ONTARIO POWER GENERATION INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

DECEMBER 31, 2024

ONTARIO POWER GENERATION

2024 YEAR-END REPORT

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ONTARIO POWER GENERATION INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis (MD&A) should be read in conjunction with the audited consolidated financial statements and accompanying notes of Ontario Power Generation Inc. and its subsidiaries (OPG or Company) as at and for the year ended December 31, 2024. OPG's consolidated financial statements are prepared in accordance with United States generally accepted accounting principles (US GAAP) and are presented in Canadian dollars, unless otherwise noted.

As required by *Ontario Regulation 395/11*, as amended, a regulation under the *Financial Administration Act* (Ontario), OPG adopted US GAAP for the presentation of its consolidated financial statements, effective January 1, 2012. Since January 1, 2012, OPG has also received exemptive relief from the Ontario Securities Commission (OSC) that allows OPG to apply US GAAP instead of International Financial Reporting Standards (IFRS). In September 2022, the OSC approved an exemption which allows the Company to continue to apply US GAAP up to January 1, 2027. The term of the exemption is subject to certain conditions, which may result in the expiry of the exemption prior to January 1, 2027. For details, refer to the section, *Critical Accounting Policies and Estimates* under the heading, *Exemptive Relief for Reporting under US GAAP*. This MD&A is dated March 4, 2025.

Additional information about OPG, including the Company's Annual Information Form, is available on SEDAR+ at www.sedarplus.com and the Company's website at www.opg.com.

FORWARD-LOOKING STATEMENTS

The MD&A contains forward-looking statements that reflect OPG's current views regarding certain future events and circumstances. Any statement contained in this document that is not current or historical is a forward-looking statement. OPG generally uses words such as "anticipate", "believe", "budget", "foresee", "forecast", "estimate", "expect", "schedule", "intend", "plan", "project", "seek", "target", "goal", "strategy", "may", "will", "should", "could" and other similar words and expressions to indicate forward-looking statements. The absence of any such word or expression does not indicate that a statement is not forward-looking.

All forward-looking statements involve inherent assumptions, risks and uncertainties, including those set out in the section, *Risk Management*, and forecasts discussed in the section, *Core Business and Outlook*. All forward-looking statements could be inaccurate to a material degree. In particular, forward-looking statements may contain assumptions such as those relating to OPG's generating station (GS) performance, availability and operating lives, fuel costs, surplus baseload generation (SBG), fixed asset removal and nuclear waste management obligations and costs, availability of facilities for the permanent disposal of used nuclear fuel and other nuclear waste, performance and earnings of segregated nuclear and OPG pension funds, refurbishment of existing facilities, development and construction of new facilities, acquisition transactions and other business expansion opportunities, performance of acquired businesses, divestiture transactions, defined benefit pension and other post-employment benefit (OPEB) obligations and costs, income taxes, proposed new legislation, government policy including tariffs and other trade restrictions, the ongoing evolution and growth of electricity industries and markets in Ontario, Canada and the United States of America (United States or US), the continued application and renewal of energy supply agreements (ESAs) with the Independent Electricity System Operator (IESO) and other contracts for non-regulated facilities, inflation, interest rates, foreign currency exchange rates, commodity prices, wholesale electricity market prices, environmental and other regulatory requirements, operating licence applications to the Canadian Nuclear Safety Commission (CNSC) and the Federal Energy Regulatory Commission (FERC), health, safety and environmental developments, changes in the Company's workforce, renewal of union collective agreements, business continuity events, the weather, climate change, technological change, geopolitical events, financing requirements and liquidity, funding sources, applications to the Ontario Energy Board (OEB) for regulated prices, the impact of regulatory decisions by the OEB, clean energy investment government programs, forecasts of earnings, cash flow, earnings before interest, income taxes, depreciation and amortization, gross margin, operations, maintenance and administration (OM&A) expenses and project and other expenditures, retention of critical talent, supply chain availability and capacity, and supplier and third party performance. Accordingly, undue reliance should not be placed on any forward-looking statement. The forward-looking statements included in this MD&A are made only as of the date of this MD&A. Except as required by applicable securities laws, OPG does not undertake to publicly update these forward-looking statements to reflect new information, future events or otherwise.

Use of Non-GAAP Financial Measures

The Company uses the following non-GAAP financial performance measures in the MD&A:

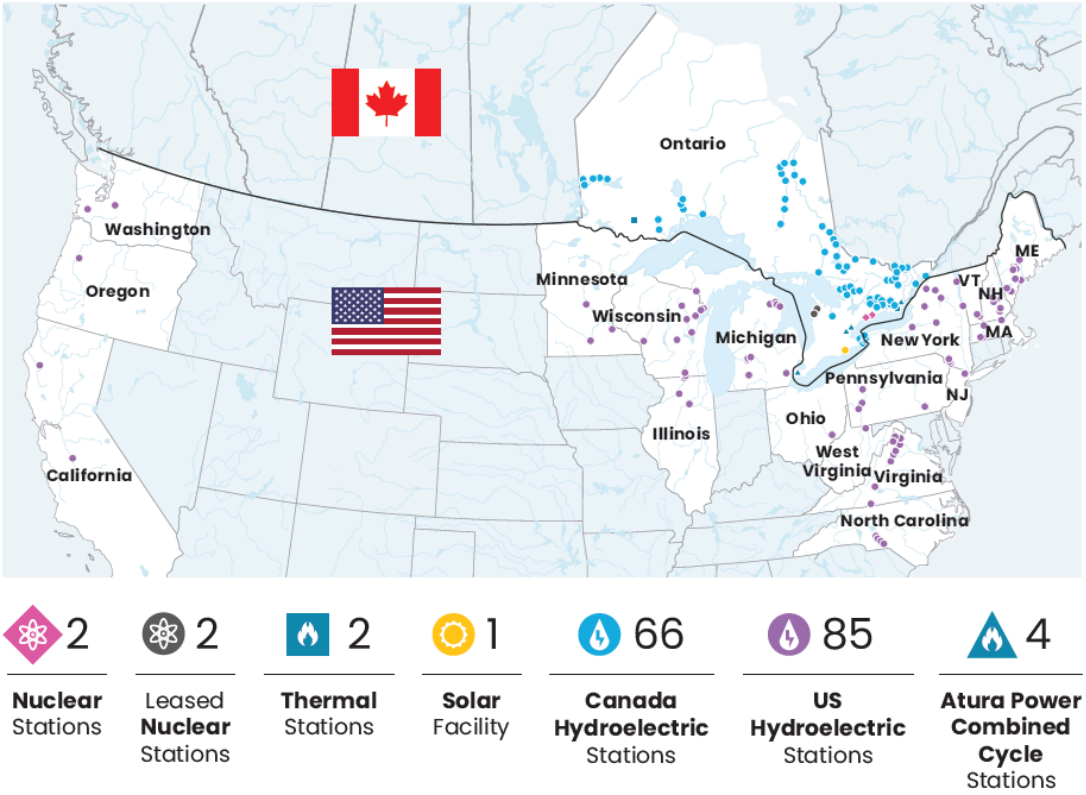
- "Earnings before Interest, Income Taxes, Depreciation and Amortization"; and
- "Gross Margin".

