

Nuclear Sustainability Services

Bruce County Council – June 1, 2023

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About OPG

- Ontario's largest clean-energy producer, generating 50% of Ontario's electricity, with 60% coming from nuclear energy.
- OPG's Climate Action Plan commits OPG to being a net-zero company by 2040.
- Nuclear energy is a vital part of the clean-energy mix to ensure our hospitals, schools, businesses and homes are operational 24/7.
- Strong oversight and accountability through the CNSC and IAEA.

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POWER
IS CHANGING
THE WORLD**

OPG Company Highlights

- In October 2021, OPG launched its first-ever **Reconciliation Action Plan**: our road map for how we work in partnership with Indigenous communities, businesses and organizations.
 - [2022 Reconciliation Action Plan Update](#)
- Pickering Nuclear Generating Station Units 5-8 Refurbishment Study.
- Advancement of the Darlington New Nuclear Project.
- Darlington Refurbishment – continues to remain on track, on budget.
- OPG Continues to support the Bruce Power MCR.



See www.opg.com for details about OPG's Reconciliation Action Plan (RAP)



Overview of Pickering Nuclear Generating Station

Nuclear Sustainability Services

- A strong focus on waste minimization, emphasizing the three Rs – Reduce, Reuse and Recycle.
- Reducing the physical size of the nuclear waste footprint in Ontario.
- By-products such as Tritium, Helium-3 and Heavy Water are used in fusion research, medical diagnostics and in technological advancements.
- Tritium is used as a biomedical tracer, for research in fusion power as well as in emergency lighting.



Nuclear Sustainability Services — Western

- Low and intermediate-level nuclear by-products are received and managed at the Nuclear Sustainability Services – Western (NSS-W) facility.
- NSS-W also stores used fuel (high-level by-product) from Bruce Power’s generating stations in interim storage containers referred to as “dry storage containers” (DSC).
- Nuclear Sustainability Services – Western currently employs approximately 175 employees.



Nuclear Sustainability Services - Western

- Strong safety performance continues - more than 10 years without a lost-time incident.
- Incinerator upgrades to support reduction of stored low-level waste.
- Completion of storage buildings 5 & 6 in June 2022.
- Construction of the Western Clean-Energy Sorting and Recycling Facility.



Western Clean Energy Sorting and Recycling Facility

- In early 2022, OPG initiated the construction of a 42,000 square foot facility, located at the Bruce Energy Centre in Kincardine.
- WCSR facility is a partnership between OPG, Laurentis Energy Partners and Dancor Construction.
- WCSR facility will see OPG reduce low-level by-product being stored on site by up to 50% over a 10-year period.
- The facility is scheduled to open in Spring 2023.



Exterior of the Western Clean Energy Sorting and Recycling Facility



Interior of Hamilton, ON facility

Lasting Solutions

Used Fuel:

- NWMO is undertaking a process to site a Deep Geological Repository for all of Canada.
- NWMO to have site selection completed by the end of 2024.

Low and Intermediate Level:

- The Integrated Strategy for Radioactive Waste (ISRW) will provide recommendations for long-term storage of low and intermediate-level by-product.
- Draft – August 2022
- Final – Mid-2023



Environmental Stewardship

- OPG maintains a corporate-wide Environmental Management System which is certified to the (ISO) 14001 *Standard* and is compliant with REGDOC 2.9.1, *Environmental Protection Policies, Programs and Procedures*.
- OPG's Western facility received Gold Certification from the Wildlife Habitat Council for biodiversity programs.
- This certification recognizes efforts to restore and protect habitats:
 - Work to preserve wetlands and fight invasive species, such as phragmites
 - Turtle basking logs
 - Meadowlark nesting areas
 - Bird boxes



Commitment to Community Engagement

- At OPG, we know our role in the community is about much more than the safe handling of nuclear by-products. It's about being a good neighbour.
- OPG has developed a strong Social Licence through consistent and meaningful engagement with our local communities through:
 - Educational programs and events.
 - Environmental Stewardship.
 - Tours and Presentations.



Senior Communications Advisor, Kaitlyn Nevill, presenting a sponsorship cheque in support of the “Blues in the Schools” program.



Various OPG staff members attended a craft and tradeshow event held at the Saugeen Ojibway Nation's environmental office in Spring 2022.

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