



The Regional Municipality of Durham

Committee of the Whole Agenda

Council Chambers
Regional Headquarters Building
605 Rossland Road East, Whitby

Wednesday, April 14, 2021

9:30 AM

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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

There are no presentations

6. Correspondence

7. Reports

- | | | |
|----|--|---------|
| A) | Seaton Phase 2 Regional Front Ending Agreement – Regional Objectives and Commencement of Negotiations (2021-COW-6) | 3 - 14 |
| B) | Regional Submission to the Review of Ontario's Long-Term Energy Planning Framework | |
| | Environmental Registry of Ontario Posting #019-3007 (2021-COW-7) | 15 - 23 |
| C) | 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 (2021-COW-8) | 24 - 35 |

8. Confidential Matters

There are no confidential matters to be considered

9. Other Business

10. Adjournment

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The Regional Municipality of Durham Report

To: Committee of the Whole
From: Commissioner of Works, Commissioner of Finance, and
Commissioner of Corporate Services
Report: #2021-COW-6
Date: April 14, 2021

Subject:

Seaton Phase 2 Regional Front Ending Agreement – Regional Objectives and Commencement of Negotiations

Recommendations:

That the Committee of the Whole recommends to Regional Council:

- A) That the Regional Municipality of Durham commence negotiations with the Seaton Landowners Group to develop a Front Ending Agreement to address the balance of the development of Seaton (Phase 2 Regional Front Ending Agreement);
- B) That prior to the execution of the Seaton Phase 2 Regional Front Ending Agreement, the Seaton Landowners Group prepare an update to the Seaton Fiscal Impact Study to review any long-term financial impacts on the Region of Durham with respect to the development of Seaton, to be funded by the Seaton Landowners Group;
- C) That the Regional Municipality of Durham retain the consulting firm of Watson and Associates Economists Ltd. in order to assist staff with the peer review of the Seaton Fiscal Impact Study and the financial implications of the Seaton Phase 2 Regional Front Ending Agreement, at an estimated cost of \$60,000;

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- D) That the Regional Municipality of Durham retain legal consulting services at an estimated cost of \$150,000 to assist with the negotiation, drafting and preparation of the Seaton Phase 2 Regional Front Ending Agreement;
 - E) That the financing to retain outside consulting and legal services at an estimated cost of \$210,000 be funded at the discretion of the Commissioner of Finance; and
 - F) That the Commissioner of Finance be authorized to execute any necessary agreements for the outside consulting and legal services.
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Report:**1. Purpose****1.1** The purpose of this report is to:

- a. Present a brief history of the planning and development of the Seaton community to-date;
- b. Provide an update on the current status of the Phase 1 Seaton Regional Front Ending Agreement (RFEA) and other Seaton-related Agreements;
- c. Present the Regional Municipality of Durham (Region) objectives for a Phase 2 RFEA; and
- d. Seek approval for the hiring of necessary external consulting and legal services to assist with the peer review of a Seaton Fiscal Impact Study and negotiate the Phase 2 RFEA.

2. Background**Central Pickering Development Plan**

- 2.1 In 2006, the Province released the Central Pickering Development Plan (CPDP) under the powers of the Ontario Planning and Development Act, 1994. All subsequent planning decisions of municipal Councils must conform to the CPDP.
- 2.2 The CPDP sets out the future land uses, population and employment forecasts (70,000 population, 35,000 jobs and approximately 800 acres of employment lands) and the major water supply, sanitary sewerage and roads infrastructure.

CPDP Class Environmental Assessment for Regional Services

- 2.3 Prior to constructing any Regional services within the CPDP, the Regional Municipality of Durham (Region) was required to complete a Municipal Class Environmental Assessment (Schedule C). This was a significant undertaking which commenced in 2009 and was completed in the summer of 2014.
- 2.4 This Environmental Assessment (EA) evaluated alternatives and developed preliminary designs for all of the Regional road, transit, sanitary sewerage, and water supply infrastructure items required to service the CPDP. This includes infrastructure both within and external to the CPDP lands.

Memorandum of Understanding

- 2.5 In October 2012, the Landowners (LOs), which include the Seaton private landowners and the Province, and the Region signed a Memorandum of Understanding (MOU). This MOU sets out the parameters for the development of the CPDP area and established principles for a front ending agreement to mainly address the Regional infrastructure to service the first phase (Phase 1) of the development of Seaton, but, also addressed the parameters of front ending agreements for subsequent phases. The MOU also provided for infrastructure contributions by the LOs towards the cost of Regional facilities and transit capital in Seaton, that are not refundable or eligible for development charge credits.
- 2.6 Phase 1 included 9,800 single detached equivalent (SDE) residential units and 200 acres of prestige employment lands between the new Whites Road Interchange and Sideline 22.
- 2.7 Sanitary sewer, water supply and regional road capacity were allocated to all of Phase 1 through the MOU. Subsequent development phases, beyond Phase 1 will require re-assessment of available capacity and the related legal arrangements will need to address the financial arrangements necessary to allow the Region to commit further capacity to subsequent phases.
- 2.8 The construction items required to service the entirety of the CPDP with sanitary sewers, water supply and regional roads were identified in the MOU and divided into Landowner Constructed Works and Region Constructed Works. These works were also divided into projects required for Phase 1 and projects required for subsequent phases.

- 2.9 The MOU provided the principles for the funding of the water supply, sanitary sewerage and road infrastructure necessary to service Seaton (Regional funding versus Seaton Landowners' funding) and the use of development charge credits for the Seaton Landowners to recoup their costs. It is important to note that the Seaton Share of these works represent the largest portion of the costs in all of the projects. In most cases, the Seaton Share is 100 per cent of the costs and the Seaton Landowners are responsible to fund the oversizing costs of the water supply and sanitary sewerage infrastructure to service the Federal Airport Lands in Phase 1. The LO also agreed to provide significant upfront payments of those water and sewer capital costs.
- 2.10 As the LOs are entitled to equal and offsetting Development Charge (DC) credits against their up-front payments of the above funding, the Region implemented a complimentary Area Specific Development Charge (ASDC) by-law for water supply and sanitary sewerage infrastructure necessary to service Seaton and to update the Region-wide DC By-law to reflect the Seaton road and facility capital improvements. This is discussed in more detail in the following section.
- 2.11 The LOs and the Region will remain bound by the applicable terms and conditions of the MOU during the negotiations for the Phase 2 RFEA.

Seaton Water Supply and Sanitary Sewerage Services Area Specific Development Charge By-law and Restricted Regional Roads DC Credits

- 2.12 In order to facilitate the Seaton Phase 1 RFEA and to provide development charge credits for the water supply and sanitary sewerage infrastructure projects being upfronted by the Seaton Landowners Group, Regional Council adopted an Area Specific Development Charge (ASDC) By-law for water and sanitary sewerage services in April 2013 which was most recently renewed in July of 2019 to reflect the actual costs, development and updated cost forecasts.
- 2.13 One key feature of the Seaton ASDC was the use of a land based DC (rather than a DC based on a per square metre basis) for the non-residential development on the employment lands adjacent to Highway 407 and Highway 7. This approach ensured cost recovery on these employment lands for all parties regardless of the type of non-residential development that would occur.
- 2.14 As the Landowners Group is also upfronting a significant portion of the construction of Regional roads required to develop Seaton Phase 1, the Seaton Landowners receive development charge credits for the costs they upfront based

on the Region-wide development charge component. Those road DC credits can only be used for development in Seaton ensuring that the development in Seaton materializes and the credits can not be used to reduce the Regional road DCs payable in other areas of the Region.