For a detailed description of each of the non-GAAP measures used in this MD&A, refer to the section, *Key Operating Performance Indicators and Non-GAAP Financial Measures*. The non-GAAP financial performance measures set out in this MD&A are intended to provide additional information to investors and do not have any standardized meaning under US GAAP, and therefore may not be comparable to other issuers, and should not be considered in isolation or as a substitute for measures of performance prepared under US GAAP.

THE COMPANY

OPG is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity. OPG was established under the *Business Corporations Act* (Ontario) and is wholly owned by the Province of Ontario (Province or Shareholder). OPG's electricity generation portfolio had an in-service generating capacity of 18,059 megawatts (MW) as at December 31, 2024.

As at December 31, 2024, OPG owned and operated two nuclear generating stations, 66 hydroelectric generating stations, two thermal generating stations, one solar facility and four combined-cycle gas turbine (combined cycle) plants in Ontario, Canada. The combined cycle plants are natural gas-fired facilities owned and operated through the Company's wholly-owned subsidiary operating as Atura Power. Through its US-based wholly-owned subsidiary, OPG Eagle Creek Holdings LLC (Eagle Creek), OPG also wholly or jointly owned and operated 85 hydroelectric generating stations and held minority interests in 14 hydroelectric and two solar facilities in the US as at December 31, 2024. In addition, OPG owned two nuclear generating stations in Ontario, the Bruce A GS and the Bruce B GS, (Bruce nuclear generating stations), which are leased on a long-term basis to, and operated by, Bruce Power L.P. (Bruce Power).

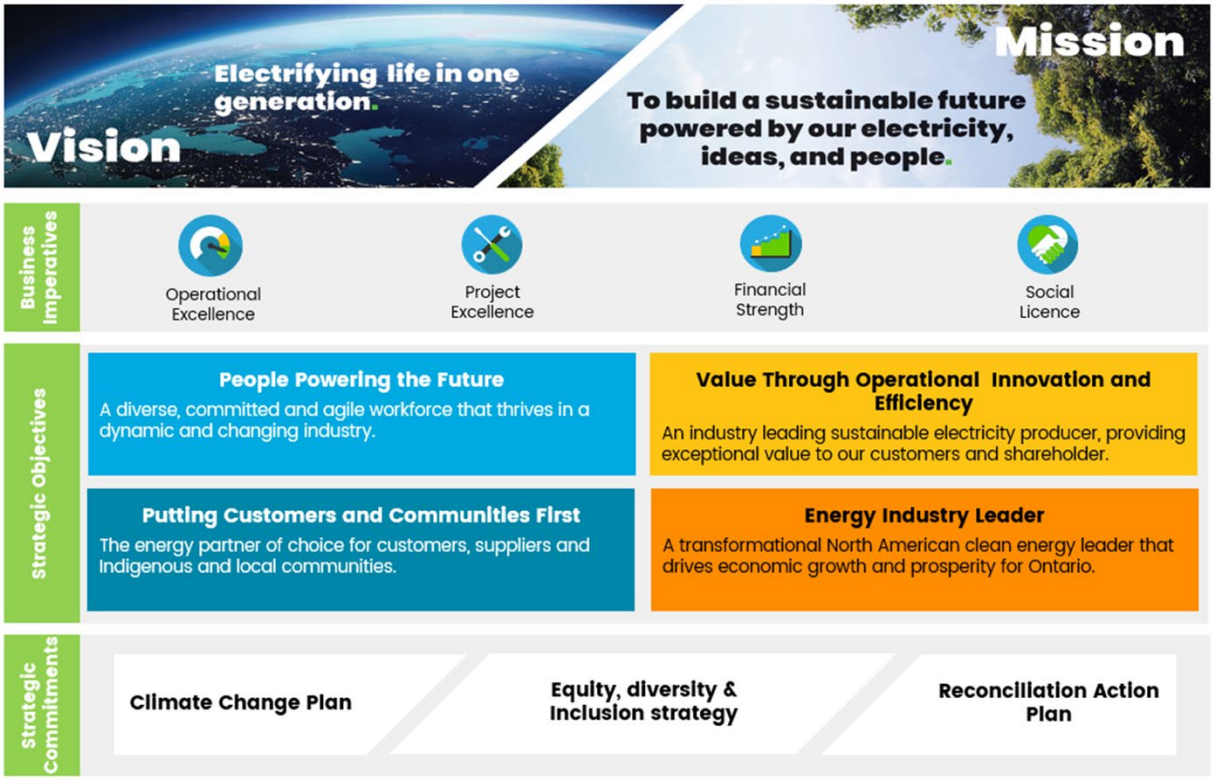


Income from co-owned and minority-held facilities is accounted for using the equity method of accounting. OPG's proportionate share of in-service generating capacity and electricity generation volume from co-owned and minority-held facilities are included in the Company's generation portfolio statistics set out in this MD&A.

Income from the generating stations leased to Bruce Power is included in revenue under the Regulated – Nuclear Generation business segment. The leased stations are not included in the Company's electricity generation and other operating statistics set out in this MD&A.

