



Welcome to the CNSC's
Webinar for:
*The Darlington New Nuclear
Project – Upcoming Licensing
Review*

November 15, 2022 (EN)



Objective of Today's Webinar

To provide an overview of Ontario Power Generation (OPG)'s Darlington New Nuclear Project (DNNP) and the upcoming licensing review.

- Answer questions about:
 - Who is the CNSC and what does the CNSC do?
 - What is the DNNP?
 - What is the licensing review process?
 - How are Indigenous Nations and communities and the public involved?

CNSC Overview





Canadian Nuclear Safety Commission (1/2)



Canada's Nuclear Watch Dog for Over 75 Years



Canadian Nuclear Safety Commission (2/2)

Regulates all Nuclear-Related Activities in Canada



Uranium mines
and mills



Uranium fuel
fabrication and
processing



Nuclear power
plants



Nuclear substance
processing



Industrial and
medical applications



Nuclear research
and educational
activities



Transportation of
nuclear substances



Nuclear security
and safeguards



Import and
export controls



Waste management
facilities



The Commission Tribunal



**MS. RUMINA
VELSHI**



**DR. TIMOTHY
BERUBE**



**DR. SANDOR
DEMETER**



**MR. RANDALL
KAHGEE**



**DR. MARCEL
LACROIX**



**MS. INDR
MAHARAJ**



**DR. VICTORIA
REMENDA**

- Quasi-judicial administrative tribunal
- Agent of the Crown (Duty to Consult)
- Reports to Parliament through Minister of Natural Resources
- Considers the public and Indigenous communities' concerns and knowledge in decisions
- Commission members are independent and part-time
- Commission hearings are public and Webcast
- Staff presentations in public
- Decisions are reviewable by Federal Court

Transparent, Evidence-Based Decision Making



CNSC Offices

- ✓ HQ in Ottawa
- ✓ 4 site offices at power reactors
- ✓ 1 site office in Chalk River
- ✓ 4 regional offices





Regulator and Licensee Responsibilities

Regulator (CNSC)

- Set safety requirements, inform licensees, verify compliance
- Assure Parliament and Canadians that licensee responsibilities are properly discharged
- Make **independent, objective** and **risk informed decisions**

Licensee (e.g., Ontario Power Generation)

- Responsible **for safety**
- Manage regulated activities in a manner that protects the **health, safety, security** and the **environment** while respecting Canada's **international obligations**

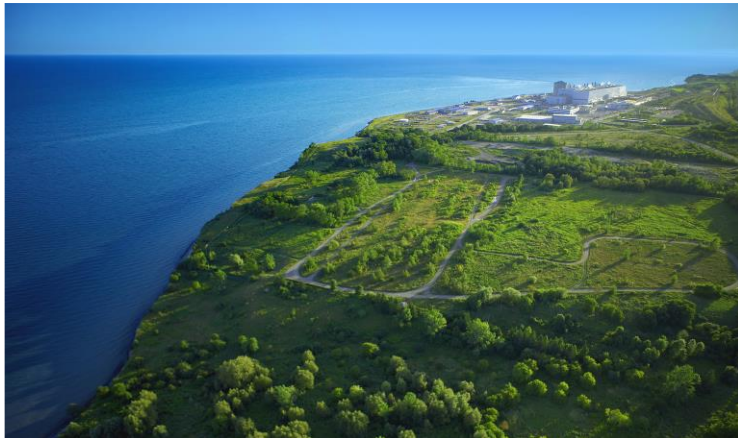
Darlington New Nuclear Project Overview and Status





DNNP Overview

- OPG's DNNP project is for the construction and operation of up to four new nuclear reactors at the existing Darlington site (up to 4,800 Megawatt Electric).
- OPG submitted a Licence to Construct application to construct one Small Modular Reactor (SMR) of up to 300 Megawatt Electric.
- OPG has selected the GE-Hitachi BWRX-300 technology.





BWRX-300 Technology

- Sized to generate 300 MWe on a small footprint using boiling water technology.
- Light water is used as the primary coolant and moderator.
- Uses 3-5% enriched fuel.

