on which the Facilities are located from the payment of development charges.

The Region and DON acknowledge and agree that it is their common intention that the financial and other assistance being provided by the Region to DON for the purpose of owning, operating, maintaining and expanding the Facilities, is being provided by the Region pursuant to section 110 of the Act and the Regulations thereunder in order that DON provide Municipal Capital Facilities. Except for the specific assistance set forth herein, the Region is not obligated in any manner with respect to the Facilities or to provide any additional financial assistance in connection therewith.

DON shall operate, maintain and expand the Facilities so that the Facilities satisfy the requirements applicable to Municipal Capital Facilities under the Act and the Regulations. If any amendments are made to Section 110 of the Act or the Regulations thereunder after the date of this Agreement, DON and the Region covenant and agree to cooperate reasonably to try to achieve their mutual common intention that the Facilities be Municipal Capital Facilities throughout the time that this Agreement is in force.

The Region and DON covenant and agree that they will not, while this Agreement is in force, do any act or thing, or omit to do any act or thing if doing so or omitting to do so, as the case may be, that would result in the Facilities ceasing to satisfy all statutory or regulatory requirements applicable to a Municipal Capital Facility pursuant to the Act and the Regulations.

MISCELLANEOUS

No provision of this Agreement may be changed, modified or amended, other than by an agreement in writing signed by DON and the Region, and duly approved by Council of the Region.

Time is of the essence of this Agreement.

From time to time, DON or the Region, as the case may be, will execute and deliver to the other such additional documentation, and will provide such additional information, as the other may reasonably require, in order to carry out the intention and terms of this Agreement.

This Agreement shall be binding upon both the Region and DON and their respective successors and permitted assigns. This Agreement may not be assigned by DON without the prior written consent of the Region, which consent may be unreasonably withheld.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed on the date first above written.

THE REGIONAL MUNICIPALITY OF DURHAM

Per: _____
Name: John Henry
Title: Regional Chair

Per: _____
Name: Ralph Walton
Title: Regional Clerk

We have the authority to bind the Region.

DURHAM ONE NET INC.

Per: _____
Name: _____
Title: Chief Executive Officer

Per: _____
Name: _____
Title: Secretary

We have the authority to bind the Corporation.

THE REGIONAL MUNICIPALITY OF DURHAM

ASSET TRANSFER POLICY

Purpose

The purpose of this policy is to permit transfers of Regional assets to corporations owned by the Region in accordance with the requirements of applicable legislation.

Definitions

Act means the Municipal Act, 2001, SO 2001, c 25, including Regulations made under it, as amended.

Asset or Assets means real property and personal property of the Region and its agencies, boards, commissions and corporations.

Corporation means a corporation incorporated in accordance with section 203 of the Act and Ontario Regulation 599/06 made under the Act, as amended.

Policy

1. Assets may be transferred to a Corporation at any time, and from time to time, as authorized by Council, on such terms as Council may determine.
2. Any transfer of Assets must be approved by Council in advance of the transfer, based on consultation with the Regional Solicitor and the Commissioner of Finance/Treasurer, to ensure compliance with prevailing legislation, including but not limited to the Act, and municipal reporting requirements.
3. In determining whether to authorize a transfer of Assets to a Corporation, Council may have regard to the extent to which the transfer is in keeping with existing Regional financial policies and will achieve one or more of the objectives of the Region's Strategic Plan such as:
 - (a) optimizing the use and value of the Assets;
 - (b) advancing the Region's economic development, vitality and competitiveness;
 - (c) supporting community health and well-being;
 - (d) managing environmentally sustainable growth;
 - (e) providing responsive and efficient public service; and
 - (f) enhancing the quality of life for the Region's citizens.
4. Council may impose such terms and conditions on the transfer of Assets as it deems necessary, including but not limited to:
 - (a) specifying the permitted use of the Assets;
 - (b) requiring the Corporation to transfer the Assets back to the Region upon the happening of an event or events as determined by Council;
 - (c) restricting or prohibiting further transfer of the Assets;

- (d) attaching a purchase price to the Asset(s), to be paid or owed to the Region by the Corporation; and
- (e) such other terms or conditions as Council deems advisable and appropriate.

5. Prior to the transfer of assets, asset valuations will be determined and set in accordance with the Region's Tangible Capital Asset Policy.
6. Before any transfer of Assets, Regional staff shall determine the current fair market value of the Assets. This determination may be made using an appraiser, but such an appraisal shall not necessarily be required where staff is of the opinion that the fair market value can otherwise be accurately determined.
7. Where any Asset is transferred at less than fair market value, the Treasurer shall prepare a statement of the estimated fair market value of the Asset.
8. The Treasurer shall record all transfers of Assets in accordance with Public Sector Accounting Board financial reporting standards and the Region's accounting policies.

**Shareholder's Direction for
Durham OneNet Inc.
(the "Corporation")**

WHEREAS:

- A. The Regional Municipality of Durham (the "**Region**") has established the Corporation as a Municipal Services Corporation pursuant to the provisions of the *Municipal Act* and the OBCA and is the sole shareholder of the Corporation;
- B. The Region incorporated the Corporation for the purpose of providing a telecommunications and high-speed broadband internet network in Durham Region. The Corporation will register with the Canadian Radio-television and Telecommunications Commission as a non-dominant carrier;
- C. The Region as the sole shareholder of the Corporation has developed a detailed initial business plan for establishing the Corporation's business and undertaking as more particularly described below which will be brought to Regional Council ("**Council**") for approval (the initial business plan once approved by Council herein called the "**Initial Plan**"); and
- D. The Region, in this Shareholder's Direction, wishes to set out for the Board, the Region's expectations of, and objectives for, the Corporation's mandate, scope of responsibility, and reporting requirements in respect of its business and operations.

NOW THEREFORE it is hereby agreed and declared as follows:

1. INITIAL PLAN

- 1.1 The Initial Plan shall include the following, together with anything else that the Corporation or the Board may consider necessary or advisable (or that Council may require once a proposed Initial Plan is placed before Council for approval), in relation to the following:
 - (a) an initial strategic plan, business and financial plan and budget (including a capital and operating budgets), including, without limitation, any transfer of assets and financial assistance that may be required in relation thereto;
 - (b) a proposal for pursuing existing and future grant applications in relation to the Corporation's pursuit of its objects; and
 - (c) any plan for pursuing arrangements with any third-party entity in relation to the Corporation's undertaking as a telecommunications and high-speed broadband internet network serving Durham Region.

Once the proposed Initial Plan (with any such amendments as required by Council) is approved by Council it shall constitute the Initial Plan for the purposes of this Shareholder's Direction.

2. LIMITATIONS

- 2.1 The Corporation and the Board shall not, without further approval of Council, undertake any activities beyond what they are expressly empowered to proceed with in this Shareholder's Direction, but are empowered to do all things necessary or advisable in pursuit of those activities.
- 2.2 The provisions in this Shareholder's Direction following this Section 2.2 are not effective until the Initial Plan has undergone the necessary Council procedure and has been approved by Council. Upon such approval having been obtained from Council the proposed Initial Plan (with such amendments as required by Council) shall be considered the Initial Plan for the purposes of this Shareholder's Direction, and the provisions of this Shareholder's Direction immediately following this Section 2.2 shall become effective without further action being required.

3. DEFINITIONS AND INTERPRETATION

- 3.1 In this Shareholder's Direction, the following definitions apply:
 - (a) "Annual Business Plan" means the annual business plan presented by the President, approved by the Board and approved by Council which is from time to time in effect, and which includes any updates to the Corporation's strategic plan, the Corporation's business and financial plan and budgets for the Corporation (including capital and operating budgets) and such other information for the applicable period covered by such Annual Business Plan as set out in Section 9.1, required by this Shareholder's Direction or otherwise required by Council.
 - (b) "Annual Report" means the Corporation's annual report to its shareholder, the Region, as more particularly described in Section 9.6.
 - (c) "Applicable Law" means any federal, provincial or municipal statute, regulation, regulatory policy or order of any Government Authority, including all applicable by-laws, as same may be amended from time to time (including federal, provincial, or municipal government, or any entity, person, court or other body or organization exercising one more executive, legislative, judicial or regulatory functions, having jurisdiction over the matter).
 - (d) "Articles" means the Articles of Incorporation of the Corporation issued by the Province of Ontario's Ministry of Government Services on *** , 2021.
 - (e) "Authorized Region Signatory" means the individual or individuals who are authorized by Council to sign written approvals or other documents relating to the Corporation on behalf of the Region.
 - (f) "Corporate Employees" has the meaning set out in Section 6.2. "Corporate Employees" does not include Regional Staff.

- (g) "Durham Region" means the geographical area of the Regional Municipality of Durham.
- (h) "Financial Statements" means, for any particular period, audited and/or (if the requisite legal exemptions are available at law and have been validly authorized and pursued) unaudited comprehensive financial statements of the Corporation consisting of not less than a balance sheet, a statement of income and retained earnings, a statement of changes in financial position, a report or opinion of the Corporation's auditor, and such other statements reports, notes and information as are required in accordance with any Applicable Law, all prepared in accordance with GAAP (meaning Canadian generally accepted accounting principles applied on a consistent basis and which are in accordance with recommendations from time to time of the Chartered Professional Accountants of Canada, at the date on which such generally accepted accounting principles are applied).
- (i) "Fiscal Year" means the twelve (12) month period commencing on January 1st and ending on December 31st.
- (j) "Municipal Act" means the *Municipal Act, 2001*, S.O. 2001 c.25, as may be amended, replaced and/or re-enacted from time to time.
- (k) "Network" means the telecommunications and highspeed broadband networks in Durham Region being a dark fibre telecommunications network consisting of fibre optic cables and other means of transmission facilities, appurtenances, and related equipment, including conduit, but excluding real property upon which the facilities are situated.
- (l) "OBCA" means the *Business Corporations Act* (Ontario), as may be amended, replaced and/or re-enacted from time to time.
- (m) "President" means the President of the Corporation.
- (n) "Regional" when used in relation to a facility, means a facility owned, operated or managed by the Region, and when used in relation to a branch or department, means a Regional branch or department of the Region.
- (o) "Regional Auditor" means the Internal Auditor of the Region.
- (p) "Regional CAO" means the Chief Administrative Officer of the Region.
- (q) "Regional Treasurer" means the Commissioner of Finance and Treasurer of the Region.
- (r) The necessary grammatical changes required to make the provisions of this Shareholder's Direction apply in the plural sense where the context comprises more than one entity and to corporations, associations, partnerships or individuals, males or females, in all cases will be assumed

as though in each case fully expressed. References to any individual shall be read with such changes in number and gender as may be appropriate.

- (s) The captions for sections of this Shareholder's Direction are for convenience only and are not to be considered a part of this Shareholder's Direction and do not, in any way, limit or amplify the terms and provisions of this Shareholder's Direction.
- (t) Where there is a reference to a director, officer or employee performing duties in respect of this Shareholder's Direction, this shall also include the individual acting in that capacity or his or her designate.
- (u) In the event of any conflict between any approval or direction given or action taken pursuant hereto or any provision of this Shareholder's Direction and any Applicable Law, the Applicable Law shall govern.

4. MISSION AND GUIDING PRINCIPLES

4.1 Mission and Guiding Principles of the Corporation

The Corporation's mission is to maintain and expand the Network, to provide open access fibre connectivity across Durham Region, to deliver Regional services and to enable economic development and innovation across Durham Region through improved broadband connectivity.

4.2 The Corporation's mission is supported by these guiding principles:

- (a) **Improve Service Delivery:** Leverage the Network to expand and enable more impactful Regional services to its residents through the use of network fibre to connect Regional facilities, assets and operations.
- (b) **Fast and Reliable:** Design and build a fibre based, future-proof, scalable and resilient network to meet current to future needs.
- (c) **Ubiquitous:** Expand the Network across Durham Region to encourage and enable service providers to deliver ubiquitous broadband services across Durham Region.
- (d) **Collaborative:** Leverage private and public partnerships aligned to the vision of a Regional Broadband Network connecting our communities.
- (e) **Open Access:** The Network should be open for all service providers to deliver a vast array of broadband services and foster competitive choice across Durham Region.
- (f) **Affordable and Inclusive:** The Corporation should seek opportunities to influence and offer affordable services across Durham Region.

5. OBJECTIVES AND PRINCIPLES

5.1 Purpose of this Shareholder's Direction

This Shareholder's Direction:

- (a) Sets out for the Board the Region's expectations of and objectives for the Corporation and the Corporation's mandate, scope of responsibility, and reporting requirements;
- (b) Sets out the relationship between the Corporation and the Region; and
- (c) Constitutes, where applicable, a declaration by the Region, as the sole shareholder of the Corporation, pursuant to subsection 108(3) of the OBCA.

5.2 Regional Objectives

The Region has the following objectives in its decision to incorporate the Corporation as a wholly-owned subsidiary of the Region under the OBCA:

- (a) As an OBCA corporation governed by a board of directors, the Corporation will have greater agility to make and implement decisions quickly within the defined strategy and budgets and defined reporting requirements. Through delegation from the Board to the President, the President can execute agreements that are in conformance with the approved Annual Business Plan.
- (b) As a for-profit corporation under the OBCA, the Corporation will have greater ability to enter into strategic partnerships, pilot projects and other business arrangements.
- (c) In time, the Corporation will be financially sustainable on an operating basis.

5.3 Mandate of the Corporation

The Corporation will strive to achieve the Region's objectives set forth in Section 5.2 (Regional Objectives) when carrying out the following mandates. Specifically:

- (a) The Corporation shall ensure that the connectivity requirements of Regional departments for service delivery continue to be addressed to enhance operational efficiencies and use of applications.
- (b) The Corporation shall assist municipalities, universities, schools and hospitals sector entities within Durham Region in meeting and/or optimizing their connectivity levels to foster better communications.

- (c) The Corporation shall develop a telecommunications system that provides open access fibre infrastructure across Durham Region to public and private sector entities.
- (d) Subject to the terms and conditions of this Shareholder's Direction, the Corporation shall assume responsibility for strategic planning, management and development of the Network, including without limiting the generality of the foregoing, the Network design, preliminary design, construction, maintenance, operation, capital delivery, funding, financing, and procurement in respect of the Network. The Corporation's responsibilities in this respect will include but not be limited to pursuing funding opportunities, negotiating contracts, structuring business and commercial arrangements, including pricing and fees structure, and entering into contracts to give effect thereto.

5.4 Agreements and Ownership of Assets

- (a) The Corporation will own or have such ownership interests in the assets and infrastructure of the Network as acquired by it in conformance with the Annual Business Plan and as transferred to it by the Region pursuant to transfers entered into by the Region in conformance with any applicable Asset Transfer Policy, with the exception of assets and infrastructure that may be owned by any third-party entity also involved in developing and operating the Network.
- (b) The majority of such infrastructure is affixed to and/or situated in a Regional rights-of-way, under the legal jurisdiction of the Region, as the road authority. The Corporation shall enter into a municipal access agreement with the Region under which the Corporation will be granted such rights to the Regional right-of-way that are necessary for the Corporation to construct, maintain and operate the current and future Network.
- (c) Any business agreements and other Network related operational agreements that are currently in place between the Region and a third party shall be assigned by the Region to the Corporation upon the Region entering into an assignment agreement in conformance with any Annual Business Plan acceptable to the Region and the Corporation. All future access and other Network related operational agreements shall be entered into in the Corporation's name, provided that they are provided for and contemplated in an Annual Business Plan.
- (d) All rights in intellectual property created by the Corporation regarding or in respect of the Network including but not limited to copyrights, trademarks, trade secrets, patents and industrial designs shall be owned by the Corporation. The Region may request a licence from the Corporation to use the Corporation's intellectual property, in whole or in part, such request not

to be unreasonably denied. Any such licence granted will be irrevocable, perpetual, and royalty-free.

5.5 Operating Principles

The directors and officers of all OBCA corporations have a duty to act honestly, in good faith, and in the corporation's best interests. The Corporation is wholly owned by the Region and the Region has established the objectives for the Corporation that are aligned with the Region's interests. In this context, the Corporation, acknowledges and agrees, that in delivering its mandate, the following principles will govern the operations, services and activities of the Corporation:

- (a) The Corporation will conduct its business in a socially responsible manner that respects the public nature of its shareholder and the importance of the Region's accountability to the general public.
- (b) The Corporation will operate in a manner to enable the Corporation to become financially sustainable on an operating basis over time.
- (c) The Corporation will initially operate as a fibre provider that is effectively providing connection infrastructure. This could include any networking and management equipment to operate and manage services provided.
- (d) The Corporation will conduct its affairs in a manner that supports the Region's goals and priorities and is not in conflict with them.
- (e) The Corporation will act in accordance with and be accountable for the financial performance and strategic objectives as set out in the Corporation's Annual Business Plans.
- (f) The Corporation will act reasonably to mitigate financial risks to the Region.

5.6 Municipal Services Corporation Requirements under the *Municipal Act*

The Board shall ensure that the Corporation fulfills its legal obligations under the *Municipal Act* as a municipal services corporation incorporated pursuant to the *Municipal Act*. The following highlights sections of O. Reg . 599/06 (the "**Regulation**") under the *Municipal Act* that are most relevant to the corporation:

- (a) Section 18(1) of the Regulation prohibits the Corporation from incorporating another corporation.
- (b) Section 18(2) of the Regulation provides that the Corporation may only invest in securities that are prescribed under section 418 of the *Municipal Act* and any Regulation made under section 418 applies to the Corporation.
- (c) Section 19 of the Regulation provides that the directors and officers of the Corporation are deemed to be members for the purposes of the *Municipal Act*.

Conflict of Interest Act which imposes certain obligations relating to declaring interests and avoiding conflicts of interest and establishes consequences for failing to comply with those obligations. In addition, as an OBCA corporation, the directors and officers of the Corporation are required to comply with the conflict of interest requirements set out in the OBCA.

- (d) Section 20 of the Regulation provides that a wholly owned municipal services corporation is deemed to be an institution for purposes of the *Municipal Freedom of Information and Protection of Privacy Act*.
- (e) Section 21(2) of the Regulation provides that the Corporation shall be deemed to be a local board for the purposes of subsection 270(2) of the *Municipal Act*, that requires the Corporation adopt and maintain policies with respect to the following matters:
 - (i) sale and other disposition of land;
 - (ii) hiring of employees; and
 - (iii) procurement of goods and services.

5.7 Confidentiality

The Corporation shall use its best efforts to ensure that no confidential information of the Region or the Corporation is disclosed or otherwise made available by the Corporation or any of its directors, officers and employees to any individual, except to the extent that:

- (a) Disclosure to the Region's or the Corporation's officers, employees or agents is necessary for the performance of any of their duties or obligations under this Shareholder's Direction, or in their jobs at the Region, or for the performance of duties by third parties receiving confidential information; or
- (b) Disclosure is required in the course of any legal or regulatory proceedings or actions or pursuant to an Applicable Law; or
- (c) The confidential information becomes part of the public domain (other than through unauthorized disclosure by the Corporation); or
- (d) Disclosure is made in full compliance with and as required by the *Municipal Freedom of Information and Protection of Privacy Act* and the conflict of interest provisions in the OBCA or other applicable law or regulation or by court order.

6. RELATIONSHIP TO THE REGION

6.1 Relationship of the Corporation to the Region

- (a) The Region is the sole shareholder of the Corporation and requires that the Corporation take responsibility for designing, constructing, maintaining, operating and developing the Network in accordance with the mandate set out in Section 5.3, subject to the terms, conditions and provisions of this Shareholder's Direction and Applicable Law. To this end and subject to the express terms and conditions of this Shareholder's Direction, the Region hereby directs and authorizes the Corporation to undertake any and all steps necessary to carry out these responsibilities in conformance with the Corporation's Annual Business Plans, including without limitation, procuring, awarding, executing, project managing, and awarding contracts.
- (b) Under the *Municipal Act*, the Region has, and will continue to have, legal jurisdiction of the Regional rights-of-way upon which the Network is situated.
- (c) The Corporation shall be entitled to receive all fees and other revenue arising from the Network operations and be responsible for paying its operating costs.

6.2 Corporation's Employees

- (a) All staff of the Corporation including the President (collectively "**Corporate Employees**") shall be hired as employees of the Corporation. Initial Corporate Employees shall include the President and Chief Financial Officer. A performance appraisal process applicable to Corporate Employees will be developed considering best practices utilized in the Region. The salaries and benefits and other employment-related costs of Corporate Employees shall be the responsibility of the Corporation.
- (b) Subject to the provisions set out in Subsection 7.1(j) and compliance with the policies applying to the hiring of Corporate Employees, the Corporation, through delegation to the President, is responsible for establishing the duties and responsibilities of each Corporate Employee's job description. When carrying out their duties and responsibilities, Corporate Employees carry out same for and on behalf of the Corporation.

6.3 Services Agreement between the Region and the Corporation

In order for the Corporation to carry out its business and affairs, the Corporation will require the Region to provide certain services to the Corporation. To this end, the Corporation and the Region will negotiate and execute a services agreement (the "**Corporate Services Agreement**") under which Regional employees and/or contractors of the Region (collectively "**Regional Staff**") will provide the necessary

services to the Corporation. The Corporate Services Agreement shall include, but not be limited to, the following terms and conditions:

- (a) A description of (i) the services to be provided by a Regional department and/or Regional branch; (ii) the fees and/or allocations of Regional Staff attributable to the Corporation for such services; and (iii) the working relationship between Corporate Employees and Regional Staff; and
- (b) The authorized signatories in respect of the Corporate Services Agreement.