Corporate Strategy

OPG's mission is to build a sustainable future powered by our electricity, ideas, and people. OPG's vision is to electrify life in one generation. Underpinning OPG's strategic objectives are the Company's commitments in the areas of climate change action, workplace equity, diversity and inclusion (ED&I), and Indigenous reconciliation. The four business imperatives represent the areas in which OPG aims to demonstrate excellence to enable the achievement of its strategic objectives. OPG integrates environmental, social and governance (ESG) principles throughout its corporate strategy and employs ESG considerations in its business conduct and decision-making.



Reporting Structure

The composition of OPG's reportable business segments effective as at December 31, 2024 was as follows:

- Regulated – Nuclear Generation;
- Regulated – Nuclear Sustainability Services;
- Regulated – Hydroelectric Generation;
- Contracted Hydroelectric and Other Generation; and
- Atura Power.

OPG earns regulated prices for electricity generated from most of its Ontario-based hydroelectric facilities and all of the nuclear facilities that it operates (collectively, prescribed facilities or regulated facilities). These Ontario-based regulated facilities comprise 54 hydroelectric generating stations across several major river systems in the province, the Pickering nuclear GS (Pickering GS) and the Darlington nuclear GS (Darlington GS). The operating results related to these facilities are described in the Regulated – Hydroelectric Generation and Regulated – Nuclear Generation business segments. Any small modular reactors (SMRs) at the Darlington New Nuclear project (DNNP) site are also prescribed as regulated facilities by the OEB, and the expenditures related to the development of SMRs are included in the Regulated – Nuclear Generation business segment.

The Regulated – Nuclear Sustainability Services business segment reports the results of the Company's operations associated with the management of used nuclear fuel and low and intermediate level irradiated materials (referred to as low and intermediate level waste or L&ILW), the decommissioning of OPG's nuclear generating facilities, the management of nuclear fixed asset removal and nuclear waste management segregated funds (Nuclear Segregated Funds) and related activities including the inspection and maintenance of used nuclear fuel and L&ILW storage facilities.

OPG's non-regulated generating facilities reported in the Contracted Hydroelectric and Other Generation business segment include 12 hydroelectric generating stations, two thermal generating stations and one solar facility located in Ontario that are operated under ESAs with the IESO or other long-term contracts. Through Eagle Creek, the business segment also includes 85 wholly or jointly owned and operated hydroelectric generating stations located in the United States.

The Atura Power business segment reports the results of Atura Power's operations, which include a fleet of combined cycle plants in Ontario. The fleet comprises the Napanee GS, the Halton Hills GS, the Portlands Energy Centre and the Brighton Beach GS. The facilities operate under ESAs with the IESO. Additionally, the segment includes Atura Power's expenditures on business development projects, including low-carbon hydrogen production, battery energy storage systems and combined cycle plant expansion.

A detailed description of OPG's business segments is provided in the section, *Business Segments*.

In-Service Generating Capacity

OPG's in-service generating capacity by business segment as at December 31 was as follows:

(MW)	**2024**	**2023**
Regulated – Nuclear Generation [1]	**4,698**	4,850
Regulated – Hydroelectric Generation	**6,566**	6,566
Contracted Hydroelectric and Other Generation [2]	**4,080**	4,105
Atura Power	**2,715**	2,715
Total [3]	**18,059**	18,236

[1] The in-service generating capacity as at December 31, 2024 excludes Unit 4 of the Darlington GS, and as at December 31, 2023, excludes Unit 1 and Unit 4 of the Darlington GS. Unit 4 was taken offline for refurbishment in July 2023. Unit 1 was taken offline for refurbishment in February 2022 and returned to service in November 2024. Unit 4 and Unit 1 each have a generating capacity of 878 MW. Additionally, as planned, Unit 1 and Unit 4 of the Pickering GS, each with a generating capacity of 515 MW, ceased commercial operation and were permanently taken offline on October 1, 2024 and December 31, 2024, respectively. As at December 31, 2024, the Darlington GS had three units in service and the Pickering GS had four units in service.

[2] Includes OPG's proportionate share of in-service generating capacity from co-owned and minority shareholdings in electricity generating facilities.

[3] In-service generating capacity represents the portion of installed capacity (the highest level of MW output which a generating unit can maintain indefinitely under reference conditions, without damage to the unit) that has not been removed from service.

The total in-service generating capacity as at December 31, 2024 decreased by 177 MW compared to 2023. The decrease was primarily due to Unit 1 and Unit 4 of the Pickering GS ceasing commercial operation and being permanently taken offline on October 1, 2024, and December 31, 2024, respectively, as planned. The decrease was partially offset by the return to service of Unit 1 of the Darlington GS following refurbishment on November 27, 2024. Additionally, the decrease was also due to a reduction in the Atikokan GS contractual capacity by 25 MW, reflecting the low-pressure turbine derate.

REVENUE MECHANISMS FOR REGULATED AND NON-REGULATED GENERATION

Regulated Generation

The majority of OPG's electricity generation is from the Regulated – Nuclear Generation and Regulated – Hydroelectric Generation business segments. The OEB sets volumetric prices for electricity generated from these Ontario-based nuclear and regulated hydroelectric facilities. The regulated prices are generally designed to permit the Company to recover, over a forecasted generation volume, an allowed level of operating costs and capital investment and to earn a formula-based rate of return on a deemed equity portion (ROE) of the capital invested in the regulated assets, known as rate base. Rate base for OPG represents the average net level of investment in regulated fixed and intangible assets in service and an allowance for working capital. *Ontario Regulation 53/05* under the *Ontario Energy Board Act, 1998* sets out certain requirements the OEB must follow in setting regulated prices for OPG's prescribed facilities. The outcomes of OPG's applications for regulated prices to the OEB determine a large portion of the Company's revenues and can have a significant impact on the Company's financial performance.