Phase 1 Regional Infrastructure Front Ending Agreement

- 2.15 The Seaton Phase 1 RFEA was signed in late 2015. Shortly thereafter, revisions to the Development Charges Act, 1997 (the “DC Act”) came into effect. These revisions included a new section 59.1, which prohibits charges or requirements related to development that are not otherwise authorized by the DC Act or another Act, whether such charges or requirements are direct or indirect, voluntary or involuntary, on the part of the developers. Accordingly, unlike the Phase 1 RFEA, the Phase 2 RFEA will be subject to this new restrictive provision of the DC Act.
- 2.16 The Phase 1 RFEA formalized many aspects of the MOU and ensured a number of provisions to protect the Region against a number of financial risks. Some of the more significant aspects include:
- a. A construction staging plan, including requirements for the early servicing of the Phase 1 Employment Lands;
 - b. All costs are to be based on actual, final costs incurred, unless stated otherwise;
 - c. Mechanisms for the LOs to hire consultants and contractors to design and construct the Landowner Constructed Works;
 - d. Mechanisms to ensure competitive procurement processes for the tendering of the infrastructure works constructed by the LO, including meeting all procurement requirements of the Province;
 - e. Regional approval processes of the design and construction of the LO constructed Works;
 - f. Quantum of financial securities to be provided to the Region from the Seaton private landowners (Province cannot provide financial securities) for the Landowner Constructed Projects;
 - g. A mechanism to acquire LOs’ lands for the Landowner Constructed and Region Constructed projects at no cost to the Region and a mechanism for the LOs to acquire third party lands with a provision for the Region to expropriate if required;

- h. Mechanisms for involving and informing the LOs in the design and construction of Region Constructed Projects;
- i. Mechanisms for the LOs to fund their share of the Region Constructed Projects including draw down letters of credit from the private LOs and invoicing procedures for the Province;
- j. A maximum Provincial contribution of \$134.6 million. Any costs owed by the Province above this amount being the responsibility of the private LOs;
- k. The appointment of a LOs Trustee to be the sole point of contact for all financial and other agreement matters with the Region;
- l. Mechanisms for assigning and tracking DC credits for Regional roads (Region-wide by-law) and for sanitary sewer and water supply (ASDC by-law);
- m. The allocation of sanitary sewage, water supply, and Regional road capacity to all of Seaton Phase 1;
- n. A \$9 million private LOs' contribution to Region Transit which is not subject to DC credits;
- o. A \$10 million private LOs' contribution to other Regional infrastructure required in support of Seaton which is not subject to DC credits (i.e. police and paramedic facilities, waste transfer station, etc.);
- p. A mechanism for the Region to cost share in stormwater management facilities to treat the Regional road drainage;
- q. All successors will be bound by the clauses set out in the FEA;
- r. Obligation by province to pay DCs and to fund any loss DC revenue associated with an industrial building expansion that qualifies for an exemption (i.e. per the DCA, industrial building can expand up to 50 per cent of its existing floor space without attracting a DC); and
- s. Insurance, indemnification of the Region and registration of the agreement.

Other Studies and Agreements resulting from the MOU

- 2.17 A Fiscal Impact Study was completed for the entire Seaton area to assess the financial impact the development of Seaton would have on the Region with respect to capital and operating costs and considered both the tax based operating position and user rate operating position (for water and sanitary

sewerage services). The analysis indicated that the development of Seaton would not impose a financial burden on existing taxpayers and user rate payers (water and sanitary sewerage), assuming that the forecasted development and estimated Regional infrastructure costs materialized. An update to the Fiscal Impact Study is being undertaken prior to the execution of the Phase 2 Seaton Front Ending Agreement, as discussed in section 5 of this report.

- 2.18 A second agreement, the Community Lands Agreement (CLA), required the province to provide the Region with 72.25 acres for Regional purposes at no cost to the Region for water and sanitary sewerage infrastructure and regional facilities.
- 2.19 A third agreement was related to interchanges with Highway 407 (MTO agreement). This agreement required the construction of a new interchange at Whites Road at the Province's expense and the Region and Province to jointly commence a study of the need for an interchange at Sideline 22 by 2023.

Status of Phase 1 Development

- 2.20 Development is proceeding in Seaton at a rapid pace. A few examples of this are:
- a. All of the CLA lands have been transferred to the Region;
 - b. The Whites Road interchange is complete and is now open;
 - c. All of the RFEA works required to service the Phase 1 Employment lands are complete;
 - d. Whites Road from Taunton to Highway 7 is complete and open;
 - e. The Rossland Road extension, now called Peter Matthews Drive, is complete from the CPR to Taunton Road and is under construction from Taunton Road to Concession 5 (now called Alexander Knox Road). Completion is planned for this section at end of 2021;
 - f. The remainder of the Landowner Constructed Projects and Region Constructed Projects required for Phase 1 are all in the design or construction phase at this time; and
 - g. Almost 1,900 units have been registered which is equivalent to approximately 1,650 single development units (SDEs) of the allowable 9,800 in Phase 1. Many additional registrations will be happening each year for the next several years until the build out of Phase 1 is complete.

3. Previous Reports and Decisions

- 3.1 Report #2015-J-25 recommended the Phase 1 RFEA and Related Agreements for the Development of the Seaton Community, in the City of Pickering.

4. Proposed Phase 2 Front Ending Agreement

- 4.1 The Seaton Landowners Group, through the Trustee, has asked the Region to commence negotiations of a Phase 2 agreement. The Landowners have requested that Phase 2 include all remaining lands in Seaton.
- 4.2 The original MOU signed by the Region and the Landowners Group is still binding and has established the major parameters for all phases of Seaton in order to acknowledge the agreed to risk mitigation measures. Accordingly, staff are recommending the preservation of those principles while updating the goals of the Region I in the Phase 2 RFEA.
- 4.3 Regional staff have identified several high-level objectives, which are subject to applicable legislation, including section 59.1 of the DC Act identified above, for the Phase 2 RFEA negotiations. These are:
- a. **Financial impacts:** As part of the Phase 2 negotiations, the Seaton Landowners have been asked to collaboratively update the Fiscal Impact Study with current information which will be peer reviewed by the Region. The results of these analyses will be used to inform the negotiations.
 - b. **Broadband servicing:** The Region will consider including an additional duct in all Phase 2 Regional road projects for the purposes of the future provision of broadband. The Seaton Landowners are required to build roads to approved Regional standards therefore, this may only become a requirement for the Seaton Landowners to front-fund if it becomes a Regional standard for all future construction. The Seaton Landowners would then also be entitled to recover these costs either through DC credits or some other Regional repayment mechanism..
 - c. **Early servicing of remaining Employment Lands:** Approximately 600 acres of Employment Lands must be serviced as part of the Phase 2 development. The Region and the City of Pickering both wish to have the remaining employment lands serviced with the Landowner Constructed ASDC services early in the Phase 2 construction program. To this end, staff will negotiate a fixed number of dwelling units in Phase 2 which can

be registered, prior to the remaining employment lands being serviced with the required Landowner Constructed services.

