



Oral Presentation

Exposé oral

**Written submission from
Bruce Power**

**Mémoire de
Bruce Power**

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

April 26, 2021

Louise Levert
Secretariat
Canadian Nuclear Safety Commission
280 Slater Street
P.O. Box 1046
Ottawa, ON
K1P 5S9

Attention: Canadian Nuclear Safety Commission (CNSC) Tribunal Chair and Commission Members

Re: Bruce Power's Intervention in Support of Ontario Power Generation's Darlington New Nuclear Project licence renewal application for its Nuclear Power Reactor Site Preparation Licence (PRSL) 18.00/2022

Formed in 2001, Bruce Power is an electricity company based in Bruce County, Ontario. Powered by our people, Bruce Power's 4,200 employees are the foundation of our accomplishments. Our employees are proud of the role they play in safely delivering clean, reliable, low-cost nuclear power to families and businesses across the province. We have built strong roots in Ontario and are committed to protecting the environment and supporting the communities we live in.

One of the most significant contributions Bruce Power makes to environmental protection is to reduce Ontario's greenhouse gas emissions. Nuclear power is a key contributor to Ontario's low-emitting electricity grid and is therefore considered critical to achieving net-zero by 2050. While nuclear power generation produces no greenhouse gases, Bruce Power is committed to further minimizing and offsetting emissions from routine undertakings such as vehicles, machinery, buildings, and equipment, to achieve net-zero by 2027.

Consistent with these values, and Bruce Power's intent to help Ontario keep our air clean and lead the world in the fight against climate change, we are supportive of Ontario Power Generation's (OPGs) application to renew the Site Preparation Licence for the Darlington New Nuclear Project. OPG has included new nuclear generation, including Small Modular Reactors (SMRs), in its Climate Change Plan. One of OPG's priorities is therefore to renew the Nuclear Power Reactor Site Preparation Licence (PRSL) 18.00/2022 in support of SMR deployment.

With the above as context, we would like to draw your attention to what we view as the key elements of the Darlington New Nuclear Project (DNNP) Licence Renewal Application [1.] (see Attachment for more detail):

- I. **Darlington New Nuclear Project Environmental Assessment:** The environmental assessment of the DNNP found that: the site is suitable for a new nuclear plant, and the project is not likely to cause significant adverse environmental effects, provided the proposed mitigation measures and other OPG commitments are implemented. These findings were accepted by a Joint Review Panel consisting of representatives from the Canadian Nuclear Safety Commission (CNSC) and the Canadian Environmental Assessment Agency in May 2012.

- II. **Darlington New Nuclear Project Application for Licence to Prepare Site:** In August 2012, the CNSC granted OPG a licence to allow site preparation activities in support of future nuclear generation. With more than 50 years of demonstrated safe operation of nuclear facilities and project management success, OPG is well positioned to lead the construction and operation of a new nuclear generation facility.
- III. **Consistency with Existing Assessment and Licence:** OPG is not requesting an increase in scope from the existing environmental assessment or the licence that was granted by the CNSC. A new nuclear reactor technology has not been selected and OPG is not seeking approval for its construction. Nevertheless, OPG will ensure that the selected technology is within the bounds of the licensing basis for the PRSL, which is to be addressed in the subsequent licensing process for the construction of the DNNP.

Given all of the above, it is Bruce Power's opinion that the Commission should accept the conclusion that the DNNP site remains suitable for new nuclear generation and that OPG's site preparation activities will not pose any unreasonable risk to the public, personnel or the environment. While minor changes have been identified and assessed, the resulting impacts are not significant and do not alter previous conclusions regarding the suitability of the DNNP site for the new nuclear reactor technology. Bruce Power would therefore recommend that the PRSL be renewed for a period of ten years.

Thank you for the opportunity to share our views on the Darlington licence renewal. If upon reviewing this letter you have any questions, please feel free to contact Heather Kleb, Director, Next Generation Nuclear, at 519-386-1671.

Regards,

James Scongack
Executive Vice President, Corporate Affairs and Operational Services
Bruce Power

Attachment

Nuclear power is a key contributor to Ontario's low-emitting electricity grid and is considered by many experts, including the International Atomic Energy Agency, to be critical to achieving net-zero by 2050. While nuclear power generation produces no greenhouse gases, Bruce Power is committed to further minimizing and offsetting emissions from routine undertakings such as vehicles, machinery, buildings, and equipment, to achieve net-zero by 2027. Bruce Power is the first nuclear operator in North America to announce such an ambitious commitment.