The following table presents the OEB-authorized regulated prices for electricity generated from the regulated facilities in Ontario for the period from January 1, 2023 to December 31, 2026 in effect as of the date of this MD&A:

($/MWh)	2023	2024	2025	2026
Regulated – Nuclear Generation				
Base regulated price [1]	107.79	**103.48**	102.85	111.33
Deferral and variance account rate riders [2]	1.25	**4.28**	8.76	12.43
Total regulated price	109.04	**107.76**	111.61	123.76
Regulated – Hydroelectric Generation				
Base regulated price	43.88	**43.88**	43.88	43.88
Deferral and variance account rate riders [2]	1.03	**3.64**	3.30	3.30
Total regulated price	44.91	**47.52**	47.18	47.18

[1] Base regulated prices for the nuclear facilities were established using a rate smoothing approach that defers a portion of approved annual nuclear revenue requirements for future collection in the Rate Smoothing Deferral Account. Base regulated prices for the nuclear facilities do not include amounts deferred in the Rate Smoothing Deferral Account.

[2] Deferral and variance account riders reflect the OEB's January 2022 payment amounts order that authorized recovery and repayment of balances recorded in regulatory deferral and variance accounts as at December 31, 2019, and, effective July 2024, the OEB's June 2024 decision and order that authorized recovery and repayment of balances recorded in regulatory deferral and variance accounts as at December 31, 2022.

Base Regulated Prices

The base regulated prices in effect beginning January 1, 2022 were established by the payment amounts order issued by the OEB in January 2022, reflecting the OEB's decisions on OPG's 2022-2026 application for new regulated prices issued during the second half of 2021. These decisions included approval of a proposed settlement between OPG and intervenors on most of the issues in the application (2021 Settlement Agreement). The regulated prices for the 2022-2026 period support the remainder of the Darlington Refurbishment project, the continued operation of the Pickering GS to the then-planned shutdown dates, and the ongoing operation of the regulated hydroelectric facilities. The OEB's decisions on the application also support the advancement of SMRs at the DNNP site.

The approved regulated prices for the 2022-2026 period were set on the assumption of the continued operation of Units 5 to 8 of the Pickering GS until the end of 2025. Subsequent to the issuance of the January 2022 payment amounts order, in September 2022, the Province announced its support for the continued safe operation of Units 5 to 8 of the Pickering GS until the end of September 2026 and, in December 2022, amended *Ontario Regulation 53/05* to require OPG to establish a variance account to record the additional revenues and costs associated with operating these units between January 1, 2026 and September 30, 2026. The disposition of the account balance will be subject to the OEB's review in a future proceeding. On January 28, 2025, the Province released a proposal for potential amendments to *Ontario Regulation 53/05* intended to clarify the scope of the variance account to ensure that

OPG can record costs incurred beginning in 2024 to retain the capacity and readiness to operate Units 5 to 8 of the Pickering GS upon refurbishment, subject to the requisite approvals. The comment period for the proposal ends on March 14, 2025. Further details on OPG's plan for continued operation of the Pickering GS can be found in the section, *Significant Developments* under the heading, *Project Excellence – Pickering Refurbishment* and *Core Business and Outlook* under the heading, *Operational Excellence – Electricity Generation Production and Reliability*.

Nuclear Base Regulated Prices

The base regulated prices for OPG's nuclear electricity generation (nuclear base regulated price) beginning on June 1, 2017 have been set using a rate smoothing approach that defers a portion of approved annual nuclear revenue requirements for future collection in the Rate Smoothing Deferral Account, with the objective of making more stable changes in OPG's overall production-weighted regulated price year over year during the Darlington Refurbishment project period, consistent with the requirements of *Ontario Regulation 53/05*. The approved nuclear revenue requirement for each year is based on the OEB-allowed level of operating costs and a return of and on rate base, as reduced by a stretch factor amount under the custom incentive regulation framework for the nuclear facilities. In accordance with *Ontario Regulation 53/05*, the nuclear revenue requirement is adjusted by the amount of OPG's revenues, net of costs, from leasing the Bruce nuclear generating stations to Bruce Power, such that OPG's revenues reduce the nuclear revenue requirement and OPG's costs increase it.

Pursuant to the OEB's January 2022 payment amounts order, $64 million of the approved nuclear revenue requirement was deferred in 2023 and none was deferred in 2024 in the Rate Smoothing Deferral Account. No portion of the nuclear revenue requirements will be deferred over the 2025-2026 period. Amounts deferred in the Rate Smoothing Deferral Account are recorded as revenue in the Regulated – Nuclear Generation business segment in the period to which the underlying approved revenue requirement relates. *Ontario Regulation 53/05* requires the OEB to authorize recovery of the deferred amounts, together with interest at a long-term debt rate reflecting OPG's cost of long-term borrowing approved by the OEB, over a period not to exceed ten years following the end of the Darlington Refurbishment project.

Hydroelectric Base Regulated Prices

Pursuant to *Ontario Regulation 53/05*, the base regulated price for OPG's regulated hydroelectric electricity generation (hydroelectric base regulated price) for the period from January 1, 2022 to December 31, 2026 has been set equal to the 2021 hydroelectric base regulated price.

Deferral and Variance Account Rate Riders

Regulatory deferral and variance accounts (regulatory accounts) are typically established by the OEB to capture, for subsequent review and approval, differences between actual costs and revenues and the corresponding forecast amounts approved by the OEB in setting base regulated prices, or to record the impact of items not reflected in the approved base regulated prices. Such accounts generally help to mitigate risks and uncertainties to the regulated entity and its customers. Certain of OPG's regulatory accounts are established as required by *Ontario Regulation 53/05*. Revenue received, or reduced, from the recovery, or repayment, of regulatory account balances is largely offset by the amortization expense of the associated regulatory assets and regulatory liabilities recorded on the consolidated balance sheet. Descriptions of OPG's regulatory accounts can be found in Note 7 of OPG's 2024 audited consolidated financial statements.

The OEB's January 2022 payment amounts order on OPG's 2022-2026 application for new regulated prices approved new rate riders on nuclear and regulated hydroelectric electricity generation, effective January 1, 2022, to recover and repay regulatory account balances as at December 31, 2019.

In December 2023, OPG filed an application with the OEB requesting disposition of regulatory account balances as at December 31, 2022, less amounts previously approved for recovery or repayment of the regulatory account balances. In June 2024, the OEB issued a decision and order approving a proposed complete settlement on the application reached by OPG and intervenors (2024 Settlement Agreement), with resulting incremental rate riders on nuclear and regulated hydroelectric electricity generation effective July 1, 2024. The 2024 Settlement Agreement is discussed further in the section, *Significant Developments* under the heading, *Financial Strength – OPG's Application with the OEB for Disposition of Deferral and Variance Accounts*.