6.4 President and Secretary

- (a) The President will be a full time position with the Corporation.
- (b) The role of the President will be to lead the Corporation, provide leadership on strategic and tactical business objectives, develop on an annual basis a proposed annual business plan (including updating the strategic plan, a business and financial plan and budget (including capital and operating budgets) and, when it is anticipated that there will be funds available for distribution through dividends, a dividend policy) and prepare the Annual Report (in each case for presentation to the Board and consideration and approval by the Board for presentation to the Region by the Board), and hire and manage Corporate Employees. The President will provide regular reports to the Board regarding actual performance in comparison to the Annual Business Plan and any other matters of strategic or business importance coming to his attention and work priorities under the Corporation's Annual Business Plan.
- (c) The President will develop the Corporation's operating and capital budgets to be included in his proposed Annual Business Plan based upon the Corporation's forecasted work priorities and objectives.
- (d) Subject to any conditions or restrictions imposed upon the President by the Board or in this Shareholder's Direction, the President will be responsible for all of the following in accordance with and in compliance with the Corporation's Annual Business Plan:
 - (i) negotiating business and commercial arrangements, including but not limited to agreements to co-build with external internet service providers, indefeasible rights of use agreements, construction and/or design-build agreements based on forecasted build requirements;
 - (ii) establishing fee structures;
 - (iii) negotiating individualized pricing options, discounts and/or tariffs with third parties;

- (iv) pursuing senior government funding and preparing and submitting funding applications; and
 - (v) hiring and managing the Chief Financial Officer and other Corporate Employees.
 - (vi) The President shall have a signing authority limit to be established by the Board and in any event the President shall have signing authority for items already approved in the Annual Business Plan (as defined below). The President has the authority to establish signing authority limits (within the limits imposed upon the President to conform to the Annual Business Plan) for Corporate Employees.
- (e) The Secretary of the Corporation should initially be the Regional Solicitor. A replacement Secretary may be elected by the Board following the initial constitution of the full Board.

7. BOARD OF DIRECTORS

7.1 Responsibilities of the Board of Directors

Subject to this Shareholder's Direction and the OBCA, the Board shall supervise the management of the business and affairs of the Corporation. The Board shall supervise and manage the business and affairs of the Corporation in compliance with and conformance to the Corporation's Annual Business Plan. In particular, the Board, or where delegation is permitted and deemed appropriate by the Board, a committee of the Board, shall:

- (a) Receive the Corporation's proposed Annual Business Plan, as developed and presented to it by the President, and approve the proposed Annual Business Plan in such form and with such amendments as they determine in accordance with their responsibilities as directors, so long as it is in accordance with the Corporation's mandate and the requirements of this Shareholder's Direction, and provided that it is in accordance with the operating and/or capital budgets and capital and operating spending authority approved by Council in the Region's annual budget process for that Fiscal Year.
- (b) Present for approval by Council on an annual basis the proposed Annual Business Plan, which must be in conformance with and comply with the requirements of the Corporation's mandate, this Shareholder's Direction, the Region's operating and/or capital budgets and capital and operating spending authorities approved by Council as part of the Region's annual budget process. Once a proposed Annual Business Plan (with such amendments as required by Council) is approved by Council, it shall constitute an Annual Business Plan for the purposes of this Shareholder's Direction.

- (c) Appoint the President, approve the President's term of employment, establish performance objectives for the President, monitor the President's success in meeting those objectives, and hold the President accountable for meeting those objectives.
- (d) In addition to the President, appoint the executive officers of the Corporation.
- (e) Receive annual updates from the President regarding achievement of goals and objectives in the Corporation's Annual Business Plan based upon performance metrics and whether there are budget variances and/or budget pressures. The Board will ensure that the Corporation acts in accordance with the Corporation's Annual Business Plan.
- (f) Receive the proposed strategic and financial plans forming part of the proposed Annual Business Plan as developed and presented to it by the President, and approve such plans for presentation to Council, so long as they are in accordance with the Corporation's mandate and provided that it is in accordance with this Shareholder's Direction and the operation and/or capital budgets and capital and operation spending authority approved by Council in the Region's annual budget process for that Fiscal Year.
- (g) Review annually the Corporation's mandate and recommendations to changes to the mandate for consideration by Council so long as amendments do not contravene the operating principles set forth in Section 5.5 or the Corporation's Annual Business Plan.
- (h) Upon the President's recommendation, approve in-year changes to work priorities in the business plan including budget re-profiling, provided that any such approval does not impact the Region's financial position in a material way and such changes are in conformance with the Corporation's Annual Business Plan.
- (i) Adopt and maintain a policy with regard to the sale and other disposition of land in conformance with the Annual Business Plan.
- (j) Adopt and maintain policies with regard to the hiring of Corporate Employees.
- (k) Develop and approve human resources policies and procedures for the Corporation considering applicable best practices of the Region's policies and procedures with the intention that Corporate Employees are treated in a comparable manner to Regional jobs, in respect of their employment terms and conditions.
- (l) Develop and approve procurement policies for goods and services designed with the objective of providing good value while providing sufficient flexibility to the Corporation to conduct its business and affairs.

- (m) Develop and approve signing authority policies for the President and any other executive officer of the Corporation in conformance with the Annual Business Plan.
- (n) Adopt financial and risk management strategies for the Corporation.
- (o) Approve the Audited Financial Statements, the Annual Report and submit the Audited Financial Statements and Annual Report to the Region, as shareholder.
- (p) Maintain appropriate insurance coverage for the Corporation's business and activities.
- (q) Ensure that the Corporation's officers and employees act in accordance with this Shareholder's Direction.
- (r) Provide such annual or special reports to Council as Council may from time to time determine it requires.

7.2 Composition of the Board of Directors

- (a) The Region has the sole authority to determine and amend the composition of the Board, subject to the provisions in the Corporation's Articles and any articles of amendment or any corporate by-law, or shareholder proceedings executed by the Region.
- (b) The Board shall be comprised of:
 - (i) A maximum of six board members;
 - (ii) One or two additional initial board members (in addition to the Regional Chair who is serving as incorporator and initial director of the Corporation) will be elected by the Region (as sole shareholder). The two or three initial board members will act as a nomination committee to recommend within 3 months of the date of incorporation of the Corporation a slate of up to six board members (total) for the consideration of the Shareholder, and the slate of six shall include the President of the Corporation;
 - (iii) Of the six nominees to be presented by the nomination committee to the Shareholder for its consideration in connection with the Shareholder's election of the Board of Directors of the Corporation, up to one nominee may be an elected member of Regional Council and up to one nominee may be a member of senior management staff of the Regional Municipality of Durham;
 - (iv) After a review of industry best practices, a skills matrix will be used to target and select the expertise needed on the board. The matrix

would contain expertise for finance/trustee with private CFO experience, legal, telecom industry experience (operator and/or vendor), MUSH sector experience (customer or client experience), and diversity; and

- (v) Board members must be Canadian citizens and must meet statutory requirements required for qualification as a member of the Board.

7.3 Term of a Member on the Board of Directors

- (a) For Board members who are Corporate officers: the term will align with the role/position appointed by the Board. (eg. the President will remain a Board member until such time as the Board replaces that President) unless otherwise decided by the Shareholder at any time.
- (b) For Board members who are elected officials: the term will align with the term of the elected official unless otherwise decided by the Shareholder at any time.
- (c) For non-elected Region senior management staff (Commissioner or CAO): the term will align with the role/position as designated by the Region unless otherwise decided by the Shareholder at any time.
- (d) For independent Board members: Staggered terms of no less than two years unless otherwise decided by the Shareholder at any time.

7.4 Vacancies on the Board of Directors

The Board shall declare a vacancy if a director is absent from three (3) consecutive board meetings without the approval of the Board as recorded in the minutes of the meetings.

7.5 Conflict of Interest

Each director and officer of the Corporation shall inform the Board immediately when he or she has an interest in a matter to be considered by the Board or a committee of the Board and take appropriate action in accordance with the provisions of the *Municipal Conflict of Interest Act* and the OBCA, and any other Applicable Law or Board policies.

7.6 Remuneration of Directors

- (a) The remuneration of the directors of the Corporation will be determined by the Region from time to time. The Board has no authority to alter the remuneration or provide any additional remuneration to directors. However, a director may elect to receive no or a reduced remuneration.

- (b) Board members who are neither Members of Council nor Regional Staff may receive remuneration of up to \$20,000 per annum but remuneration for such Board members cannot exceed this maximum aggregate amount per annum.
- (c) Members of Council will receive additional remuneration for their service on the Board in the same amounts as Council members who are Chairs of Standing Committees or members of the Police Services Board (per By-Law # 08-2004), which is currently \$6,000 per annum.
- (d) Regional Staff who serve as members of the Board shall receive no additional remuneration beyond their salaries.
- (e) The Board shall establish an expense reimbursement policy for all Board members that is consistent with the Region's expense reimbursement policy pertaining to Councillors to provide for the reimbursement of out-of-pocket expenses incurred by Board members while conducting Board business.
- (f) The Board shall report to the Region the total remuneration and expenses paid for each member of the Board on an annual basis and the Region shall determine whether specific Regional by-laws need to be passed or amended in order to provide for the foregoing remuneration and reimbursement, and, if such by-law or amendments for remuneration or reimbursement policies acceptable to the Region are required, shall promptly pursue to same.

7.7 Meetings of the Board of Directors

- (a) Meetings of the Board and its committees may be held *in camera*, at the Board's sole discretion. The Board shall meet at least four (4) times per year.
- (b) The Board may engage recording clerk services of an outside party which initially will be the Regional Clerk or Regional Solicitor. The recording clerk shall attend all public and *in camera* portions of meetings. For clarity, the recording clerk is not required to attend briefings, orientation or other training sessions, or team building and planning meetings where no Board decisions are made.
- (c) Matters requiring the Region's approval under Sections 8.4 and 8.5 that require a council report shall adhere to the Region's scheduling process and Committee of the Whole and Council meetings schedule. If, in the opinion of the Board, a matter under Sections 8.4 or 8.5 urgently requires Council approval and the matter cannot be delayed by proceeding through the normal scheduling process and committee hearings, then the Board may instruct the President to contact the Regional liaison in order to request an urgent meeting with Council to obtain instructions from the shareholder

without going through the normal scheduling process and committee hearings. The Chair of the Board may, at his discretion, require Corporate Employees who are not members of the Board, other than the recording clerk, in attendance during the *in camera* portion of the meeting, to leave the meeting during discussion of sensitive personnel issues. Members of the Board who are Corporate Employees may be required to leave the *in camera* portion of the meeting if they personally are the personnel to be discussed.

- (d) The Board may establish committees of the Board for any purpose and delegate decision-making to those committees as permitted by Applicable Law except:
 - (i) The Board shall not delegate decision-making to any committee unless all members of that committee are current Board members; and
 - (ii) The Board shall not delegate to a committee the power to commit the Corporation's resources unless the Board has stipulated in its by-laws monetary limits on the corporate resources that may be committed by the committee.

8. SHAREHOLDER MATTERS (WHEN REGIONAL COUNCIL APPROVAL IS REQUIRED)

8.1 Decisions of the Region

Each time the Corporation wishes to seek an approval or decision from the Region, as the shareholder of the Corporation, the Corporation shall make a written request for the approval which includes all information necessary for the Region to make an informed decision. The Corporation shall submit its request and supporting Information in a timely manner to the appropriate Regional liaison. Depending upon the nature of the approval sought the Corporation may need to prepare a council report for submission to Council.

8.2 Governance Liaison

For matters requiring the Region's approval or other action regarding governance matters set out in Article 7 (Board of Directors), Sections 8.4 and 8.5 (Matters Requiring Shareholder Approval), and Section 11.2 (Amendments), the designated Regional liaison is the Regional CAO.

8.3 Financial Liaison

For matters set out in Article 9 (Reporting) and Article 10 (Financial Performance), the designated Regional liaison is the Regional Treasurer, who is also the Authorized Region Signatory for matters set out in Subsections 8.5 (d), (e) and (f) which have obtained the required Region approval.

8.4 Matters Requiring Shareholder Approval under the OBCA or Otherwise

The Corporation shall not take any of the following actions without the prior written approval of its shareholder, the Region:

- (a) amend its Articles;
- (b) amalgamate with another corporation, apply to continue as a body corporate under the laws of another jurisdiction, merge, consolidate or reorganize, or approve or effect any plan of arrangement, in each case whether statutory or otherwise;
- (c) take or institute proceedings for any winding up, arrangement, reorganization or dissolution;
- (d) create new classes of shares or reorganize, consolidate, subdivide or otherwise change its outstanding securities or issue common shares and/or preference shares;
- (e) sell or otherwise dispose of, by conveyance, transfer, lease, sale or leaseback, or other transaction, or grant security, charges or mortgages upon the assets of the Corporation in respect of all, substantially all or a material amount or value of its assets or undertaking or in any transaction or series of transactions at variance with or not provided for in the Corporation's Annual Business Plan;
- (f) enter into any other transaction or take any other action that requires shareholder approval pursuant to the OBCA; or
- (g) take any action or make any decision which is at variance with or does not comply with the Corporation's Annual Business Plan.

The Board may recommend to Council the making, amendment, or repeal any of its by-laws and the changes take effect at such time of the Region's approval as Shareholder. Such changes shall be submitted to the Region, as Shareholder, for Council's approval.

8.5 Other Matters Requiring the Region's Approval

In addition to the matters set out in Section 8.4, the Corporation shall not, without the prior approval of Council:

- (a) Exceed the Corporation's capital or operating spending authority that was approved by Council in the Corporation's Annual Business Plan;
- (b) Sell, transfer or otherwise dispose or encumber all, substantially all or a material amount or value of the Corporation's assets or undertaking or

undertake any transaction or series of transactions which are at variance with or are not provided for in the Corporation's Annual Business Plan;

- (c) Issue or transfer shares to a third party entity;
- (d) Enter into any business arrangements which impose financial obligations on the Region or which are at variance with or are not provided for in the Corporation's Annual Business Plan;
- (e) Make representations or promises of any financial incentives or similar inducements that are binding on the Region;
- (f) Enter into a loan arrangement that may have a negative impact on the Region's credit rating in the opinion of the Regional Treasurer or which are at variance with or not provided for in the Corporation's Annual Business Plan;
- (g) Enter into any loan agreement, guarantee or grant any security or convey any assets that are not provided for in or do not conform to the Corporation's Annual Business Plan;
- (h) Enter into any contract or commitment involving monetary obligations which may exceed the overall amount provided or in the Corporation's Annual Business Plan; or
- (i) Acquire or invest in a business not provided for in or at variance with the Corporation's Annual Business Plan.

9. REPORTING

9.1 Business Plan

The Board shall annually approve Corporation's proposed Annual Business Plan to be presented to Council for approval by Council which will include, in respect of the period covered by such business plan the following. Once approved by Council the proposed Annual Business Plan shall constitute the Annual Business Plan for the period covered thereby:

- (a) The key objectives, priorities, and business initiatives that the Corporation will undertake over the next three (3) year period and any amendments to the strategic plan;
- (b) A financial and business plan and the metrics for monitoring accomplishments and financial performance including liquidity and debt coverage;
- (c) Operating and capital budgets in conformance with the Region-approved operating and capital budget for the next Fiscal Year and an operating and

capital budget projection for each subsequent Fiscal Year covered by the Corporation's Annual Business Plan, including the resources necessary to implement the Corporation's Annual Business Plans and any financial impact to the Region;

- (d) Pro forma Financial Statements;
- (e) Any material variances in the projected ability of any business activity to meet or continue to meet the Corporation's objectives;
- (f) Any material variances from the previous Annual Business Plans; and
- (g) Any additional information that the Regional Treasurer may reasonably specify from time to time.

9.2 Region's Annual Budget Process

In accordance with the Region's annual budget process, the Corporation shall prepare and deliver to the Region the Corporation's annual operating and capital budgets for that Fiscal Year and the proposed Annual Business Plan for the Region's approval. The Corporation shall not exceed, in any Fiscal Year, the Corporation's capital or operating spending authority that was approved by the Region in the annual budget process for that Fiscal Year and in the Annual Business Plan.

9.3 Financial Impact on the Region

Prior to consideration of the proposed Annual Business Plan by the Board, the President shall brief the Regional Treasurer on the draft proposed Annual Business Plan and any potential financial consequences for the Region.

9.4 Access to Records

The duly appointed representatives of the Region (as approved by Council from time to time) may make reasonable requests to the Board for access to the Corporation's books and records during normal business hours. Such representatives shall treat all information of the Corporation with the same level of care and confidentiality as any confidential information of the Region. The Regional CAO, the Regional Treasurer, the Regional Solicitor and the Regional Auditor are deemed duly appointed representatives of the Region for matters in respect of this Section 9.4.

9.5 Audit

The Corporation shall be subject to internal audits/reviews at the request of the President, the Board or the Shareholder.

The Corporation's consolidated and unconsolidated Financial Statements shall be audited annually. The initial auditor of the Corporation is Deloitte Canada. In addition to the foregoing:

- (a) The Corporation shall establish and maintain a reasonable accounting system that enables the Corporation to readily identify its assets, expenses, costs of goods, and use of funds.
- (b) The Region's Internal Audit Division (IAD) will provide the audit and consulting services to the Corporation at the Corporation's discretion in accordance with the Internal Audit policy of the Region, subject to policy changes by the Board.

9.6 Annual Report

The Board shall approve the audited Financial Statements and submit an Annual Report to the Regional Treasurer as the designated representative of the Region within 6 months after the end of each Fiscal Year. The Annual Report shall include:

- (a) Audited Financial Statements;
- (b) Accomplishments during the Fiscal Year together with a review and report of actual performance measured against the Annual Business Plan along with explanations, notes and information as is required to explain and account for any variances between the actual results and the Corporation's Annual Business Plan in effect for that Fiscal Year;
- (c) The proposed Annual Business Plan approved by the Board for presentation to Council for Council's consideration and approval for the next period; and
- (d) If there is to be a proposed change to any part of the Corporation's strategic plan or dividend policy as part of any proposed Annual Business Plan, the report will include an analysis supporting such proposed change.

9.7 Annual and Special Update for Council

In addition to the requirement of the OBCA to hold an annual general meeting, the Corporation shall provide an annual update and report for Council of its activities for the previous Fiscal Year. The Corporation shall also update and report to Council promptly on any issue or occurrence which could give rise to a material adverse impact on the Corporation and on the commencement of any significant litigation or proceedings for or against the Corporation that could materially impact the financial status of the Corporation, and shall otherwise provide such annual or special reports from time to time as are required by the Region or Council.

10. FINANCIAL PERFORMANCE

10.1 Debt Financing

The Corporation shall manage its corporate financing in a prudent manner, consistent with best practices for comparable telecommunications businesses, with due regard for liquidity and protection of the Region's investment and always in conformance with the Annual Business Plan.

10.2 Dividend Policy

The Board will exercise its discretion in declaring dividends consistent with any dividend policy for the Corporation in effect from time to time which has been approved by the Region as part of an Annual Business Plan.

11. GENERAL

11.1 Interpretation

Wherever there is a reference to a Regional official, that reference includes any individual acting in that capacity, or any successor official appointed or designated as being responsible for the service area included in that office.

11.2 Amendments

The Region, in its sole discretion, may amend this Shareholder's Direction from time to time. The Region will provide a written amendment or the amended Shareholder's Direction, as the case may be, to the Board. The amendment will come into effect on a date specified by the Region.

11.3 Time of the Essence

Time shall be of the essence in this Shareholder's Direction.

11.4 This agreement is intended to be a Unanimous Shareholders Declaration under Section 108 of the *Business Corporations Act* (Ontario) to the extent that it restricts in whole or in part the powers of the directors of the Corporation, including, without limitation, its restrictions on the management or supervising the management of the business and affairs of the Corporation.

DATED the _____ day of _____, 2021.

**THE REGIONAL MUNICIPALITY OF
DURHAM**

Per:

Name:

Title:

**RESOLUTION OF THE SHAREHOLDER
OF
DURHAM ONENET INC.
(the "Corporation")**

RESOLVED that the Board of Directors of the Corporation is increased from one (1) to two (2) directors and **Elaine Baxter-Trahair, Chief Administrative Officer**, is elected as a director to serve with **John Henry, Regional Chair**, as the two (2) directors of the Corporation.

The foregoing resolution is, by the signature below of the sole shareholder of the Corporation entitled to vote on such resolution, passed pursuant to the provisions of Section 104(1) of the *Business Corporations Act* (Ontario).

DATED as of the _____ day of _____, 2021.

**THE REGIONAL MUNICIPALITY
OF DURHAM**

Per: _____



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Commissioner of Finance and Commissioner of Social Services
Report: #2021-COW-34
Date: December 15, 2021

Subject:

Approval to Award a five-year sole source negotiated Agreement with Yardi Canada Ltd. for Upgrading Property Management Software and Data Migration to Cloud-based Storage System for Durham Regional Local Housing Corporation (DRLHC)

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That approval be granted to enter into a sole source negotiated agreement with Yardi Canada Ltd. ("Yardi") for the upgrade of, and data migration to a cloud-based property management software for the Durham Regional Local Housing Corporation (DRLHC) for a term of five years, at an estimated initial upgrade/implementation cost (excluding HST) not to exceed \$310,535 and annual license, support, and maintenance service fees of \$110,640 for a total estimated contract value of \$863,735;
 - B) That financing for the initial upgrade/implementation costs and first year license, support, and maintenance service fees in the amount of \$421,175 be provided from the existing capital project budget;
 - C) That the financing for the annual license, support, and maintenance service fees for years two (2) to five (5) of the contract with the total amount of \$442,560 will be provided from the annual Business Plans and Budgets of the DRLHC; and,
 - D) That the Commissioner of Finance be authorized to execute the Agreements and Amendments to the Agreement.
-

Report:

1. Purpose

- 1.1 The purpose of this report is to obtain Regional Council approval to award a five-year sole source negotiated agreement with Yardi Canada Ltd.(Yardi) for the

upgrade of, and data migration to, a cloud-based property management software for a five-year term.