- d. **Affordable housing:** Affordable Housing is an important priority for Council and is included in several aspects of the Strategic Plan. The Region will commit to keeping the Seaton Landowners fully informed about all affordable housing opportunities and availability of all funding programs. The Landowners will be encouraged to consider affordable housing in all of their developments, while recognizing that all draft plan approvals are already in place for these lands.
- e. **Climate change and sustainability:** Regional staff are considering updating the Regional stormwater criteria to address climate change and infrastructure resiliency. In the short term, this will most likely result in updated Intensity-Duration-Frequency (IDF) data which may increase the required sizes of stormwater infrastructure. Similar to broadband infrastructure, this will only become a requirement for the Seaton Landowners to front-fund if it is made a Regional requirement for all of our roads through revisions to Regional standards. Should this occur, the Seaton Landowners would be entitled to recover these costs either through DC credits or some other Regional repayment mechanism.
- f. **Incorporating revisions based on procedural lessons learned from the Phase 1 RFEA:** Based on the experience of the past five years of implementing the Phase 1 RFEA, several process and administrative efficiencies have been identified. These changes will be negotiated into the Phase 2 agreement to realize efficiencies while continuing to protect the Region's interests.

5. Fiscal Impact Study

- 5.1 The Provincial CPDP required the preparation of a Fiscal Impact Study to assess the financial implications of the development of Seaton for the Region with respect to facilities, services and infrastructure. The Region's Official Plan also required a consideration of the financial impacts of Seaton.
- 5.2 The Seaton Landowners Group undertook a Fiscal Impact Study for the development of Seaton in advance of any development in Seaton and in advance of executing the Seaton Phase 1 Front Ending Agreement. This study was undertaken in cooperation with Regional staff and peer reviewed by Watson and Associates Economists Ltd. The study was based on the plan for the

development of Seaton including the growth forecasts and timing of development.

- 5.3 The study demonstrated that the proposed development plan for Seaton would not pose a financial hardship on the Region (with respect to property tax levy and water and sanitary sewerage user rates) and is financially sustainable assuming that the forecasted development and estimated Regional infrastructure costs materialized.
- 5.4 Regional staff have requested the Seaton Landowners Group prepare an update to the Seaton Fiscal Impact Study in preparation of a Seaton Phase 2 Front Ending Agreement. The Seaton Landowners Group has agreed to prepare this update based on the full build out of Seaton (residential and non-residential development) and will incorporate updated cost estimates, planning projections including timing and will reflect any changes to the Development Charges Act.
- 5.5 The Seaton Landowners Group will take the lead for the completion of the Fiscal Impact Study, funded by the Seaton Landowners Group, with a working group which will include Regional staff. Regional staff will undertake an extensive peer review of the fiscal impact study, verifying the validity and accuracy of all assumptions and calculations to ensure that the study's conclusions regarding the financial impact on the Region of Durham from the Seaton Development are complete and reliable. It is recommended that the Region retain Watson & Associates Economists Ltd. to assist with the peer review the Seaton Fiscal Impact Study and the Seaton Phase 2 Front Ending Agreement.

6. Financial Requirements

- 6.1 Regional staff will be involved in the preparation of the Phase 2 Front Ending Agreement with the Seaton Landowners Group. The Seaton Landowners Group has retained a lawyer at their cost to prepare the agreement. It is recommended that the Region retain outside legal counsel to assist with the development of this agreement, at an estimated cost of \$150,000.
- 6.2 The Seaton Landowners Group will fund the cost to undertake their Fiscal Impact Study. The Region will be responsible to fund the costs to retain consulting services to assist in the peer review of the Fiscal Impact Study and the financial implications of the Phase 2 Front Ending Agreement at an estimated cost of \$60,000.

- 6.3 It is recommended that the outside consulting and legal services costs, estimated at \$210,000, be financed at the discretion of the Commissioner of Finance.

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. To protect the environment for the future by demonstrating leadership in sustainability and addressing climate change by incorporating climate change resilient infrastructure in the Phase 2 designs.
 - b. 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 through the construction of services required by new housing communities and employment lands.
 - c. To build a strong and resilient economy that maximizes opportunities for business and employment growth, innovation and partnership by bringing services to employment lands.
 - d. To provide exceptional value to Durham taxpayers through responsive, effective and fiscally sustainable service delivery by improving processes in the Phase 2 RFEA to streamline the design, approval and construction of the required services.

8. Conclusion

- 8.1 Planning for the development of the Seaton community has been ongoing for decades, with the final Central Pickering Development Plan being completed 15 years ago, the signing of a Memorandum of Understanding with the Regional Municipality of Durham eight years ago and the signing of the Phase 1 Regional Front Ending Agreement five years ago. Over the past five years, significant Regional infrastructure elements have been constructed and residents and employers are moving into this new community.
- 8.2 These successes have led the Seaton Landowners Group to seek the commencement of negotiations for a Phase 2 Regional Front Ending Agreement. Although general principles of the Phase 2 Regional Front Ending Agreement are already laid out in the Memorandum of Understanding, specific updated high-level objectives have been considered by senior staff and are presented to Regional Council in this report.

8.3 This report has been reviewed by the Legal Services Division of the Corporate Services Department.

8.4 For additional information, contact: Paul Gillespie, P.Eng., Manager, Development Approvals, at 905-668-7711, extension 3443.

Respectfully submitted,

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Original signed by:

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance

Original signed by:

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

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Chief Administrative Officer
Report: #2021-COW-7
Date: April 14, 2021

Subject:

Regional Submission to the Review of Ontario's Long-Term Energy Planning Framework
Environmental Registry of Ontario Posting [#019-3007](#)

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That Report #2021-COW-7 be endorsed and submitted to the Minister of Energy, Northern Development and Mines as Durham Region's response to the review of Ontario's long-term energy planning framework.
- B) That the province revise and update Ontario's long-term energy planning framework as necessary to:
 - i) Ensure high quality data about all forms of energy and fuel sources used by Ontarians and all stages of the energy cycle (generation, transmission, storage and use) are considered in planning to support a holistic understanding and evidence-based decision-making;
 - ii) Share the data and assumptions used in energy decision-making with the public to support transparency and encourage innovation;
 - iii) Support a "conservation first" approach;
 - iv) Support decarbonization of Ontario's energy system, transportation system, economy and reduction of greenhouse gas emissions as top priorities. Continued development of Ontario's supply of nuclear, hydro and renewable energy generation will support this objective;
 - v) Require consultation with stakeholders, including the public and municipalities, about the desired energy mix for the province;