Non-Regulated Generation

All of OPG's non-regulated generating assets in Ontario are subject to ESAs with the IESO. As of December 31, 2024, the contracts for Ontario-based generating assets had the following expiration dates:

Generating Facility	Generation Type	Term	Contract Expiry Date
Brighton Beach GS [1]	Natural Gas	10 years	July 2034
Atikokan GS [2]	Biomass	5 years	July 2029
Lennox GS	Oil or Natural Gas	7 years	April 2029
Portlands Energy Centre [3]	Natural Gas	20 years	April 2029
Halton Hills GS	Natural Gas	25 years	April 2035
Nanticoke solar facility	Solar	20 years	March 2039
Napanee GS	Natural Gas	20 years	March 2040
Lac Seul and Ear Falls generating stations	Hydroelectric	50 years	February 2059
Healey Falls GS	Hydroelectric	50 years	April 2060
Sandy Falls, Wawaitin, Lower Sturgeon and Hound Chute generating stations	Hydroelectric	50 years	December 2060
Little Long, Harmon, Smoky Falls and Kipling generating stations [4]	Hydroelectric	50 years	January 2064
Peter Sutherland Sr. GS	Hydroelectric	50 years	March 2067

[1] The facility operated under an energy conversion agreement with Shell Energy North America (Canada) Inc. until July 15, 2024. Effective July 16, 2024, the facility operates under a new ESA with the IESO for a term of 10 years.

[2] In September 2024, OPG and the IESO entered into an amended and restated ESA for the Atikokan GS, extending the contract expiry to July 2029.

[3] The ESA includes an option for Atura Power or the IESO to exercise, in 2028, an extension of the contract expiry by five years under certain conditions.

[4] These facilities are also known as the Lower Mattagami generating stations.

The majority of the generating assets located in the US, and owned by Eagle Creek, earn revenue through the supply of energy and capacity into wholesale electricity markets, with a number of the generating facilities earning revenue under energy and capacity contracts, with expiry dates ranging from 2025 to 2043.

HIGHLIGHTS

Overview of Results

This section provides an overview of OPG's operating results for the years ended December 31, 2024 and December 31, 2023. A discussion of OPG's performance by business segment can be found in the section, *Discussion of Operating Results by Business Segment*.

(millions of dollars – except where noted)	**2024**	**2023**
Revenue	**7,187**	7,434
Fuel expense	**1,049**	974
Operations, maintenance and administration expenses	**3,318**	3,136
Depreciation and amortization expenses	**1,270**	1,071
Accretion on fixed asset removal and nuclear waste management liabilities	**1,221**	1,178
Earnings on nuclear fixed asset removal and nuclear waste management funds	**(1,102)**	(1,057)
Other net expenses (gains)	**69**	(66)
Earnings before interest and income taxes	**1,362**	2,198
Net interest expense	**186**	103
Income tax expense	**170**	336
Net income	**1,006**	1,759
Net income attributable to the Shareholder	**988**	1,741
Net income attributable to non-controlling interest [1]	**18**	18
Electricity generation (TWh) [2]	**82.1**	80.9
Cash flow provided by operating activities	**2,211**	2,538
Capital expenditures [3]	**3,725**	2,829
Earnings (loss) before interest and income taxes by segment		
Regulated – Nuclear Generation	**337**	1,046
Regulated – Hydroelectric Generation	**584**	576
Contracted Hydroelectric and Other Generation	**242**	288
Atura Power	**276**	356
Total electricity generating business segments	**1,439**	2,266
Regulated – Nuclear Sustainability Services	**(108)**	(110)
Other	**31**	42
Earnings before interest and income taxes	**1,362**	2,198

[1] Relates to the following: 25 percent interest of Amisk-oo-Skow Finance Corporation, a corporation wholly owned by the Moose Cree First Nation, in Lower Mattagami Limited Partnership; 33 percent interest of Coral Rapids Power Corporation, a corporation wholly owned by the Taykwa Tagamou Nation, in PSS Generating Station Limited Partnership; 15 percent interest and 5 percent interest of corporations wholly owned by Six Nations of Grand River Development Corporation and the Mississaugas of the Credit First Nation, respectively, in Nanticoke Solar LP; and non-controlling interests in certain electricity generating facilities in the United States.

[2] Includes OPG's proportionate share of electricity generation from co-owned and minority-held facilities.

[3] Includes net changes in accruals; excludes the acquisition of the new corporate headquarters building and surrounding lands at 1908 Colonel Sam Drive in Oshawa, Ontario in February 2023.

Net income attributable to the Shareholder was $988 million for 2024, representing a decrease of $753 million compared to 2023. Earnings before interest and income taxes were $1,362 million for 2024, representing a decrease of $836 million compared to 2023.

Significant factors that decreased earnings before interest and income taxes (EBIT):

- Net decrease in revenue of $470 million from the Regulated – Nuclear Generation business segment, as a result of lower electricity generation of 3.1 terawatt hours (TWh) and a lower nuclear base regulated price in effect during 2024. The lower electricity generation was expected and primarily due to higher planned outage days at the Darlington GS from a planned cyclical maintenance outage on the station's Unit 2 in the first half of 2024 and the cessation of commercial operation of Unit 1 of the Pickering GS on October 1, 2024, partially offset by fewer planned outage days at the Pickering GS. An increase in revenue reflecting the impact of the new rate riders for disposition of regulatory accounts under the OEB's June 2024 decision and order approving the 2024 Settlement Agreement, effective July 1, 2024, was largely offset by a corresponding increase in the amortization expense of regulatory assets and regulatory liabilities recorded for regulatory account balances;

- Higher depreciation and amortization expenses of $101 million from the Regulated – Nuclear Generation business segment, excluding amortization expense related to the recovery and repayment of OEB-authorized regulatory account balances, primarily due to higher depreciation expense recognized from placing capital in service, including the return to service of Unit 3 and Unit 1 of the Darlington GS following refurbishment in July 2023 and November 2024, respectively, and lower amounts of depreciation expense recorded as recoverable from customers through regulatory accounts;

