

**BIG
THINGS
START
SMALL.**

Darlington New Nuclear Project

What We've Heard

**Licence to Construct Stakeholder Engagement
2023 & 2024**

**ONTARIO
POWER
GENERATION**

SMR



Contents

Introduction

For more than 50 years, since the construction of our existing nuclear facilities, Ontario Power Generation (OPG) has been actively engaging with our local host communities through an extensive public outreach program.

Each year, through this program, the nuclear stakeholder relations team connects with more than 50,000 members of the public about our operations and projects.

At the start of the Darlington New Nuclear Project (DNNP) in 2006, this ongoing, long-standing program was expanded to focus on strategic and regular engagement with DNNP stakeholders, to allow for specific interactions related to the project. The expanded program includes project-specific activities and aims to ensure project-related materials and opportunities are reaching targeted audiences.

The outreach strategy includes (but is not limited to):

- information sessions
- workshops
- timely and detailed newsletters
- presence within the host communities
- site tours for community and business stakeholders

In October 2022, OPG applied to the federal nuclear regulator, the Canadian Nuclear Safety Commission (CNSC), for a Licence to Construct (LTC) the first of four grid-scale Small Modular Reactors (SMR) at the Darlington New Nuclear Site. This report captures our engagement and feedback from members of our host communities, other interested stakeholders and the public through 2023-2024 specific to DNNP and the licence to construct application.

We have documented what we heard from you and contextualized it against the broader landscape of project-related feedback.





Who We've Heard From

OPG's ability to build and maintain trusted and mutually beneficial relationships with the people living in and near our host communities is vital to the success of its operations.

Our outreach includes, but is not limited to, the areas in the vicinity of the Darlington Nuclear Generating Station and DNNP lands. Our outreach stretches across Durham Region with a focus on the Municipality of Clarington and Oshawa and includes:

- MPs
- MPPs
- Mayors and councillors in local and neighbouring communities
- Established community committees
- Local and related businesses and organizations
- Special interest groups
- Non-Governmental Organizations with expressed interest in the project
- Members of the public with a general interest in the project

