



Oral Presentation

Exposé oral

**Submission from
BXWT Canada Ltd.**

**Mémoire de
BXWT Canada Ltd.**

In the Matter of

À l'égard de

**Ontario Power Generation Inc.,
Pickering Nuclear Generating Station**

**Ontario Power Generation Inc.,
centrale nucléaire de Pickering**

Request for a ten-year renewal of its Nuclear Power Reactor Operating Licence for the Pickering Nuclear Generating Station

Demande de renouvellement, pour une période de dix ans, de son permis d'exploitation d'un réacteur nucléaire de puissance à la centrale nucléaire de Pickering

Commission Public Hearing – Part 2

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

June 2018

Juin 2018



**CNSC Licensing Hearing for
Ontario Power Generation
Pickering Nuclear Generating Station**

John MacQuarrie, President
June, 2018

About BWXT in Canada

- Over 60 years of CANDU experience
- Locations across Ontario:
 - Arnprior
 - Peterborough
 - Toronto
 - Cambridge
 - Port Elgin
 - Pickering
- Primary segments:
Engineering, Components, Fuel and Field Services



North America's largest manufacturer of heavy nuclear components

Our Work with OPG

- Extensive experience working with OPG for 40+ years – since the construction of Pickering Nuclear Generating Station (PNGS) in the 1970s
 - Supplied its original 96 steam generators
 - Specialized work such as heat exchangers, water lancing and the design and manufacture of the Universal Delivery Machine
- Today, BWXT designs and manufactures components, delivers field & engineering services and supplies 28-element natural uranium fuel



Safety

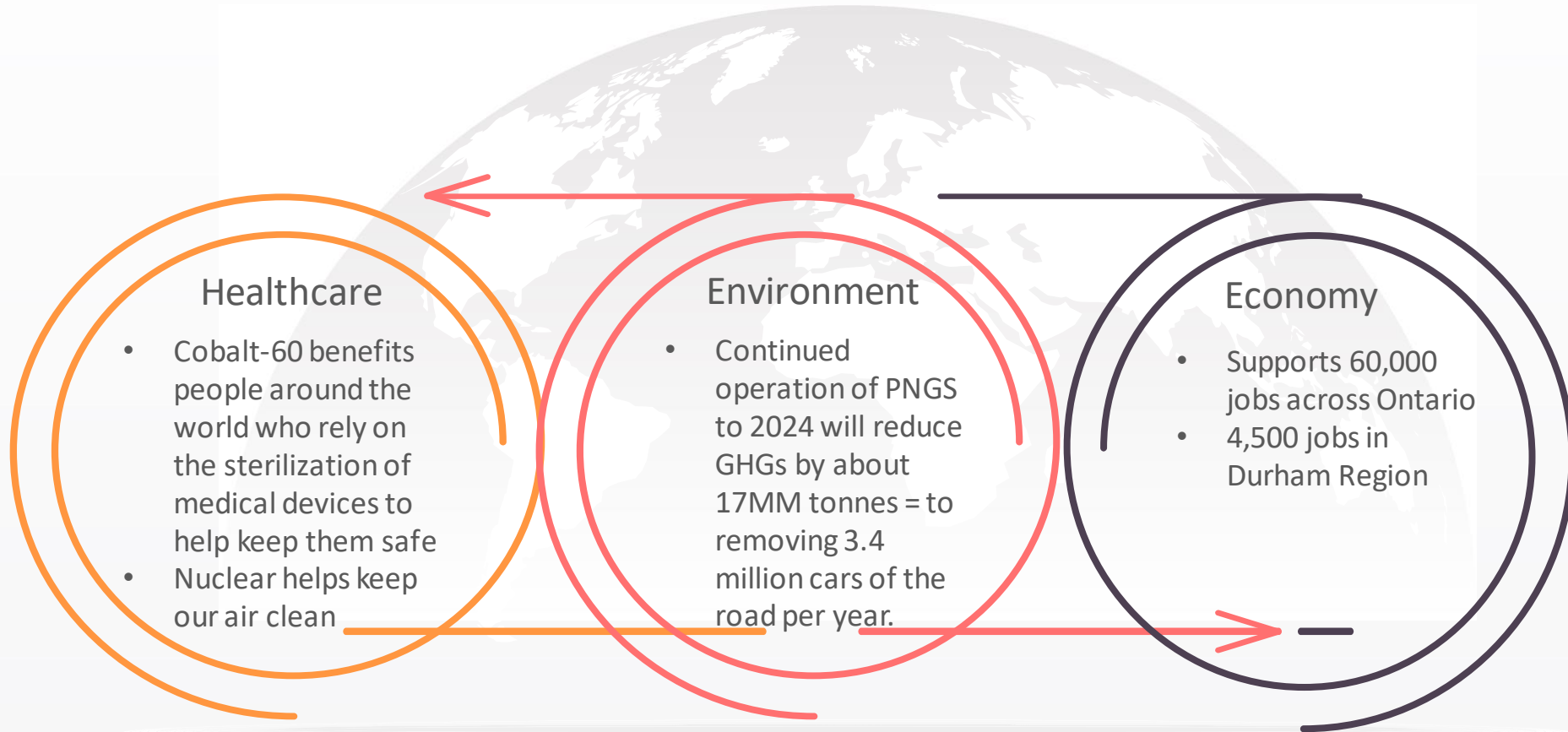
- Safety is the number one priority – OPG has been safely and responsibly operating PNGS for four decades
- PNGS' safety performance evident by its achievement of its highest safety ratings recently awarded by the Canadian Nuclear Safety Commission in 2015 and 2016
- OPG and BWXT personnel work closely together to ensure the highest safety and quality standards are met



As a provider of natural uranium fuel to PNG, an OPG quality representative is stationed at BWXT Peterborough in oversight role to perform compliance reviews and inspections

Continued Operation of PNGS to 2024

Continued operation of PNGS to 2024 goes beyond energy supply and supports key needs in healthcare, environment and economy



Renewal of Licence

BWXT fully supports OPG's application to the Canadian Nuclear Safety Commission to renew the Pickering Nuclear Generating Station reactor operating licence for a period of 10 years.