- Higher OM&A expenses of $64 million from the Regulated – Nuclear Generation business segment, largely due to expected higher expenditures related to the cyclical maintenance activities and other planned maintenance work executed as a result of higher planned outage days at the Darlington GS, partially offset by lower expenses due to fewer planned outage days at the Pickering GS. Increased compensation expenses recognized in the fourth quarter of 2024 as a result of the ratification of a three-year renewal collective agreement between the Power Workers' Union (PWU) and OPG in November 2024 were offset by the higher compensation expenses recognized in the second quarter of 2023 related to the impact on OPG's collective agreements of the Ontario Superior Court's decision that found unconstitutional provincial legislation that set limits on compensation increases for employees in the Ontario public sector (Bill 124 Court Decision) and the OEB's subsequent decisions issued in 2023 that denied OPG's request for a regulatory account to record these cost impacts. The renewal collective agreement with the PWU reached in 2024 is discussed further in the section, *Significant Developments* under the heading, *Financial Strength – Power Workers' Union Collective Agreement* and the Bill 124 Court Decision is discussed further in the section, *Core Business and Outlook* under the heading, *Financial Strength – Ontario Court Bill 124 Decision*; and

- Lower other net gains of $135 million, primarily due to the release of a previously recognized contingent liability in the fourth quarter of 2023 under a 2021 settlement agreement related to an acquisition of combined cycle plants, a gain recognized in the second quarter of 2023 related to the sale of certain premises located at 800 Kipling Avenue in Toronto, Ontario in October 2022, and a loss recorded in the second quarter of 2024 in connection with the OEB's decision and order approving the 2024 Settlement Agreement.

Net interest expense increased by $83 million in 2024, compared to 2023, primarily due to a higher amount of interest recorded as recoverable from customers through regulatory accounts in 2023 and higher interest on the Company's long-term debt due to bond issuances during 2024.

Income tax expense decreased by $166 million in 2024, compared to 2023. The decrease was primarily due to the impact of lower earnings before income taxes in 2024 and certain tax adjustments recorded in 2023.

Electricity Generation

Electricity generation for the years ended December 31 was as follows:

(TWh)	2024	2023
Regulated – Nuclear Generation	**33.0**	36.1
Regulated – Hydroelectric Generation	**32.5**	31.4
Contracted Hydroelectric and Other Generation [1]	**5.0**	5.2
Atura Power	**11.6**	8.2
Total OPG electricity generation	**82.1**	80.9

[1] Includes OPG's proportionate share of electricity generation from co-owned and minority shareholdings in electricity generating facilities.

Total OPG electricity generation increased by 1.2 TWh in 2024, compared to 2023, primarily due to higher electricity generation from the Atura Power and the Regulated – Hydroelectric Generation business segments, partially offset by lower electricity generation from the Regulated – Nuclear Generation business segment.

Electricity generation from the Regulated – Nuclear Generation business segment decreased by 3.1 TWh in 2024, compared to 2023. The decrease was primarily due to higher planned and unplanned outage days at the Darlington GS and the cessation of commercial operation of Unit 1 of the Pickering GS on October 1, 2024, partially offset by fewer planned outage days at the Pickering GS. Unit 4 of the Pickering GS ceased commercial operation and was permanently taken offline on December 31, 2024.

The increase in electricity generation of 1.1 TWh from the Regulated – Hydroelectric Generation business segment in 2024, compared to 2023, was mainly due to higher electricity generation at the hydroelectric facilities in the Niagara region as a result of less production forgone due to SBG conditions reflecting higher electricity demand, and higher water flows across most of Ontario.

Electricity generation from the Contracted Hydroelectric and Other Generation business segment in 2024 was comparable to 2023.

Electricity generation from the Atura Power business segment increased by 3.4 TWh in 2024, compared to 2023, primarily due to higher demand for electricity generation from the combined cycle plants.

Ontario's electricity demand as reported by the IESO was 140.4 TWh in 2024, compared to 137.1 TWh in 2023, excluding electricity exports out of the province.

Power that is surplus to the Ontario market is managed by the IESO, mainly through generation reductions at hydroelectric and certain nuclear generating stations, and other grid-connected renewable resources. Baseload generation surplus in Ontario was lower in 2024, compared to 2023. Production forgone at OPG's regulated hydroelectric stations due to SBG conditions was 0.4 TWh in 2024 and 1.0 TWh in 2023. The gross margin impact of production forgone at OPG's regulated hydroelectric stations due to SBG conditions was offset by the impact of a regulatory account authorized by the OEB. OPG did not forgo any electricity production at its nuclear generating stations due to SBG conditions.

Cash Flow from Operations

Cash flow provided by operating activities during 2024 was $2,211 million, compared to $2,538 million for 2023. The decrease was primarily due to lower revenue receipts from the Regulated – Nuclear Generation business segment and higher OM&A expenditures, largely offset by lower income tax installment payments and higher revenue receipts from the Regulated – Hydroelectric Generation business segment.

Capital Expenditures

Capital expenditures for the years ended December 31 were as follows:

(millions of dollars)	**2024**	**2023**
Regulated – Nuclear Generation – Darlington Refurbishment Project	**988**	974
Regulated – Nuclear Generation – Pickering Refurbishment and DNNP	**943**	251
Regulated – Nuclear Generation – Excluding Darlington Refurbishment Project, Pickering Refurbishment Project and DNNP	**604**	634
Regulated – Hydroelectric Generation	**434**	370
Contracted Hydroelectric and Other Generation	**220**	313
Atura Power	**382**	148
Other [1]	**154**	139
Total capital expenditures [2]	**3,725**	2,829

[1] Excludes the acquisition of the new corporate headquarters building and surrounding lands at 1908 Colonel Sam Drive in Oshawa, Ontario in February 2023.
[2] Includes net changes in accruals.

Total capital expenditures increased by $896 million in 2024, compared to 2023, primarily due to higher expenditures for the Regulated – Nuclear Generation business segment.

Capital expenditures for the Darlington Refurbishment project in 2024 were comparable to 2023.

