2024 Green Bond Impact Report

OPG

Published 2025

Overview

Ontario Power Generation (OPG) delivers reliable, low-carbon electricity while driving economic growth from Kenora to Cornwall. The company was established under the Business Corporations Act (Ontario) and is wholly owned by the Province of Ontario.

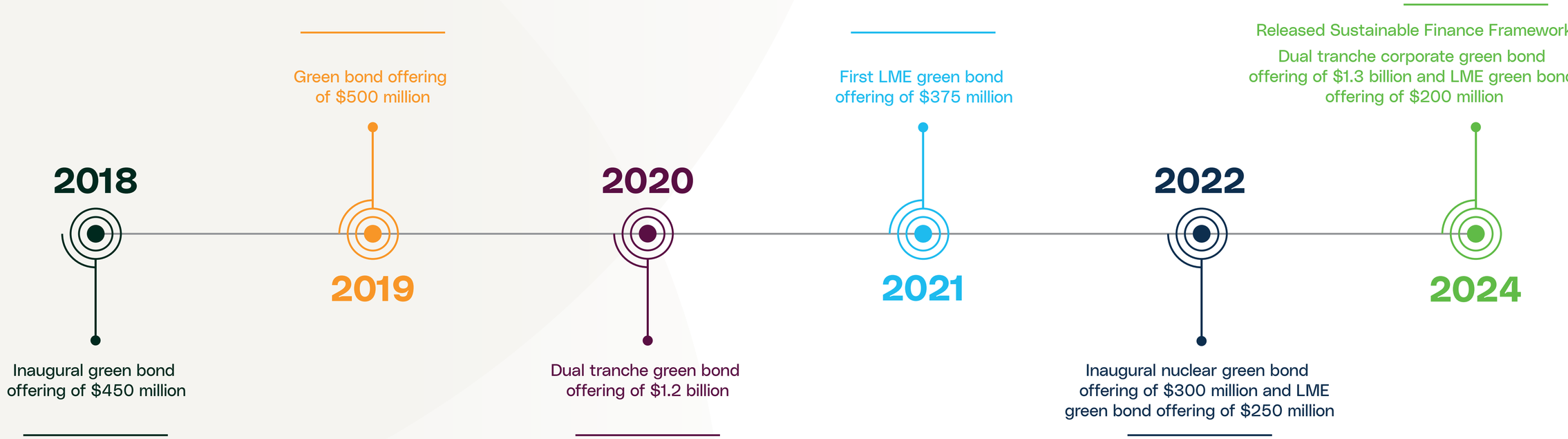
As Ontario's largest and one of North America's most diverse generators of reliable, low-carbon power, OPG has been a driving force behind the province's low-emitting grid—a key foundation for Ontario's economy. Today, we are focused on using our clean power to electrify more facets of life.

To help make our vision a reality and support Ontario's economic growth, we are investing in and advancing several key low-carbon projects and initiatives. These include exploring potential new generation, SMRs and new nuclear development, renewable generation renewal and development, northern Ontario hydroelectric opportunities, nuclear asset refurbishment, electrification, hydrogen and energy storage.

Financing a cleaner future

As OPG builds for Ontario's future, we're using innovative financing to support our major clean energy projects. In 2018, we became the first Canadian utility to issue green bonds. As of the end of 2024, OPG was Canada's largest corporate issuer of green bonds with total green bond issuances of approximately $4.6 billion (including $825 million issuance by its subsidiary, the Lower Mattagami Energy Limited Partnership (LME)).

In 2024, we launched our Sustainable Finance Framework, which superseded our Green Bond Framework to include support for a wider range of eligible projects–including SMRs, large new nuclear, low-carbon hydrogen, battery storage, and initiatives that advance economic Reconciliation with Indigenous Nations.



We also maintain credit facilities featuring sustainability linked terms that can adjust our borrowing costs based on performance in areas like safety and renewable generation growth.

OPG updates investors annually on the use of green and sustainable bond proceeds by OPG and its subsidiaries and this report includes qualitative and quantitative environmental performance indicators such as avoided GHG emissions, low-carbon energy generation, and capacity of renewable and low carbon energy plants constructed or rehabilitated. This report presents information about the environmental benefits of eligible projects under OPG's Green Bond Framework (2021) and OPG's Sustainable Finance Framework (2024), as of Dec. 31, 2024. This is OPG's seventh annual Green Bond Impact Report.

In conjunction with this report, OPG provides information about its environmental programs and performance, bond issuances, and the status of major projects in its ESG Performance Summary and Annual Report, annual information form, management's discussion and analysis reports, and consolidated financial statements, all of which are available on www.opg.com.