- vi) Embed in the framework, mechanisms to ensure provincial responsibility and accountability for energy equity, affordability, sustainability and consumer safety to protect human health, community well-being and environmental protection;
 - vii) Ensure coordination between the federal and the provincial governments on programs and actions to support shared goals for energy and the environment;
 - viii) Align provincial policies around energy, environment, transportation, infrastructure development, land use planning and housing to support cohesive, coordinated, consistent actions;
 - ix) Evaluate and regularly report on the contribution of Ontario's energy system towards meeting critical goals and targets to increase public trust and confidence;
 - x) Support the role that municipalities can play in achieving energy system goals and targets through community energy planning;
 - xi) Meaningfully engage the public, Indigenous communities and affected municipalities about the development of new bulk energy assets or replacement, expansion or decommissioning of existing generation, transmission or storage assets in that community/Region including property tax payments to municipalities based on current, fair market assessments; and
 - xii) Support and value Indigenous peoples as full partners in shaping Ontario's energy future.
- C) That a copy of this report be forwarded to the: Durham MPPs, local area municipalities; Durham Environmental Advisory Committee; and Durham Region Roundtable on Climate Change.
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Report:

1. Purpose

- 1.1 The Ministry of Energy, Northern Development and Mines (ENDM) has initiated a review of Ontario's long-term energy planning framework to increase the effectiveness, transparency and accountability of energy decision-making in Ontario.
- 1.2 The purpose of consulting at this stage is to communicate the proposed objectives of refocusing the planning process and to invite feedback from all interested parties. To help guide feedback, a list of nine guiding questions was provided. Regional responses are organized under each question in Section 4 below.
- 1.3 Comments on this Environmental Registry of Ontario (ERO) Posting [#019-3007](#) are requested by April 27, 2021 (90-day commenting period).

2. Background

- 2.1 Ontario's current long-term energy planning framework is set out under the [Electricity Act, 1998](#). It includes requirements for the ministry to publish a provincial Long-Term Energy Plan (LTEP) in accordance with specified objectives and sets procedural roles for the government, the Independent Electricity System Operator (IESO) and the Ontario Energy Board (OEB). The Act also provides Ministry of Energy, Northern Development and Mines (ENDM) with the ability to issue implementation directives to the IESO and the OEB to take steps to implement components of the LTEP. Only the most recent LTEP, published in 2017, was issued under this legislative framework and was accompanied by such directives.
- 2.2 Under the [Electricity Act, 1998](#), a long-term energy plan may include goals and objectives respecting:
- a. the cost-effectiveness of energy supply and capacity, transmission and distribution;
 - b. the reliability of energy supply and capacity, transmission and distribution, including resiliency to the effects of climate change;
 - c. the prioritization of measures related to the conservation of energy or the management of energy demand;
 - d. the use of cleaner energy sources and innovative and emerging technologies;
 - e. air emissions from the energy sector;
 - f. consultation with Aboriginal Peoples and their participation in the energy sector, and the engagement of interested persons, groups and communities in the energy sector; and
 - g. any other related matter the Minister determines should be addressed.
- 2.3 The IESO is an independent body established to perform real-time operations of the electricity grid through energy markets, and undertake system planning, competitive procurement and energy-efficiency programs.
- 2.4 The OEB is the independent regulator of Ontario's energy sector. Its core purpose is to regulate Ontario's energy utilities and other sector entities in the public interest.
- 2.5 Under the current planning process, the Minister requests a technical report from the IESO. The government considers the technical, and any other report(s), as well as input from customers, distributors, generators, transmitters, Indigenous groups, or other persons or groups to develop the LTEP. After releasing the LTEP, the Minister may issue implementation directives to the IESO and the OEB. The agencies submit their implementation plans to the Minister for approval within the timeframe specified by the directive. Once implementation plans are approved by the Minister, the IESO and the OEB move forward with their initiatives as outlined in the implementation plans.
- 2.6 A desired outcome of a renewed long-term energy planning framework suggested by the ENDM is to empower independent, agency-led planning, such as the IESO and OEB, to protect the interests of ratepayers, improve investment certainty, and

restore confidence in energy decision-making. ENDM is also considering whether the IESO and the OEB have the appropriate mandates and authorities to undertake an expanded planning and resource acquisition role.

- 2.7 To achieve this objective, the ministry is considering revoking the provisions of the [Electricity Act, 1998](#) related to long-term energy plans, implementation directives and implementation plans. As a first step, the government has revoked Ontario Regulation 355/17, effective January 1, 2021, which required ENDM to publish a new LTEP every three years. This would have been February 2021.
- 2.8 Under the existing energy planning framework, Regional staff participated in an IESO review of the Regional Planning Process (RPP) launched in 2018. This was a review of the sub-provincial electricity planning process instituted by the previous provincial government. The IESO RPP process review concluded recently. Some of the recommendations included:
- a. improving how “non-wires” alternatives (e.g. distributed energy resources and energy efficiency) are considered in addressing regional planning needs;
 - b. enhancing opportunities for coordination between bulk system planning, community energy planning, regional planning and market mechanisms;
 - c. sharing data and improving accuracy of forecasts of supply and demand; and
 - d. improving stakeholder engagement approaches and materials.
- 2.9 Ideally, the Province’s current examination of the long-term energy planning framework will integrate the findings of the IESO review.

3. Previous Reports and Decisions

- 3.1 The following Regional staff reports related to Ontario’s Long-Term Energy Plan have been approved by Regional Council:
- a. Report [#2016-COW-98](#), Regional Response to Planning Ontario’s Energy Future (EBR # 012-8840);
 - b. Report [#2015-J-21](#), Update on Energy Planning and Energy Sector Initiatives in Durham Region;
 - c. Report [#2013-J-23](#), Update on Provincial Energy Planning Consultations, Regional Staff Participation and Opportunity for Regional Council Input to the Reviews of Ontario’s Long-Term Energy Plan (EBR #011-9490) and Conservation and Demand Management Framework (EBR #011-9614).

4. Comments on Review of Ontario’s Long-Term Energy Planning Framework

- 4.1 Regional staff offer the following comments on Ontario’s Long-Term Energy Planning Framework in response to ERO Posting [#019-3007](#). Comments from a consultation with members of the Durham Region Roundtable on Climate Change Energy Sub-Committee were also integrated into the responses. The **nine questions asked by the Province** are listed below, followed by the Regional response to each question.

Question 1: How can we promote transparency, accountability and effectiveness of energy planning and decision-making under a new planning framework?

- 4.2 Planning for the energy system should be based on high quality data and clear assumptions that are publicly available and shared to support transparency and accountability, as well as research and innovation.
- 4.3 The government should be required to consult with stakeholders, including the public and municipalities, about the desired provincial energy mix. Many Ontario municipalities, including Durham Region, have declared climate emergencies and set greenhouse gas (GHG) emissions reduction targets which reflect a strong desire to decarbonize their communities. The Region supports continued development of Ontario's supply of nuclear, hydro and renewable energy generation to help decarbonize space heating and transportation.
- 4.4 When new development, replacement, expansion or decommissioning of significant generation, storage or transmission assets is being planned, the communities (municipal, Indigenous or remote) in which they may be/are located must be meaningfully engaged in the planning process.
- 4.5 Energy conservation is the fastest, most effective, lowest cost approach to reducing GHG emissions and saving Ontario energy consumers money. Capital and operational savings are created by making buildings, equipment and transportation more energy efficient. The new planning framework should support and encourage a culture of conservation among Ontarians. The value of conservation to the broader energy system manifests as lower demand and an ability to defer system expansions. Tapping into these savings must be a top priority when the province is considering energy investments.
- 4.6 To be effective, provincial policies around energy, land use planning and climate change should be aligned and mutually supportive.
- 4.7 To create accountability, the province should develop a full suite of metrics to evaluate progress toward critical goals like the transition to a low carbon economy and regularly report on them to the public.