- ✓ Production of Cobalt-60 benefits people all around the world.
- ✓ Carbon-free nuclear power generation helps keep our air clean.
- ✓ Supports the local economy and **60,000+** high-value jobs across Ontario that support the nuclear industry.
- ✓ Confidence in OPG to continue operating with the highest regard for the health and safety of its workers, community and environment.
- ✓ Ensures continued production of safe, reliable, clean and affordable power for Ontario.





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

May 3, 2018

Subject: Renewal of Ontario Power Generation's Operating Licence for the Pickering Nuclear Generating Station

Dear Commission Members,

BWXT Canada Ltd., and its subsidiary BWXT Nuclear Energy Canada (together BWXT), support Ontario Power Generation's (OPG) application to the Canadian Nuclear Safety Commission to renew the Pickering Generating Station's (PNGS) reactor operating licence for a period of 10 years.

For over 60 years BWXT has been supplying the nuclear industry with the fuel, equipment, components, engineering and field services needed to successfully and safely operate and refurbish nuclear power plants. We have extensive experience working with the CANDU® reactor fleet nationally and internationally, and have a proven track record of providing reliable and effective services and components that assist our customers with operating their nuclear power plants safely and efficiently.

BWXT has been involved with PNGS since its construction in the 1970s, providing its original 96 steam generators and as a supplier of 28-element natural uranium fuel for PNGS since it first came online in the 70s. Over the last 40 years, BWXT has successfully executed a wide variety of specialized work for PNGS such as heat exchangers, valve services, outage services, the design and manufacture of the Universal Delivery Machine, and other specialized tooling.

OPG has been safely and responsibly operating PNGS for more than four decades and recently achieved some of its highest safety ratings ever. In 2015 and 2016, the Canadian Nuclear Safety Commission (CNSC), which rigorously regulates Canada's nuclear industry, awarded PNGS its highest achievable safety performance rating in key areas including operational performance, safety, reliability and human performance. These ratings are a direct reflection of OPG's unwavering commitment to the safe operation of PNGS.

As an integral supplier to the CANDU® industry and a long history of working with OPG, we know OPG to hold our work to the highest safety and quality standards – a responsibility that we take very seriously. To ensure we have a thorough understanding of OPG's quality objectives, BWXT employees work closely with OPG personnel in design, procurement and supplier quality roles. As a provider of natural uranium fuel to OPG, an OPG quality representative is stationed on site in our Peterborough facility in an oversight role to perform compliance reviews and inspections.

While safety remains at the core of everything in the nuclear industry, there are other significant advantages of the continued operation of PNGS that will help address important needs in healthcare, environment and economy – which benefits Ontarians and people all over the world.

OPG harvests Cobalt-60 from three units at PNGS that is used to safely sterilize medical equipment and food products. Every day as thousands of people around the world undergo surgery or medical procedures, they rely on Cobalt-60 as an effective means of ensuring sterile medical devices to help keep them safe and protect their wellbeing. Healthcare in Ontario, and all Ontarians, benefit not just from PNGS' production of Cobalt-60, but from the simple fact that carbon-free nuclear power helps keep the air we breathe clean.



From an environmental perspective, the continued operation of PNGS to 2024 will reduce greenhouse gas emissions by an estimated 17 million tonnes, which is the equivalent of removing 3.4 million cars off the road per year. Greenhouse gas-free nuclear power generation from PNGS not only powers one in seven homes and businesses in Ontario, but plays an important role in helping the Government of Canada to achieve its goal to reduce greenhouse gas emissions to 15 per cent below 1990 levels by 2020 and ultimately to 80 per cent below 1990 levels by 2050.

Ontario's economy also benefits from the nuclear industry as a whole, and will benefit from the continued operation of PNGS. Across Ontario, about 60,000 people directly or indirectly rely on the nuclear industry for their jobs. Locally, the continued operation of PNGS will result in 4,500 direct and indirect jobs across the Durham Region. At BWXT, we provide over 1,100 high-value jobs across the province in Arnprior, Peterborough, Toronto, Dundas, Cambridge and Port Elgin.

A renewal of OPG's Nuclear Power Plant Operating Licence will ensure the people and businesses of Ontario continue to have a reliable and clean source of base load electricity during refurbishment of the Darlington Nuclear Generating Station and the initial Bruce Power refurbishments. OPG has been safely and reliably operating PNGS for over 40 years, and we continue to have complete confidence in OPG's ability and commitment to operating PNGS to 2024 with the highest regard for the health and safety of its workers, community and environment.

Sincerely,

A handwritten signature in cursive script that reads "John MacQuarrie".

John MacQuarrie
President, BWXT Canada and BWXT NEC