2. Background

- 2.1 Yardi currently provides highly specialized property management software that facilitates the calculation of the Rent-Geared-to-Income (RGI) subsidy for tenants of the DRLHC and for all the rent supplement programs. The financial books of record of the DRLHC are housed within the software.
- 2.2 In 2015, the Region of Durham (Region) undertook an RFP process (RFP#129-2015) to replace the Yardi property management software with an on-premises (non-cloud) software (at that time the Region did not have an approved path forward to allow cloud-based solutions). The attempt yielded one respondent out of the more than a dozen registered document takers.
- 2.3 Yardi was not one of the document takers for the noted RFP for two reasons:
 - a. Yardi did not have any interest in participating in an on-premises (non-cloud) software solution; and
 - b. Yardi was of the opinion that after failed negotiations to house an on-site solution with them, the Region was moving away from their technology altogether in pursuit of a collaborative/partnered property management solution.
- 2.4 The RFP was cancelled shortly after its closing, as the Region moved toward the investigation of a cloud computing strategy that was not envisioned at the time of the development of the RFP.
- 2.5 The version of Yardi software running today is the same version that was used at the time of the Provincial Download of housing in 2001/2002. While the specialized software handles the RGI calculations well, other functionality is very limited and does not support basic business functionality, such as integration with banking systems.
- 2.6 With the recent Windows operating system upgrade, the Yardi software has had intermittent operating issues running on laptops that have been upgraded. The 2001 version of the Yardi software was not programmed to operate in the new Windows environment of 2018/2019.

3. Previous Reports and Decisions

- 3.1 Council Report # 2012-F-77 to negotiate a contract with Yardi Systems Inc.

4. Standardization and Justification for Sole Source

- 4.1 Based on an environmental scan on local housing providers conducted by Housing Services staff, a vast majority are using various versions of Yardi software. The highly specialized software used for RGI calculations is a major consideration for the continued use of Yardi software.

- 4.2 Housing Services and the Finance Department are currently using Yardi, staff are very familiar with the system and it is incorporated into existing financial processes for property management.
- 4.3 Negotiations were undertaken with Yardi to move to upgrade from the current on-premise system to Yardi's cloud-based property management software for a five year term.

5. Financial Implications

- 5.1 Section 7.2 of the Region's Purchasing By-law permits negotiations for sole source acquisitions under certain circumstances. There is no reasonable alternative available for the specialized RGI calculation software in an integrated system.
- 5.2 Funding for the implementation costs and the first year of licensing in the amount of \$421,175 is available in the approved capital project budget for the replacement of the software.
- 5.3 The total annual fees during years two (2) to five (5) of the contract in the amount of \$442,560 is to be funded from annual Business Plans and Budgets for the DRLHC.

6. Relationship to Strategic Plan

- 6.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
 - a. Service Excellence – including supporting transparency and accountability and embracing innovation.

7. Conclusion

- 7.1 It is being recommended that the Region enter into a sole source negotiated 5-year agreement with Yardi for the upgrade and data migration to a cloud-based property management software for DRLHC.
- 7.2 This report has been reviewed by Corporate Services – IT.
- 7.3 For additional information, contact: Alan Robins, Director of Housing Services, at 905-666-6239, extension 2500.

Respectfully submitted,

Original Signed By

Stella Danos-Papaconstantinou
Commissioner of Social Services

Original Signed By

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance

Original Signed By

Elaine C. Baxter-Trahair
Chief Administrative Officer

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3803



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Chief Administrative Officer, Commissioner of Social Services,
Commissioner of Works, and Commissioner of Finance/Treasurer
Report: #2021-COW-35
Date: December 15th, 2021

Subject:

Durham Region Local Housing Corporation (DRLHC) Seniors Building Portfolio Energy Retrofit Funding Strategy

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That, pending confirmation from FCM regarding whether the Region or the DRLHC should be the eligible lead applicant for this project, the Chief Administrative Officer be authorized to submit a funding application to the Federation of Canadian Municipalities' (FCM) Green Municipal Fund (GMF) Sustainable Affordable Housing (SAH) Program for up to \$10 million in combined grant and loan financing to be used towards the implementation of deep energy retrofits on DRLHC properties at (1) 1910 Faylee Cres., Pickering; (2) 655 Harwood Ave. S, Ajax; (3) 315 Colborne St W, Whitby; and (4) 850 Green St, Whitby under either lead applicant option;
- B) That the Chief Administrative Officer provide a letter of support on behalf of the Regional Municipality of Durham and DRLHC that confirms regional support for the FCM/GMF SAH loan and grant funding application; and
- C) That upon approval of the loan and grant funding application and confirmation of the final terms of the FCM/GMF funding, staff report back to obtain approval for the final funding strategy, loan directives, and execution of the funding agreement.

Report:**1. Purpose**

- 1.1 This report outlines the proposed actions to undertake deep energy retrofits with the senior's housing portfolio of DRHLC and seeks authority to submit a funding application to the FCM/GMF SAH Program.

2. Background

- 2.1 Initial feasibility studies led through the Works Department, Facilities Design Construction and Asset Management (DCAM) Division have confirmed the potential to significantly reduce energy usage and associated greenhouse gas (GHG) emissions in DRLHC's portfolio of senior's buildings through deep energy retrofits. Deep energy retrofits involve an integrated suite of building energy conservation measures that together achieve on-site energy use reduction of approximately 40 to 50 per cent compared to baseline energy use. These retrofits require a holistic approach to design and delivery, which is a step-change from the traditional approach of replacing building equipment like-for-like with incremental energy efficiency improvements over time.
- 2.2 Staff efforts have focused on four DRLHC seniors' multi-unit residential buildings which together represent 350 units, or almost 30 per cent of the entire DRLHC portfolio. The four buildings include 655 Harwood Ave S., Ajax; 1910 Faylee Cres., Pickering; 850 Green St., Whitby; and 315 Colborne St W., Whitby. These sites were chosen because they have approved capital budget allocations for significant building systems upgrades, which provides a strategic opportunity to address energy performance as part of the asset management and capital renewal process.
- 2.3 Regional staff have been working with The Atmospheric Fund (TAF) to develop feasibility studies for the DRLHC retrofit projects described in this report. TAF is a regional climate agency that enables the acceleration and scale-up of low-carbon solutions in the Greater Toronto and Hamilton Area (GTHA). It operates through funding endowments from the City of Toronto, the Province of Ontario, and most recently the Federal Government, allowing it to provide pro bono support to municipalities advancing climate action. TAF's program work has included over a decade of retrofits in the social housing sector, supporting Toronto Community Housing Corporation (TCHC), and other non-profit providers across the GTHA with the implementation of deep energy retrofits comparable to those proposed within this report. TAF has indicated a commitment to provide \$400,000 in grant funding to support this project, contingent on securing the necessary funding from FCM, the Region and other sources.
- 2.4 Given the advanced age of the properties and the natural deterioration of building elements, significant building upgrade work has been identified as necessary at the four community housing locations. The Region is looking to leverage existing

funding commitments, including funding made available through Federal Gas Tax and the Social Housing Apartment Improvement Program (SHAIP), to enhance the planned upgrades to deliver deep energy retrofits in alignment with Regional Council's approved direction relating to corporate and community climate action.

3. Previous Reports and Decisions

- 3.1 In December 2016, Regional Council approved in principle the [Durham Community Climate Adaptation Plan \(DCCAP\)](#), including 18 proposed programs. Two of these proposed programs directly relate to the subject of this report:
 - a. Building Sector: Building Retrofits for Climate Resilience (page 37); and
 - b. Human Health Sector: Property standards/by-laws for maximum temperatures allowed in apartments (Page 53).
- 3.2 In April 2019, Regional Council adopted the [Durham Community Energy Plan](#) and the associated low carbon pathway which included six (6) priority program areas, one of which was a deep energy retrofit program for existing dwellings. Deep energy retrofits of residential and commercial buildings are one of the key strategies to meeting Durham's community-wide GHG reduction targets, representing 34 per cent of the projected emissions reductions under the Council-approved low carbon pathway.
- 3.3 In January 2020, Regional Council [declared a climate emergency](#) and directed staff to develop a Corporate Climate Change Master Plan with GHG reduction targets that position the Region as a leader in the community-wide effort to reduce GHG emissions.
- 3.4 In June 2020, Regional Council approved an investment plan for the \$5 million Climate Mitigation and Environmental Initiatives Reserve Fund (see [Report #2020-A-13](#)), which included \$2.5 million for deep energy retrofits of existing Regional facilities.
- 3.5 In March 2021, Regional Council adopted recommendations of Report [#2021-A-3](#) which included approval of a [Corporate Climate Change Action Plan](#). The Plan established corporate GHG reduction targets (20 per cent below 2019 levels by 2025, 40 per cent below by 2030, and net zero corporate emissions by 2045), and included direction to prioritize deep energy retrofits of existing facilities.
- 3.6 Together, these corporate and community climate action plans point to an early priority focus on the DRLHC's portfolio of seniors' multi-unit residential buildings, most of which were built in the 1970's and are at a point in their asset lifecycle where they are due for major building systems renewal.

4. Summary of the FCM Sustainable Affordable Housing Program

- 4.1 The FCM/GMF Sustainable Affordable Housing (SAH) Program was established with \$300 million in funding from the Federal Government as part of the 2019 Budget. The program provides capital financing for energy retrofits in the social housing sector up to a maximum of \$10 million in combined grants and loans, covering a maximum of 80 per cent of total eligible project costs.
- 4.2 Recipients are required to accept debt capital as a portion of the financing package, with the grant portion scaled to energy savings potential up to a maximum of 50 per cent of FCM funding. The debt financing portion is provided in the form of a repayable loan with interest rates anticipated to be generally in the range of 2 to 5 per cent and terms of 10, 20, and 30 years. Interest rates for municipal government applicants with strong credit ratings, such as is the case for Durham Region, are anticipated to be at the lower end of the interest rate range. Final loan and grant terms and conditions are determined following successful application and credit review by FCM.
- 4.3 The Region submitted an initial non-binding proposal to FCM to confirm eligibility and the potential grant share of total financing in July 2021 following completion of initial preliminary feasibility studies. FCM staff have confirmed program eligibility and have indicated that the Region's project could receive near the maximum permissible 50 per cent of total financing as a grant, with the remaining share to be provided in the form of a loan. Final grant and loan shares of total approved FCM funding will be contingent on estimated retrofit energy savings and building performance versus baseline performance as determined through the final submission to FCM.

5. Proposed Retrofit Project Scope at each DRLHC property

- 5.1 This section provides a brief description of each DRLHC site and capital upgrades that are already planned-for, and the proposed deep energy retrofit packages proposed for the FCM funding application and the estimated costs.

Villa Valeau, 1910 Faylee Cres., Pickering

- 5.2 Villa Valeau is a two-storey apartment building built in 1975 which consists of 36 one-bedroom seniors' apartments. The building has been identified as needing wall repairs, as well as replacements of major mechanical systems (make-up air unit and boiler).
- 5.3 The proposed deep energy retrofit package includes window and door replacements, insulated exterior cladding, attic insulation, enhanced mechanical system upgrades to support fuel switching from natural gas to electricity, and the addition of in-suite air source heat pumps with programmable thermostats. This deep energy retrofit package is estimated at a base cost of \$2.27 million (in current dollars), inclusive of already-planned upgrades, and is projected to reduce

annual energy consumption at the site by 50 per cent and reduce annual GHG emissions by 40 tonnes CO₂e.

Harwood Manor, 655 Harwood Ave South, Ajax

- 5.4 Harwood Manor is a four-storey apartment building built in 1976 which consists of 128 one-bedroom seniors' apartments. The building has been identified as needing major building envelope repairs, window and door replacements, a building automation system (BAS), and mechanical system replacement. A significant portion of these works are being undertaken through the financial support of the Social Housing Apartment Improvement Program (SHAIP).
- 5.5 The proposed deep energy retrofit package includes insulated exterior cladding, in-suite air source heat pumps and programmable thermostats, as well as enhanced mechanical system upgrades to support fuel switching from natural gas to electricity. This deep energy retrofit package is estimated at a base cost of \$7.01 million (in current dollars), inclusive of already-planned upgrades, and is projected to reduce annual energy consumption by 48 per cent and reduce annual GHG emissions by 79 tonnes CO₂e.

Windsor Place, 315 Colborne St W, Whitby

- 5.6 Windsor Place is a six-storey apartment building built in 1978 which consists of 104 one-bedroom seniors' apartments. This building has been identified as needing window and door replacements, a roof replacement, and replacement of major mechanical systems (make-up air unit, and domestic hot water boiler), and lighting upgrades.
- 5.7 The proposed deep energy retrofit package includes upgrades to window and door replacements, additional insulation as part of the roof replacement, an enhanced mechanical system upgrade to promote fuel switching, and in-suite air source heat pumps with programmable thermostats. The deep energy retrofit package is estimated at a base cost of \$3.44 million (in current dollars), inclusive of already-planned upgrades, and is projected to reduce annual energy consumption by 57 per cent and reduce annual GHG emissions by 118 tonnes CO₂e.

Bowling Green Towers, 850 Green St, Whitby

- 5.8 Bowling Green Towers is a five-storey apartment building built in 1976 which consists of 80 one-bedroom seniors' apartments. This building has been identified as needing building envelope upgrades and major mechanical system replacements (make-up air unit and domestic hot water boiler).
- 5.9 The proposed deep energy retrofit package includes window and door replacements, enhanced building envelope upgrades to include additional insulation, enhanced mechanical system upgrade to promote fuel switching, in-suite air source heat pumps with programmable thermostats, and lighting

upgrades. The deep energy retrofit package is estimated at a base cost of \$3.64 million, inclusive of already planned upgrades, and is projected to reduce annual energy consumption by 53 per cent, and annual GHG emissions by 88 tonnes CO₂e.

6. Summary of Deep energy retrofit Funding Strategy and next steps

6.1 Table 1 below provides a summary of anticipated costs associated with the deep energy retrofit strategy. The estimated costs are based on the findings of the preliminary feasibility studies which followed an ASHRAE Level 3 Energy Audit framework of opportunity identification and costing. Costs are considered preliminary in nature and will continue to be refined specific to each facility. An additional provision for capital cost escalation, project soft costs (e.g. design, project management), and contingency has also been included assuming multi-year implementation of measures between 2022 to 2024, and to address potential inflationary pressures for materials and labour.

Table 1: DRLHC Seniors Building Deep energy retrofit Project – Projected Capital Costs

Building/Location	Estimated Base Capital Costs (Current Costs)	Capital Indexation, Project Delivery and Contingency*	Total
Villa Valeau, 1910 Faylee Cres., Pickering	\$2.27 million	\$0.93 million	\$3.19 million
Harwood Manor, 655 Harwood Ave S, Ajax	\$7.01 million	\$2.17 million	\$9.19 million
Windsor Place, 315 Colborne St W, Whitby	\$3.44 million	\$1.37 million	\$4.81 million
Bowling Green Towers, 850 Green St, Whitby	\$3.64 million	\$1.49 million	\$5.13 million
Total Estimated Nominal Costs	\$16.36 million	\$5.96 million	\$22.32 million

***Notes:** ASHRAE Level 3 energy audits estimated current project costs including labour and project management. Total estimated project costing makes provision for additional capital escalation, project management and contingency amounts. Project costs will continue to be refined and updates provided to Council accordingly.

6.2 The financing strategy for the project(s) is contingent on the final terms and conditions of a successful submission under the SAH program and will be provided to the DRLHC Board and Council for endorsement upon approval of FCM/GMF SAH funding. The following provides Council with the anticipated funding for the project:

- a. FCM/GMF Sustainable Affordable Housing (SAH) funding covering up to 80 per cent of eligible project costs with combined grant and loan funding of up to \$10 million. While final terms and conditions will be determined upon confirmation of successful application and following completion of credit review by FCM, based on estimated energy savings, the Region will be seeking the maximum permissible grant share of \$5 million;
 - b. Grant funding from The Atmospheric Fund (TAF) of up to \$400,000 contingent on FCM approval under the SAH program;
 - c. Regional share of funding, potentially through a range of sources including, but not limited to:
 - Durham Region Climate Mitigation and Environmental Initiatives Reserve Fund;
 - Reallocation of existing approved funding for related projects; and
 - A \$6.8 million allocation from the one-time Federal Gas Tax funding received in 2021 which can be used for energy efficiency related initiatives (please refer to report #2021-COW-36).
 - d. At the time of project development and upon confirmation of equipment and technology selection, the Region will examine all opportunities for accessing additional grants and incentives as made available through the Independent Electricity System Operator (IESO), Enbridge Gas and other external sources, where possible.
- 6.3 Based on initial feasibility studies from the Region's energy consultant, it is anticipated that the large scale retrofit work will result in energy, utility, and operational cost savings across all four DRLHC multi-unit residential buildings over a 20 year operating period from 2024-2043, with a weighted average energy reduction estimated to exceed a 50 per cent reduction from the baseline performance for the buildings. These estimated annual operating cost savings are projected to largely offset FCM-related debt servicing costs (including both interest and principal) at lower assumed levels of interest although final terms and conditions for loan terms would still need to be finalized following credit review by FCM.
- 6.4 Regional staff continue to work with FCM to confirm whether the Region or DRLHC is the most appropriate lead applicant for the final funding submission. Should it be determined that the DRLHC, as opposed to the Region, is the most appropriate lead applicant, a meeting of the DRLHC Board will be set to seek the required approval from the Board to submit the final application.
- 6.5 Should the funding proposal be approved by FCM, it is recommended that staff report back to Council outlining next steps towards project implementation, including approval for the final project funding strategy as well as request for authorization for the purposes of executing the contribution agreement and

enacting any associated by-laws and approvals relating to the program loan components.

7. Alignment with Durham Region Strategic Plan

This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

- a. Goal #1 – Environmental Sustainability
 - Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment
 - Demonstrate leadership in sustainability and addressing climate change
- b. Goal #2 – Community Vitality
 - Support a high quality of life for all through human services delivery.
- c. Goal #5 – Service Excellence:
 - Optimize resources and partnerships to deliver exceptional quality services and value.
 - Collaborate for a seamless service experience.
 - Drive organizational success through innovation, and skilled workforce, and modernized services.

8. Conclusion

- 8.1 This report presents an opportunity to deliver deep energy retrofits on four DRLHC seniors' buildings to reduce energy costs, GHG emissions, and improve occupant comfort and wellbeing, while accessing program funding which will assist in advancing priority capital works. Deep energy retrofits align with Council direction to demonstrate community-wide leadership in response to the climate emergency declaration made in January 2020.
- 8.2 Council authorization is required for the Region to be able to submit a \$10 million funding application to the FCM/GMF SAH fund. Should the Region/DRLHC be successful in its submission, staff will report back to the DRLHC Board and Council outlining next steps towards project implementation, including an updated project financing strategy with anticipated final terms and conditions of the combined grant and loan funding under the program, as well as request for authorization for the purposes of executing the contribution agreement and enacting any associated by-laws relating to the program loan components.

For additional information, contact: Ian McVey, Manager of Sustainability, at 905-668-7711, extension 3803.

Respectfully submitted,

Recommended for Presentation to Committee

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

Original signed by

Susan Siopis
Commissioner, Works

Original signed by

Nancy Taylor, BBA, CPA, CA
Commissioner, Finance

Original signed by

Stella Danos-Papaconstantinou
Commissioner, Social Services



The Regional Municipality of Durham Report

To: The Committee of the Whole
From: Commissioner of Finance
Report: #2021-COW-36
Date: December 15, 2021

Subject:

2021 Canada Community-Building Fund Allocation

Recommendation:

That the Committee of the Whole recommend to Regional Council:

1. That the \$19.7 million in unanticipated one-time Canada Community-Building Fund (formerly the Federal Gas Tax Program) funding for 2021, along with \$5.8 million from the regular 2021 Canada Community-Building Fund allocation, be allocated toward the following priority projects:

PROJECT	ESTIMATED COST (\$, 2021)
Anerobic Digester	10,000,000
Broadband	3,000,000
DRT Battery Electric Bus and Charging Infrastructure Demonstration Pilot	2,100,000
DRLHC Deep Energy Retrofits	6,800,000
Corporate Strategic Priorities	3,600,000
Total	25,500,000

Report:

1. Purpose

- 1.1 The report provides a recommendation on the use of the additional one-time Canada Community-Building Fund allocation, received in 2021, as well as the use of the remaining funds from the 2021 regular annual Canada Community-Building Fund allocation.

2. Background

- 2.1 On March 25, 2021, the Federal Government announced changes to the Federal Gas Tax program, including renaming the fund to the Canada Community-Building Fund and increasing the 2021 overall allocation to municipalities by \$2.2 billion.
- 2.2 This increased allocation represents a one-time top-up for 2021 and effectively doubles the amount of gas tax funding available throughout Canada to \$4.5 billion. The allocation being provided to the Region of Durham is listed below:

Durham Region 2021 Regular Allocation:	\$20,479,458
Durham Region 2021 one-time top-up:	<u>\$19,687,484</u>
Total 2021 Durham Region allocation:	\$40,166,942

- 2.3 The Region receives a regular annual allocation of Canada Community-Building funding (\$20.5 million in 2021), which most recently has been used for road rehabilitation and the debt servicing charges associated with the Durham York Energy Centre (DYEC).

3. Previous Reports and Decisions

- 3.1 The Region also received an unanticipated one-time Federal Gas Tax allocation in 2019. Details on the projects funded through this allocation are provided in Report #2019-COW-31.

4. Canada Community-Building Fund Parameters

- 4.1 Under the Canada Community-Building Fund, eligible projects include investments in infrastructure for its construction, renewal or material enhancement. Projects must fall within the following defined list of eligible project categories. Note that investments in health infrastructure (hospitals, convalescent and senior centres) are not eligible.

Canada Community-Building Fund Project Categories

Public Transit	Short Line Rail
Wastewater Infrastructure	Short Sea Shipping
Drinking Water	Disaster Mitigation
Solid Waste Management	Broadband and Connectivity
Community Energy Systems	Brownfield Redevelopment
Regional Roads and Bridges	Cultural Infrastructure
Capacity Building	Tourism Infrastructure
Highways	Sport Infrastructure
Local/Regional Airports	Recreation Infrastructure

- 4.2 Eligible expenditures include those to acquire, plan, design, construct or renovate capital assets. Ineligible expenditures include land costs, maintenance costs, administrative overhead costs and legal fees.
- 4.3 Funds under this program must be expended within five (5) years after the end of the year in which funds were received.