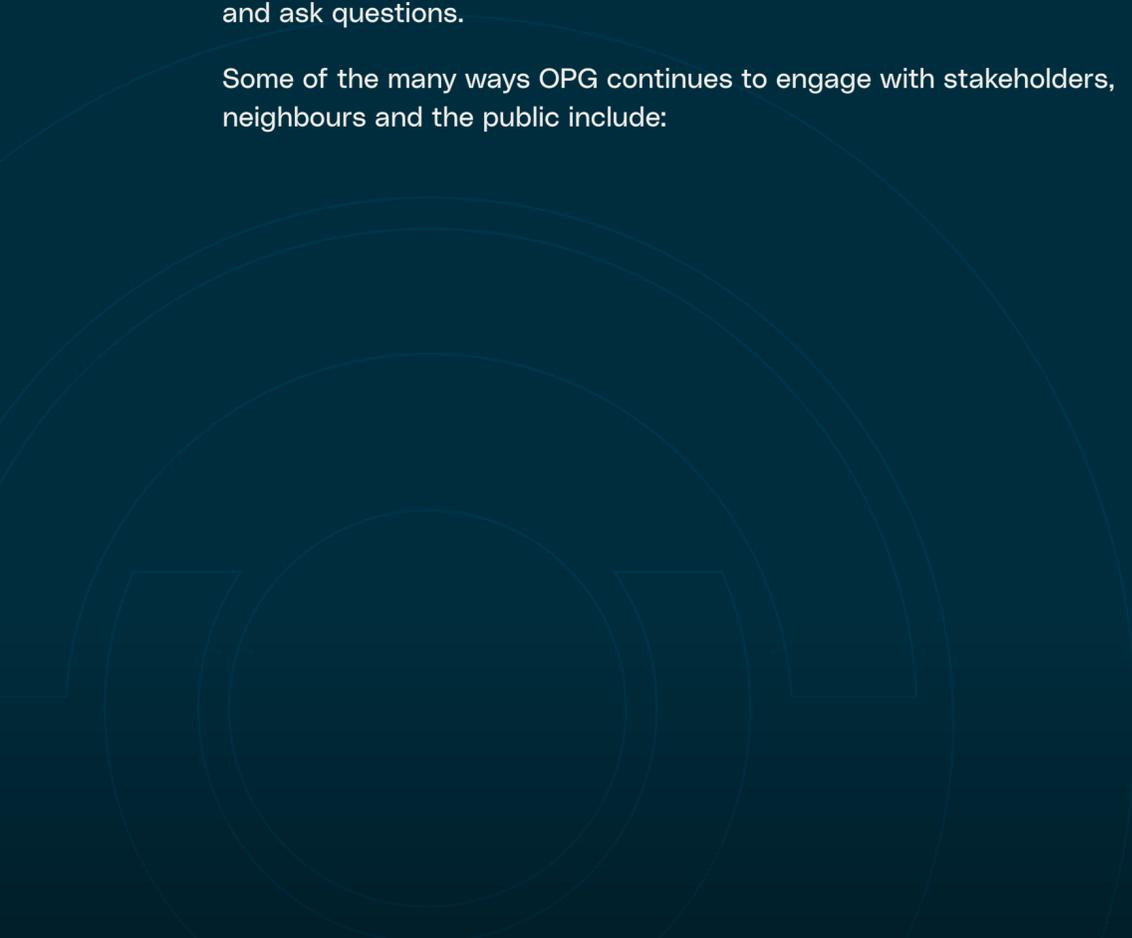
Throughout the project OPG has also been engaging with Indigenous Nations and Communities and local Rightsholders. An extensive and ongoing Indigenous engagement plan guides this important work.

Methods of Stakeholder Outreach

The Darlington New Nuclear Project team continues to engage with the community on an ongoing basis through a varied approach to outreach.

This outreach gives stakeholders and the public with an interest in the project a variety of opportunities to meet with project team members, attend presentations, get up-to-date project information and ask questions.

Some of the many ways OPG continues to engage with stakeholders, neighbours and the public include:



Darlington Nuclear Information Centre

The Darlington Information Centre is a fundamental aspect of public outreach for the project. This home base is used to engage with and educate members of the public, host events and deliver presentations. It showcases the rich history of electricity production in Ontario through informative interactive displays, including a newly installed DNNP virtual reality experience, and provides direct access to the stakeholder relations team.

Located at 1855 Energy Drive in Courtice, the Information Centre is open Monday-Friday, 9 a.m. – 3:30 p.m.

- More than **700 people** from across and outside Canada visited the Darlington Information Centre in 2023-2024.
- **3200 people** attended the annual **Community Power Expo** at the Information Centre, learning first-hand about the project and the need for new nuclear in Ontario.

Public Inquiries

OPG manages and tracks public inquiries submitted through OPG.com and our toll-free phone number (1-800-461-0034). The platform allows users to send questions, comments and concerns for prompt response. OPG.com also provides access to a dedicated project webpage that is frequently updated with the project status, information on sponsored events and important documentation.

Visit our project website.

- There were more than **65,000 views** and more than **45,000 users** of the **DNNP webpage** in 2023 & 2024, making it the third most visited page on OPG.com.
- **87 DNNP-related** inquiries were responded to in 2023-2024.

DNNP In-person and Virtual Tours

The nuclear stakeholder relations team conducts tours across OPG nuclear sites including at the Darlington and Pickering Nuclear Generating Stations, the Darlington Nuclear Sustainability Services facility, the Darlington Mock-up and Training Facility, and the broader Darlington site including DNNP lands, recreational grounds, shorelines and habitats. Each tour features a discussion, presentation or overview about the DNNP, SMRs, energy literacy and new nuclear growth.