> ***"Our bond offering under this new framework is an important step forward in enabling the clean energy transition. Integrating these objectives into financing helps OPG meet our core commitment of building a sustainable future powered by our electricity, ideas and people."***
>
> *- Aida Cipolla, Chief Financial Officer and Corporate Services Officer, Ontario Power Generation*

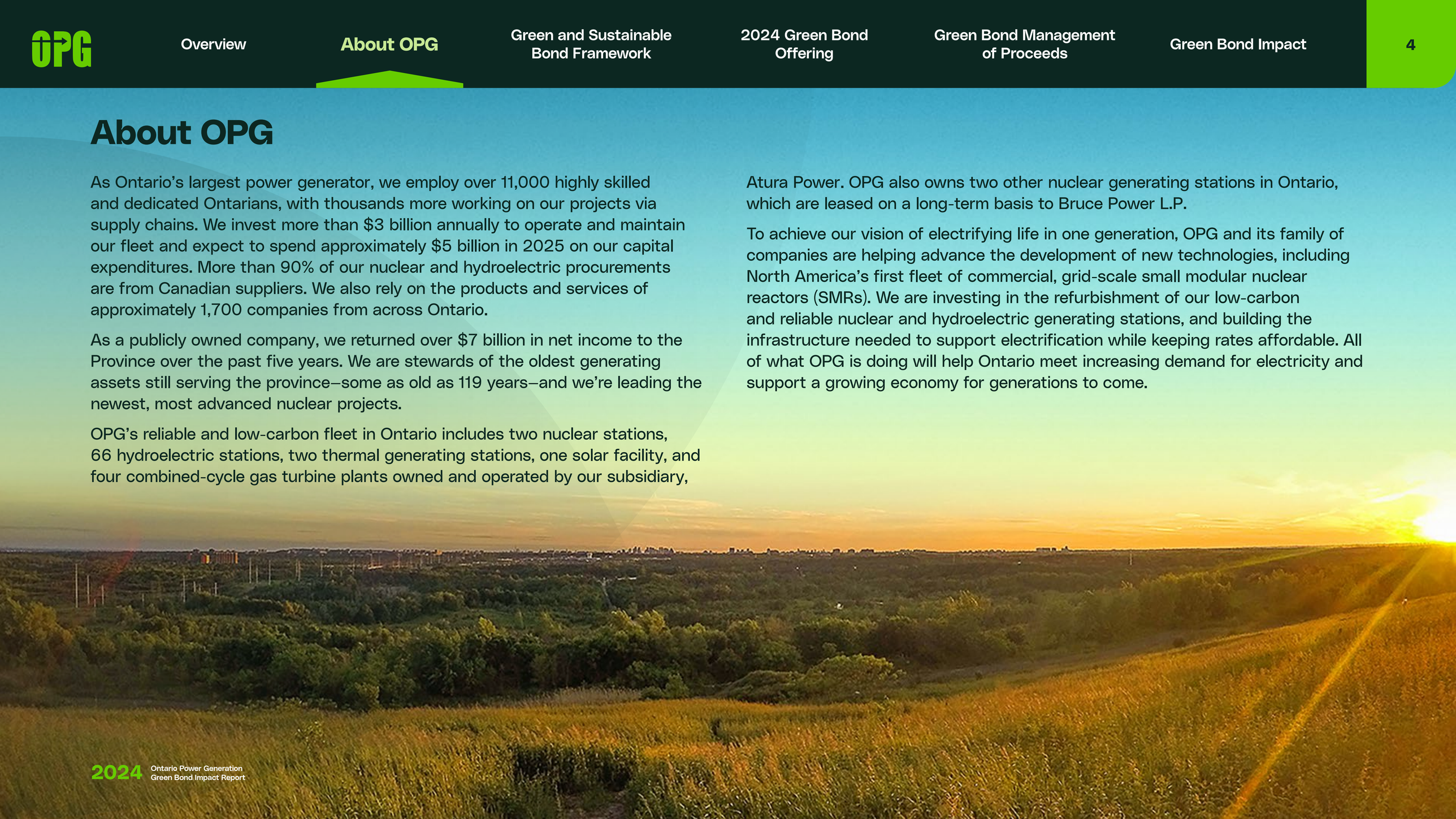
About OPG

As Ontario's largest power generator, we employ over 11,000 highly skilled and dedicated Ontarians, with thousands more working on our projects via supply chains. We invest more than $3 billion annually to operate and maintain our fleet and expect to spend approximately $5 billion in 2025 on our capital expenditures. More than 90% of our nuclear and hydroelectric procurements are from Canadian suppliers. We also rely on the products and services of approximately 1,700 companies from across Ontario.