5. 2021 Funding Allocation

- 5.1 As mentioned, the Region typically uses the regular annual allocation of Canada Community-Building funding for road rehabilitation projects and debt servicing costs associated with the DYEC. In 2021, approximately \$14.7 million of the regular annual allocation has been directed toward road rehabilitation projects. This is predicated on the source of the funds being generated from usage of roads so an allocation to rehabilitate those roads is seen to be reasonable at this time.
- 5.2 The final payment toward debt servicing charges on the DYEC was made in 2020, meaning no further allocation was required in 2021. Deducting the \$14.7 million road rehabilitation contribution from the \$20.5 million regular annual allocation leaves approximately \$5.8 million remaining. The one-time top-up of \$19.7 million leaves approximately \$25.5 million in unallocated 2021 funding.
- 5.3 A multidisciplinary staff working group has collaborated to produce the following list of projects recommended to be funded using fully the remaining 2021 Canada Community-Building funding:

PROJECT	ESTIMATED COST (\$, 2021)
Anerobic Digester	10,000,000
Broadband	3,000,000
DRT Battery Electric Bus and Charging Infrastructure Demonstration Pilot	2,100,000
DRLHC Deep Energy Retrofits	6,800,000
Corporate Strategic Priorities	3,600,000
Total	25,500,000

- 5.4 The \$10 million contribution to the Anerobic Digester (AD) will help offset some debt financing costs associated with the capital construction of the facility. The AD project is currently the largest infrastructure project to be undertaken by the Region, and will require a substantial amount of debt financing.
- 5.5 Improving broadband connectivity across the Region is a significant Regional priority. The Region has received approvals for funding from several senior government funding programs, of which some require a municipal contribution. The Region is also exploring the creation of a Broadband Municipal Service

Corporation, which will require future financial resources. A report pertaining to this is on today's Committee of the Whole agenda.

- 5.6 Details on the funding requirement for the DRT Battery Electric Bus and Charging Infrastructure Demonstration Pilot, as well as the request for \$2.1 million in Canada Community-Building (Federal Gas Tax) funds, was presented in Report #2021-F-30. This request was subsequently approved by Regional Council on November 24, 2021.
- 5.7 Details on the Durham Region Local Housing Corporation (DRLHC) deep energy retrofits are provided in Report #2021-COW-35, also on today's agenda. As mentioned in the report, the Region is seeking additional senior government funding to undertake this project. If senior government funding does not materialize, the \$6.8 million funding allocation will be redirected at a later date.
- 5.8 The remaining \$3.6 million is recommended as a contribution toward current and future corporate strategic priorities. The Region's Senior Leadership Team will evaluate the Region's emerging strategic priorities and make a determination as to which projects require immediate financing. Further details will be provided to Regional Council once the projects have been determined.

6. Financial Implications

- 6.1 All eligible capital project costs as part of the above noted projects will be funded by the Canada Community-Building Fund allocation as the fund does not require a municipal contribution. Operating costs will be monitored and included in future departmental operating budgets.
- 6.2 All project procurement will be conducted in accordance with the Region's Purchasing By-Law.

7. Relationship to Strategic Plan

- 7.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
 - a. Environmental Sustainability - To protect the environment for the future by demonstrating leadership in sustainability and addressing climate change;
 - b. Community Vitality - To foster an exceptional quality of life with services that contribute to strong neighbourhoods, vibrant and diverse communities, and influence our safety and well-being;
 - c. Economic Prosperity - To build a strong and resilient economy that maximizes opportunities for business and employment growth, innovation and partnership;
 - d. Social Investment - To ensure a range of programs, services and supports are available and accessible to those in need, so that no individual is left behind; and,

- e. Service Excellence - To provide exceptional value to Durham taxpayers through responsive, effective and fiscally sustainable service delivery.

8. Conclusion

- 8.1 It is recommended that the \$25.5 million in remaining 2021 Canada Community-Building funding be allocated toward the five strategic priorities outlined in this report.
- 8.2 This report was prepared with the assistance of the CAO's Office, Works Department, Social Services Department, Planning and Economic Development Department, and Health Department who concur with the recommendations.

Respectfully submitted,

Original Signed By

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance

Recommended for Presentation to Committee

Original Signed By

Elaine C. Baxter-Trahair
Chief Administrative Officer

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2103



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Chief Administrative Officer
Report: #2021-COW-37
Date: December 15, 2021

Subject:

Durham Region Nuclear Sector Strategy 2022-2032

Recommendation:

That Committee of the Whole recommends to Regional Council:

- A) That Regional Council approve Durham Region's Nuclear Sector Strategy 2022-2032, as the framework to guide and support the Region's role and effective participation in the nuclear sector;
 - B) That a copy of this report and the Durham Region Nuclear Sector Strategy 2022-2032, be sent to local area municipalities, the Mississaugas of Scugog Island First Nation, Curve Lake First Nation, Natural Resources Canada, Environment and Climate Change Canada, the Ontario Ministry of Energy, the Ontario Ministry of Economic Development, Job Creation and Trade, the Canadian Association of Nuclear Host Communities, and Ontario Power Generation (OPG); and
 - C) That Regional staff notify key stakeholders in the community, the nuclear sector, local post-secondary institutions, and other organizations contacted through the engagement process once the strategy has been approved and posted at Durham.ca.
-

Report:

1. Purpose

- 1.1 This report seeks Regional Council approval of the Durham Region Nuclear Sector Strategy 2022-2032 (Attachment 1) which identifies:

- a. The purpose and context for the Region's participation in the nuclear sector,
- b. Four key strategic goals,
- c. Desired outcomes related to each of the four goals,
- d. Actions to advance the Region toward those outcomes, and
- e. Mechanisms for governance, implementation, monitoring and evaluation, accountability, and evolution of the strategy.

2. Background

- 2.1 Early in 2020, Regional staff formed an internal Nuclear Sector Working Group (NSWG) with the intent of building staff capacity to respond to increasing activity in the nuclear sector. Their work pointed to the need for a cross-departmental strategy to support internal work as well as broader outreach to the community and a framework to support collaboration and partnership in the sector.
- 2.2 Development of the strategy was included as an action in the Region's 2021 business plan and budget. Accordingly, the NSWG created a project charter approved by Department Heads in March 2021.
- 2.3 An external engagement plan was also approved in Spring 2021. Two streams of engagement were conducted from late June to October 2021:
 - a. Community engagement on the Your Voice Durham platform, and
 - b. Partner, rights holder, and stakeholder engagement via a targeted survey sent directly to 44 organizations.

As a follow up to the targeted survey, seven virtual focus groups were held with 24 individuals who had expressed interest in a deeper discussion on the proposed strategy.

- 2.4 A [summary of feedback](#) from the overall engagement process is posted on the Your Voice Durham website. The input we received from the community, partners, rights holders and stakeholders was integrated into the strategy.
- 2.5 The strategy document was further developed in consultation with the NSWG, Regional CAO, Regional Chair, Mayors of Clarington and Pickering, Mississaugas of Scugog Island First Nation, Curve Lake First Nation, Canadian Nuclear Laboratories, and OPG.

3. Previous Reports and Decisions

- 3.1 Over the years, Regional Council has received many reports related to the nuclear sector including Regional submissions on licensing applications to the Canadian Nuclear Safety Commission (CNSC) for facilities located in Durham, plans and progress of the Nuclear Waste Management Organization (NWMO). The most recent reports relevant to this strategy include:

- a. [2020-EDT-9](#) Natural Resources Canada Small Nuclear Reactor Action Plan
- b. [2021-A-3 2021](#) Climate Change Update and [Corporate Climate Action Plan](#),
- c. [2021-COW-7](#) Regional Submission to the Review of Ontario's Long-Term Energy Planning Framework,
- d. [2021-COW-8](#) Region's Submission to the Canadian Nuclear Safety Commission (CNSC) for Ontario Power Generation's (OPG) renewal application for the Power Reactor Site Preparation Licence (PRSL) for the Darlington New Nuclear Project (DNNP) and Council's position on nuclear sector issues, and
- e. [2021-COW-9](#) Response to the Canadian Radioactive Waste Policy Review.

4. Rationale for Developing a Regional Strategy

- 4.1 As the home of two large nuclear generating stations, a significant low-level radioactive waste remediation project, post-secondary nuclear energy faculty and research facilities, the Canadian Centre for Nuclear Sustainability (CCNS) and many nuclear supply chain companies, Durham Region is Canada's premier nuclear jurisdiction. In addition, OPG is consolidating its head office functions at a campus in Clarington by 2024. The nuclear sector is Durham's largest employer. The large nuclear projects and capital investments underway or planned for Durham provide opportunities and impacts for the community.
- 4.2 With growing urgency to address climate change, nuclear energy is increasingly seen globally as a critical support to decarbonization. Ontario currently has an electricity supply that is 96 per cent from non-emitting sources, about 60 per cent of which is from nuclear generation.¹ Thirty percent of Ontario's electricity is produced at the two nuclear generating stations in Durham Region.
- 4.3 According [to analysis by the Canada Energy Regulator](#) in 2020, electricity made up approximately 16 per cent of Canada's end-use energy demand.² They forecast in their Evolving Scenario, that electricity demand increases at an average annual rate of 1 per cent to 27 per cent by 2050. This represents a 35 per cent increase in end-use demand for electricity. In the earlier part of the projection, renewables and natural gas replace phased-out coal generation. In the longer term, falling costs lead to large growth in non-hydro renewables such as wind and solar. The share of renewable and nuclear generation increases from 81 per cent currently to 90 per cent in 2050.³

1 2017 statistics from <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/provincial-territorial-energy-profiles/provincial-territorial-energy-profiles-ontario.html>

2 End use energy is the energy directly consumed by the user, as opposed to primary energy which is the energy that is harvested directly from natural resources. End use energy includes electricity, gasoline, and natural gas. From University of Calgary, Energy Education pages at https://energyeducation.ca/encyclopedia/End_use_energy.

3 Projection statistics for 2020 to 2050 period are from Canada's Energy Future 2020 published by Canada Energy Regulator accessed at <https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2020/index.html>

- 4.4 Electrification of transportation and space heating are identified in the Durham Community Energy Plan 2019 as two key measures to reduce our carbon emissions. In response to Regional Council's declaration of a climate emergency in January 2020, the Region established emission reduction targets for the corporation and the community. The availability of low carbon electricity from nuclear generation will be critical to power the Region's achievement of these targets. Nuclear generation will be a critical factor in retaining and expanding a low-carbon supply mix.
- 4.5 The urgency to address climate change through low-carbon energy also is fueling renewed federal and provincial support for new nuclear development including the first on-grid small modular reactor (SMR) at Darlington. Expansion of nuclear generation is recognized nationally as a vital step on the path to achieving a net-zero carbon economy.
- 4.6 As a result, attention to nuclear matters at the federal level has increased over the past couple of years including:
- a. The development by Natural Resources Canada of the Canada's Small Modular Reactor Action Plan 2020,
 - b. A review of Canada's radioactive waste policy,
 - c. A request for the Nuclear Waste Management Organization to develop an integrated strategy for low and intermediate level radioactive waste, and
 - d. Early engagement by the CNSC in reviewing several proposed SMR designs.
- 4.7 The Province of Ontario has signed a Memorandum of Understanding with Alberta, Saskatchewan and New Brunswick that supports planning for SMR development and deployment as a way to move away from dependence on fossil fuels, in both on-grid and remote locations.
- 4.8 Currently, OPG has the only site in Canada licensed for new nuclear development with an accepted Environmental Assessment at Darlington. In fall 2021, the CNSC renewed OPG's licence to the prepare this site for new nuclear generation until 2031.
- 4.9 In addition, OPG is planning for the end of operations at the Pickering Nuclear Generating Station to occur by the end of 2025. This will launch a process of de-fueling, dewatering, and placement of the plant into safe storage by 2028. Fully decommissioning the station is a multi-decade process. In the interim, OPG is developing plans for beneficial reuse of parts of the Pickering site.
- 4.10 In Clarington, construction of the Port Granby Low-level Radioactive Waste Storage Facility commenced in 2015 and was capped in October 2021. The next phase of this project involves planning for site naturalization and ongoing monitoring. A CNSC hearing for licensing of this phase will occur in 2022.

- 4.11 All of these activities and related decisions will directly affect Durham Region. For example, at least eight regulatory hearings related to licensing of nuclear facilities in Durham are anticipated in the decade ahead.
- 4.12 Accordingly, the general purposes of the Durham Nuclear Sector Strategy are to ensure that Regional Council and staff:
- Are well-versed on the impacts and opportunities related to the nuclear sector as a key employer in the Region,
 - Have the knowledge and capacity to participate effectively in nuclear policy and regulatory matters,
 - Have a framework for understanding where Regional efforts will be most effective, and for setting and revising priorities as needed in an evolving sector, and
 - Are equipped to manage uncertainty, support and make evidence-based decisions, recognize opportunities, and work collaboratively with partners.
- 4.13 These points are captured in the mission statement:

To empower our community by building understanding of the nuclear sector, working with partners to seize opportunities, and preparing for an evolving future.

5. Content of the Strategy

- 5.1 The strategy document is organized with the following major sections:
- An introduction that describes Durham's location, history, and nuclear facilities.
 - A context section summarizing:
 - activity, federal and provincial policy directions, planned development and innovation in the nuclear energy sector, and
 - a chronology of anticipated milestones framed in the context of climate change and economic development opportunities.
 - The five guiding principles scoped to reflect the Region's roles and authority:
 - Aligned** with the Region's legislated responsibilities, our strategic plan vision, mission and values, and supportive of our strategic plan objectives.
 - Future-focused** to ensure future generations continue to benefit from nuclear. We are striving to be good ancestors.
 - Community-centred**, putting community safety and well-being first and balancing the impacts and opportunities associated with being a nuclear host community.
 - Respectful of Indigenous rights and treaties**, nurturing the relationship with Indigenous peoples by building trust, reciprocity and respect.

- **Connected**, recognizing that Durham Region is one agent in a complex nuclear ecosystem.
- d. The strategy development process including three phases of activity:
- **Phase 1: Awareness** – a mainly internal process with staff doing research, learning about the sector, taking stock of existing activities related to the sector, assessing internal capacity and brainstorming ways to be more effective.
 - **Phase 2: Listening** – an external engagement process with the community, partners, rights holders, and stakeholders to get input on proposed goals and potential new or expanded roles for the Region.
 - **Phase 3: Integrating input and lessons learned** – the process of drafting the strategy document, incorporating what was learned from the engagement process and the development of other submissions over the past year.
- e. The four strategy goals (Grow Understanding, Maximize Prosperity, Sustain and Protect, Develop Partnerships) along with descriptions of the desired outcomes, and actions.
- f. Descriptions of strategy delivery mechanisms including:
- Governance,
 - Implementation and financial plans,
 - Monitoring and evaluation plans, and
 - A commitment to making the strategy open, accountable, and evolving.
- g. Appendices providing additional detail on topics such as the regulatory system, acronyms used, and references.
- 5.2 Envisioned as a 10-year strategy, the document outlines four key goals:
- Grow understanding of the nuclear sector among Regional Council, staff, and the community.
 - Build prosperity by maximizing the benefits of being a nuclear host community and Canada's premier centre of the nuclear industry and innovation.
 - Protect and sustain the community by addressing impacts and opportunities of being a nuclear host community.
 - Lead and develop partnerships within the nuclear sector to build leadership capacity and influence decision-making.

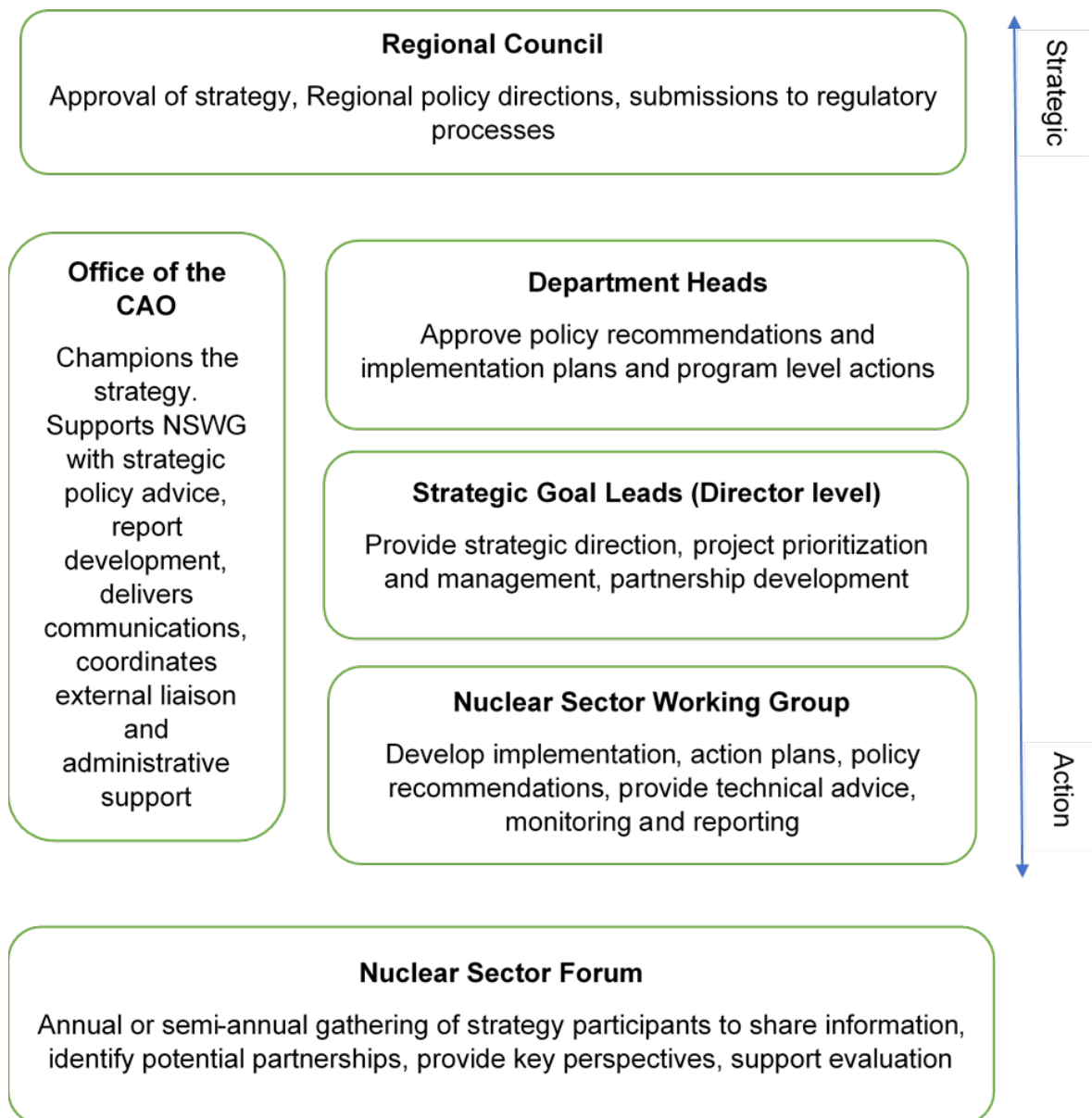
Under each goal, desired outcomes are identified along with actions intended to advance the Region towards those outcomes. In many cases, actions under one goal also will support progress under other goals. The “develop partnerships” objective, for example is likely to support all the others. Separating this objective

creates a focus in the early years of the strategy on the need to build supportive relationships across the sector.

6. Delivering the Strategy

- 6.1 The strategy as approved by Regional Council will provide the framework to guide and support the Region's effective participation in the nuclear sector.
- 6.2 Delivery of the strategy actions will be the responsibility of Regional staff in partnership with willing organizations in the sector. The Region's NSWG will lead and coordinate the strategy implementation. For each of the four goals, the Region's interdepartmental NSWG has a Director-level lead.
- 6.3 The NSWG will prepare an implementation plan identifying priorities for action to achieve the stated desired outcomes in the short (five year), medium (10 year), and long-term future (beyond 10 years). The implementation plan will provide the framework for establishing annual workplans and budgets as part of the Region's regular business planning and budget cycle.
- 6.4 When the strategy actions are refined for implementation, related baselines, milestones and/or indicators will be developed as mechanisms to measure and report progress. Results from the previous year will inform actions in subsequent years.
- 6.5 When necessary to establish a Regional position or policy direction on a key nuclear matter (e.g., submissions to the CNSC on licence applications), the NSWG will continue to bring a report to Regional Council for consideration and decision.
- 6.6 Annual reporting to Council and the community on strategy progress will begin in 2023. The strategy would be reviewed at least once every five years.
- 6.7 The strategy provided in Attachment 1 represents the substantive content of the document which, once approved, will undergo editorial and accessibility checks and graphic design to make it suitable for display on durham.ca. A communications plan has been prepared to support the launch of the strategy early in 2022.

Strategy Governance Model



7. Relationship to Strategic Plan and Other Regional Plans

7.1 The Durham Nuclear Sector Strategy 2022-2032 aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

- a. Under the goal of Environmental Sustainability, Priority 1.1 is to accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment.
- b. Under the goal of Environmental Sustainability, Priority 1.1 is to demonstrate leadership in sustainability and addressing climate change.

- c. Under the goal of Economic Prosperity, Priority 3.4 is to capitalize on Durham's strengths in key economic sectors to attract high-quality jobs.
- 7.2 The strategy also supports objectives outlined in the Region's declaration of a Climate Emergency in January 2020, the Durham Corporate Climate Change Action Plan 2020, Durham Community Energy Plan 2019, policy development through Envision Durham, and the annual Property Tax Strategy.