Question 2: What overarching goals and objectives should be recognized in a renewed planning framework?

- 4.8 The new LTEP planning framework should consider:
 - all forms of energy and fuel sources used by Ontarians;
 - all stages of the energy cycle (energy generation, transmission, storage and use);
 - alignment of energy policy with policies and plans in environment, transportation, infrastructure development, land use planning and housing to support cohesive, coordinated, consistent actions;
 - a "conservation first" approach;

- carbon emission reductions as a top priority;
- resilience and climate change adaptation;
- environmental, social and economic sustainability;
- equity, affordability and consumer protection;
- support for localized/end-use energy renewables and decentralized and/or behind-the-meter generation;
- carbon pricing as a revenue source to help fund investments in conservation, retrofits and clean energy technology expansion; and
- property tax contributions to municipalities from bulk generation, storage and transmission facilities based on up-to-date, fair market valuations/assessments.

Question 3: What respective roles should each of the Government, Independent Electricity System Operator (IESO), and the Ontario Energy Board (OEB) hold in energy decision-making and long-term planning?

- 4.9 The role of government is to set high-level targets and goals that are outcome focused. Federal and provincial governments should coordinate their programs and actions to support shared goals for energy and the environment. Cooperation toward decarbonization is critical to address the climate emergency.
- 4.10 The province, the IESO and the OEB must recognize and support the role that municipalities can play through community energy planning. The provincial government should require energy utilities and suppliers to share data and forecasts (e.g. sources, supply, consumption, time of use), at relevant scales, with municipalities developing community energy plans.
- 4.11 The province should direct the IESO and OEB to prioritize decarbonization of the energy system in their respective roles. The IESO should be working to integrate distributed energy resources across the system to match regional supply with regional demand, reducing long distance transmission. The OEB role should be refocused on delivering broader benefits to consumers (e.g. economic, environmental, social, health benefits) rather than being primarily cost-oriented, defined as defending ratepayers. This will allow for more innovation and modernization in the field which is currently being stifled by the current narrow mandate of the OEB.
- 4.12 The province, the IESO and OEB should expand their focus from electricity and natural gas to engage other key players in the energy sector in the long-term planning process (e.g. propane, biogas or hydrogen). In terms of renewables, the OEB process should accommodate all forms of distributed energy resources, not only solar and wind. Ontario's energy planning framework should enable use of the complete energy toolbox, including conservation, generation and technologies suitable at a local scale to meet a local need. Examples include development of local renewable natural gas supplies, creation of district energy systems and use of microgrids.

Question 4: What kinds of decisions should be made by technical planners at the IESO and the OEB as regulators?

- 4.13 The IESO and OEB must be empowered to respond to 21st century challenges by supporting clean generation, conservation, and a transition to lower carbon and carbon-free energy alternatives.
- 4.14 The IESO and OEB are experts on technical issues but there should be a requirement for full transparency in their decision making, including cost-benefit analysis and comparison of alternatives for major systems and regulatory planning decisions. Where public/stakeholder engagement was undertaken, the IESO and OEB should disclose how this feedback affected their plans/decisions.

Question 5: What types decisions require government direction or approval?

- 4.15 The government should provide high-level direction and be less prescriptive to allow innovation by practitioners to achieve desired outcomes.
- 4.16 Decisions that require regulatory intervention include those that ensure affordable delivery of essential services; address inequities; regulate monopolistic actions; address environmental protection and sustainability; and protect consumer rights and safety.
- 4.17 Regulation and policy direction on energy conservation, generation, storage, transmission and consumption by all sectors should be consistent across ministries and departments. A whole of government approach is needed to ease implementation and prevent unintended outcomes or incorrect pricing signals.

Question 6: Are there gaps in the IESO and the OEB's mandates and objectives that limit their ability to effectively lead long-term planning?

- 4.18 As noted, expand the mandates of the IESO and the OEB to cover the full spectrum of energy sources. Both agencies must become nimble and more responsive to a rapidly changing energy landscape.
- 4.19 The OEB mandate should go beyond "protecting the ratepayer" financially, to also include regulation that helps the energy system meet federal and provincial goals related to GHG emissions reduction targets, sustainability, equity and resilience.
- 4.20 OEB objectives should include the use of conservation and efficiency programs as a valid and high priority means of meeting energy system goals.
- 4.21 The OEB should remove barriers to public engagement through more user-friendly processes.

Question 7: Should certain planning processes or decisions by the IESO, the OEB, or the government receive additional scrutiny, for example through legislative oversight or review by an expert committee?

- 4.22 Regularize the review, evaluation and reporting of planning and decisions by the IESO, OEB, and the government to support continuous improvement and achievement of environmental, sustainability and governance goals and targets.
- 4.23 An expert and independent office or committee should be assembled to provide a transparent oversight role like the Environmental Commissioner of Ontario and Chief Energy Conservation Officer have provided in the past. Removing partisanship from the oversight function will help increase public trust and confidence in the planning process by holding the government accountable.

Question 8: How often and in what form should government provide policy guidance and direction to facilitate effective long-term energy planning?

- 4.24 Government policy guidance and direction should recognize the importance of affordable, reliable energy coupled with reduction in GHG emissions as important determinants of human health, community well-being and environmental protection.
- 4.25 The province should review the LTEP every five years due to the notable amount of analysis and consultation required to provide guidance for longer-term energy planning considerations, including resultant directives for securing necessary supply and demand resources. A five-year review cycle will also allow for a stepwise path to transitioning to a decarbonized energy system, transportation system, and economy.
- 4.26 The new LTEP process needs to balance development of a comprehensive plan for all energy planning matters province-wide with flexibility to respond to the rapidly changing environment. Events can make such a plan obsolete relatively quickly e.g. economic recession; emerging technologies, behavioral shifts in post-COVID world, price assumptions on competing fuels, carbon pricing, etc.
- 4.27 To create accountability, the province must report publicly on a regular basis (e.g. annually) to measure progress against goals and targets established in the LTEP.

Question 9: How should the government ensure effective and meaningful Indigenous participation in energy sector decision-making?

- 4.28 Indigenous peoples must be included as full partners in shaping Ontario's (and Canada's) energy future to ensure they benefit directly from energy development, leading to better economic, social and environmental outcomes. Sustained and adequate funding must be established to support Indigenous participation.
- 4.29 The federal and provincial government should collaborate with Indigenous peoples in energy policy making, planning and decision-making, while recognizing and respecting the rights, knowledge and perspectives of Indigenous peoples.

5. Relationship to Regional Strategic Plan

- 5.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Goal 1: Environmental sustainability – Objective 1.1, Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment.
 - b. Goal 1: Environmental sustainability – Objective 1.4, Demonstrate leadership in sustainability and addressing climate change.
- 5.2 This report also responds in part to the Region's [declaration of a climate emergency](#) on January 29, 2020 and aligns with the Durham Community Energy Plan.