Capital expenditures for the Pickering Refurbishment project and DNNP increased by $692 million in 2024, compared to 2023. The increase was due to expenditures on pre-execution phase refurbishment activities for Units 5 to 8 of the Pickering GS and higher expenditures for site preparation, procurement and other ongoing development activities for SMRs at the DNNP site. Further details on the continued operation plan for the Pickering GS and the DNNP can be found in the section, *Significant Developments* under the headings, *Project Excellence – Pickering Refurbishment* and *Project Excellence – Darlington New Nuclear Project,* respectively.

Excluding the Darlington Refurbishment project, Pickering Refurbishment project and DNNP, capital expenditures for the Regulated – Nuclear Generation business segment decreased by $30 million in 2024, compared to 2023. The decrease was mainly due to lower expenditures for the replacement of primary moisture separators, a component of steam generators, at the Darlington GS. Further details on the primary moisture separators at the Darlington GS can be found in the section, *Core Business and Outlook* under the heading, *Operational Excellence – Electricity Generation Production and Reliability*.

Capital expenditures for the Regulated – Hydroelectric Generation business segment increased by $64 million in 2024, compared to 2023. The increase was primarily due to higher expenditures on redevelopments of hydroelectric generating stations as well as the ongoing refurbishment program and concrete rehabilitation work across the hydroelectric fleet.

Capital expenditures for the Contracted Hydroelectric and Other Generation business segment decreased by $93 million in 2024, compared to 2023. The decrease was primarily due to lower expenditures on the Little Long Dam Safety project, with all gates placed in service in the third quarter of 2023, and lower expenditures on the Smoky Falls Dam Safety project, with the two new sluicegates placed in service in the first quarter of 2024.

Capital expenditures for the Atura Power business segment increased by $234 million in 2024, compared to 2023. The increase was primarily due to higher expenditures for overhaul activities at existing combined cycle plant facilities, expenditures for the expansion of the combined cycle plant at the Napanee GS under a long-term agreement with the IESO executed in June 2024, higher expenditures on the development of a battery energy storage system at the Napanee GS site (Napanee BESS) under a long-term agreement with the IESO executed in 2023, and higher expenditures for the advancement of the Niagara Hydrogen Centre (NHC), a low-carbon hydrogen development

project. Further details on the project to expand the combined cycle plant at the Napanee GS can be found in the section, *Significant Developments* under the heading, *Napanee Combined Cycle Generating Station Expansion*.

Capital expenditures for the Other category in 2024 were comparable to 2023.

Further details on the Company's major projects can be found in the section, *Core Business and Outlook* under the heading, *Project Excellence.*

SIGNIFICANT DEVELOPMENTS

Project Excellence

Pickering Refurbishment

On January 23, 2025, the Province announced its approval of OPG's plan to proceed with the project definition phase as the next step toward refurbishing Units 5 to 8 of the Pickering GS. OPG Board of Directors' (Board) approved budget for this work is $4.1 billion, bringing the total Board-approved budget for the project to date to $6.2 billion. During the definition phase, OPG will complete a high-quality cost estimate and schedule for the project, progress detailed engineering, further procurement and contracting work, continue to optimize project scope, and develop the project execution plan. The definition phase is expected to last through 2026. In preparing for refurbishment, OPG has entered into a contract with CanAtom, a joint venture of Aecon Group Inc. and AtkinsRéalis, for early engineering and procurement in support of the re-tube feeder and boiler replacement program, which will represent a majority of the critical path execution schedule.

Once refurbished, the Pickering GS would continue to provide over 2,000 MW of baseload generating capacity, equivalent to powering approximately two million homes, to help meet Ontario's demand for electricity. The refurbishment is anticipated to be completed by the mid-2030s.

Further details on the continued operation plan for the Pickering GS can be found in the section, *Core Business and Outlook* under the heading, *Operational Excellence – Electricity Generation Production and Reliability*.

Darlington Refurbishment

On November 27, 2024, following the successful completion of start-up activities, the refurbished Unit 1 of the Darlington GS was reconnected to the electricity grid, ahead of the original schedule. The return to service of Unit 1 represents another significant milestone in OPG's path toward ensuring that the four-unit Darlington GS can continue to provide at least another 30 years of cost effective, reliable and clean energy for Ontario. Unit 1 provides 878 MW of baseload electricity generating capacity in the province.

The Unit 4 refurbishment is executing the third major segment, Reassembly, which includes the installation and reassembly of reactor components. The installation of calandria tubes was successfully completed in January 2025, and the installation of fuel channels and lower feeders is in progress. Unit 4 is scheduled to be returned to service in 2026. The ongoing refurbishment of Unit 4 incorporates the benefits of experience with the completed refurbishments of Unit 2, Unit 3 and Unit 1, and additional strategic improvements.

The Darlington Refurbishment project is discussed further in the section, *Core Business and Outlook* under the heading, *Project Excellence*.

Darlington New Nuclear Project

OPG continues to advance the DNNP with the goal of deploying Canada's first grid-scale SMR by the end of the decade, using the BWRX-300 reactor plant technology. As announced by the Province in July 2023, OPG has also initiated planning and licensing for three additional SMRs at the DNNP site. Pending the Province and regulatory approvals for the construction of the units, the DNNP's total generating capacity is expected to reach approximately 1,200 MW. The projected in-service dates for the three additional SMRs are in the mid-2030s.

The DNNP is currently in the definition phase, which includes activities such as progressing detailed engineering, completing construction planning, procuring long-lead items and completing site preparation activities. In June 2024 and November 2024, respectively, the project completed the tunnel boring machine launch shaft retaining wall for the condenser cooling water system and the reactor building shaft retaining wall. Site preparation activities necessary for the start of construction for the first SMR have been substantially completed. OPG is continuing to progress planning and procurement of long-lead items such as the fabrication of the reactor pressure vessel (RPV). The RPV is the core of a nuclear generating station design, acting as the primary pressure vessel and integrated steam generator providing natural circulation for safe and efficient electricity generation.

