



**Oral presentation**

**Exposé oral**

**Written submission from  
Bruce Power**

**Mémoire de  
Bruce Power**

In the Matter of the

À l'égard de la

**New Brunswick Power Corporation,  
Point Lepreau Nuclear Generating Station**

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**Société d'Énergie du Nouveau-Brunswick,  
centrale nucléaire de Point Lepreau**

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Application for the renewal of NB Power's  
licence for the Point Lepreau Nuclear  
Generating Station

Demande de renouvellement du permis  
d'Énergie NB pour la centrale nucléaire de  
Point Lepreau

**Commission Public Hearing  
Part 2**

**Audience publique de la Commission  
Partie 2**

**May 11 and 12, 2022**

**11 et 12 mai 2022**

March 25, 2022

Denis Saumure, Commission Registrar  
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 New Brunswick Power's licence renewal application for the Point Lepreau Nuclear Generating Station Power Reactor Operating Licence**

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

One of Bruce Power's most significant contributions to environmental protection is the reduction of greenhouse gas emissions (GHGs). Nuclear power is a key contributor to Ontario's low-emitting electrical grid and is critical to achieving Canada's goal of a net-zero electrical grid by 2035 and net-zero GHGs by 2050. While nuclear power generation produces no GHGs, Bruce Power has committed to further minimizing and offsetting emissions, from its vehicles, machinery, buildings, and equipment, to achieve net-zero GHGs by 2027.

Consistent with Bruce Power's efforts to keep Ontario's air clean, and to lead the world in the fight against climate change, Bruce Power supports New Brunswick Power's application to renew the Power Reactor Operating Licence (PROL) for the Point Lepreau Nuclear Generating Station. By continuing to play a key role in New Brunswick's clean energy mix, the Point Lepreau Nuclear Generating Station (PLNGS) will ensure that nuclear power is available to assist the province in meeting its GHG targets for many years to come.

With the above as context, we would like to draw your attention to elements of the licence renewal application that will help ensure that the PLNGS' strong operational performance continues well into the future [1.] (see attachment for more details):

- I. **Safe and Sustainable** - New Brunswick Power's strong safety culture has resulted in an impressive two million person-hours worked without a lost-time accident. This strong safety performance, together with ongoing safety improvements and investments, will ensure that the PLNGS' nuclear assets continue to function safely and reliably into the future.
- II. **Continuous Improvement and Oversight** – The plan-do-check-act cycle of performance review is integral to the industry codes, standards and regulatory guidance that are cited in the licence condition handbook. Continuous improvement of PLNGS operations will also be supported through ongoing internal and external oversight and performance reviews.

James Scongack  
Chief Development Officer & Executive Vice-President, Operational Services  
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- III. **Ongoing Public and Indigenous Engagement** - The PLNGS has a well-established Public Information Program (PIP) built on nearly four decades of open and transparent communications. The PIP, which is tailored to meet the needs of Indigenous and other local communities, will evolve in response to the changing needs and interests of these communities.

Bruce Power strongly supports New Brunswick's request for a 25-year licence renewal. While Canadian licence terms tend to be shorter, longer terms are the norm in most international jurisdictions, with terms set for 40 years and in many cases, the life of the facility. Bruce Power understands that there are concerns about whether there will be enough opportunities for meaningful public interactions and discussions around facility operations during longer terms. However, we believe that there will be adequate opportunities for these discussions through the PIP and during public Commission proceedings on the annual Regulatory Oversight Report, mid-term licence reviews and special subject matter agenda items.

Given all of the above, it is Bruce Power's opinion that the performance of the PLNGS demonstrates that New Brunswick Power is qualified to carry out the activities permitted under the PROL. With nearly four decades of demonstrated safe operations, strong commitment to continuous improvement and ongoing public engagement, we believe that New Brunswick Power is well positioned to safely operate the PLNGS until end-of-life. This is further reinforced by the iterative series of performance reviews, and the internal and external oversight, which work to support the continued safe operation of the facility. Bruce Power therefore supports the proposal that the Licence be renewed for a period of 25 years.

Thank you for the opportunity to share our views on the PLNGS licence renewal application. If upon reviewing this letter you have any questions, please feel free to contact Heather Kleb, Senior Strategist, Isotopes and Site Energy Development, at 519-386-1671.

Regards,

A handwritten signature in blue ink, appearing to read "James Scongack".

James Scongack  
Chief Development Officer and Executive Vice-President, Operational Services  
Bruce Power



## Attachment

Nuclear power is a key contributor to Ontario's low-emitting electrical grid and is therefore critical to achieving Canada's goal of a net-zero electrical grid by 2035 and net-zero greenhouse gases (GHGs) by 2050. While nuclear power generation produces no GHGs, Bruce Power has committed to further minimizing and offsetting its emissions, from vehicles, machinery, buildings, and equipment, to achieve net-zero GHGs by 2027. Bruce Power's Net Zero 2027 strategy aims to help meet Canada's GHG targets by identifying and integrating clean energy and emission-reduction projects into operations.

Consistent with Bruce Power's efforts to keep Ontario's air clean, and to lead the world in the fight against climate change, Bruce Power supports New Brunswick Power's application to renew the Power Reactor Operating Licence for the Point Lepreau Nuclear Generating Station (PLNGS). The PLNGS has generated clean electricity for the people of New Brunswick for nearly forty years and the comprehensive refurbishment of the station's major components will allow it to contribute to the province's clean energy mix for many more.

Consistent with Bruce Power's efforts to keep Ontario's air clean, and to lead the world in the fight against climate change, Bruce Power supports New Brunswick Power's application to renew the Power Reactor Operating Licence for the Point Lepreau Nuclear Generating Station (PLNGS). By continuing to play a key role in New Brunswick's clean energy mix, the Point Lepreau Nuclear Generating Station will ensure that nuclear power is available to assist the province in meeting its GHG targets for many years to come.

With the above as context, we would like to draw your attention to elements of the licence renewal application that will help ensure that the PLNGS' strong operational performance continues well into the future.

### **I. Sustainable, Safe Long-term Operations**

A review of the PLNGS safety culture, which is completed on a five-year cycle, reveals 'a culture of accountability at all levels.' The company-wide adoption of the safety culture is reinforced through an iterative cycle of table-top and hands-on drills and exercises. Point Lepreau's talent development, succession planning and recruitment processes are also instrumental in sustaining its strong safety culture and performance. These efforts, together with ongoing safety improvements and investments, will ensure that New Brunswick Power's nuclear assets continue to function safely and reliably into the future.

### **II. Continuous Improvement and Oversight**

New Brunswick Power is committed to continuous improvement, continually seeking to improve its operations through internal and external oversight. Internal oversight is provided through the iterative series of self-assessments, benchmarking, and trending exercises that make up New Brunswick Power's Corrective Action Program. External oversight is provided by Point Lepreau's primary regulator, the Canadian Nuclear Safety Commission (CNSC), which also applies an iterative series of performance reviews through systematic inspections and the preparation of the annual Regulatory Oversight Reports.

These efforts are supported by the plan-do-check-act cycle of continuous improvement that is integral to the industry codes, standards and regulatory guidance cited in the PLNGS licence condition handbook. The N286-12 based nuclear management system serves as a foundation for the continuous improvement of the organization whereas the N288 series of standards provides a plan-do-check-act cycle of improvement in the protection of the environment. The potential for performance issues and gaps is also evaluated through a 10-year cycle of periodic safety reviews, designed to assess performance against current codes, standards and guidance.



### **III. Ongoing Public and Indigenous Engagement**

The PLNGS has an established Public Information Program (PIP) built on nearly four decades of open and transparent communications. The PIP allows New Brunswick Power to nurture and maintain relationships with all of the individuals and groups who have expressed an interest in the operation of the PLNGS through public communication, information, opinion surveys and program evaluations. The PIP, which is tailored to meet the needs of Indigenous and other local communities, evolves in response to the changing needs and interests of these communities.

To sum up, the PLNGS is subject to an iterative series of performance reviews, each at a scale and frequency that will ensure that the PLNGS continues to demonstrate strong operating performance over the proposed 25-year licensing term. The 25-year term also coincides with the PLNGS end-of-life decision, which will require significant approvals and decision making by the CNSC Commission Tribunal. In the interim, the operating performance will be documented in annual Regulatory Oversight Reports, which will also be subject to public Commission proceedings.

The extended licence term is also consistent with international best practice, including that of the United Kingdom (UK), the United States (US) and France. The UK Office for Nuclear Regulation licences a nuclear site for an indefinite period, remaining valid throughout the plant lifecycle. Most of the US plants, which have been issued 40-year licences, have applied for and received 20-year licence renewals based on their strong operating performance, causing the US Nuclear Regulatory Commission to question whether a 40-year renewal is more appropriate. The French Nuclear Safety Authority, which initially licences plants for about 30 years, subjecting them to ten-year reviews for continued operation, has also considered whether longer terms of 40-60 years would be more appropriate.

Bruce Power strongly supports New Brunswick's request for a 25-year licence renewal. While Canadian licence terms are typically shorter, longer terms are the norm in most international jurisdictions, with terms set for 40 years and, in many cases, the life of the facility. Bruce Power understands that there are concerns about the opportunity to have meaningful public interactions and discussions around facility operations during longer terms. However, we believe that there are adequate opportunities for these discussions through the PIP and during public Commission proceedings on the annual Regulatory Oversight Report, mid-term licence reviews and special subject matter agenda items.

Given all of the above, it is Bruce Power's opinion that the performance of the PLNGS demonstrates that New Brunswick Power is qualified to carry out the activities permitted under the PROL. With nearly four decades of demonstrated safe operations, a strong commitment to continuous improvement, and ongoing public engagement, Bruce Power believes that New Brunswick Power is well positioned to safely operate the PLNGS until end-of-life. This is further reinforced by the iterative series of performance reviews and the internal and external oversight which work to support the continued safe operation of the facility. Bruce Power therefore supports the proposal that the licence be renewed for a period of 25 years.

### **REFERENCES**

[1.] New Brunswick Power Corporation, Point Lepreau Nuclear Generating Station, 2022. Application for the renewal of NB Power's licence for the Point Lepreau Nuclear Generating Station.