8. Conclusion

- 8.1 This report was prepared in collaboration with staff from Planning and Economic Development, Works, Social Services, Health, Finance and the CAO's Office, and was reviewed by Corporate Services – Legal Services.
- 8.2 The nuclear sector is currently the Region's largest employer and over the next decade and beyond, significant investment and change in the nuclear sector in Durham are anticipated. This strategy will provide a valuable framework to assist the Region in prioritizing and aligning our actions both internally and with external partners and identifying where to invest our resources. It will enhance our capacity to plan and prepare for developments in the sector, manage uncertainty and identify and seize new opportunities. It will allow us to gauge effectiveness over time and refocus efforts as needed to shape Durham's nuclear future and achieve the strategic plan vision of "a healthy prosperous community for all".

9. Attachments

Attachment #1: Durham Region Nuclear Sector Strategy 2022-2032

Prepared by: Caitlin Rochon, Emergency Management Coordinator, at 905-668-7711, extension 6263 and Christine Drimmie, Manager, Corporate Initiatives, at 905-668-7711 extension 2029.

Respectfully submitted,

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

Empowering the Community: Durham's Nuclear Sector Strategy 2022-2032

Acknowledgements

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Rights holders, partners, and stakeholders

Durham Region reached out to forty-five organizations and communities with a potential interest in the development of the strategy. In addition to those who responded anonymously to our surveys, we thank the following for participating in focus group sessions and providing us with feedback:

Canadian Association of Nuclear Host Communities	Ministry of Economic Development, Job Creation and Trade
Central Lake Ontario Conservation Authority	Mississaugas of Scugog Island First Nation
City of Oshawa	Municipality of Clarington
City of Pickering	Natural Resources Canada
Clarington Board of Trade & Office of Economic Development	North American Young Generation in Nuclear, Durham Chapter
Curve Lake First Nation	Ontario Power Generation
	Ontario Tech University

Designer

Edward Zucca

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Message from Regional Chair & CAO

In Durham Region, nuclear energy is a vital part of our story. Since the Region's creation in 1974, we have been a proud nuclear host community at the forefront of nuclear innovation. The nuclear facilities, supply chain, research and development capacity, and academic expertise found within our borders, make Durham Canada's premier nuclear jurisdiction. We are pleased to share with you the Region of Durham's Nuclear Sector Strategy, 2022-2032.

Globally, our future depends on decarbonizing our communities and economy. Nuclear energy can play a pivotal role in that transition, and Darlington is the only site in Canada currently licenced for new nuclear development with an accepted Environmental Assessment. Powering our Region (and the province) with clean electricity will spark energy innovation, investment and job creation in Durham while helping to achieve our climate change goals.

Durham's nuclear future holds both challenges and opportunities. A key goal of the strategy is to build our capacity to engage effectively and proactively in processes that will frame that future. As a regional municipality, Durham has responsibilities to protect the well-being of our residents and the environment and to sustain our local economy. Staying informed on the changes that leading-edge nuclear projects will bring to our community is a complex, ongoing task for Regional Council, staff, and citizens. Passing on this understanding to future residents will require a multi-generational effort. Collaboration with existing and potential nuclear host communities, Indigenous rights holders, regulatory bodies, industry, and academic partners over the next decade and beyond will be essential. This strategy positions us to partner in developing best practices.

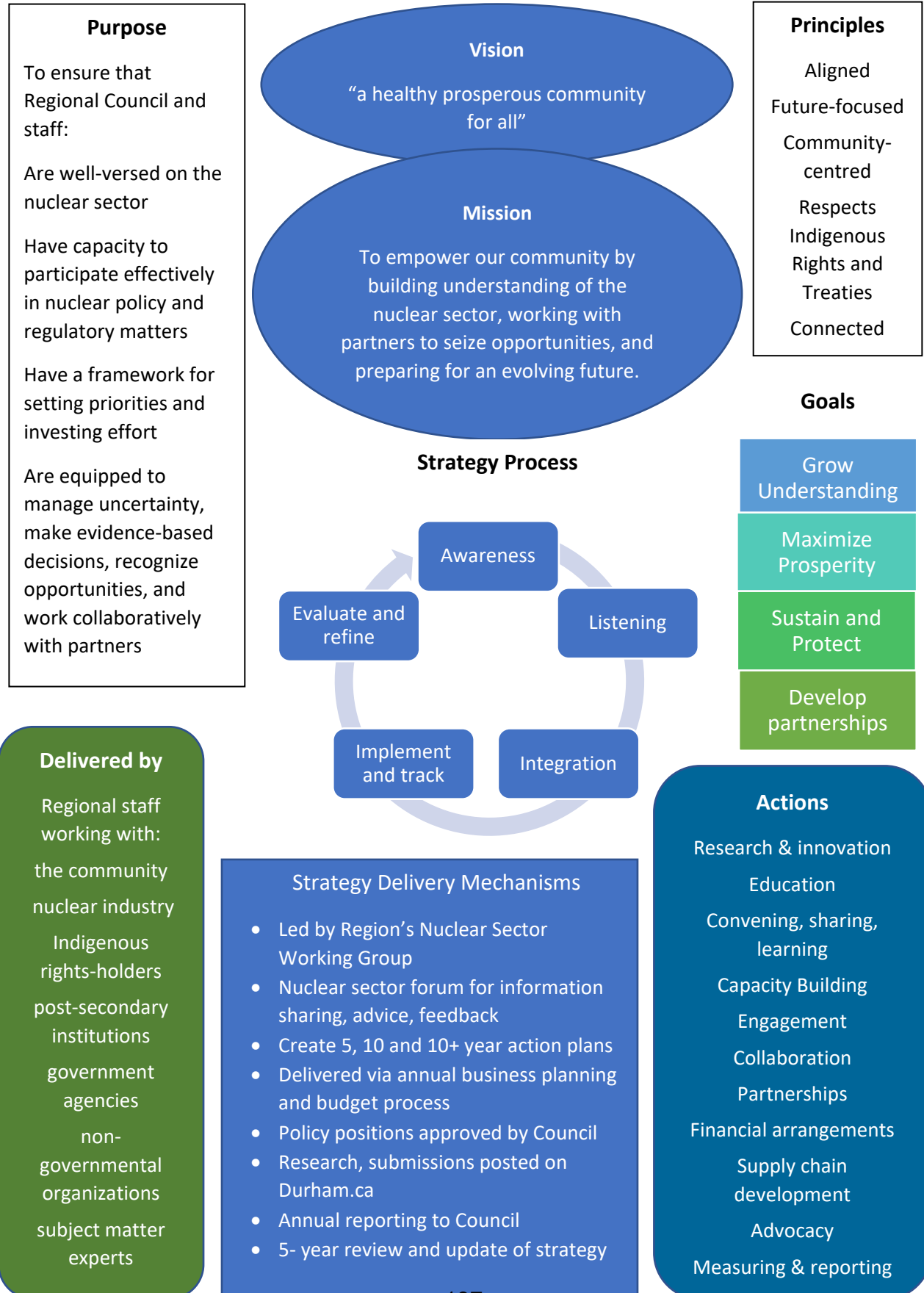
We will work diligently to play a leadership role in the nuclear sector and shape our future with a bold, forward-thinking, community-based strategy.

Yours truly,

John Henry, Durham Regional Chair and CEO

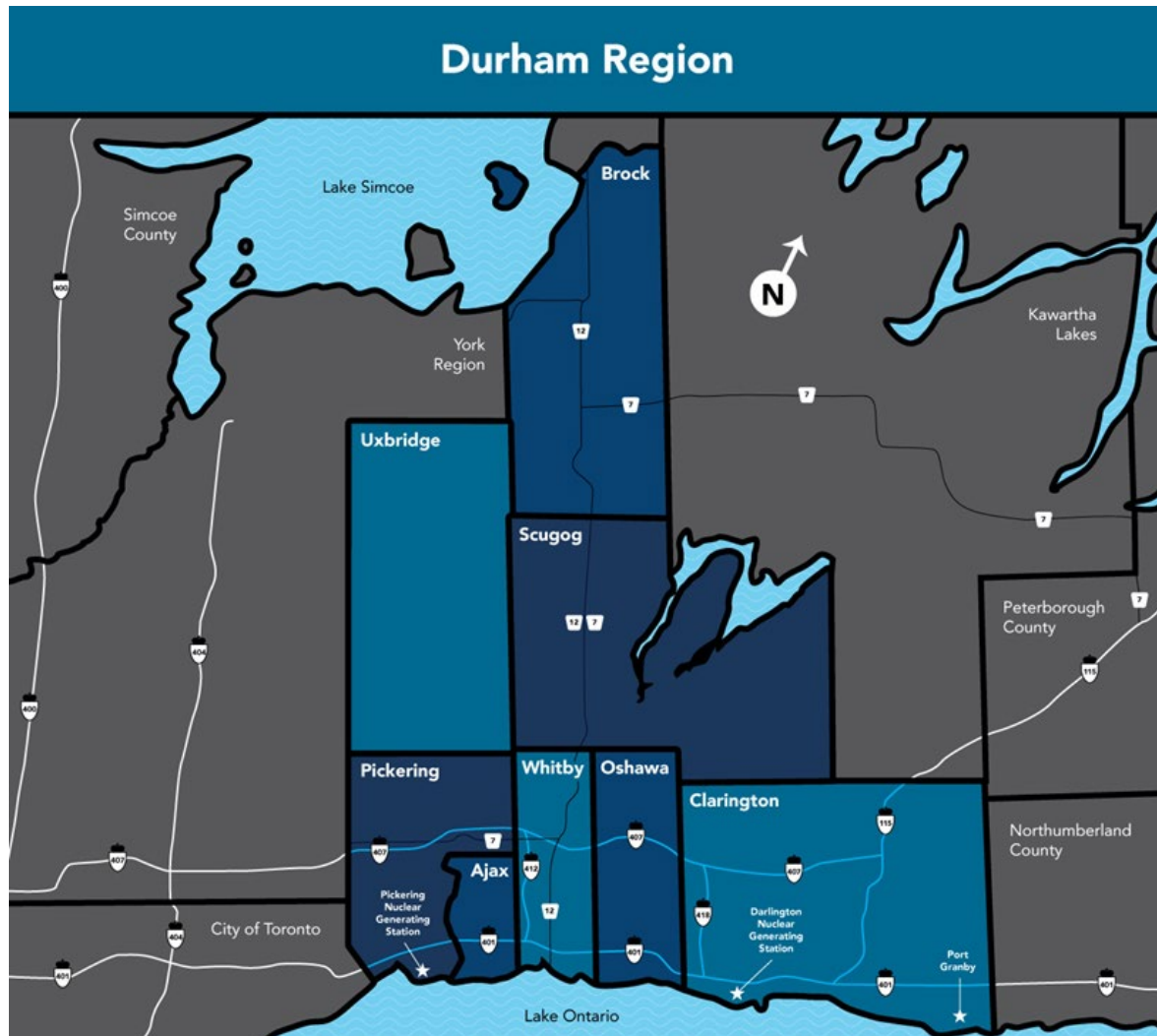
Elaine C. Baxter-Trahair, Chief Administrative Officer

Summary of Durham's Nuclear Sector Strategy 2022-2032



Introduction: Canada's premier nuclear community

Our community has been one of Canada's principal nuclear jurisdictions since the 1960s. With two provincially owned nuclear generating stations and a robust local supply chain, Durham Region has become a hub of nuclear academia, engineering, and manufacturing.



(note to reader: final image to be revised to include traditional territory/Treaty reference and facility locations)

The Region of Durham was established in 1974 as one of several new regional governments in Ontario. What began as 21 local municipalities in the counties of Ontario, Northumberland, and Durham, became known as The Regional Municipality of Durham. Located on the east side of the Greater Toronto Area (GTA), the Region of Durham exists on the lands occupied by the Michi Saagiig Anishinaabeg for thousands of years prior to European colonization. These lands are the treaty and traditional territories of Michi Saagiig and Chippewa nations including the Mississaugas of Scugog Island First Nation, the Mississaugas of the Credit, Alderville First Nation, Hiawatha First

Nation, Curve Lake First Nation, and the Chippewa Nations of Georgina Island, Beausoleil and Rama.

Indigenous communities were progressively forced off these lands, then, in the Williams Treaties of 1923, they received one-time compensation representing a fraction of the estimated value of three tracts of land (more than 52,000 km²) in the area from the Ottawa River, south to Lake Ontario and west to Lake Huron. They also were denied fishing and hunting rights in these territories.

After decades of court cases seeking redress for these wrongs, in 2018, the Williams Treaties First Nations and the Governments of Ontario and Canada came to a settlement that included “financial compensation (\$666 million by Canada and \$444 million by Ontario), recognition of treaty harvesting rights, and the ability for each of the First Nations to add 4,452 ha to their reserve. Additionally, the Governments of Ontario and Canada formally apologized to the Williams Treaties First Nations.”¹

Our collective history shows that policies and strategies can be used to strengthen communities or to erode and eradicate their rights. We honour, recognize, and respect Indigenous Peoples as rights holders and stewards of the lands and waters on which we have the privilege to live. Within this strategy, we seek to learn from their values, knowledge, and stewardship roles. We also hope to create a dialogue with Indigenous communities on nuclear issues and build opportunities for collaboration with First Nations in a true government-to-government relationship.

As part of a two-tier regional governance model, Durham Region has strong partnerships with our eight local area municipalities (Brock, Ajax, Clarington, Oshawa, Pickering, Scugog, Whitby and Uxbridge), local post-secondary institutions, and one of North America’s largest and most diverse power producers, Ontario Power Generation (OPG).² These relationships have allowed Durham to develop best practices in emergency management, climate change and innovation.

Ontario Power Generation

OPG is a publicly owned electricity generator with over 100 years of operating experience. OPG produces about half of Ontario's electricity.

This legacy of local innovation and expertise continues with isotope production, new nuclear development planned at Darlington Nuclear Generating Station and the world's largest decommissioning project at Pickering Nuclear Generating Station. The newly founded (2020) Centre for Canadian Nuclear Sustainability in Pickering is envisioned as a world-class facility that will attract skilled jobs, innovative businesses, and economic development. Durham Region is positioned to be the centre of excellence in Canada for nuclear generation, research and development, supply chain, deployment of innovative nuclear technology, nuclear waste minimization, decommissioning, and fuel recycling.

Working together, we can ensure the health and prosperity of our community, today and in the future.

The next generation of nuclear scientists, operators and innovators are being trained here.

Durham Region boasts the largest and most skilled talent pool for energy, environment and engineering in Ontario with an existing workforce of over 10,000 and access to a world-class talent pool of more than 400,000 students across the GTA.

Ontario Tech University has the only accredited Nuclear Engineering undergraduate program in Canada and the third biggest in North America. Home to the Centre for Small Modular Reactors (SMRs), Ontario Tech is the first institution in Canada to be [designated a Collaborating Centre](#) to support the International Atomic Energy Agency (IAEA) activities on advanced nuclear power technology and non-electric applications of nuclear energy.

Facility profiles

Durham Region is home to five facilities and one proposed facility licensed by the Canadian Nuclear Safety Commission (CNSC):

Pickering Nuclear Generating Station facility profile

- Owned and operated by OPG
- Eight Canada Deuterium Uranium (CANDU) Reactors, one of the world's largest nuclear stations
- Capacity: 3,100 Megawatts or about 14% of Ontario's electricity
- In service: 1971-73 (Pickering A: Units 1-4), 1983-86 (Pickering B: Units 5-8)
- Units 1 and 4 were refurbished between 1997-2005
- CNSC licence renewal: 2024
- The Pickering station employs 2,700 people
- As of 2020, 396,935 used fuel bundles were stored in cooling pools at the station
- Units 2 and 3 were taken out of service in 1997, the remaining units are scheduled to be taken out of service in 2024 and 2025, pending regulatory approval

Pickering Waste Management Facility profile

- Owned and operated by OPG
- As of 2020, the facility housed 395,494 used fuel bundles and 1,012 m³ of intermediate-level waste from the refurbishment of Unit 1 and 4
- Two additional storage buildings and a processing building are planned by 2028
- CNSC licence renewal: 2027

Darlington Nuclear Generating Station facility profile

- Owned and operated by OPG
- Four CANDU Reactors
- Capacity: 3,500 Megawatts or about 20% of Ontario's electricity
- In service: 1990
- Refurbishment: 2016-2026 - \$12.8 billion project
- CNSC licence renewal: 2025
- The Darlington station employs 2,600 people
- As of 2020, 313,853 used fuel bundles were stored in cooling pools at the station
- The station is planned to operate until 2055

Darlington Waste Management Facility profile

- Owned and operated by OPG
- As of 2020, the facility housed 271,015 used fuel bundles stored in dry storage containers and 628 m³ of intermediate-level waste from refurbishment stored in regulated containers
- CNSC licence renewal: 2023

Darlington New Nuclear Project profile

- The site is owned by OPG
- Located at the Darlington site, OPG is planning to construct Canada's first on-grid SMR
- Capacity: Anticipated 300 Megawatt (however the site is approved for up to 4,800 Megawatts of generation)

- CNSC renewed the licence to prepare the site in 2021 for 10 years
- In service: planned for 2028 at the earliest

Port Granby Waste Management Facility profile

- Canadian Nuclear Laboratories (CNL) is implementing the Port Hope Area Initiative (PHAI) on behalf of the owner, Atomic Energy of Canada Limited (AECL), a federal Crown corporation
- Permanent storage facility for 1.3 million tonnes of low-level radioactive waste
- Waste was generated by radium and uranium refining at the former Crown corporation, Eldorado Nuclear Limited in Port Hope
- The facility includes an engineered above ground mound that was capped and closed in October 2021
- \$273 million capital project cost
- CNSC licence renewal for Phase 3 of the project: 2022
- The site will be naturalized followed by long-term monitoring, water treatment and maintenance
- AECL is leading a process to potentially create a nature reserve on the surplus federal lands at the site

The context for the nuclear sector strategy

Nuclear electricity generation has been a cornerstone of our economy since the Region was established in 1974. Today, over 30 per cent of Ontario's electricity is generated in Durham and the nuclear sector is the largest employer in the Region. Decisions that impact the sector affect us all. With many changes and opportunities expected in the coming decade, the Region must be positioned to make strategic choices to achieve our vision of "a healthy, prosperous community for all". Through this strategy, Durham Region will empower our community by growing understanding of the nuclear sector, working with partners to seize opportunities, and preparing for an evolving future. This vision and mission identify key responsibilities of our Regional Municipality: to pursue the parallel objectives of health and prosperity with balance and equity, today and for the future.

The nuclear sector strategy supports several of Durham's strategic plan objectives, including:

- 1.1 Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment
 - 2.2 Enhance community safety and well-being
 - 3.4 Capitalize on Durham's strengths in key economic sectors to attract high-quality jobs
 - 5.1 Optimize resources and partnerships to deliver exceptional quality services and value
-

Durham's nuclear sector strategy also supports the Region's planned actions to implement the low carbon pathway adopted in the [Durham Community Energy Plan](#) (2019) and address the climate emergency [declared by Regional Council](#) (2020). The availability of low carbon electricity from nuclear generation will be critical to power the Region's achievement of these targets.

Durham Region's community greenhouse gas (GHG) emissions reduction target is net zero by 2050. The Region has committed to reducing its corporate GHG emissions to net zero by 2045.

The urgency to address climate change through low-carbon energy is also fuelling renewed federal and provincial support for new nuclear development including the first on-grid SMR at Darlington. Expansion of nuclear generation is recognized as a vital step on the path to achieving a net-zero carbon economy. We need every tool in the energy toolkit, including nuclear, renewables, storage, demand management and conservation. Compared to other sources of energy, nuclear generation has a small ecological footprint across its lifecycle. Nuclear energy produces more electricity on less land than any other non-emitting source.³

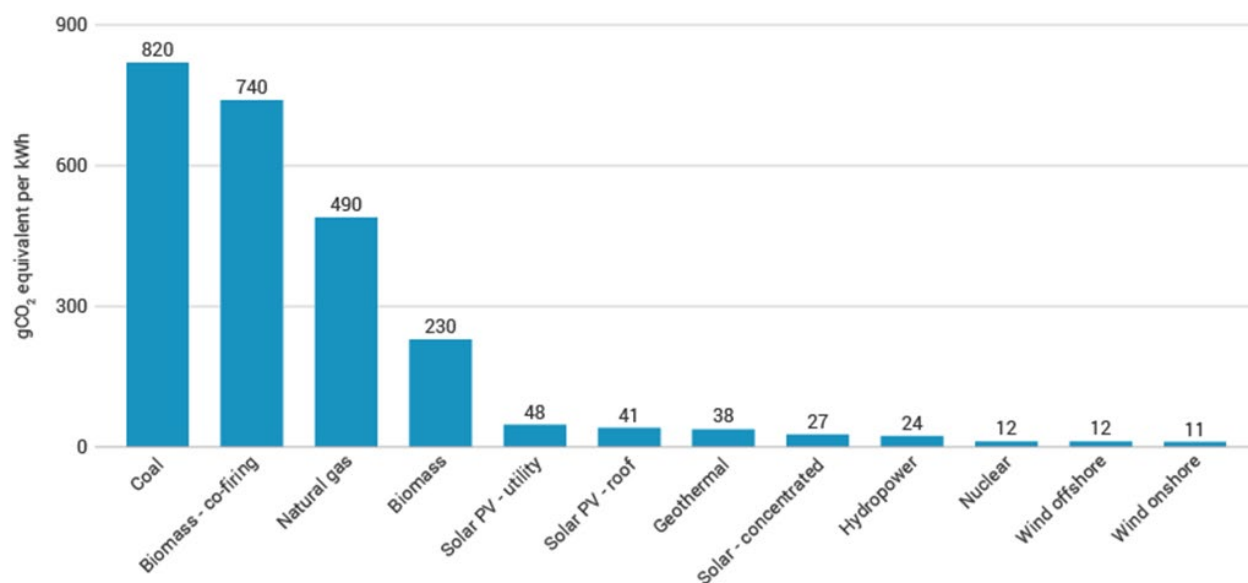


Figure 1: Average lifecycle carbon dioxide equivalent (CO₂e) emissions (including albedo effect) for commercially available electricity technologies.⁴

Nuclear electricity generation is safe. The nuclear industry is closely monitored and regulated by the Canadian Nuclear Safety Commission (CNSC). In 2019, the International Atomic Energy Agency (IAEA) conducted an [Emergency Preparedness Review](#) (EPREV) mission in response to a request from the Government of Canada.