- Close to **200 public and stakeholder tours** were conducted in 2023 and 2024.

Workshops

Workshops are typically small group sessions with content curated for a particular audience. These sessions provide an opportunity to discuss technical project details, collaborate and engage with stakeholders and obtain thoughtful feedback, input and ideas.

- More than **100 stakeholders** took part in **six project-specific workshops** offered in 2023-2024. Workshops focused on the LTC application, the CNSC licensing process and included an opportunity to meet with and ask questions of project leaders.

Public Information Sessions

Public information sessions are an opportunity for members of the public to learn about the project's status, future, and other areas of interest, as well as ask questions of, and challenge, project leaders. Public information sessions have been used, most recently, in anticipation of the LTC hearings.

- More than **620 people** attended **seven** DNNP public information sessions in 2023 and 2024.
- **Virtual and in-person sessions** were offered, with two of the in-person sessions held during OPG's annual Community Power Expo.

Community Events and Kiosks

Participation in community events is an important method of engagement for the project. These events allow our team to leverage event attendance to interact directly with our host communities, build relationships and provide a platform for interested members of the public to learn and ask questions about the project.

- In 2023 and 2024, the nuclear stakeholder relations team interacted with more than **30,000 members of the public** while attending more than **70 community events** and festivals in Durham Region, including DNNP sponsored swims and skates at local community centres and specific project related kiosks at local community spaces.

OPG Community Programming

OPG runs several sponsored and educational programs throughout the year in collaboration with a variety of community partners, including (but not limited to) Tuesdays on the Trail and Bring Back the Salmon. These engaging and informative programs provide hands-on, fun, educational activities focused on science, art and the environment. These OPG-led initiatives provide children and their families an opportunity to engage with our team and ask questions about our operations and initiatives, including the DNNP. The stakeholder relations team also runs an in-school energy literacy program in classrooms across Durham Region, called Electrifying Education.

- OPG held **20 March Break events** across Durham Region in 2023-2024, with more than **2300 people attending**.
- Close to **600 people** participated in our Tuesdays on the Trail and Bring Back the Salmon programs.
- In 2023-2024 we engaged with more than **3500 students** through the Electrifying Education program.

Social Media

Social media platforms, including YouTube, Twitter/X, LinkedIn, and Facebook are an important means for maintaining engagement on the project. Social media was also used to advertise and inform users about DNNP public information sessions and other project-sponsored events. These platforms are an easy, accessible way for the public to ask questions about the project and receive prompt responses from the DNNP team.

- **109 DNNP-related social media posts** were made in 2023-2024.

Public Opinion Polling

OPG continually assesses and measures public support for our operations and projects. Industry research polling, anecdotal surveys and observations and internal research is conducted on a regular basis.

- **70 per cent** of Ontarians support the expansion of nuclear generation in the province and **74 per cent** support a nuclear power station operating in the province, according to a Jan. 2023 Angus Reid survey.
- **62 per cent** of Ontario respondents in Ontario support nuclear as a way of generating electricity based on Jan. 2023 Canadian Nuclear Association polling.
- **More than half (55 per cent)** of Ontarians support the development of new nuclear power generation and **58 per cent** support the development of nuclear energy as a necessary component of clean energy for the future, according to a Leger poll done on behalf of OPG in Dec. 2023.

What We've Heard



Our ongoing and varied approach to engagement means we hear from you, in a number of ways, on a range of topics and interests.

Our many conversations have resulted in a variety of comments and questions from the public and stakeholders. Topics range from interest in clean energy production, to the impact of the DNNP on the local economy. Conversations, questions and feedback received through our program engagements are monitored and tracked. This allows us to review themes of interest and feedback on types of engagement on an ongoing basis.