The BWRX-300 design is currently under review through the CNSC vendor design review (VDR) process.

For more information on the design, visit:
[BWRX-300 \(gepower.com\)](http://BWRX-300.gepower.com)



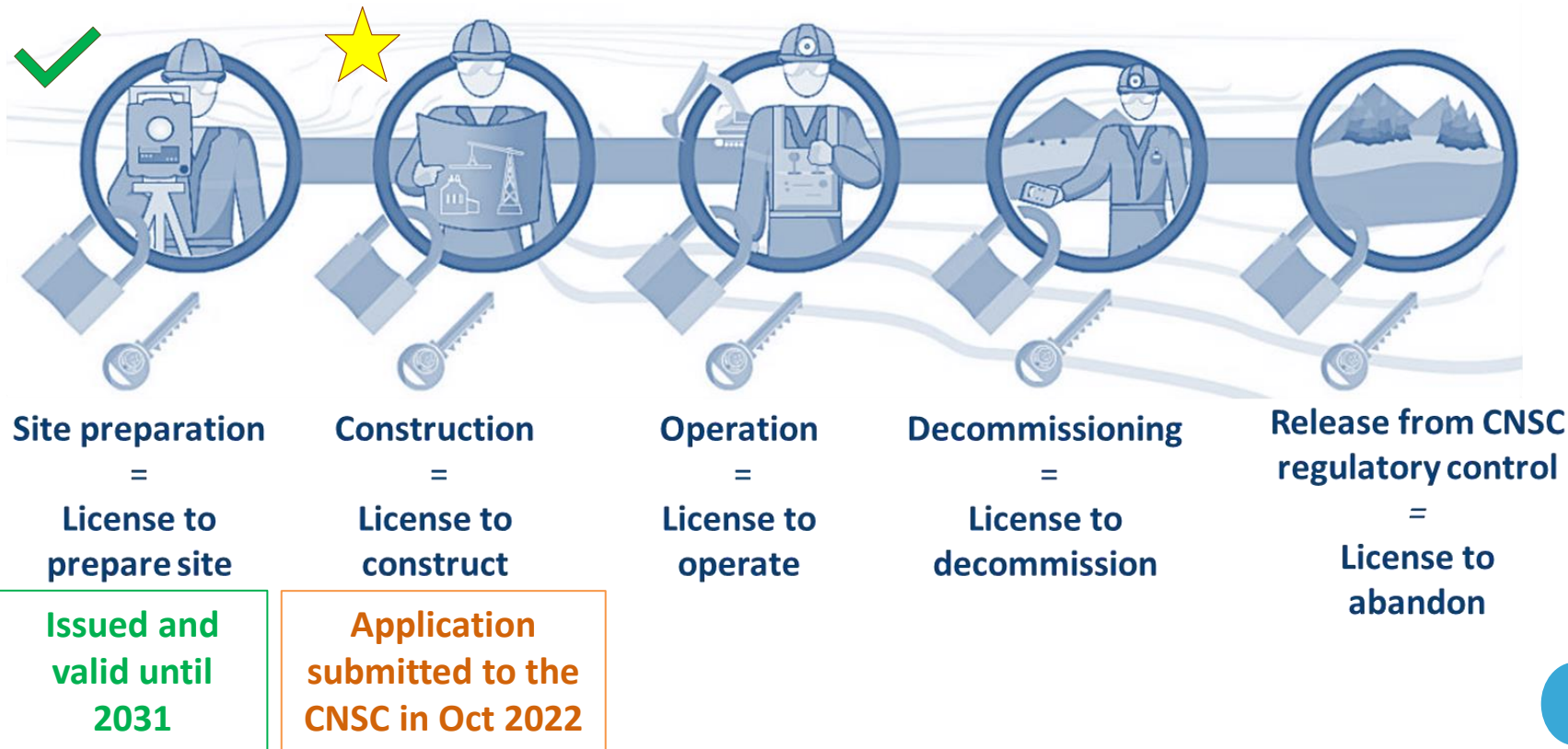


DNNP Timeline

Date	Activity
2006	OPG applied for a Power Reactor Licence to Prepare Site (PRSL) and the Environmental Assessment (EA) commenced under CEAA (1992)
2009	OPG submitted an Environmental Impact Statement (EIS) and revised licence application
2012	Licence to Prepare Site issued, valid until 2022
2021	Licence to Prepare Site renewed, valid until 2031 Technology selected (BWRX-300)
2022	OPG submitted Licence to Construct (LTC) application