As a publicly owned company, we returned over $7 billion in net income to the Province over the past five years. We are stewards of the oldest generating assets still serving the province–some as old as 119 years–and we're leading the newest, most advanced nuclear projects.

OPG's reliable and low-carbon fleet in Ontario includes two nuclear stations, 66 hydroelectric stations, two thermal generating stations, one solar facility, and four combined-cycle gas turbine plants owned and operated by our subsidiary, Atura Power. OPG also owns two other nuclear generating stations in Ontario, which are leased on a long-term basis to Bruce Power L.P.

To achieve our vision of electrifying life in one generation, OPG and its family of companies are helping advance the development of new technologies, including North America's first fleet of commercial, grid-scale small modular nuclear reactors (SMRs). We are investing in the refurbishment of our low-carbon and reliable nuclear and hydroelectric generating stations, and building the infrastructure needed to support electrification while keeping rates affordable. All of what OPG is doing will help Ontario meet increasing demand for electricity and support a growing economy for generations to come.



OPG's electricity generation portfolio had an in-service generating capacity of 18,059 megawatts (MW) as at December 31, 2024.

2 **Nuclear** Generating Stations

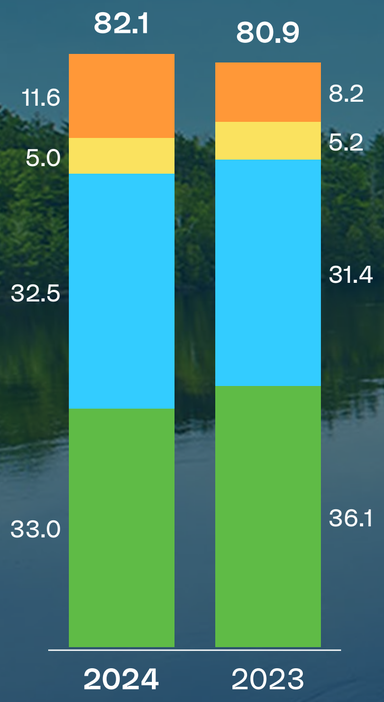
66 **Hydroelectric** Generating Stations

2 **Thermal** Stations

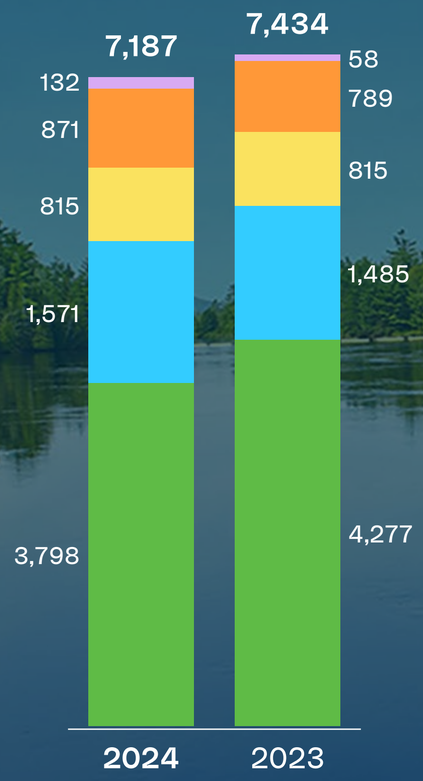
4 **Atura Power Combined-Cycle** Generating Stations

1 **Solar** Facility

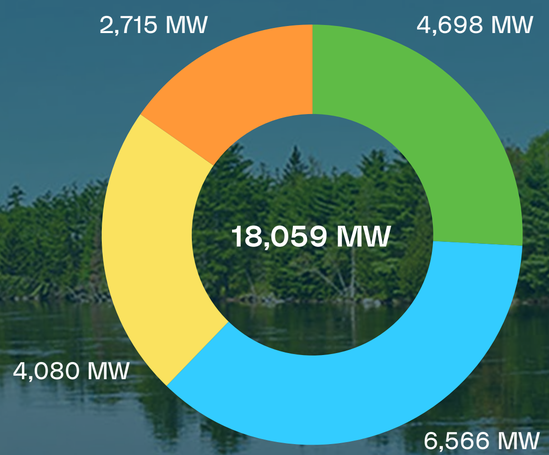
OPG's total electricity production in 2024 was 82.1 terawatt hours (TWh). Low-carbon emitting sources account for the majority of OPG's in-service generating capacity and electricity generation.