The IAEA commended Canada for its implementation of the IAEA Safety Standards and for exceeding them in some cases (for example, for the [pre-distribution program](#) for potassium iodide). Durham Region works closely with OPG, local area municipalities, the province and the CNSC to ensure that emergency planning, training and co-ordination reflect industry international best practices to protect human health and safety and the environment.

More than a million packages carrying a variety of nuclear substances are transported safely in Canada each year.⁵

With the phase-out of coal-fired electricity generation in Ontario, nuclear has provided a steady supply of baseload electricity to our grid and much-improved air quality to the province. Ontario transformed its energy supply mix and decreased GHG, nitrogen oxides, sulphur dioxide and mercury emissions.⁶ The Durham Region Health Department has expertise in public health monitoring and undertakes ongoing Population Health Assessments on the local health effects of radiation, specifically concerning cancer, congenital anomalies, and stillbirths.⁷ These studies concluded that there is no indication that the nuclear generating stations cause health effects in the population.

While all energy sources create by-products, nuclear is energy-dense, meaning that it creates immense amounts of electricity and minimal amounts of waste when compared to other energy sources. Some nuclear by-products, such as isotopes, are extremely valuable and save lives every day by sterilizing medical equipment and diagnosing and treating deadly diseases or are used for products such as exit signs and tactical devices. Today, almost half of the used nuclear fuel in Canada is safely stored and monitored in highly regulated interim facilities in Durham. In addition, Durham has a permanent engineered above-ground mound in Port Granby containing low-level radioactive waste and marginally contaminated soil from historic radium and uranium refining in Port Hope. As nuclear generation continues in Durham, additional nuclear waste will be produced and stored locally until permanent facilities, such as the used-fuel deep geologic repository (DGR), are operational.

The Nuclear Waste Management Organization (NWMO) is a not-for-profit organization established in 2002 by Canada's nuclear electricity producers under the [Nuclear Fuel Waste Act](#). It is mandated to site and develop a DGR for the permanent storage for Canada's used nuclear fuel. The NWMO is investigating two potential locations in Ontario for the DGR, Ignace and South Bruce, and is working with the communities towards site selection in 2023. The selected community must be a willing and informed host.

Canada's deep geologic repository

DGRs are considered best practice for permanent disposal of intermediate- and high-level materials, such as used fuel. They have been adopted by other countries with nuclear power programs, such as Finland, France, Sweden, Switzerland, and the United Kingdom. Suitable geology at great depths can contain the materials, using the geosphere to protect the biosphere. The materials are stored in deep rock with no valuable minerals that might interest future generations, and where no seismic activity has occurred for millions of years.⁸ Used fuel from nuclear generation will be moved to Canada's DGR starting in the mid-2040s.

The federal government is leading [Canada's SMR Action Plan](#) for the development, demonstration, and deployment of SMRs. The Region has endorsed the principles of the SMR Action Plan and is a participating organization. Several Canadian provinces are also undertaking early planning for SMRs.

Provincial-level planning for SMRs

Ontario, New Brunswick, Saskatchewan and Alberta envision SMRs as a key mechanism in the transition away from fossil fuels. SMRs are nuclear reactors that produce 300 megawatts of electricity or less. They can support large established grids, small grids, and energy parity in remote off-grid communities and resource projects.

The SMR at Darlington is intended to be the first of many in Canada and will create opportunities to support domestic energy needs, curb greenhouse gas emissions, and position Canada as a global leader in this emerging technology.⁹

Natural Resources Canada (NRCan) is developing [just transition legislation](#) to help prepare the Canadian workforce and communities to transition to a low-carbon economy. NRCan is also leading the process of modernizing Canada's [policy framework](#) for managing the radioactive by-products of nuclear energy. Recognizing that Durham Region will be directly affected by the new policy approach, the Region participated in the federal review, meeting with NRCan staff and making a formal submission. Reviews like this are opportunities for Durham, as an experienced nuclear host community, to speak about the effects of the current policy on the

community and make suggestions for improvement. The time horizon involved in safely managing radioactive materials further highlights the need for the Region to take a strategic approach.

Modernizing Canada's radioactive waste policy

In late 2020, NRCan launched a process to review and modernize the radioactive waste policy framework. The goals are to ensure that Canada's policy aligns with international practices, is based on the best available science, and reflects the values and principles of Canadians. It will address Indigenous reconciliation in accordance with the [United Nations Declaration on the Rights of Indigenous Peoples](#) (UNDRIP), which was introduced in Canada through Bill C-15 the United Nations Declaration on the Rights of Indigenous Peoples Act (2020). It will also elaborate on the existing policy, add direction for the long-term management of low- and intermediate-level radioactive waste and incorporate evolving practices in the sector such as waste minimization.

As a regional municipality, the safety and well-being of our community are our top priorities. We are responsible for protecting the environmental, social, and economic sustainability of our Region in the short and longer term. One way that we are doing so is by updating the Region's Official Plan, Envision Durham, which will define how land in our community should be used for years to come.

[Policy directions proposed for the new Official Plan](#) support energy generation in the Region and will include the Pickering and Darlington station properties as employment areas to recognize and promote job creation. The proposed policy directions also include station planning zones and direct local area municipalities to restrict sensitive uses around the stations. At the Port Granby facility, the Official Plan will recognize the nature reserve recommended as part of site recovery.

Over the coming decade, Ontario and Canada will make decisions on our energy supply mix, the site of Canada's DGR, the deployment of SMRs, the management of used nuclear fuel and by-products, and our continued transition to low carbon electricity.

As these projects gain momentum, they will create tremendous opportunities for Durham Region. This strategy aims to empower Durham Region as an astute and forward-thinking partner to the nuclear sector. Information, education, and preparation can support Regional Council and residents in understanding the opportunities and effects of the nuclear facilities in the Region across their entire life cycle. We have a vital role to play in creating our future.

Powering the future: key milestones for Durham Region

- 2021 – OPG announces the technology selected for Canada’s first planned on-grid SMR at Darlington
- 2022 – The Port Granby Project is completed and the naturalized site continues to be monitored
- 2022 – Laurentis Energy Partners, a subsidiary of OPG, begins installing tooling for MO-99, an important medical isotope, at Darlington
- 2023 – NWMO selects the site for Canada’s used fuel DGR
- 2024 – OPG seeks a licence to begin construction of the Darlington SMR
- 2024 – Pickering reactors begin to be sequentially shut down (units 1 and 4 in 2024 and units 5 and 8 in 2025, pending CNSC approval)
- 2024 – OPG’s new campus opens in Courtice
- 2025 – Durham Region’s corporate GHG emissions will be reduced to 20% below 2019 levels and Durham’s community emissions will be reduced to 10% below 2019 levels
- 2026 – Refurbishment of the reactors at Darlington is completed
- 2028 – Pickering Station is put into safe storage and continues to be monitored
- 2028 – The SMR at Darlington is planned to enter into service

2030s

- By 2030, Durham Region’s corporate GHG emissions will be reduced to 40% below 2019 levels and Durham’s community emissions will be reduced to 30% below 2019 levels
- Construction of Canada’s DGR

2040s

- By 2040, OPG will be a net zero carbon company
- By 2045, Durham Region’s corporate GHG emissions will be reduced by 100% below 2019 levels
- Canada’s DGR begins to accept used fuel from interim storage facilities including Pickering and Darlington

2050s and beyond

- By 2050, Durham’s community emissions will be 100% below 2019 levels and Canada will achieve net-zero emissions

- Detailed decommissioning planning and decommissioning activities begin at Pickering
- Darlington reaches the end of operations and the reactors are shut down
- Detailed decommissioning planning and decommissioning activities begin at Darlington

Note: project dates may change.

Darlington Refurbishment Project

The Darlington Nuclear Generating Station, one of the top performing nuclear generating stations in the world, has been powering Ontario since the early 1990s. The refurbishment project will extend Darlington's operations to 2055. Together with the additional years of operation, the project is expected to generate \$89.9 billion in economic benefits for Ontario. The project creates 14,200 jobs per year. Once completed in late 2026, the continued operation of the station will allow Ontario to avoid 297 mega tonnes CO₂e compared to carbon-based generation over its lifetime.

Developing the strategy

Guiding principles

The following guiding principles were used to develop Durham's Nuclear Sector Strategy:

Aligned

The nuclear sector strategy recognizes the Region's legislated responsibilities, will align with our strategic plan vision, mission and values, and support our strategic plan objectives.

Future-focused

The nuclear sector strategy considers the short, medium and long-term timelines associated with nuclear facilities with the intent of creating positive socio-economic and environmental benefits for seven generations to come. We are striving to be good ancestors by being good stewards of the land and community.

Community-centred

The nuclear sector strategy puts community safety and well-being first and balances the impacts and opportunities associated with being a nuclear host community.

Respects Indigenous rights and treaties

The Region is committed to engaging with Indigenous peoples on nuclear matters and nurturing a meaningful relationship by building trust, reciprocity and respect.

Connected

The nuclear sector strategy recognizes that Durham Region is one agent in a complex nuclear ecosystem (see Appendix B: nuclear sector ecosystem).

Approach

Phase 1	Phase 2	Phase 3
Awareness	Listening	Integrating Lessons Learned
Jan '19 – May '21	June '21- Oct '21	September '21- November '21

Phase 1: awareness

Regional staff formed a Nuclear Sector Working Group with representatives from all departments. We held a series of workshops where we inventoried our mandated and current activities. We recognized the pressing need to improve the knowledge and capacity within the Region to respond on nuclear matters. We knew we needed to organize staff internally to support greater collaboration, and efficient and effective participation in hearings, consultations, and policy reviews and brainstormed ways we might achieve this.

We identified Indigenous rights holders, potential partners, and stakeholders, sought out new and renewed relationships and invited virtual presentations from sector experts. Keeping in mind our guiding principles, this working group developed draft goals and preliminary actions to improve the Region's role and performance in the nuclear sector.

Throughout 2020 and 2021 the working group collaborated on multiple nuclear initiatives including:

- Participating in Natural Resources Canada's (NRCan) [SMR Action Plan](#)
- Partnering with OPG and the City of Pickering on a study of the socio-economic and fiscal impacts of the retirement of the Pickering Nuclear Generating Station
- Submitting an [intervention to the CNSC hearing](#) to support the renewal of OPG's licence to prepare the site at Darlington for new nuclear development
- Responding with a [Regional submission](#) to the NRCan review of Canada's radioactive waste policy
- Engaging with the Nuclear Waste Management Organization (NWMO) on their plans for low- and intermediate-level waste and transportation of used fuel
- Increased engagement in initiatives led by the [Canadian Association of Nuclear Host Communities](#) (CANHC)

The reviews, research, analysis, and consultation that went into each of these efforts supported the development of the nuclear sector strategy.

Phase 2: listening

The nuclear sector benefits from cross-pollination that facilitates innovation and partnership. As the Region began to develop this strategy, we recognized the importance of engaging broadly with partners, Indigenous rights holders, stakeholders, and the community. The nuclear sector working group formed a communications subcommittee and developed a consultation and engagement plan to tap into this extensive knowledge and experience as inputs to the strategy.

Our consultation aimed to gather feedback on the draft strategy goals and gain insight into how the Region might establish itself as an active, engaged leader in the nuclear sector with the capacity to influence decisions that affect the well-being, economic development, and sustainability of our community.

We directly surveyed rights holders, partners, and key stakeholders for their thoughts on the draft goals and potential actions, asking what the Region might do – more of, better, in addition to – the actions we already undertake. We held follow-up discussions with interested groups and two First Nations to get a richer understanding of their perspectives.

To reach the community, we also posted the draft goals on Durham's community engagement platform and polled registered users.

The community and survey respondents were supportive of the strategy and the four proposed goals. The most often-heard themes and ideas are presented below:

- Develop a comprehensive plan to assess the current knowledge base of elected officials and increase their expertise and interest in the nuclear sector.
- Strengthen co-operation and alignment among local area municipalities (e.g., by sharing information on employment and supply chain supported by the nuclear industry within each municipality).
- Empower representatives from all levels of government to champion shared goals and interests (e.g., net zero carbon future; high quality, well-paying jobs; research and investment attraction).
- Continue to educate Regional staff on the nuclear sector, sharing knowledge across departments and ensuring institutional knowledge transfer. Include local area municipal staff (e.g., Pickering and Clarington) who have deep insight and expertise in the nuclear sector built over decades of work.
- Generate enthusiasm in our community about the benefits and value of the nuclear sector to Durham Region, Ontario and Canada and foster pride in achievements.
- Support more youth engagement on nuclear issues through outreach to local school boards and by leveraging [CityStudio Durham](#).

- Durham Region, OPG, nuclear supply chain companies, and local post-secondary institutions should better educate the community and dispel common myths and misconceptions.
- Address gaps in community knowledge with clear, credible, and accessible information using formal and informal approaches.
- Convene regional-scale and sector-wide opportunities for sharing information and identifying potential partnership opportunities – leveraging and strengthening existing forums where they exist and addressing gaps where regular dialogue does not occur on nuclear matters.
- Continue to participate in nuclear regulatory processes and policy development across all levels of government to stay abreast of impacts to the Durham community and influence decision-making.
- Share Durham Region's experience as a nuclear host community with current and future potential nuclear host communities.
- Advocate for formal funding agreements for municipal activities required by nuclear host communities using a strong, unified municipal voice.
- Seek opportunities for growing the local nuclear supply chain and research sector by creating an economic vision focused on clean energy, a low carbon economy and life-saving medical isotopes.
- Advocate that Canada's SMR technology development be rooted in Durham Region.
- Seize the opportunity to showcase globally the decommissioning of the Pickering Nuclear Generating Station.

Through our engagement with First Nations communities, we understand:

- The ongoing impact of colonization, including policies, practices and discriminatory laws that have devalued Indigenous communities and created longstanding negative impacts on Indigenous peoples. The development of settler communities and industries, including nuclear power generation, was part of this process. There are significant treaty rights related to nuclear projects.
- Both the Mississaugas of Scugog Island First Nation and Curve Lake First Nation expressed strong interests in the evolution of nuclear projects in the Region from both economic and environmental perspectives and a desire to be engaged as partners.
- That co-creating language incorporated in the strategy that goes beyond land acknowledgement is a step forward towards building opportunities for true collaboration.

Mutual interests were expressed in the Region establishing ongoing conversations with the Mississaugas of Scugog Island and Curve Lake First Nations communities, and potentially other First Nations communities in the territory on nuclear and other issues.

This input from rights holders, partners, stakeholders, and the community helped us identify where investment of time and resources by the Region can make a difference.

View the full [Engagement Summary Report](#).

Phase 3: integrating input and lessons learned

Feedback received from the community, rights holders, partners, and stakeholders was incorporated into all areas of the strategy, and particularly influenced the goals, actions and outcomes.

In parallel with our work on this strategy, Regional staff responded to several nuclear policy and regulatory consultations. We also participated in studies, conducted research on nuclear decommissioning and responded to requests for Regional staff reviews of plans and documents related to upcoming regulatory processes. This involvement provided opportunities to adopt some ideas suggested during the listening phase.

The key goals and areas for action outlined in this strategy focus on the Region being well-informed, prepared, ready to collaborate, and engaged in framing a future that will continue to evolve. There is much uncertainty: the urgency of society's response to climate change, the demand for sustainable energy, the speed of innovation, and public acceptance of science-based solutions, all have the potential to shape and shift our future. Other processes such as reconciliation with Indigenous peoples, federal policy development and international co-operation also will drive change in the nuclear sector.

Accordingly, the Region should reconfirm priority actions as part of the annual business planning and budget process and refocus as needed. Implementation plans will need fiscal flexibility to address changing circumstances and emerging opportunities such as new partnerships or the availability of grant funding.

Our goals

This strategy is our long-range plan to build capacity within our organization and community to understand, anticipate and respond to the evolving nuclear activities in Durham and influence policy and decision-making that affect the Region.

Recognizing the importance of the nuclear sector to the Region's residents, businesses and institutions, the nuclear sector strategy has four key goals:

- Grow understanding of the nuclear sector among Regional Council, staff, and the community
- Build prosperity by maximizing the benefits of being a nuclear host community and Canada's premier centre of the nuclear industry and innovation
- Protect and sustain the community by addressing the impacts and opportunities of being a nuclear host community
- Lead and develop partnerships within the nuclear sector to build leadership capacity and influence decision-making

Listed with each goal are the desired outcomes and actions necessary to achieve them.

Grow understanding

Whether residents have lived in Durham for many years or are new to the area, an understanding of the nuclear sector and its local significance is important. With a rapidly growing population, keeping the community informed and updated over the decades to come will require an ongoing effort. The Region has mandated education and awareness programs in place, however, communicating technical information produced by nuclear operators and regulators in ways that are clear, meaningful, and credible to residents is a challenge. The Region, with help from post-secondary institutions, Indigenous knowledge holders and subject matter experts, should play an important role as a trusted source of balanced information.

The local effects of federal and provincial policy and regulatory processes related to nuclear facilities are complex (see Appendix C: legislative and regulatory framework). Regional Council and staff must be well-versed about this key industry in our community to support proper planning and strategic decision making. Durham Region will grow understanding of the nuclear sector to ensure that our community members, municipal staff and Regional Council are knowledgeable and engaged.

Today, just over 700,000 people live in Durham Region. By 2051, the Region's population is expected to be 1.3 million. Maintaining a nuclear-aware community will be an ongoing challenge.

Desired outcomes:

- Increased understanding by Durham Regional Council, staff and the community of the effects and opportunities associated with being one of Canada's premier nuclear jurisdictions including the role of nuclear in electrifying transportation and heating to reduce greenhouse gas emissions.
- Improved intergenerational knowledge transfer among Regional Council, staff, and community members throughout the nuclear lifecycle (see Appendix D: nuclear generating station lifecycle).
- Improved alignment and consistency among Regional staff communications.
- Increased community engagement and participation in nuclear sector engagement opportunities and planning.

To achieve these outcomes, Durham Region will:

- Continue and expand the nuclear sector working group to grow understanding of the nuclear sector by educating Regional and municipal staff on nuclear topics and projects, sharing knowledge, and ensuring institutional knowledge transfer.
- Engage effectively with Regional Council and other elected officials on topics related to the nuclear sector through presentations, reports for information or endorsement.

- Survey elected officials, staff, and the community regularly to monitor awareness, identify and address knowledge gaps.
- Develop and maintain a nuclear education package for Council orientation.
- Develop and implement an integrated community awareness program to make accessible and current information available, increase knowledge and promote participation in planning and regulatory processes.
- Conduct research on topics related to being a nuclear host community (e.g., decommissioning) and share findings with the community, rights holders, stakeholders and partners.
- Use research findings to identify opportunities and best practices to continually improve community outreach and engagement.

Maximize prosperity

As a premier centre of nuclear industry, academic research and innovation, Durham Region is positioned to be Canada's centre of excellence for nuclear generation and supply chain, research and development, and deployment of innovative nuclear technology, nuclear waste minimization and fuel recycling. Additionally, the retirement of Pickering will be the largest decommissioning project in the world and will create significant economic development opportunities.

In 2024, OPG will open its new corporate campus in Clarington. OPG is one of the largest, most diverse clean power producers in North America. In addition to nuclear,¹⁰ their energy portfolio includes oil and natural gas, hydroelectricity, biomass and solar.¹¹ The relocation of their headquarters to the Region will solidify our status as a centre for nuclear expertise and a focal point for sustainable energy in North America.

Decommissioning, medical isotope production, the development of Canada's first on-grid SMR and OPG's new headquarters will create direct and indirect jobs in science, technology, engineering, and mathematics (STEM) disciplines but also in a diverse array of professions and trades in Durham.

The nuclear industry keeps 76,000 Canadians working.¹²

We recognize that this economic activity takes place on the traditional lands of Michi Saagiig Anishinaabeg. In the past, generations of Indigenous peoples were systemically excluded from the decision-making processes that created the nuclear industry in this area. The Region is committed to engaging and nurturing the relationship with First Nations to participate in, support and share in the benefits of the nuclear sector in a way that preserves the land and waters for future generations.

We will capitalize on our strengths and continue our legacy of facilitating nuclear innovations to accelerate the adoption of non-emitting electricity solutions and maximize the benefits of being a nuclear community.

Medical isotopes

Nuclear medicine advances human health and saves lives. Canada is a global leader in medical isotope production, used to sterilize medical devices and diagnose and treat deadly diseases such as cancer. The Pickering and Darlington Nuclear Generating Stations currently produce Cobalt-60 and will soon produce Molybdenum-99 making Durham Region a key source and exporter of these important life-saving radioisotopes.¹³ The nuclear medicine industry supports 8,500 jobs in Canada.

Desired outcomes:

- Increased investment, research, and job creation in Durham's nuclear energy sector.
- Develop a strong, diverse talent pipeline to support a nuclear energy innovation ecosystem in partnership with industry and post-secondary institutions.
- Develop a reputation as a respected, innovative source of medical isotopes.
- Increased local manufacturing to support Canada's SMR technology development.
- Develop a reputation internationally as the global centre of nuclear expertise.