6. Conclusion

- 6.1 If Committee of the Whole recommends to Regional Council that Report #2021-COW-7 be endorsed, then it will be submitted to the Minister of ENDM as Durham Region's interim response to meet the April 27, 2021 deadline, pending ratification by Regional Council on April 28, 2021. Staff will follow up with the ministry to confirm Council's decision.
- 6.2 After consultations and reviews are completed, the province is expected to release a new Long-Term Energy Plan. Staff will continue to monitor provincial activities and report back on new developments as appropriate.
- 6.3 This report was prepared with input from the CAO's Office, Finance and Works Departments.
- 6.4 For additional information, contact: [Christine Drimmie](#), Manager of Corporate Initiatives, at christine.drimmie@durham.ca or 905-668-7711, extension 2029.

Respectfully submitted,

Original Signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

Recommended for Presentation to Committee



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Chief Administrative Officer
Report: #2021-COW-8
Date: April 14, 2021

Subject:

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.

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That Regional Council direct staff to submit a Public Commission Hearing Participation Request to the CNSC on the renewal application for the PRSL and to include comments and recommendations as outlined in Section 5 of this report;
- B) That Regional Council reconfirms:
 - i) That Durham Region, in its position as an experienced and informed nuclear host community, is a willing and supportive host for the DNNP which involves building up to four new reactors at the Darlington site;
 - ii) Its strong opposition to the long-term storage of used nuclear fuel in Durham Region;
 - iii) Its strong opposition to any design for a nuclear facility that includes the construction of cooling towers; and
- C) That the Province be requested to make the updates necessary to ensure a fair and equitable level of property tax on generating assets at Darlington Nuclear Generating Station and Pickering Nuclear Generating Station is paid to the Region and area municipalities in support of the Durham community.

Report:**1. Purpose**

- 1.1 The purpose of this report is to confirm Council's position on several issues related to the nuclear sector to inform the Region's upcoming intervention to the CNSC for [OPG's PRSL application for the DNNP](#).

2. Background

2.1 List of Acronyms

CLOCA	Central Lake Ontario Conservation Authority
CNSC	Canadian Nuclear Safety Commission
CVA	Current Value Assessment
DGR	Deep Geologic Repository
DNNP	Darlington New Nuclear Project
EIS	Environmental Impact Statement
GHG	Greenhouse Gas
ITER	International Thermo-nuclear Energy Reactor
JRP	Joint Review Panel
KI	Potassium Iodide
MASL	Metres above sea level
MPAC	Municipal Property Assessment Corporation
MWe	Megawatts Electric
NGS	Nuclear Generating Station
NWMO	Nuclear Waste Management Organization
OPG	Ontario Power Generation
PIL	Payments in lieu of taxes
PRSL	Power Reactor Site Preparation Licence
SMR	Small Modular Reactor

- 2.2 In June 2006, the Province of Ontario directed OPG to initiate the federal approvals process for new nuclear generation.
- a. From 2006 to 2009, OPG undertook an Environmental Assessment of the Darlington New Nuclear Project, developed an [Environmental Impact Statement \(EIS\)](#) and submitted an [application to the CNSC for a PRSL](#). A federal [Joint Review Panel \(JRP\)](#) was mandated to assess the environmental effects of the project and review the application for a PRSL.
 - b. In 2011, Regional staff participated in hearings conducted by the JRP including written submissions and an oral presentation based on Council's position established in 2010 (Report 2010-J-29). The JRP submitted its Environmental Assessment Report to the federal Minister of the Environment concluding that the project was not likely to cause significant adverse environmental effects provided the Panel's recommendations, and OPG's commitments and proposed mitigation measures are implemented.
 - c. In 2012, the Government of Canada [accepted the recommendation](#) of the JRP and the Environmental Assessment and the CNSC [issued the PRSL](#) for a period of ten years, valid from August 17, 2012, to August 17, 2022.
- 2.3 In 2013, the Government of Ontario [deferred the construction](#) of new nuclear generating units but requested that OPG maintain the PRSL for the Darlington New Nuclear Project. Since then, OPG has undertaken various activities and study updates required by the CNSC site licence conditions.
- 2.4 In 2020, OPG [announced the resumption of planning activities](#) for the Darlington New Nuclear Project and plans to host a Small Modular Reactor (SMR) as early as 2028. Accordingly:
- a. In June 2020, OPG [applied to the CNSC to renew the PRSL](#) for ten years.
 - b. The CNSC [announced a public hearing](#) from June 9-10, 2021, for the renewal of the licence and is accepting written interventions until May 3, 2021.
 - c. In December 2020, OPG submitted a [Notice of Intent for Submission of Licence to Construct Application](#) for a grid-scale Small Modular Reactor (SMR) facility.
 - d. In late February 2021, CNSC published [OPG's written submission](#) on the application for the DNNP PRSL.
 - e. In March 2021, the CNSC published the [submission from CNSC staff](#) on OPG's application for the DNNP PRSL.

3. Overview of the Licence to Prepare the Site and OPG's Vision

- 3.1 OPG's current PRSL is for up to four reactor units with a maximum net electrical output of 4,800 megawatt electric (MWe) that expires August 17, 2022.
- 3.2 Site preparation activities listed in the renewal application include:
- a. Construction of site access control measures;

- b. Clearing and grubbing of vegetation;
 - c. Excavation and grading of the site to a finished elevation of approximately 78 masl (metres above sea level);
 - d. Installation of services and utilities (domestic water, fire water, sewage, electrical, communications, natural gas) to service the future nuclear facility;
 - e. Construction of administrative and support buildings inside the future protected area;
 - f. Construction of environmental monitoring and mitigation systems; and
 - g. Construction of flood protection and erosion control measures.
- 3.3 OPG's application for licence renewal essentially replicates their original 2009 application, although the new nuclear project development now being proposed is much smaller at 300 to 400 MWe net facility output.
- 3.4 OPG is considering potential options for the on-grid deployment of SMR technology with three SMR technology development companies, however, OPG has not selected a technology partner, or reactor design, for the DNNP. In renewing their licence, OPG must ensure that the selected reactor technology does not require site preparation beyond the bounds of their existing PRSL.
- 3.5 The Region's intervention will be based on the full extent of the licence addressing factors relevant to the Region within the CNSC's mandate.

4. Canadian Nuclear Safety Commission

- 4.1 The mandate of the CNSC is to regulate 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.
- 4.2 CNSC was established in 2000 under the *Nuclear Safety and Control Act* and reports to Parliament through the Minister of Natural Resources.
- 4.3 Regional staff met with CNSC staff in February and March 2021 to better understand the elements of an effective submission and the virtual hearing process that will take place in June.
- 4.4 Through the discussions with the CNSC, it was noted that the mandate of the CNSC does not include assessing socio-economic impacts, nor does it include the property taxation of generation facilities by governments.

5. Comments on the Application to Renew the Site Preparation Licence

- 5.1 Durham Region is an experienced and informed nuclear host community and strong supporter of the local nuclear industry. Regional Council has supported the

past refurbishments at Pickering, the ITER¹ Project, and re-licensing applications for the existing plants. As the Clean Energy Capital of Canada, our business community includes a vibrant cluster of energy, environmental and engineering businesses.

