



**Written submission from
Aecon Nuclear**

**Mémoire d'
Aecon Nuclear**

In the Matter of the

À l'égard de

Darlington New Nuclear Project

**Projet de nouvelle centrale nucléaire de
Darlington**

Application to renew the nuclear power
reactor site preparation licence for the
Darlington New Nuclear Project

Demande de renouvellement du permis de
préparation de l'emplacement d'une centrale
nucléaire pour le projet de nouvelle centrale
nucléaire de Darlington

Commission Public Hearing

Audience publique de la Commission

June 10, 2021

10 juin 2021

May 3, 2021

Senior Tribunal Officer, Secretariat
c/o Canadian Nuclear Safety Commission
cnscc.interventions.ccsn@canada.ca

Ref. 2021-H-04

Re: Intervention in support of Ontario Power Generation's Nuclear Power Reactor Site Preparation Licence for the Darlington New Nuclear Project

Please accept this as Aecon's written submission expressing our support for the application by Ontario Power Generation (OPG) to obtain Canadian Nuclear Safety Commission (CNSC) regulatory approval for renewal of its Site Preparation Licence (PRSL) to support the Darlington New Nuclear Project (DNNP).

By way of background, as a Canadian leader in construction and infrastructure development with over 10,000 employees, Aecon is the largest nuclear constructor in the country. Aecon Nuclear, which employs ~3,500 skilled workers and staff, provides a full spectrum of Engineering, Procurement and Construction (EPC) services and continues to play a critical role in the ongoing success of the two largest nuclear refurbishment projects in Ontario – including at the Darlington Nuclear Generating Station. Aecon has a long-standing relationship with OPG working on EPC related projects and is also currently supporting non-nuclear projects such as renewable electricity generation stations.

As the CNSC is aware, in 2012, following the acceptance of a thorough Environmental Assessment (EA) which included extensive Indigenous community consultation, public involvement, and engagement with several other stakeholders, the CNSC granted OPG a licence to allow site preparation activities to support future nuclear generation. The EA concluded that the DNNP site is suitable for a new nuclear plant and the project is not likely to cause any significant adverse effects. Since that time, OPG has stringently maintained the PRSL and progressed long-lead regulatory commitments related to the licence and its EA, including bank swallow mitigating measures, the submission of annual reports to the CNSC, and a mid-term licence report in 2018. These reports provided the status and progress of OPG's DNNP activities and commitments made within the DNNP EA during the Joint Review Panel (JRP) hearing, and as outlined in the JRP recommendations which were accepted by the federal government.

With OPG's licence valid until August of 2022, Aecon supports its renewal application for the following notable reasons:

- There is no requested increase in scope from the existing licence. Over the past decade, OPG has proven its preeminent ability to meet or exceed the requirements for maintaining its licence.
- Nuclear power provides safe, reliable, low-carbon, and low-cost electricity which is essential to Ontario and Canada's balanced energy mix. The DNNP brings the potential to further improve this balance, but with a much smaller land footprint than current reactors.
- Nuclear power is vital to ensuring Canada meets its commitment to achieve net-zero emissions by 2050. OPG has concurrently committed to achieving net-zero by 2040 and the DNNP will enable the augmentation of Canada's energy supply mix to meet these goals.
- OPG holds the only such licence in Canada which underscores its criticality in enabling the next generation of grid-scale nuclear power plants to fight climate change. As outlined in OPG's Climate Change Plan released in 2020, new nuclear generation and Small Modular Reactor (SMR) technology is the future of nuclear power – bringing the potential to displace approximately one million tonnes of carbon emissions per year.
- OPG will ensure the selected new nuclear reactor technology is within the bounds of the licencing basis for the DNNP, with detailed demonstration during the subsequent licensing process for the construction phase of the DNNP.

To support its current application, OPG completed a review of the DNNP site evaluation in accordance with its licence renewal plan. As part of this process, OPG submitted detailed Licence Renewal Activity Reports (LRARs), as well as a Site Selection Threat and Risk Assessment. As outlined in OPG's Aggregate Assessment Report, findings of the LRARs confirmed that its existing licensing basis remains valid for the next licensing period. OPG also conducted a clause-by-clause review of the Indigenous Engagement regulations and Public Information and Disclosure, to ensure compliance.

Furthermore, Aecon believes OPG has demonstrated both operational and social responsibility throughout this process, and as a valued client, we are certain this will continue with the extension of this licence. Driven by its unwavering focus on plant, people, and community safety, OPG's safety record is first-rate and among the highest in the North American nuclear industry. OPG's safety culture sets the highest standards for its supply chain, and partners such as Aecon are steadfast in their mutual commitment to putting safety first. Following an extensive EA and stakeholder engagement process, it is evident that OPG is particularly dedicated to environmental protection and stakeholder engagement – two essential pillars for any sustainable infrastructure project.

The nuclear industry forms the backbone of Ontario's energy mix. Embracing the advancements in reliable, low-carbon, low-cost new nuclear technology and SMRs will support the electrification of both Ontario and Canada's economy – significantly advancing Canada's progress towards achieving net-zero by 2050.

Considering the foregoing, Aecon firmly supports OPG's application to obtain CNSC regulatory approval for renewal of its Site Preparation Licence to support the Darington New Nuclear Project.

Sincerely,



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