To achieve these outcomes, Durham Region will:

- Continue to participate in the pan-Canadian SMR Action Plan and work with other levels of government, Indigenous communities, the nuclear industry, post-secondary partners, and local area municipalities to help energize Canada's low carbon economy.
- Advocate for Canada's SMR technology development and manufacturing to be rooted in Durham Region.
- Work with OPG and other stakeholders to advance and accelerate repurposing plans for Pickering Nuclear Generating Station such as attracting medical isotope production and processing operation, a research facility, and other innovative low-carbon energy facilities.
- Work to attract nuclear sector supply chain companies to relocate to Durham Region.
- Continue to foster our partnership with the Canadian Centre for Nuclear Sustainability to realize local investments and nuclear decommissioning research, supply chain and employment opportunities to Durham Region.
- Work with industry and post-secondary institutions to support nuclear sector experiential learning through CityStudio Durham.
- Support the development of OPG's new headquarters in Clarington.

Sustain and protect

Durham Region is transforming into a complete community, where residents live, learn, work and play. As a primary nuclear host jurisdiction in Canada, the Region must be well-informed about the sector and participate in policy reviews and regulatory processes that safeguard nuclear operations. The effects of a nuclear generating facility on the host community vary over the potential century-long life cycle of the station (see Appendix D: nuclear generating station lifecycle). It is vital for the Region to understand the implications and plan for the cumulative short and long-term effects (e.g., on employment, regional service demands, property taxation, research, supply chain and broader community economic considerations). In this way, Durham Region will be able to create the conditions for community success and ensure that future generations experience the benefits of being the clean energy capital of Canada.

Nuclear emergency preparedness

The Region has an established emergency management program. In the unlikely event of a nuclear emergency, Durham Region, the province and OPG have plans in place to respond and keep our community safe.

As a key industry in Durham, OPG has supported our quality of life by providing high-quality jobs and property taxes (payments in lieu of taxes) which contribute to the Regional and local property tax base. These contributions vary over the lifespan of each facility. When the stations are operating, these payments help support the provision of Regional and municipal services. Forecasting and planning for the retirement of the Pickering Nuclear Generating Station and changes in related employment and property taxation are important steps toward mitigating impacts and identifying new opportunities.

Planning for the future

Durham Region, the City of Pickering, and OPG are currently undertaking a Financial, Economic, and Social Impact study on the retirement of the Pickering Nuclear Generating station. The study will provide a thorough understanding of decommissioning impacts and economic opportunities, as well as recommendations for maximizing opportunities with the Canadian Centre for Nuclear Sustainability to stimulate research, technology development, and innovation, while also attracting industry and talent. The study will be completed in 2022.

In Durham, with multiple large nuclear sector facilities and projects, we may experience cumulative and connected effects over their life cycles. The demands on the Region related to tracking changes in policies and projects at several facilities is one reason for developing this strategy. These cumulative effects have a particular impact on the Indigenous rights holders engaged in this strategy.

Durham Region will continue to advocate for policies that protect and sustain the environment and quality of life of current and future residents, and the fiscal health of the municipality, and for financial arrangements that ensure the social sustainability of nuclear facilities across their lifecycle.

Desired outcomes:

- Development of financial arrangements that recognize the responsibilities associated with being a nuclear host community.
- Offset municipal and broader community socio-economic impacts associated with the retirement of Pickering Nuclear Generating Station.
- Increased capacity for the Region to anticipate and prepare for changes related to nuclear projects in Durham.
- Preserve/restore affected lands and waters.

To achieve these outcomes, Durham Region will:

- Research, plan for and mitigate socio-economic and fiscal impacts (e.g., direct and indirect job loss, loss of property tax, user rate and other municipal revenue) of each phase of the decommissioning process at Pickering Nuclear Generating Station.
- Participate in nuclear regulatory processes and policy development across all levels of government to protect Regional interests.
- Incorporate Indigenous knowledge into our policies and practices by making decisions with future generations in mind and focusing on principles of environmental stewardship.
- Work with federal and provincial ministries and agencies to ensure that community well-being is a key consideration in nuclear policy decisions (e.g., around waste management, transportation, and decommissioning).
- Negotiate formal financial arrangements that sustain the fiscal and socio-economic well-being of the Regional community and maintain the social licence for nuclear facilities throughout their life cycle.
- Seek federal support in advance of generating station closure, during safe storage and during decommissioning phases to mitigate economic impacts and assist the Region and City of Pickering with economic diversification and renewal.
- Apply policy techniques to identify strengths and weaknesses, review trends and future alternatives for the sector to consider how the Region might respond to potential changes and opportunities.

- Assess the opportunities to engage existing Regional Council advisory committees (e.g., Durham Nuclear Health Committee, Durham Region Roundtable on Climate Change) and Regional engagement in other advisory committees on strategy implementation.

Lead and develop partnerships

The nuclear sector is broad with many organizations and industry groups each with a unique focus and role. Additionally, several provincial and federal ministries set policies and regulations for the nuclear sector. Durham has an opportunity to leverage our position as a key nuclear jurisdiction to develop new partnerships with these stakeholders to advance the goals of the nuclear sector strategy. The Region will also work to strengthen our partnerships with Indigenous communities, OPG and academia in key areas such as environmental stewardship, climate change and education.

As a long-time nuclear community, Durham Region has confidence in the technology and municipal experience and expertise that it can share with other existing or potential host communities in Canada. By increasing our participation in organizations like CANHC, Durham Region will build leadership capacity, influence decision-making, and achieve our vision of a healthy, prosperous community for all.

OPG's climate change plan

The goals of [OPG's climate change plan](#) align with many of Durham Region's climate change objectives. For example, OPG is striving to be a net-zero carbon company by 2040, to lead the decarbonization of Ontario's economy, to ensure their operations are resilient to the impacts of a changing climate and that their host communities are protected.

With major nuclear projects underway, new opportunities will arise. The Region will seek out opportunities where collaborative effort can help us meet our targets.

CityStudio Durham

CityStudio is a proven model of experiential learning and civic engagement focused on developing tomorrow's leaders by bringing municipal government to the classroom. [CityStudio Durham](#) is a collaboration between the Region of Durham, Durham Regional Police Services, Durham College, Ontario Tech University and Trent University Durham-GTA. By furthering connections between municipal government, academic institutions, and the community, post-secondary

students in Durham can apply their skills, creativity, and entrepreneurial spirit to real-world challenges facing our community to shape a better future for Durham.

CityStudio also presents an opportunity for Indigenous students to become engaged in placemaking in their treaty lands, leading to potential career paths in various disciplines.

CityStudio Durham helps to attract students and build the talent pipeline. This partnership has already resulted in studies on nuclear emergency preparedness, decommissioning and international nuclear host communities.

Desired outcomes:

- Increased knowledge sharing between the Region and other municipalities, Indigenous Nations, and provincial and federal ministries and agencies on the experience of being a nuclear host community.
- Improved capacity for Durham Region to engage in and influence nuclear policy and provincial and federal decision making.
- Increased collaboration on environmental stewardship and economic opportunities with Indigenous communities, OPG and other stakeholders.
- Improved communication, co-operation and alignment with local area municipalities, other nuclear communities, Indigenous rights holders, and local elected officials on matters related to the nuclear sector.
- Increased interaction and co-operation with the nuclear industry, academia, and provincial and federal ministries and agencies on nuclear sector matters.

To achieve these outcomes, Durham Region will:

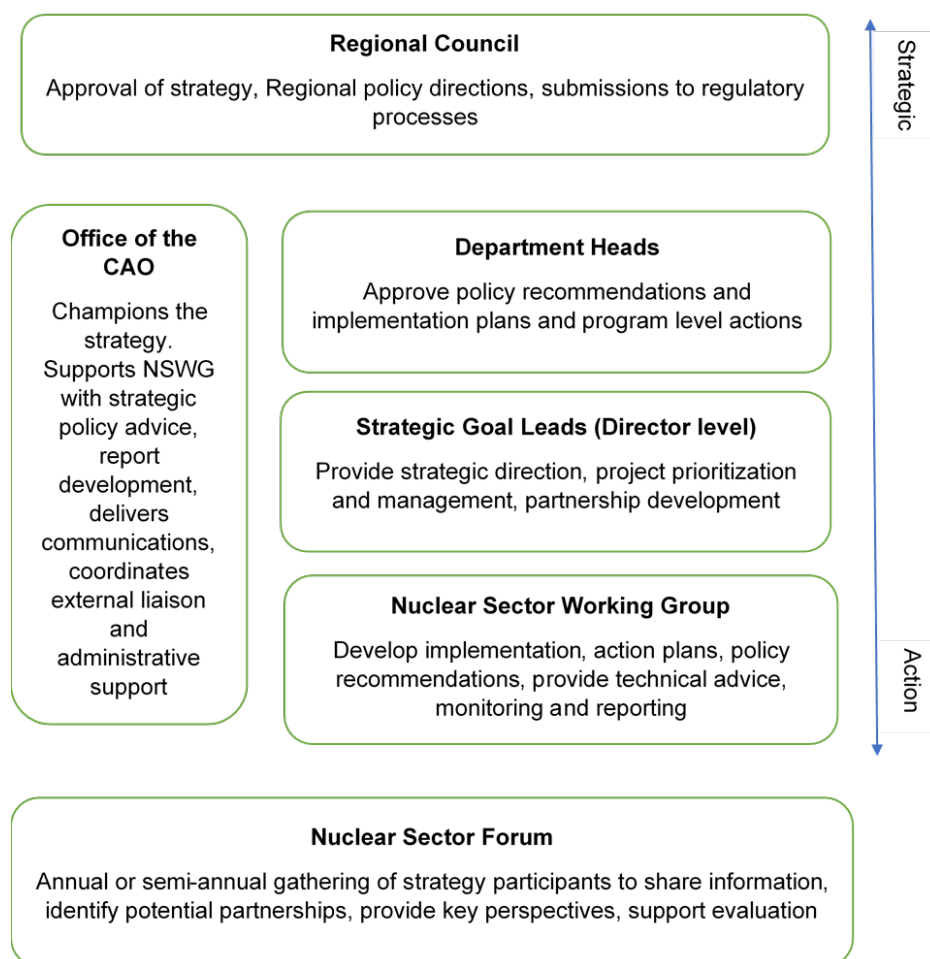
- Foster relationships with and among Indigenous rights holders and key stakeholders to increase communication and identify partnership opportunities.
- Establish formal partnerships with OPG, academia, Indigenous communities, and other nuclear sector organizations (e.g., AECL).
- Create regular opportunities to discuss and advocate on nuclear matters with MPs and MPPs.
- Actively participate in, and work with other nuclear host communities to build capacity and strengthen the role of CANHC.
- Establish a regular information forum to learn from leading nuclear sector experts, local area municipalities, Indigenous rights holders, partners, and stakeholders and engage in discussions, network, and share lessons learned.
- Attend and participate in nuclear sector conferences and events.

Governance

Delivery of the strategy actions will be the responsibility of Regional staff, with endorsement from Regional Council and in partnership with willing organizations in the sector.

The Region's internal Nuclear Sector Working Group has representatives from all departments and Director-level leads for each of the four goals in this strategy. This group will develop workplans to support the implementation of the strategy. With support from the CAO's Office, the Director-level strategy leads will be accountable for advancing key actions under their goal, in an integrated manner. Subcommittees of the working group will support key activities such as communications, preparation for CNSC hearings and research projects. The Working Group will bring reports and recommendations on nuclear issues to Regional Council via Committee of the Whole to establish Regional positions and submissions.

Recognizing the need for external advice and perspectives on the implementation of the strategy, the Region will explore new and leverage existing mechanisms to support community engagement and awareness, help identify partnership opportunities, and participate in strategy evaluation and renewal.



Implementation and financial plans

The Nuclear Sector Working Group will prepare an implementation plan identifying priorities for action to achieve the stated desired outcomes in the short (5 year), medium (10 year), and long-term future (beyond 10 years). The implementation plan will provide the framework for establishing annual workplans and budgets as part of the Region's regular business planning and budget cycle. However, flexibility to meet emerging opportunities will be essential. While some of the activity, such as community outreach or CNSC hearings, may occur on a predictable timeline, policy reviews, research projects, and grants or intervenor funding opportunities may occur at any time. These allocations will be tracked as investments in the nuclear sector strategy and linked to the goals. The results of the previous year's work plan will inform the development of subsequent work plans.

Example of implementation plan chart:

Goal	Action item	Short term	Longer-term	Resource Required	Partners
Grow understanding	Community awareness program	2022-2024	Ongoing	\$ Staff time	OnTechU, OPG
Sustain and protect	Advocate for funding to support Regional and host municipal participation in CNSC hearings and nuclear policy reviews/development	2022-2023	Ongoing if required	Staff time	NRCAN, CNSC, CANHC, LAMs
Maximize prosperity	Support OPG headquarters development	2022-2024		Staff time	Clarington, OPG
Lead partnerships	Participate in CANHC and other nuclear organizations, conferences	Annually	Ongoing	\$ Staff time	CANHC, sectoral/partner organizations

Monitoring and evaluation plan

Within the strategy for each of the four major goal areas, we have outlined desired outcomes and actions. An evaluation plan including indicators, milestones and metrics related to the actions will be developed to gauge effectiveness or progress toward the desired outcomes.

Where appropriate and meaningful, quantitative data will be tracked (e.g., survey results, Durham's community engagement platform, website and social media analytics,

number of new supply chain companies moving into the Region, change in employment associated with nuclear projects). Qualitative data will also be gathered such as evaluations of partnerships, forums and outreach efforts, storytelling about new local business development, exports of innovative nuclear technology, and results of research projects.

In the early years of the strategy, the establishment of structures to support the program will be reported as milestones. Early milestones will include:

- Launching the nuclear sector strategy with a virtual event
- Presenting the results of the Pickering fiscal and socioeconomic study to Regional Council
- Using the consultation and research findings to identify areas for improved communication in partnership with OPG, post-secondary institutions, rights holders, and other nuclear agencies
- Developing orientation materials/sessions for Regional staff and the next Regional Council on the sector and the strategy
- Developing outreach tools and surveys to gauge progress in improving levels of nuclear sector awareness among Regional staff, elected officials and the broader community
- Establishing a nuclear sector information sharing forum

Once these foundational actions are in place and the program evaluation plan is established, results will be tracked. The Nuclear Sector Working Group will provide a short annual report of actions to Regional Council, highlighting early results beginning in 2023.

Conclusion

With this strategy, the Region has set out actions within the scope of our authority and areas of interest so that our community and partners know how we plan to engage in the sector.

Open: The strategy, action plans, associated budgets and progress reporting will be posted on the Region's website.

Accountable: We will monitor the impact and effectiveness of our actions in supporting the four goals reporting annually on strategy milestones, progress indicators, research findings, etc.

Evolving: We will use the results of previous years' plans and scans/analysis of emerging trends and opportunities in the sector to update and adapt implementation plans and review and update the strategy at least every 5 years.

As a nuclear community for more than four decades, Durham Region has developed significant expertise in energy policy, nuclear regulatory processes, and community health and safety. Regional staff and decision-makers will track how this critical sector is

evolving in Durham so we can plan and prepare for the changes and help shape decisions by others.

The strategy will assist the Region in prioritizing and aligning our actions internally and with external partners. It will enhance our capacity to keep pace with new developments in the sector, manage uncertainty and identify new opportunities. It will allow us to gauge our effectiveness over time and refocus our efforts as needed to shape Durham's nuclear future and achieve our vision of a healthy prosperous community for all.

Appendices

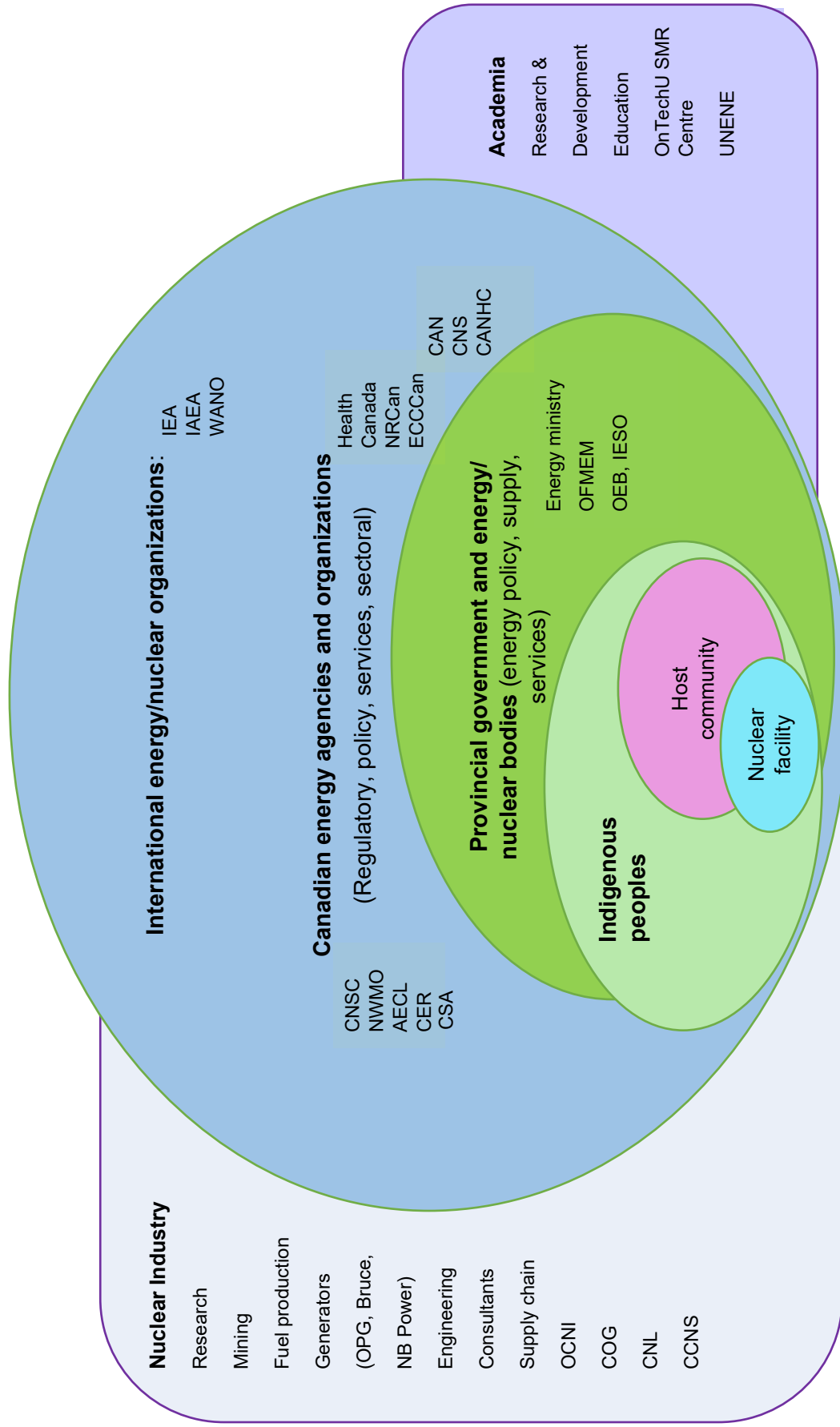
Appendix A: acronyms

AECL	Atomic Energy of Canada Limited
CANDU	Canada deuterium uranium (reactor)
CANHC	Canadian Association of Nuclear Host Communities
CER	Canada Energy Regulator
CNA	Canadian Nuclear Association
CNL	Canadian Nuclear Laboratories
CNS	Canadian Nuclear Society
CNSC	Canadian Nuclear Safety Commission
CO ₂ e	Carbon dioxide equivalent
COG	CANDU Owners Group
CSA	Canadian Safety Association
CSA	Canadian Standards Association
DGR	Deep Geologic Repository
DNNP	Darlington New Nuclear Project
EA	Environmental Assessment
ECCC	Environment and Climate Change Canada
EPREV	Emergency Preparedness Review
FNEP	Federal Nuclear Emergency Plan
GHG	Greenhouse Gas
IAAC	Impact Assessment Agency of Canada
IAEA	International Atomic Energy Agency
IEA	International Energy Agency
IESO	Independent Electricity System Operator
ILW	Intermediate Level Waste
KI	Potassium Iodide
LAM	Local area municipalities

LLW	Low Level Waste
MPAC	Municipal Property Assessment Corporation
NRCan	Natural Resources Canada
NWMO	Nuclear Waste Management Organization
OCNI	Organization of Canadian Nuclear Industries
OEB	Ontario Energy Board
OFMEM	Office of the Fire Marshall and Emergency Management
OPG	Ontario Power Generation
PDP	Preliminary Decommissioning Plan
PHAI	Port Hope Area Initiative
PHWR	Pressurized Heavy Water Reactor
REGDOC	Canadian Nuclear Safety Commission Regulatory Documents
SMR	Small Modular Reactor
STEM	Science, Technology, Engineering and Mathematics
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNENE	University Network of Excellence in Nuclear Engineering
WANO	World Association of Nuclear Operators

Appendix B: nuclear sector ecosystem

(note to reader: graphics are all being designed)



Appendix C: legislative and regulatory framework

The direction and regulation of the nuclear sector in Canada and Ontario is complex.

Provincial framework

Ministry of Energy

Electricity Act

Oversees the energy regulatory framework

- Develops broad energy policy guiding generation mix, energy efficiency and conservation through the Long Term Energy Plan
- Administers Smart Grid Fund

Ministry of Finance

Assessment Act

Municipal Property Assessment Corporation Act

- Sets property tax rates on energy facilities through legislation
- Oversees assessment system delivery agency, Municipal Property Assessment Corporation (MPAC) (which is funded by municipalities).

Ministry of the Solicitor General

Emergency Management and Civil Protection Act

- Responsible for administration of the Provincial Nuclear Emergency Response Plan. Administered by the Office of the Fire Marshall and Emergency Management.

Ontario Energy Board

Sets rules, establishes rates, licenses energy companies, monitors the wholesale market, develops new rate structure policies and educates consumers.

Independent Electricity System Operator

Competitively procures power, operates the power system, balances supply and demand, oversees the electricity market, plans for Ontario's future energy needs (i.e. plans resources for supply), promotes energy efficiency (Save ON energy programs) and operates the Smart Meter program.

Local Distribution Companies (e.g., Elexicon, Oshawa Power and Utilities Corporation, Hydro One)

Distribute Energy to homes and businesses via local energy transmission systems which they own and maintain.