- 5.2 Durham Region supports OPG's development of the first on-grid SMR application in Canada and has endorsed the SMR Action Plan statement of principles (2020-EDT-9). Durham Region is the home of the Centre for Canadian Nuclear Sustainability and is a hub of nuclear academia, engineering and manufacturing. The Region is positioned to be the centre of excellence in Canada for nuclear generation, research and development, supply chain, and deployment of innovative nuclear technology, nuclear waste minimization and fuel recycling.
- 5.3 Durham Region values OPG's continued dedication to community organizations, our post-secondary institutions, local procurement and the relocation of their administrative headquarters to Clarington.
- 5.4 As a leader in municipal efforts to address climate change, the Region appreciates that the clean electricity supply provided by the DNNP will enable our community to pursue a strategy of electrifying space heating and transportation to help meet Durham's greenhouse gas (GHG) emission targets.
- 5.5 Durham Region is pleased to work in partnership with OPG on various initiatives including public awareness, emergency management, potassium iodide (KI) pill distribution, and a study on community impacts and economic opportunities related to the Pickering Nuclear Generating Station decommissioning process. The Region is committed to strengthening this partnership.
- 5.6 The Region offers the following comments and recommendations both generally, and related to sections 3.2 Environmental Risk Assessment, 4.4 Site Characteristics, 4.5 Evaluation of Natural External Events, 5.5 Physical Design and 5.7 Radiation Protection of OPG's renewal application.

General Comments:

- 5.7 Durham Region supports the DNNP.

Comments on section 3.2 Environmental Risk Assessment:

- 5.8 OPG should be required to develop plans to forecast, mitigate and monitor the impacts of dust, air and noise emissions from site preparation activities on neighbouring residents as a requirement of the PRSL.

¹ International Thermo-nuclear Energy Reactor Project – in the 1990s, the site now proposed for the DNNP was the site of Canada's bid for the ITER project. The ITER bid ultimately was won by France.

Comments on section 4.4 Site Characteristics:

- 5.9 The application includes the potential for infilling in Lake Ontario. The Region has concerns that lake infilling may alter the near shore currents, resulting in impacts to the water quality at the water supply plants and water pollution control plants. OPG should avoid lake infilling if possible due to the effects it will have on shoreline facilities, biota and natural processes. If unavoidable, silt erosion and control mitigation must be in place to ensure that the nearby water treatment plant intakes are not impacted. OPG should investigate potential impacts to ensure the operation of Regional infrastructure is not negatively impacted.
- 5.10 Unique to Ontario, Conservation Authorities are local watershed management agencies that deliver services and programs to protect and manage impacts on water and other natural resources in partnership with all levels of government, landowners and many other organizations. Conservation Authorities promote an integrated watershed management approach balancing human, environmental and economic needs. The Darlington Nuclear Generating Station and DNNP are within the Central Lake Ontario Conservation Authority's (CLOCA) jurisdiction. OPG should ensure that any biological or environmental impacts related to the development of the site or lake filling are discussed with CLOCA.
- 5.11 Durham Region Health Department has conducted extensive analysis of cancer and congenital anomaly data for areas around the Pickering Nuclear Generating Station and Darlington Nuclear Generating Station, resulting in "Radiation and Health" reports. The 2007 report concluded that disease rates in Ajax-Pickering and Clarington did not indicate a pattern to suggest that the Pickering NGS and the Darlington NGS were causing health effects in the population. More recently, population health assessments have focused on analysis by [Health Neighbourhood](#) and a broad range of [health data](#). This information helps to understand the health status of Durham Region residents and can be used by OPG in the context of human health risk assessments.
- 5.12 The Land Use Report prepared for the Site Preparation Licence Renewal Activity Report was prepared in 2019. Since this report was finalized there has been an update to the [Provincial Policy Statement](#) (2020), which dictates planning decisions in the province. These changes should be reflected in the application. Specifically, section 1.2.6.2 of the PPS provides an update on Land Use Compatibility and smaller technical changes related to energy generation have been made throughout. These should be noted, and the Land Use Report should be updated.
- 5.13 Changes should be made to recommendations number 43 and 44 in Table 12: Status of Government of Canada Recommendations Applicable to the Site Preparation Phase to reflect that Provincial Policy Statement is the appropriate planning document, not the Public Policy Statement.

- 5.14 The Region of Durham has engaged in a review of the Regional Official Plan. This review has been identified in the Land Use Report provided in support of the application. [Envision Durham](#) has proposed changes to policies related to the Darlington site and energy generation in the Region. In the time since the Land Use Report was finalized, the Region released [Proposed Policy Directions](#). Specifically, Envision Durham is considering extending the Urban Boundary to include the Darlington Site. The Durham Regional Official Plan would recognize the Automatic Action Zone by including policies that:
- Restrict sensitive land uses within the Automatic Action Zone; and/or
 - Outline how the impacts of these facilities will be considered through the review of development applications.

Durham Region has proposed policy directions related to the Darlington Site and it is recommended that OPG review these and provide feedback, preferably by June 30, 2021, as detailed in the report.

Comments on section 4.5 Evaluation of Natural External Events:

- 5.15 The Region of Durham, through the Ontario Climate Consortium, recently undertook a climate modelling exercise to update the current climate projections to include both Global and Regional Climate Models through an ensemble approach. The report, titled "[Guide to Conducting a Climate Change Analysis at the Local Scale: Lessons Learned from Durham Region](#)", should be used to inform future updates to climate change assessments undertaken as part of the DNNP PRSL. The report includes climate projections that will provide guidance on the future conditions that the site will need to accommodate. This is relevant in terms of adapting to changes in drainage, groundwater flow, the effort needed to maintain species diversity onsite, impacts of invasive species and shoreline impacts.
- 5.16 Water levels across the Great Lakes are primarily the result of natural, uncontrolled water supplies into the basin. Lake Ontario experienced a record-high water level in 2017 of 75.88 meters or 248.95 feet. It then exceeded that just two years later in 2019, with a new record of 75.92 meters or 249.09 feet. These water levels resulted in damages and other impacts across the system including waterfront properties in Clarington. OPG should undertake a flood hazard assessment for future high water levels of Lake Ontario to ensure that site preparation, flood protection and erosion control measures are sufficient. OPG should ensure shoreline flooding is addressed with CLOCA.
- 5.17 Depending on the intake type choice, algae can have significant impacts on nuclear operations. This should be investigated by OPG as the design and technology selection process proceeds.

Comments on section 5.5 Physical Design:

- 5.18 Since the PRSL was approved in 2012, transportation infrastructure and demand in the area have changed. Updated impact assessments for site preparation, construction and operation of the revised DNNP should be provided for the Region's review at the earliest opportunity to allow for advance planning.
- 5.19 Excavation and grading are major components of site preparation. These activities may generate large volumes of truck traffic for removing surplus soil from the site and/or importing fill and aggregates to the site. Before initiating site preparation activities, OPG should identify haul routes, expected truck volumes and schedules, and prepare a traffic management plan that addresses impacts on safety, dust, traffic operations, and pavements along the haul routes. OPG should comply with O.Reg. 406/19 made under the *Environmental Protection Act* and with applicable local municipal site alteration/fill by-laws for the export and import of fill.
- 5.20 Several key transportation infrastructure improvements have been completed in the area of the DNNP that will benefit site preparation, construction, and operation of the site. The Region has additional road improvements planned in the next two to three years. Subject to the outcome of an updated transportation impact assessment of the DNNP, OPG should commit to funding any additional improvements necessary to ensure that transportation infrastructure required for the DNNP is in place before the commencement of major works on the site and to avoid having key access routes under construction while the DNNP is in progress. This could include road network upgrades such as pavement strengthening, widening and intersection modifications.
- 5.21 OPG should provide their existing and proposed water usage and sanitary sewer discharge quantity and quality calculations for the DNNP which will allow for long term servicing planning.