Nuclear Facility Lifecycle Stages



Regulatory Review Process

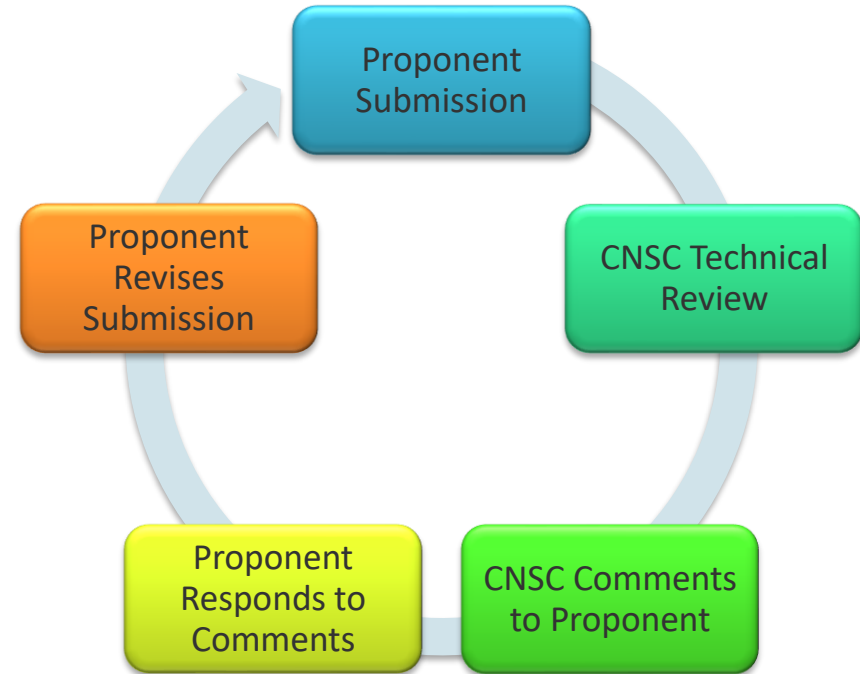




Licensing Technical Review

What happens to OPG's submission?

- The submission is subject to a technical review.
- Assessed against regulations, regulatory documents, international guidance, codes and standards, professional judgement.
- Topics include safety analysis, radiation protection programs, detailed decommissioning plan, operator training programs, etc.



Process continues until staff are satisfied all requirements are met



Review of LTC Application (1/2)

OPG's submission will be assessed against....

Key regulations:

- [*General Nuclear Safety and Control Regulations*](#)
- [*Class I Nuclear Facility Regulations*](#)

Licence application to address (some key CNSC REGDOCS):

- REGDOC-1.1.2, *Licence Application Guide: Licence to Construct a NPP*
- REGDOC-2.5.2, *Design of Reactor Facilities: Nuclear Power Plants*
- REGDOC-2.3.1, *Conduct of Licensed Activities: Construction and Commissioning Program*

Full list of REGDOCS: [Regulatory documents - Canadian Nuclear Safety Commission \(cnsccsn.gc.ca\)](http://www.cnsccsn.gc.ca/regulatory-documents)



Review of LTC Application (2/2)

The CNSC will only issue a licence when the applicant:

- ✓ Is deemed **qualified** to carry on the activity that the licence will authorize.
- ✓ Has demonstrated that they will **protect the health and safety of persons and the environment.**
- ✓ Has demonstrated that they will maintain **national security.**
- ✓ Has confirmed that they will **adhere to international obligations** to which Canada has agreed.