Key areas of interest in 2023 and 2024 include:



In October 2022, OPG applied to the federal nuclear regulator, the CNSC, for a **Licence to Construct the first of four SMRs** while in parallel, beginning the early works allowed under the pre-existing Site Preparation Licence at the Darlington site. Based on current plans and pending regulatory approvals from the CNSC, **construction of the first unit is targeted to begin in 2025** with commercial operation anticipated for 2029.

01

Project Cost and Schedule

Stakeholders are curious about the project timeline and projected completion dates.

Often, questions about the project timeline are closely tied to inquiries about how the DNNP is being financed and the total cost for a fleet of four operational SMRs. For example, stakeholders have asked if it is cost-effective to complete construction of the first of four planned SMRs before starting construction on subsequent units. Considering the lifespan of a single unit, stakeholders have also asked about the life cycle cost of the project, including decommissioning. Stakeholders are also curious about the impact of the project on the cost of electricity and whether life cycle cost will be factored into the Release Quality Estimate.

02

Jobs and The Economy

Stakeholders are encouraged by job creation opportunities and the local and broader economic impacts of the DNNP.

The stakeholder relations team receives inquiries about employment prospects through all phases of the project, from construction to operation. Those inquiring want to know about the project's staffing requirements, the types of jobs that will be created, the skills and expertise required to staff the project, when and where job postings will be made and who the project partners are. There is particular interest from business and trade groups in the project supply chain and what aspects of it are local, Canadian and International.



According to a Conference Board of Canada study, four SMRs at the Darlington site would increase the Canadian GDP by **\$15.3 billion over 65 years**. Ontario would see the majority of that benefit, with an anticipated **\$13.7 billion increase** to the provincial GDP.

The project is also expected to sustain, on average, approximately **2,000 jobs per year**, over the same time period.



Nuclear power is integral to a **low-carbon future** and SMRs are **the flexible, scalable answer** to some of the most complex energy questions. SMR technology is based on the **same science as larger reactors**, using fission to create heat energy, which can then be used to generate electricity.

03

Small Modular Reactor Technology

The public and stakeholders are intrigued by SMRs, their distinct features, why the technology was chosen for the DNNP and what makes it similar to our current operations. Stakeholders are curious about the benefits of SMR technologies and how they can help meet the current and forecasted energy supply and demand needs in Ontario.

The GE Hitachi BWRX-300 is OPG's chosen SMR technology for the DNNP. The project team has answered questions about the BWRX-300 related to safety, energy output and operations. There is also interest in the modular component of this new nuclear technology, including where and how the SMRs will be built. Stakeholders have also asked about other applications of SMR technologies beyond the DNNP, nationally and internationally.

04

Safety

The safety of the public and our workers is the number one priority for OPG and was a critical consideration in OPG's reactor technology selection for the DNNP.

Project stakeholders and the public share this value. The public has expressed interest in the safety features for the BWRX-300 technology. There is also interest in the CNSC regulatory process, which determines and mandates safety requirements for the DNNP. Our team has also heard questions related to project construction oversight and accountability for worker and public safety during that phase of the project.

Stakeholders and the public have also asked questions around operator training, radiation protection for employees and the public, nuclear waste management and emergency management planning.



The BWRX-300 is a tenth-generation boiling water reactor (BWR). The design **applies proven concepts**, informed by more than 60 years of international BWR operating experience, and is based on **International Atomic Energy Agency safety standards**.

A safety analysis was completed for the BWRX-300 as part of the DNNP Licence to Construct application to **ensure the technology meets or exceeds safety standards** set by the CNSC.



OPG has been engaging with its neighbours through all phases of the project through a comprehensive public outreach and communications program. OPG is proud of its long-standing involvement and partnerships in the communities where we operate.

05

Community Programming

Our team is often asked where we'll be next, what types of programs we will run and how they can participate.