Comments on section 5.7 Radiation Protection:

- 5.22 If changes to the nuclear planning zones are anticipated, OPG should consult with the Durham Region Health Department to update the KI distribution program.

6. Durham Region comments to the CNSC

- 6.1 Durham Region requests that in the future, CNSC staff undertake additional awareness activities when the notice of public hearing is issued to inform the public, especially residents who are not already engaged, including advertisements and community information sessions.
- 6.2 CNSC should consider updates to its website to make it more accessible and easier for the general public to navigate. To be more user-friendly, we recommend putting the links to the key hearing documents (OPG and CNSC staff

submissions, the hearing agenda, how to participate, written submissions) in one location.

7. Summary of Region Council's position on broader nuclear sector related issues

7.1 The following is a summary of Regional Council's position on several issues related to the nuclear sector. These issues are beyond the scope of the current PRSL application and the mandate of the CNSC but will inform the Region's comments on the PRSL.

7.2 As stated in the 2010 report (2010-J-29), Regional Council is strongly opposed to any design for a nuclear facility that includes the construction of cooling towers. This position has been echoed by the Municipality of Clarington and OPG. The reasons for Council's continued opposition to cooling towers include:

- a. The visual impact and social stigma of cooling towers and associated vapour plumes on Durham's communities; and
- b. The requirement of a larger footprint (as compared to installing lake-based once-through cooling systems), which means that more soil must be excavated and either removed from the site by truck or placed in the lake as fill, and the associated negative environmental effects.

7.3 Regional Council has requested updates to the property tax regime imposed by the Province of Ontario through the *Assessment Act* and the *Electricity Act* 1998 to ensure a fair and equitable level of property tax on the generating assets is paid to the Region and area municipalities. Durham Region has raised this issue of property tax fairness with the Minister of Finance for many years, most recently in Report 2021-F-4 with Regional Council endorsing the following resolution:

- a. To achieve greater fairness and equity in the Current Value Assessment (CVA) system and property tax policy, the Province be requested to:
 - update the provincial statutory rate applicable to nuclear generating facilities;
 - institute an annual mechanism to ensure the rate continues to be updated in the future; and
 - redirect proxy property tax payments currently paid by the Region's two nuclear generating facilities to the Ontario Electrical Financial Corporation (OEFC) for the Ontario Hydro stranded debt to the host municipalities and the Region following retirement of the stranded debt.

7.4 For any new generating facilities built at the Darlington Nuclear Generating Station site, payments in lieu of taxes (PIL) should be set based on the full current value assessment (CVA) set by Municipal Property Assessment Corporation (MPAC) in the same manner as other PIL non-residential taxable properties. PILs should not be subject to the statutory rate on nuclear generating facilities or the

proxy tax payment to the Minister of Finance through the Ontario Electricity Financial Corporation.

- 7.5 Ontario Power Generation also benefits from development charge exemptions for production facilities located in the defined protected areas as they are under federal jurisdiction. With the expansion and additional capacity of the Darlington Nuclear Generating Station, the Region is requesting that, despite the Development Charge exemption, OPG provide full payment of development charges to support the cost of the Region's growing infrastructure.
- 7.6 Regional Council's opposition to the long-term storage of nuclear waste in Durham was stated in 2010 (2010-J-29) and reiterated in 2015 (2015-J-21). Regional Council's most recent April 11, 2018 motion includes a call for Durham Region to "be compensated for the storage of nuclear waste until such time as nuclear waste is stored in a permanent nuclear waste site and compensation is then provided for the permanent waste storage host community." Other communities in Ontario have received or are receiving payments and/or benefits for hosting (or offering to eventually host) nuclear waste through Community Benefits Agreements, including:
- a. Port Hope and Clarington are compensated through an agreement under the Port Hope Area Initiative;
 - b. Kincardine and four adjacent communities received annual payments beginning in 2005 under a hosting agreement with OPG related to the proposed deep geological repository (DGR) for low and intermediate-level waste; and
 - c. The Nuclear Waste Management Organization (NWMO) has paid numerous communities grants for communications, and health and well-being initiatives for considering becoming host communities.

In 2020, the Saugeen Ojibway Nation community rejected OPG's plans for a DGR in Kincardine for low and intermediate-level waste. OPG subsequently cancelled the project. The NWMO continues to assess two locations for the used fuel DGR: Ignace and South Bruce. As the current and indefinite future host community of all the used nuclear fuel waste, refurbishment waste and decommissioning waste generated from PNGS, DNGS, and the Darlington New Nuclear Facility, the Region of Durham seeks to be treated equitably and commensurate to the impacts of hosting the used fuel. The Region will work in partnership with OPG and the NWMO to continue to address these concerns.

8. Next Steps

- 8.1 Staff will submit Durham Region's submission by May 3, 2021.
- 8.2 Currently, the CNSC plans to hold a virtual public hearing on June 9 and 10, 2021. Additional days may be added. During the hearing, the CAO will provide an oral presentation. Following the hearing, the CNSC will issue a decision on the application for the PRSL.

- 8.3 According to OPG's Indicative Project Schedule (Darlington New Nuclear Project Licence to Prepare Site, 2012, p. 29), OPG intends to acquire a Licence to Construct in 2024 and a Licence to Operate in 2027. The in-service date for the reactor is proposed to be the fourth quarter of 2028. Durham Region can expect to attend CNSC public hearings for each of these licenses. These public hearings are opportunities for additional Regional input.
- 8.4 Staff will continue to monitor the approval process, SMR technology partner selection, and the potential environmental, social and economic impacts on the community across the life cycle of the project. Staff will continue working in partnership with OPG and will report back on new developments related to the DNNP as appropriate.

9. Previous Reports and Decisions

- 9.1 The following Regional staff reports related to the Darlington New Nuclear Project have been approved by Regional Council:
- a. Report #2010-J-29, Update on Durham Nuclear Issues and Response to the Joint Review Panel on the New Nuclear Darlington Project Environmental Impact Statement (EIS) and Application for Licence to Prepare Site;
 - b. Report #2011-J-41, New Nuclear Darlington Project Update – Results of the Joint Review Panel; and
 - c. Report #2020-EDT-9, Natural Resources Canada Small Nuclear Reactor Action Plan 2020.

10. Relationship to Strategic Plan

- 10.1 This report 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.

11. Conclusion

- 11.1 This report was prepared in collaboration with staff from Planning and Economic Development, Works, Social Services, Health, Finance and the CAOs Office and was reviewed by Corporate Services – Legal Services.

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