Consistent with these values and Bruce Power's intent to help Ontario keep its air clean and lead the world in the fight against climate change, Bruce Power is supportive of Ontario Power Generation's application to renew the Site Preparation Licence for the Darlington New Nuclear Project. Ontario Power Generation (OPG) has included new nuclear generation, including Small Modular Reactors (SMRs), in its Climate Change Plan. One of OPG's priorities is therefore to renew the Nuclear Power Reactor Site Preparation Licence (PRSL) 18.00/2022 in support of SMR deployment.

The renewal of the licence would support OPG's vision of additional nuclear generation capacity at the Darlington site, which would help to ensure that reliable nuclear energy remains an important part of Ontario's low-carbon energy mix. Advancements in reliable, low-carbon nuclear power in the form of SMRs could further help fight climate change by supporting the electrification of Ontario's economy. Using the Darlington site for new nuclear would enable faster deployment of this tool in mitigating climate change impacts and support Canada wide goals to reduce climate change impacts by serving as a springboard for future potential nuclear projects in other jurisdictions.

With the above as context, Bruce Power would like to highlight the following key elements of the Darlington New Nuclear Project (DNNP) licence renewal application for its Nuclear Power Reactor Site Preparation Licence (PRSL) 18.00/2022.

I. Darlington New Nuclear Project Environmental Assessment

OPG has conducted numerous environmental studies at the Darlington site over the years, including three federal environmental assessments since the 1990s. The site was most recently assessed in support of the DNNP in 2011. As such, the potential environmental effects are well understood, as are the required human health, safety and environmental protection measures that are necessary to ensure that people, and the environment, are protected.

The assessment findings concluded that the residual environmental effects of site preparation would be limited because the activities would not measurably change the environment. It was also concluded that the changes would be mitigated, or even beneficial to the environment, with respect to climate change. The Joint Review Panel, consisting of representatives from the CNSC and the Canadian Environmental Assessment Agency, accepted the assessment findings in May 2012.

Since that time, OPG has implemented the required monitoring programs to ensure that people, and the environment, are protected. The DNNP site is highly monitored, stringently regulated, and continuously improved through the daily efforts of qualified professionals who are committed to ensuring public safety. Potential impacts will continue to be pre-empted through the adoption of proven protection measures and ongoing monitoring programs.

II. Darlington New Nuclear Project Application for Licence to Prepare Site

OPG's Darlington Nuclear Generating Station and Pickering Nuclear Generating Station are already an important part of Ontario's clean energy future. With more than 50 years of demonstrated safe operation of nuclear facilities and project management success, OPG is well positioned to lead the

construction and operation of a new nuclear generation facility. Also, over the past 10 years, OPG's monitoring programs and protection measures have proven effective in pre-empting any human health, safety, or environmental effects at the DNNP site.

Bruce Power supports the continued preparation of the DNNP site, based on the rigour that OPG has applied to the management of the Darlington Nuclear Generating Station, the Pickering Nuclear Generating Station and their operations. OPGs' track record of over 50 years of safe operations predicts a strong operational performance into the future.

III. Consistency with Existing Assessment and Licence

In August 2012, following the acceptance of the assessment findings, the CNSC granted OPG a licence to allow site preparation activities in support of future nuclear generation. OPG has completed a review of the DNNP site evaluation in support of the PRSL renewal, using a PRSL Renewal Application Matrix to demonstrate how the renewal application satisfies the requirements of the *Nuclear Safety and Control Act* and applicable regulations. There is no increase in scope from the existing licence that was granted by the CNSC in 2012 and the project is compliant with current codes, standards and practices.

Bruce Power supports the renewal of the DNNP licence renewal application for the Nuclear Power Reactor Site Preparation Licence. In over 50 years of operation, OPG has demonstrated that it is qualified to operate the DNGS with adequate provisions for the protection of the environment, the health and safety of persons, and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

Given all of the above, it is Bruce Power's opinion that the Commission should accept the conclusion that the DNNP site remains suitable for new nuclear generation and that OPG's site preparation licence activities will not pose any unreasonable risk to the public, personnel or environment. While minor changes have been identified and assessed, their resulting impacts were determined not to be significant and not to alter the previous conclusions regarding the suitability of the DNNP site for the new nuclear reactor technology. Bruce Power would therefore recommend that the PRSL be renewed for a period of ten years.

REFERENCES

- [1.] Ontario Power Generation Incorporated, 2020. Application for Renewal of OPG's Darlington New Nuclear Project (DNNP) Nuclear Power Reactor Site Preparation Licence (PRSL), NK054-CORR-00531-10533.