DNNP Licensing Status

Current Step

OPG has submitted:

- A partial Licence to Construct application.
- Updated documentation to demonstrate how the selected technology (BWRX-300) fits within the bounds of the 2009 Environmental Assessment:
 - *Use of Plant Parameters Envelope to Encompass the Reactor Designs being Considered for the Darlington Site*
 - *Darlington New Nuclear Project Environmental Impact Statement Review Report for Small Modular Reactor BWRX-300*

Next Steps

- CNSC staff to conduct technical assessment.
- Produce a Commission Member Document (CMD) with the results of the regulatory review and recommendations.

Indigenous and Public Participation





Open and Transparent Regulator

- CNSC's approach: transparency of staff's technical review processes.
- Regular and consistent status updates (project bulletins, social media and web updates).
- Topical discussions with two-way dialogue (online webinars, one-on-one sessions, public events).
- Contextualizing the project (video and/or written FAQs).
- Responsible for meeting the Crown's duty to consult with Indigenous peoples.





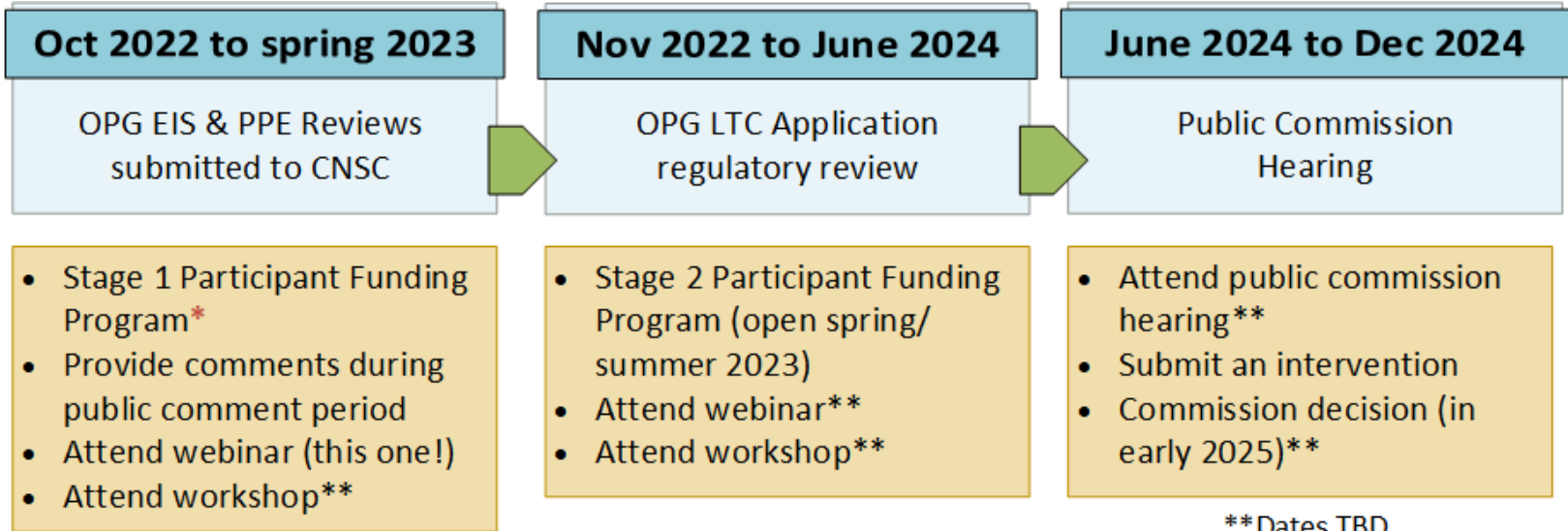
Open Government Portal

Information will be proactively shared on the [Open Government portal](#) and will include hyperlinks to informative posts or websites, documents, document titles and reports which are of importance to OPG's Darlington New Nuclear Project.