Electricity generation (TWh)



Revenue (millions of dollars)



In-service generating capacity (MW) as at Dec. 31, 2024

- Regulated Nuclear
- Regulated Hydro
- Contracted Hydro and Other
- Atura Power
- Other

Green and Sustainable Bond Framework

Green Bond Framework

Proceeds obtained from green bond issuances have been used to finance or refinance eligible projects that offer tangible environmental benefits. OPG's Treasury group is responsible for reviewing and selecting eligible projects in collaboration with internal experts and stakeholders, which include Operations and Environment. Projects are evaluated using financial and risk-based analyses as well as strategic considerations.

Under OPG's Green Bond Framework (2021), eligible projects were expanded to include eligible nuclear projects in recognition of the critical role the technology plays in fighting climate change and in achieving OPG's climate change goals.

OPG's Green Bond Framework (2021) has been independently reviewed by CICERO Shades of Green which provided a second-party opinion on the quality of the Green Bond Framework (2021), and received a "CICERO Medium Green" shading as well as a governance procedures score in the framework of "Good".

Without limitation, eligible projects generally fall into the categories specified in the following table.

Renewable Energy Generation

Investments that help supply energy from renewable sources

Solar Energy

- Construction of new solar energy facilities
- Maintenance and/ or refurbishment of existing solar energy facilities

Wind Energy

- Construction of new wind energy facilities
- Maintenance and/ or refurbishment of existing wind energy facilities

Hydroelectricity

- Construction of new run-of-river hydroelectricity projects with low storage capacity
- Refurbishment, repowering, modernization, and/or maintenance of existing hydroelectricity facilities with the purpose of increasing generation efficiency, operational life span and/or renewable energy output while maintaining or improving the level of operational safety

Nuclear

Investments that help supply energy from nuclear reactors
Nuclear Energy

Nuclear Energy

Maintenance and/ or refurbishment of existing nuclear energy facilities

Energy Efficiency and Management

Investments that help reduce energy consumption or help manage and store energy

- Transportation Electrification (e.g. development of electric vehicles related infrastructure)
- Industrial Efficiency
- Climate change and eco-efficient products, production technologies and process (e.g. energy storage or charging facilities)

Climate Adaptation and Resilience

Investments that help reduce potential damages from extreme weather events

- Flood protection and stormwater management
- Extreme weather resistant infrastructure and other forms of flooding mitigation

Green bond proceeds can also be used to finance the acquisition, including minority equity participation of eligible projects.

Sustainable Finance Framework

In June 2024, under OPG's new Sustainable Finance Framework, net proceeds from sustainable bonds may now finance a broader array of projects and programs including:

- New nuclear projects, such as small modular reactors and large new nuclear, in addition to maintenance or refurbishment of existing facilities.
- Renewable energy projects like hydro refurbishment, solar, wind and hydrogen production.
- Energy efficiency and management solutions such as energy storage and clean fuel storage.
- Clean transportation initiatives such as zero-emissions vehicles, and
- Developing climate adaptation and resilience capabilities for flood protection and extreme weather.

Under the Sustainable Finance Framework, OPG and its subsidiaries may issue Green, Social, Sustainability Bonds, and other debt financing instruments which fund eligible Green and Social Assets/Projects.

2024 Green Bond Offering

In June 2024, OPG's wholly owned LME completed a private placement bond offering with the issuance of $200 million of green bonds under OPG's Green Bond Framework (2021), maturing in June 2054, with a coupon interest rate of 4.69 percent. The net proceeds were used to refinance LME debt maturities in June 2024.

In June 2024, OPG issued $1 billion of green bonds under its Sustainable Finance Framework, through its Medium-Term Note Program. The issuance consisted of $500 million of senior notes maturing in June 2034, with a coupon interest rate of 4.83 percent, and $500 million of senior notes maturing in June 2054, with a coupon interest rate of 4.99 percent. In September 2024, OPG re-opened the June 2024 dual tranche bond issuances under its Medium-Term Note Program for an additional $300 million. The additional green bond issuance consisted of $200 million of senior notes maturing in June 2034, with a coupon interest rate of 4.83 percent, and $100 million of senior notes maturing in June 2054, with a coupon interest rate of 4.99 percent. The net proceeds from the above issuances were used to finance Darlington Refurbishment Project.

Green Bond Management of Proceeds

CICERO Green, in their second-party opinion, note that OPG's management of proceeds are aligned with the International Capital Market Association (ICMA) Green Bond Principles. In addition, Ernst & Young perform a reasonable assurance engagement review annually on the use of proceeds which is published in the Investor Relations section of our website. To date, OPG has used the majority of its green bond proceeds to fund projects that increase or re-invest in OPG's renewable energy generation and/or nuclear energy capacity.