Additionally, our team fields questions on ways the public and stakeholders can learn more about the DNNP and stay up-to-date on the project. We use various means of advertising to let stakeholders and the public know about our sponsored events and programming. Our project website lists upcoming events, including sign-up opportunities for our in-school Electrifying Education program and our virtual Electrifying Community Information Sessions. OPG's decades-long engagement has fostered strong relationships with the public, who, in turn, look forward to and inquire about OPG-sponsored programming.

Visit our project website.

06

Fuel

The public and stakeholders are curious about the fuel and fuel source for the DNNP and its similarities to fuel used in OPG's existing nuclear operations.

They also want to know about the fuel's distinct features. Questions, generally, relate to the supply chain and enrichment process, including where the uranium is mined. There is also interest in the companies involved in the extraction, enrichment and transportation processes. The stakeholder relations team has also answered questions related to refueling the reactor, once operational, including the frequency and length of refueling outages.

Read more about the fuel used in the BWRX-300.



Image source: GE Hitachi

The **BWRX-300** will use the same fuel as many boiling water reactors around the world - **low-enriched uranium reactor fuel**.

OPG evaluated the source and commercial availability of the fuel prior to selecting a technology for the DNNP.



OPG has been safely managing nuclear waste for more than 50 years. The waste from the BWRX-300 is fundamentally no different than what OPG has been safely managing for our existing facilities. Low and intermediate-level waste generated by the project is planned to be stored at the Darlington site on an interim basis. It will be relocated to a planned permanent Nuclear Waste Management Organization repository.

07

Waste

Nuclear waste management and storage is of interest to the public and stakeholders.

Questions range from the types of nuclear waste accounted for in project planning, to where and how used fuel will be stored on site in the short term, and off-site in the long-term. The public has also enquired about how the waste will be relocated to permanent disposal facilities, once operational.

Read more about the Nuclear Waste Management Organization.

08

Climate and the Environment

The public and stakeholders care about the climate, clean energy solutions and biodiversity. They want to know how new nuclear fits into a supply mix that maintains government commitments toward decarbonization and net-zero emissions.

The public also wants to know how areas of the environment are being preserved and protected through all phases of the DNNP. Questions about the project's environmental impact range from effects on lake water, to efforts to protect vulnerable and native plant and animal species. The DNNP team has also heard questions about the history and applicability of the project's accepted Environmental Assessment and the environmental review process as the project progresses.

In 2020, OPG released its first ever Climate Change Action Plan, detailing the ambitious goals guiding our promise to be a catalyst for efficient, economy-wide decarbonization and economic renewal, while protecting the environment. Tackling climate change will take a combination of electricity generating technologies and innovative solutions, and the development of SMR technologies through the DNNP is one of the plan's key initiatives.



OPG has a **comprehensive environmental protection program** in place for the Darlington Nuclear site, ensuring effective oversight and control, and promoting continued **protection of the environment** while meeting all regulatory requirements. This program implements control measures to eliminate, reduce and manage the impact of DNNP construction.

How We Use What We've Heard

Keeping our host communities continually informed on the DNNP is a critical aspect throughout all phases of the project. Your comments, questions and feedback make us better and help to inform our outreach efforts. If it's important to our stakeholders, it's important to us.

Our goal is to develop and maintain strong relationships, foster transparency and develop alignment on goals and values by creating opportunities for collaboration. The feedback we receive from you, through our engagement work, helps to shape future communications and the ways in which we conduct outreach.

Whether it's attending a particular community event, adding a section or article to our project website, or including a feature of interest in our next newsletter, we respond to what we hear. As we continue our work on the project we commit to continuing to update our neighbours in an ongoing way.

This report is just one of the many ways we are sharing and collecting information. To be part of the continuing conversation, we encourage you to visit our Public Information Centre, read a copy of Neighbours, or visit our website to find out where we'll be next. Strengthening and sustaining this ongoing dialogue is critical to our efforts to develop and grow public and shareholder support for, and confidence in, the project, through all of its phases.

***We Can't Wait
To Hear From You!***