Ontario Power Generation

Primary generator of bulk electricity in Ontario with nuclear, hydro gas fired and renewable generation. Wholly owned by the Province of Ontario.

Bruce Power

Operates the Bruce Nuclear Generating Station under contract. The station is owned by Ontario Power Generation.

Distributed Energy Resources

Dispersed capacity for electricity generation (e.g., wind turbines, solar installations) and storage. There are various ownership models (e.g., Indigenous energy projects).

Hydro One

Owns, plans and operates the bulk electricity transmission system in Ontario. Also acts as a local distribution company in parts of the Province (mainly northern Ontario, but also Brock Township). Majority of shared owned by the Province. OPG is also a shareholder.

Municipalities

Develop community energy plans, climate change plans, may wholly or partially own a local distribution company.

Federal framework

Canada Energy Regulator

The Canada Energy Regulator (CER) regulates pipelines, energy development and trade in the Canadian public interest. CER regulates pipeline and power line projects across their lifecycle.

Ministry of Natural Resources

Nuclear Energy Act

Nuclear Safety and Control Act

Nuclear Fuel Waste Act

Nuclear Liability and Compensation Act

Public Safety Canada

Emergency Management Act

Health Canada

Health Canada leads the Federal Nuclear Emergency Plan (FNEP) and is responsible for coordinating the nuclear emergency response of more than 18 federal organizations to support affected provinces and territories.

Ministry of Environment and Climate Change

Environmental Assessment Act 2012

Impact Assessment Act 2019 (administered by Impact Assessment Agency of Canada)

Canada Environmental Protection Act

Species at Risk Act

Minister of Transportation

Navigation Protection Act

Transportation of Dangerous Goods Act

Minister of Fisheries and Oceans

Fisheries Act

Agencies

Canadian Nuclear Safety Commission

The Canadian Nuclear Safety Commission (CNSC) regulates the use of nuclear energy and materials to protect health, safety, security and the environment; to implement Canada's international commitments on the peaceful use of nuclear energy; and to disseminate objective scientific, technical and regulatory information to the public.

CNSC was established in 2000 under the Nuclear Safety and Control Act and reports to Parliament through the Minister of Natural Resources. CNSC was created to replace the former Atomic Energy Control Board, which was founded in 1946.

Regulates nuclear facilities at all life cycle stages from planning to operation to decommissioning through licensing and regulatory processes.

The CNSC has up to seven appointed permanent members whose decisions are supported by more than 800 employees. These employees review applications for licences according to regulatory requirements, make recommendations to the Commission, and enforce compliance with the Nuclear Safety and Control Act, regulations, and any licence conditions imposed by the Commission.

The CNSC issues regulatory documents (REGDOCs) that outline policies that guide the nuclear sector in Canada and practices required of the sector. For example, REGDOC-2.11, *Framework for Radioactive Waste Management and Decommissioning in Canada* provides an overview of the governance and regulatory framework for radioactive waste

management and decommissioning in Canada. These documents are periodically updated through a process that offers opportunities for public and industry comment.

The CNSC regulates operations through monitoring, compliance and enforcement.

Impact Assessment Agency of Canada (formerly Canadian Environmental Assessment Agency)

Conducts EAs for major infrastructure and energy projects including new nuclear reactors, nuclear refurbishments, and new nuclear storage.

Joint Review Panels

Formed by the Impact Assessment Agency of Canada (IAAC) for Environmental Assessments (EA) / licencing of major nuclear projects and may include experts from both CNSC and IAAC.

Atomic Energy of Canada Limited

As a federal Crown corporation, Atomic Energy of Canada Limited's (AECL) mandate is to enable nuclear science and technology and to protect the environment by fulfilling the government of Canada's radioactive waste and decommissioning responsibilities.

AECLs mission is to realize value to Canadians by driving nuclear innovation, creating a state-of- the-art nuclear campus, and cleaning up our legacy wastes.

AECL receives federal funding to deliver on its mandate and reports to Parliament through the Minister of Natural Resources. It also leverages the unique capabilities at its sites to support industry and other third parties on commercial terms.

AECL delivers its mandate through a long-term contract with Canadian Nuclear Laboratories for the management and operation of its sites.

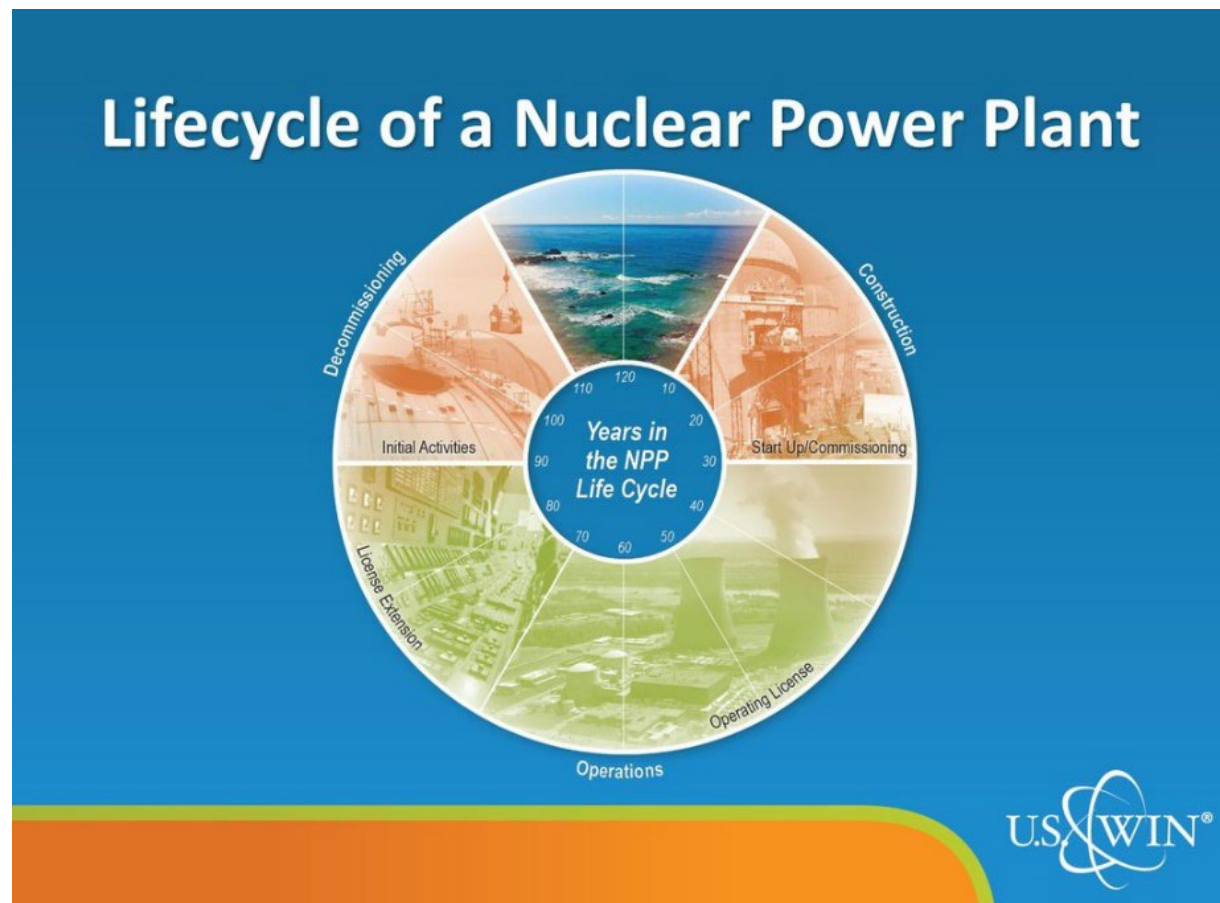
Nuclear Waste Management Organization

Non-profit agency established in 2002 by the energy generators under the Nuclear Fuel Waste Act. Responsible for designing and implementing Canada's adaptive phased management plan for long-term management of used nuclear fuel.

Includes public engagement, site selection (since 2010) and facilities and equipment design.

Appendix D: nuclear generating station lifecycle

(note to reader: graphics are all being designed)



The lifecycle of a nuclear generating station can extend over more than a century. Public engagement and community benefits are highly visible as the station is planned and built. Direct and indirect employment and development of the supply chain are clear benefits during the operational phases and refurbishment. At the end of the facility life cycle, attention turns to declining employment and the need to safely deactivate then dismantle the station, dispose of waste materials and restore the site to new uses.

The CNSC issues four types of licences for a nuclear power plant that align with the lifecycle stages: site preparation, construction, operation, and decommissioning. (CNSC, 2021)

Appendix E: radioactive waste stored in Durham Region

A variety of low- and intermediate-level radioactive waste and used nuclear fuel is presently safely stored in Durham Region at facilities licensed by the CNSC. NRCan is in the process of updating the federal policy governing radioactive waste. In 2007, the NWMO was mandated to develop a deep geological repository for used nuclear fuel. The deep geologic repository will begin to accept used fuel from interim storage facilities including Pickering and Darlington in the mid-2040s. In 2021, they were additionally tasked with developing an integrated strategy for the management of low- and intermediate-level wastes.

NWMO is continuing to monitor worldwide developments in advanced fuel cycles, including fuel reprocessing and recycling technologies and determine if Canada's used fuel may be partially reused.¹⁴

Port Hope Area Initiative

The Port Hope Area Initiative (PHAI) is a federal initiative for the remediation of contaminated sites and safe, long-term management of historic low-level radioactive waste resulting from the operations of Eldorado Nuclear Limited. The site is owned by Atomic Energy of Canada Limited (AECL), a federal crown corporation mandated to enable nuclear science and technology and to fulfil the government of Canada's radioactive waste and decommissioning activities. AECL has a long-term contract with Canadian Nuclear Laboratories to fulfil this mandate.

The Eldorado Nuclear Limited uranium refinery operated in Port Hope from the 1930s to the 1980s. The estimated 1.2 million cubic metres of low-level waste in the Port Hope¹⁵ area represents 93% of the historic low-level radioactive waste in Canada¹⁶.

The Port Granby site at the south-eastern boundary of the Municipality of Clarington contained low-level radioactive waste deposited between 1955 and 1988. Approximately 1.3 million tonnes of waste have been relocated from the former Port Granby waste management facility on the shore of Lake Ontario to a new, engineered above ground mound about 750 metres north of the legacy site. The facility includes an engineered aboveground mound and dedicated wastewater treatment facility.

This management approach was selected following the Environmental Assessment (EA) for the Port Granby Project, conducted from 2002 to 2008, which included detailed environmental and technical studies and extensive public consultation. It was endorsed by the federal government and the Municipality of Clarington Council.

In 2011, the CNSC granted a licence for the Port Granby Project to proceed. In 2012, Canada committed \$1.28 billion for the PHAI, including \$273 million over 10 years for the Port Granby Project. Site preparation work began in 2015 and the mound was successfully capped in October 2021. It has systems in place to monitor the site for hundreds of years. Clarington has confidence in the Port Granby facility.

Pickering Nuclear Generating Station

The Pickering Nuclear Generating Station began operating in 1971. This station currently houses 396,935 bundles of used nuclear fuel in wet storage (cooling pools) and 395,494 bundles in four dry storage facilities.¹⁷ Two additional waste management buildings and a new processing building are planned by 2028. Low- and intermediate-level waste from Pickering operations has historically been shipped for processing and storage at the OPG Western Waste Management Facility in Kincardine. There is also 1,012 cubic metres of intermediate-level waste from the refurbishment of Pickering A stored in dry storage modules.¹⁸ The used fuel and intermediate-level wastes are safely stored in interim waste facilities licensed by the CNSC.

The current operating licence allows OPG to operate the Pickering Nuclear Generating Station until the end of 2024 and then begin the first steps of decommissioning (defueling, dewatering, preparing for safe storage) until 2028. The total projected used fuel waste by the end of that process would be 781,000 bundles. The Province of Ontario has asked OPG to seek CNSC approval to operate some reactors through 2025.

According to OPG's Pickering Preliminary Decommissioning Plan (PDP),¹⁹ the used fuel will remain onsite until the NWMO DGR is available. Dismantling and demolition of the station will not begin until all used fuel has been removed.

The decommissioning process will produce 62,016 cubic metres of low-level radioactive waste and 6,102 cubic metres of intermediate-level waste.²⁰ According to the PDP, this waste was to be sent to the proposed low- and intermediate-level waste DGR in Kincardine, Ontario. However, OPG withdrew the DGR application in Spring 2020. Restoration of the Pickering site for beneficial reuse occurs after the low- and intermediate-level waste is removed.

Darlington Nuclear Generating Station

The Darlington Nuclear Generating Station currently houses 313,853 bundles of used nuclear fuel in wet storage and 271,015 bundles in dry storage containers. In addition, 628 cubic metres of intermediate-level retube waste is stored onsite in regulated containers.²¹ With the refurbishment underway, generation at the site is expected to conclude in 2055, at which point there is expected to be 1.271 million used fuel bundles on site.

The refurbishment project produces low- and intermediate-level waste which is also being stored onsite. Used fuel and intermediate-level wastes are safely stored in interim waste facilities licensed by the CNSC.

Appendix F: upcoming CNSC licence hearings

Over the next decade, eight licensing hearings are anticipated related to the nuclear facilities in Durham Region.

Timeframe	Type of CNSC licence application
2022	Phase III – Consolidation of waste nuclear substance licence for Port Hope/Port Granby Facilities – long-term maintenance and monitoring
2022	Expected – Licence to extend Pickering Nuclear Generating Station operations to 2025
Early 2023	Darlington Waste Management Facility – Licence renewal
2024	Darlington New Nuclear Project – Licence to construct a new reactor
Fall 2025	Darlington Nuclear Generating Station – Licence renewal
Spring 2027	Pickering Waste Management Facility – Licence renewal
2028	Darlington New Nuclear Project – Licence to operate a power reactor
2031	Darlington New Nuclear Project – Renewal of licence to prepare the site for potential future reactors

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Notes

- ¹ From Wallace, S. I. (2020) in references.
- ² Ontario Power Generation is an agency of the province of Ontario.
- ³ From Office of Nuclear Energy (2021) in references.
- ⁴ Adapted from Schlömer S., et al. (2014). See references.
- ⁵ From Canadian Nuclear Safety Commission Transport FAQs (2021) in references.
- ⁶ From Ministry of Energy, the end of Coal (2021) in references.
- ⁷ Radiation Health in Durham Region reports available upon request from the Durham Region Health Department.
- ⁸ From Ontario's Nuclear Advantage (2021) in references.
- ⁹ From Office of the Premier (2021) in references.
- ¹⁰ Ontario Power Generation also owns two nuclear generating stations that are leased to Bruce Power.
- ¹¹ From Ontario Power Generation, About us (2021) in references.
- ¹² From Ontario Power Generation, OPG paving the way for small modular reactor deployment (2020) in references.
- ¹³ From Ontario Power Generation, the unseen wonders of nuclear power (2021) in references.
- ¹⁴ From Nuclear Waste Management Organization, Watching brief on advanced fuel cycles and alternative waste management technology (2021) in references.
- ¹⁵ From the Canadian Nuclear Safety Commission, Seventh Canadian National Report for the Joint Convention (2020) in references.
- ¹⁶ From Natural Resources Canada, Inventory of Radioactive Waste in Canada (2016) in references.
- ¹⁷ From Gobien. M., and Ion, M. (2020) in references.
- ¹⁸ From the Canadian Nuclear Safety Commission Inventory of Radioactive Waste in Canada in the Seventh Canadian National Report for the Joint Convention (2019). See references.
- ¹⁹ From OPG, letter to CNSC, 2017 Submission of Preliminary Decommissioning Plans including P-Plan-00960-0001 R002 – Pickering Generating Stations A & B, CD#N-CORR-00531-18384.

²⁰ From the Canadian Nuclear Safety Commission Inventory of Radioactive Waste in Canada in the Seventh Canadian National Report for the Joint Convention (2019). See references.

²¹ Ibid.



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Commissioner & Medical Officer of Health and Commissioner of Finance
Report: #2021-COW-38
Date: December 15, 2021

Subject:

Unbudgeted provincial funding from the Ministry of Long-Term Care to develop and maintain a Community Paramedicine Program.

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That the October 1, 2021 to March 31, 2022 portion of unbudgeted ongoing Provincial funding from the Ministry of Long-Term Care (MLTC) in the amount of \$1.5 million, be expended in accordance with the budget submitted to the MLTC and as outlined in Section 4.2 of this report;
 - B) That approval be granted to increase the Paramedic Services staffing complement by the following eleven (11) new full-time positions effective January 1, 2022 to implement the Community Paramedicine Program and that the increase be funded entirely from the additional provincial funding as follows:
 - a. Five (5) Primary Care Paramedics at an estimated cost of \$166,300 (annualized cost of \$665,200)
 - b. Five (5) Advanced Care Paramedics at an estimated cost of \$186,000 (annualized cost of \$744,000)
 - c. One (1) Superintendent of Community Paramedicine at an estimated cost of \$43,000 (annualized cost of \$172,000);
 - C) That approval be granted to work with the Finance Department to acquire all capital purchases such as vehicles and patient care equipment in accordance with Provincial and Municipal guidelines; and
 - D) That the Commissioner of Finance/Regional Treasurer be authorized to approve any sole source purchases to expedite implementation of the program to meet MLTC guidelines and to sign any agreements under the Community Paramedicine for Long-Term Care (CPLTC) program.
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Report:**1. Purpose**

- 1.1 The purpose of this report is to provide details and seek Regional Municipality of Durham Council approval to expend unbudgeted revenue under the provincial Community Paramedicine for Long-Term Care (CPLTC) program including approval to increase the Paramedic Services staffing complement by eleven (11) new full-time positions effective January 1, 2022 to implement a Community Paramedicine Program.

2. Background

- 2.1 On October 22, 2021 Rod Phillips, Minister of Long-Term Care attended Region of Durham Paramedic Services (RDPS) Headquarters to announce the provincial expansion of the CPLTC program from the current 33 locations to a total of 55 locations; an increase of 22 additional locations. RDPS was one of the new locations being added.
- 2.2 The MLTC has committed to provide a total of \$7.5 million in funding over the next three years, as outlined below, to RDPS for the delivery of Community Paramedicine services:
- a. October 1, 2021 to March 31, 2022 - \$1,500,000
 - b. April 1, 2022 to March 31, 2023 - \$3,000,000
 - c. April 1, 2023 to March 31, 2024 - \$3,000,000

3. RDPS Existing Community Program

- 3.1 The existing Community Program provided by RDPS is funded through the Ministry of Health and Ontario Health. The funding was intended to be bridge funding during the pandemic for supporting the High Intensity Supports at Home (HISH) program to assist individuals with high care needs at home or in a community setting and is separate from the CPLTC program funding outlined in this report.

4. Financial Implications

- 4.1 As per Section 11.1 of the Region's Budget Management Policy, unanticipated revenues in excess of \$1,000,000, and the proposed expenditure plan, require approval of the appropriate Standing Committee and Regional Council prior to the expenditure of funding.
- 4.2 It is proposed that the October 1, 2021 to March 31, 2022 allocation of provincial funding totaling \$1,500,000 be expended as outlined in the following table:

Description	Amount (\$)
<u>Staffing and Personnel Costs</u>	
• Five Primary Care Paramedics	166,300
• Five Advanced Care Paramedics	186,000
• One Superintendent of Community Paramedicine	43,000
• Backfill provision (paramedics)	95,000
• Administrative Support	60,000
• Other Personnel Costs	31,000
<u>Education and Training</u>	
• Various Training Programs including Community Paramedicine College Course	230,000
<u>Vehicle Expenses</u>	
• Fuel	16,000
• Maintenance and Repairs	5,000
<u>Other</u>	
• Medical Supplies	26,000
• Prehos Annual Fee	2,600
• Three Phones (\$1,000 each)	3,000
• Support Costs	25,200
<u>Capital</u>	
• Three Hybrid Cars (\$45,000 each)	135,000
• Two SUVs (\$76,000 and \$55,000)	131,000
• Vehicle Tracking Software	50,000
• Three Zoll Cardiac Monitors (\$40,000 each)	120,000
• Point of Care Ultrasound	10,000
• Narcotics Safe	500
• Remote Monitoring Software	100,000
• Urinalysis Machine	4,000
• CP bags/crash bags	7,600
• Furniture	32,000
• Computers and data lines	18,800
• Fax	2,000
TOTAL	1,500,000

- 4.3 Due to provincial timelines, the October 1, 2021 to March 31, 2022 proposed budget was submitted to the MLTC and preliminary approvals have been received.
- 4.4 The 2022, 2023 and 2024 provincial funding and expenditures for the Community Paramedicine Program will be included in the annual Paramedic Services Business Plans and Budget.

- 4.5 There are risks to the Region with provincial funding. In the event that the Province decreases the funding or does not adjust the level of funding provided to the Region to accommodate inflationary and contractual increases, then the Region's costs will need to be increased to maintain the same level of service to the community.

5. Relationship to Strategic Plan

- 5.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Goal 2: Community Vitality – To foster an exception quality of life with services that contribute to strong neighbourhoods, vibrant and diverse community and influence our safety and well-being.
 - b. Goal 5: Service Excellence – Optimize resources and partnerships to deliver exceptional quality services and value.

6. Conclusion

- 6.1 It is recommended that the Regional Municipality of Durham receive the additional unbudgeted ongoing provincial funding from the MLTC in the amount of up to \$1.5 M and allocate the eligible costs as outlined in section 4.2 above. Due to time constraints and the severe need in the community, it is recommended that sole source acquisition of capital be authorized at the discretion of the Commissioner of Finance.

Respectfully submitted,

Original signed by

R.J. Kyle, BSc, MD, MHSc, CCFP, FRCPC, FACPM
Commissioner & Medical Officer of Health

Original signed by

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance/Treasurer

Recommended for Presentation to Committee

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer