



CMD 25-H2.58

Date: 2025-05-08

**Written Submission from
Énergie NB Power**

**Mémoire d'
Énergie NB Power**

In the matter of the

À l'égard d'

Ontario Power Generation Inc.

Application to renew power reactor
operating licence for the Darlington
Nuclear Generating Station

Ontario Power Generation Inc.

Demande concernant le renouvellement
du permis d'exploitation d'un réacteur de
puissance pour la centrale nucléaire de
Darlington

**Commission Public Hearing
Part-2**

**Audience publique de la Commission
Partie-2**

June 24-26, 2025

24-26 juin 2025

May 7, 2025

Senior Tribunal Officer, Commission Registry
Canadian Nuclear Safety Commission
280 Slater St., PO Box 1046 Stn. B
Ottawa, Ontario
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Email: interventions@cnsccsn.gc.ca

Attention: Senior Tribunal Officer

Subject: Ontario Power Generation's Licence Renewal for Darlington Nuclear Generating Station Reactor Power Operating

Dear Commission Members,

I am writing in support of the application from Ontario Power Generation (OPG) to renew its power reactor operating licence for the Darlington Nuclear Generating Station (NGS) for a period of 30 years. Please accept this letter as my written submission.

Darlington NGS is located in the Municipality of Clarington, Ontario on the traditional territory of the Wendat, Anishinabek Nation, and the territory covered by the Williams Treaties with the Michi Saagiig and Chippewa Nations. It sits at the outer edge of Canada's largest urban centre, the Greater Toronto Area. This makes Darlington NGS a strategic asset for all Canadians as it enables the economy of a region that contributes significantly to Canada's GDP.

Supplying about 20 per cent of Ontario's electricity, Darlington NGS provides a safe, reliable baseload and high inertia (grid stabilizing) source of electricity without any of the emissions that contribute to smog or climate change. With its recent refurbishment success, it will continue to operate for as much as another 30 plus years, which reduces the cost per megawatt of electricity through more efficient use of the asset.

Today, when we think of emissions, it tends to be related to climate change, which is certainly appropriate given the threat posed by climate impacts including wildfires, floods and hurricanes. But the contribution of emissions to smog days and associated lung diseases, including asthma in our most vulnerable populations, including children, should also be remembered.

By providing about 3,500 MW of power free of these emissions, Darlington NGS is a significant contributor to quality of life in its support of the economy, in powering homes and institutions, and in its avoidance of these challenges

Since 2023, I have served as the Site Vice President at the Point Lepreau Nuclear Generating Station. Prior to this, I spent more than 20 years in leadership roles in plant operations and project management with Ontario Power Generation. This included my work as a certified Authorized Nuclear Operator and as a leader on the Darlington NGS refurbishment project. Along with the thousands of people who worked on that project, I am proud to say, the OPG refurbishment project has put Ontario as a global example of nuclear excellence that achieved successful execution of large nuclear infrastructure. It is a track record that supports Canada's goals as a global nuclear partner.

My experience across operations, maintenance and leadership in Canada's nuclear industry, seeing Darlington NGS as an insider, and now as an OPG support for Point Lepreau, provides me a unique perspective on the company's request for a 30-year licence.

We often talk about nuclear as a people business. This is true based on the number of employees working on a myriad of activities at a nuclear plant. It is also true in our relationships with the First Nation and local communities. These community partners provide guidance, insightful perspective and help - all of which are essential to our operational success.

Additionally, there are the working relationships within the nuclear sector both in Canada and globally that strengthen us in innumerable ways.

For as long as Canada has had more than one nuclear station, collaboration has been an integral part of how we operate. This peer collaboration begins amongst the CANDU operators, in Canada, and the six other countries operating CANDU, internationally. Sharing of information, costs, research and resources has had immeasurable benefits to our safety culture and operations. Our collaboration within the CANDU community, and beyond it, supports an on-going commitment to continuous improvement in safety and to strengthen reliability, environmental performance and affordability. The strength of our collaboration comes from its diversity and the various ways it is achieved.

Bi-lateral relationships, utility-to-utility.

A perfect example of the value in direct bi-lateral collaboration amongst utilities is the on-going relationship between NB Power and OPG, especially since NB Power went through its own refurbishment. Point Lepreau drew upon the capacity at OPG to support the station restart following refurbishment.

Senior OPG leaders came to support the station's efforts to achieve excellence following the refurbishment. As a one-unit station with many post-refurbishment retirements, Point Lepreau needed an injection of leadership as it built back its own capacity and implemented extensive training and process development after several years out of operation. The station did that so successfully that Point Lepreau was recognized in 2019 with the *World Association of Nuclear Power's Award of Excellence*.

In 2023, it was the same collaboration model that brought me and others to Point Lepreau from OPG. Last year, at Point Lepreau, we successfully completed a 25,000-task, 100-day planned maintenance outage.

In mid-2019, less than a year before the COVID epidemic, Point Lepreau was sitting at a 91.5% nuclear performance with an equipment reliability rating of 97%. It was the seventh best of the 21 WANO Atlanta Centre plants and the best in Canada at that time.¹

I will note that the assistance between OPG and NB Power has not been one way. The expertise from NB Power staff on lessons learned in Point Lepreau's refurbishment were generously shared with OPG. It strengthened the Darlington NGS pre-planning work that made the Darlington NGS refurbishments a success.

Collaboration through technical industry organizations.

Collaboration is also conducted through invaluable technical industry organizations that provide forums and platforms for knowledge, research and fund sharing.

This includes through Conexus, formerly the CANDU Owners Group, and through standards associations like the Canadian Standards Association and CSA Group. Peer teams, data sharing, research collaboration, knowledge management and training activities, are just a few of the shared initiatives the Canadian nuclear sector participates in through these organizations.

Together, we strengthen workforce capability, enhance quality assurance, and drive innovation both through steady, incremental improvements and through breakthrough advancements that significantly improve our operational and maintenance models.

This includes the use of robotics and drones in high radiation areas and for physical site security, as two evolutionary examples that have improved nuclear and conventional safety.

Another is the use of online automated digital inspection and monitoring and the associated data management that has resulted in improved reliability and cost effectiveness through predictive maintenance. These continuous improvements are critical to sustaining excellence and meeting the evolving demands of our industry.

As well, global collaboration reaches beyond reactor design technology through organizations like the World Association of Nuclear Operators (WANO) and the Electric Power Research Institute (EPRI) to help us compare ourselves, and to learn from, the best-of-the-best of our global peers.

It takes a village – collaboration goes beyond industry.

The benefits of collaboration are not restricted to our industry-peer relationships. Of equal value are the collaborations between industry and First Nations, industry with local communities, and with local, provincial and federal agencies. Our information and knowledge sharing, industry-with-government and industry-with-regulator are also highly valuable to improved performance.

¹ Hare, M., 2019. Point Lepreau performance and summary of SMR activities in New Brunswick, p.18, Canadian Nuclear Society, retrieved from <https://inis.iaea.org/records/0nkmz-67r59>

Each of these relationships provides valuable input and partnership towards excellence. They strengthen our operations and build the capacity of our employees and our leadership. It provides new perspectives and brings diverse skills and information to our operations. They make us stronger and more competitive, to better serve our communities and provinces.

In turn, this helps strengthen Canada's economy at this precarious time. It is this collaboration with purpose that helps us retain the people we attract. It is one reason it is true when we say, if you know nuclear, you love nuclear.

Like OPG, NB Power is owned by the provincial government. We work for and report to the people of our provinces. They are our shareholders: In New Brunswick we have almost 860,000 shareholders. In Ontario, they have 16 million. As operators, it is in our interest to serve in the best interests of the people who own our plants.

A 30-year licence.

And this brings me to my final point: Why a 30-year licence? The concept of a 30+ year licence is common in the international community. Since the adoption of more flexible, risk-informed licensing, including the recent move to 10-year licences in Canada, we have improving performance across our stations. This is the result of many factors and it is clear that longer licence periods have not compromised safety or transparency. On the contrary, both nuclear and conventional safety have strengthened over the past decades, supported by initiatives I've spoken of earlier. Regulatory oversight remains robust, and the public continues to be well informed through transparent reporting and engagement practices. The evidence supports that this modern approach to licensing is working as intended.

The CNSC's continuous regulatory oversight of compliance and safety performance is independent of licence length. This is demonstrated in many ways including the Periodic Safety Reviews, Regulatory Oversight Reports and daily CNSC oversight to the Station activities.

I have complete confidence in Canada's nuclear regulatory system. Our country is globally respected for its strong, transparent approach to nuclear oversight. The Canadian Nuclear Safety Commission (CNSC) operates independently, drawing on science, evidence, and the public interest to guide its decisions. Their thorough process encourages public involvement, features open hearings, and holds operators accountable to the highest safety and environmental standards. This approach fosters public confidence and reflects our shared commitment to safe and responsible nuclear operations.

People - inside and outside our organization - are our greatest strength.

Strong relationships are fundamental to our performance. Over time, our partnerships across the industry, with vendors, labour, government, regulators, and most importantly, with Indigenous and local communities have grown stronger and more constructive.

We have instituted active engagement processes that we report on to the Commission, annually. Darlington NGS demonstrated both operational excellence and a deep, ongoing commitment to the community it serves.

In today's energy landscape, public trust and social responsibility are just as important as technical capability and Darlington NGS has proven itself as a leader in both. Through consistent transparency, meaningful engagement, and a genuine willingness to listen and evolve, OPG has earned and sustained a strong social licence to operate.

Darlington NGS Leadership and staff have worked actively and continuously to build positive relationships with local residents, Indigenous communities, regional partners, and other stakeholders. Whether through educational outreach, environmental stewardship initiatives, or collaborative planning, their actions reflect a clear understanding that earning the public's confidence is a long-term commitment, and they have embraced that responsibility.

As we look ahead to a future where clean, reliable energy is more critical than ever, the continued operation of Darlington NGS. plays an essential role. Their record of safety excellence, operation performance, accountability and community partnerships gives us confidence in their ability to uphold the highest standards while also contributing meaningfully to the local community.

In closing, I want to leave you with this: we know that operating a nuclear facility is not a right - it's a privilege. And that privilege comes from the public we serve. With it comes a deep responsibility to perform at the highest standards, and to act in a way that earns and keeps the trust placed in us. This isn't just a principle we talk about — it's one we work to live, every single day.

A handwritten signature in black ink, appearing to read 'S. Bagshaw', with a long horizontal line extending to the right.

Steven Bagshaw
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cc: K.Duguay, J. Nouwens, N. Reicker