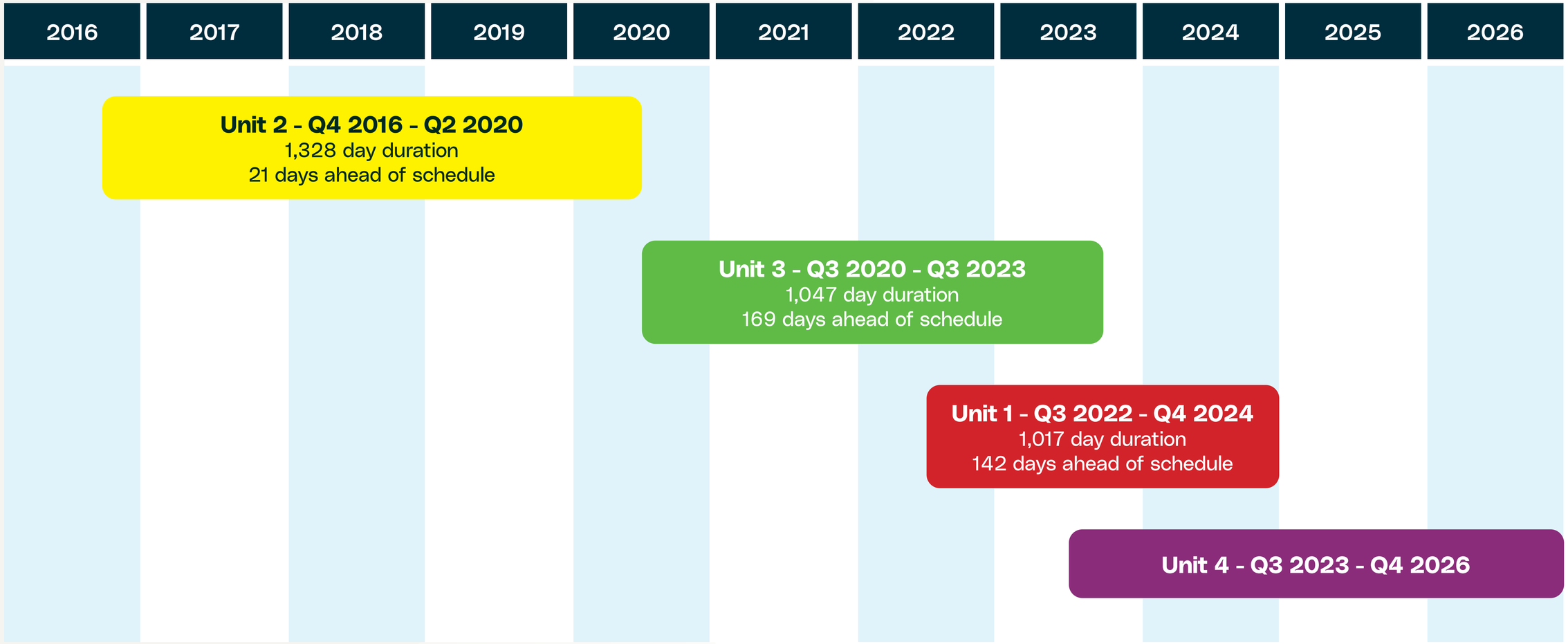
Darlington Refurbishment Project

The Darlington Refurbishment Project is expected to extend the operating life of the four units at the generating station by at least 30 years. The refurbishment of the first unit, Unit 2, was completed in June 2020 and the refurbishment of the second unit, Unit 3, was completed in July 2023, ahead of schedule. On November 27, 2024, following the successful completion of start-up activities, Unit 1 was returned to commercial operations and reconnected to the Ontario electricity power grid. The Darlington Nuclear Generating Station (DNGS) once again has three operating units (Units 1, 2 and 3) – the first time since September 2020.

Unit 4 refurbishment activities are in the Reassembly segment, which includes the installation and reassembly of reactor components, and are progressing as planned. The Reassembly segment is targeted for completion in the third quarter of 2025, with lower feeder installation series currently in progress. Unit 4 is expected to be safely returned to service in 2026.

The Darlington Refurbishment Project is in the final year of its 10-year execution phase, exceeding all safety, quality, schedule, and financial forecasts.

Refurbishment outage schedule



**Project execution schedule reduced unit to unit to drive cost savings*

Green Bond Impact

OPG engaged Sustainalytics to assess the environmental benefits of the projects financed with its green bonds proceeds. Following the assessment , Sustainalytics published the 2024 Green Bond Impact Report.