The screenshot shows the top of the Open Government Portal website. At the top left is the Government of Canada logo with the text 'Government of Canada' and 'Gouvernement du Canada'. To the right is a search bar with the text 'Search Canada.ca' and a magnifying glass icon. Below the logo is a dark blue 'MENU' button with a downward arrow. Underneath is a link to 'Canada.ca'. The main heading is 'Open Government', followed by a paragraph: 'Open Government is about making government more accessible to everyone. Participate in conversations, find data and digital records, and learn about open government.' To the right of this paragraph are social media icons for Twitter, RSS, and Facebook, with the text 'Follow:'. Below this is a section titled 'Search data and information' with a subtext 'Browse the collection of more than 30,000 open data and information assets' and a search input field with the placeholder 'What are you looking for?' and a 'Find' button. To the right of this is a section titled 'Coronavirus disease (COVID-19)' with a graphic of COVID-19 particles and the text 'COVID-19'. Below the graphic is a link: 'Explore open government resources'. At the bottom left, there are two sections: 'Proactive disclosure' with the text 'Browse the proactive disclosure of financial and human resources-related information by federal' and 'Access to information' with the text 'Browse completed Access to Information summaries, make an ATIP request, and learn more about'.



Opportunities for Participation



***Deadline to apply: Dec 2, 2022**



Indigenous and public engagement
Project information posted on the Open Government portal
Updates posted on social media, distributed by e-mail



Get Involved and Be Heard

Public Comment Period on Project Documents

- Provide comments on draft documents posted on [Let's Talk Nuclear Safety](#).

Apply for the [Participant Funding Program](#)

Contact Us

- General inquiries: cnscccsn@nrc.gc.ca.
- Project-specific questions: dnnp-npnd@nrc.gc.ca.
- Important news and notifications: [subscribers list](#).

Attend a Public Hearing

- Date TBD. [Participate in a public commission hearing](#).

Submit an Intervention

- [Web form](#) can be completed after a hearing date is determined.





Stay Connected



Canada

Follow

Canadian Nuclear Safety Commission ✓

@CNSC_CSSN

Canadian nuclear regulator.

Suivez-nous en français @CCSN_CNSC

Terms and conditions: bit.ly/1cWhXdb

#NuclearSafety #CNSC

📍 Canada 🌐 nuclearsafety.gc.ca 📅 Joined June 2014

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Media

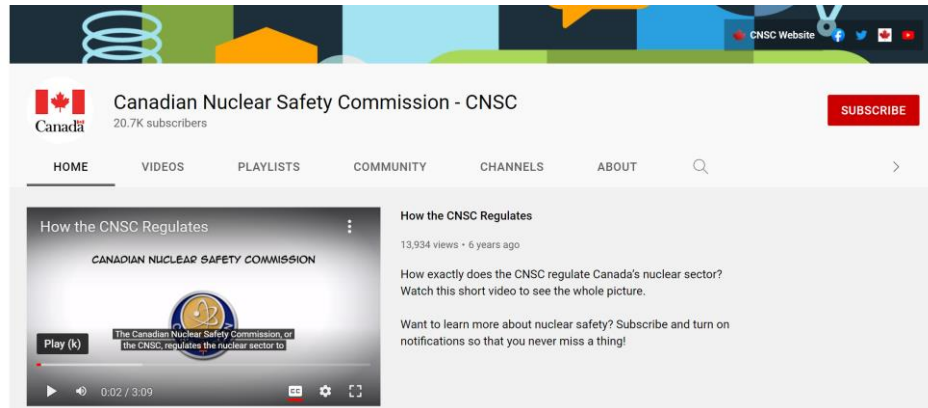
Likes



Canadian Nuclear Safety Commission ✓ @CNSC_CSSN · 3h ...

🗣️ We're hiring bilingual admin professionals.

We offer a healthy work-life balance, continuous learning and development opportunities, and flexible work arrangements that include telework!





Connect With Us

Join the conversation



nuclearsafety.gc.ca



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Project specific inquiries: dnp-npnd@cpsc-ccsn.gc.ca