OPG's DNNP site preparation licence approved by the CNSC expires in October 2031. In October 2022, OPG submitted the Licence to Construct application to the CNSC for the first SMR at the DNNP site. The first CNSC public hearing took place in January 2024, with the focus on the applicability of the DNNP environmental assessment (EA) to the BWRX-300 technology. In April 2024, the CNSC announced its decision that the existing EA for the DNNP is applicable to the BWRX-300 technology. The CNSC held the two-part second public hearing to consider OPG's Licence to Construct application in October 2024 and January 2025, with the CNSC's decision on the application currently pending.

Redevelopment of Hydroelectric Generating Stations

OPG has commenced the execution of three projects to redevelop existing hydroelectric generating stations in Ontario that are approaching the end of their operational lives. The redevelopments will generally involve construction of new powerhouses or powerhouse extensions, replacement of turbine and generator units and supporting systems, and replacement or rehabilitation of other structures at the stations. The redevelopments are expected to ensure continued safe and reliable operations of the assets for approximately an additional 80 to 90 years.

In November 2024, OPG initiated the execution phase of a project to redevelop the Kakabeka Falls GS, the second oldest generating station in OPG's Ontario-based hydroelectric fleet, located along the Kaministiquia River in northwestern Ontario. The project will involve construction of a new powerhouse extension, replacement of the surge system, and replacement of the penstocks. The redeveloped station is expected to have a generating capacity of approximately 27 MW. The project's expected in-service date is 2028, with an approved budget of $519 million.

During the fourth quarter of 2024, OPG initiated the execution phase of a project to redevelop the Coniston and Stinson hydroelectric generating stations, located along the Wanapitei River east of Sudbury, Ontario. The redeveloped stations are expected to have a combined generating capacity of approximately 12 MW. The project's expected in-service date is 2027, with a combined approved budget of $178 million.

The above hydroelectric generating stations are reported in the Regulated – Hydroelectric Generation business segment.

Napanee Combined Cycle Generating Station Expansion

In June 2024, Atura Power entered a long-term agreement with the IESO for the expansion of the combined cycle plant at the Napanee GS. The project will add an additional combustion turbine generator unit at the Napanee GS site, providing up to 405 MW of electricity output to Ontario's electricity grid. The project was selected through the IESO's long-term procurement process, which sought 918 MW of non-storage capacity to support the province's growing electricity system needs. Engineering, design and permitting activities are progressing on schedule, with procurement of critical equipment completed. The construction is expected to commence in 2025, with the facility projected to be in service in 2028 under a 12-year capacity agreement. Atura Power's development projects are discussed further in the section, *Core Business and Outlook* under the heading, *Project Excellence – Atura Power Development Projects*.

Exploring Community Interest in New Electricity Generation Opportunities

In November 2024, the Province requested OPG to proceed with discussions with Indigenous and municipal leaders on its existing Ontario sites in Port Hope (Wesleyville site), Haldimand Country (Nanticoke site) and St. Clair Township (Lambton site) to determine interest in exploring new electricity generation opportunities, including nuclear energy generation. This followed the release of the Province's *Ontario's Affordable Energy Future: The Pressing Case for More Power* document and subsequent introduction of the *Affordable Energy Act, 2024* (Bill 214) in October 2024, which together outlined the Province's vision for meeting the increasing demand for energy in Ontario. Also in October 2024, the IESO announced an updated forecast showing that Ontario's electricity demand for energy would grow by 75 percent leading up to 2050, with annual consumption rising from 151 TWh in 2025 to 263 TWh in 2050. Early community engagement is a critical step to advancing any new electricity generation projects.

The Wesleyville site had previously undergone partial development for an electricity generation facility. The Nanticoke and Lambton sites formerly hosted OPG's coal-fired generating stations that have now been decommissioned. All three sites are zoned for electricity generation and have proximity to transmission infrastructure.

In January 2025, with First Nations' willingness to enter discussions and following a formal expression of interest from Town of Port Hope, the Province requested OPG to explore opportunities for new nuclear energy generation at the Wesleyville site. Based on OPG's early assessment, the Wesleyville site could host up to 10,000 MW of new nuclear energy generation, which could power the equivalent of approximately ten million homes. OPG will work with local communities and First Nations to determine their support for a potential project as part of the exploration process.

Operational Excellence

Refurbishment of Hydroelectric Generating Stations

OPG has announced and is progressing the execution of refurbishment projects across multiple hydroelectric generating stations in Ontario, ensuring their continued reliable operations to deliver decades of renewable electricity and help meet the province's energy needs.

In April 2024, OPG announced a refurbishment project at the Sir Adam Beck generating complex along the Niagara River. The project involves the refurbishment of up to 25 generating units and is expected to increase the generating capacity of the existing stations by approximately 50 MW, ensuring the continued delivery of up to 1,700 MW of electricity. The refurbishment work is expected to continue over the next 15 years.

In May 2024, OPG announced it is advancing the refurbishment of R.H. Saunders GS, located on the St. Lawrence River. The project involves the refurbishment of 16 generating units, ensuring the continued delivery of up to 1,045 MW of electricity. The refurbishment work is expected to continue over the next 16 years.

In June 2024, OPG announced the refurbishment of eight hydroelectric generating stations located on the Madawaska River and the Ottawa River in Eastern Ontario. The work involves the refurbishment of 45 generating units, ensuring the continued delivery of up to approximately 1,600 MW of electricity. The refurbishment work is expected to continue over the next 20 years.

In January 2025, the Province announced its support to OPG's plan to refurbish and expand a number of hydroelectric generating stations in Northern Ontario. The work will ensure the continued delivery of up to 830 MW of electricity. The projects are expected to continue over the next ten years.

All of the above generating stations are reported in the Regulated – Hydroelectric Generation business segment.

Power Workers' Union Collective Agreement

The governing two-year collective agreement between the PWU and OPG expired on March 31, 2024. On November 20, 2024, the PWU membership ratified a three-year renewal collective agreement negotiated by the parties, covering the period from April 1, 2024 to March 31, 2027. The collective agreement provides for annual wage increases beginning April 1, 2024, and a lump sum payment to active employees effective November 20, 2024, and includes impacts arising in connection with the Bill 124 Court Decision. In 2023, the OEB denied OPG's request for a regulatory account to record compensation cost impacts attributable to the nuclear facilities as a result of the Bill 124 Court Decision. For the year ended December 31, 2024, OPG recognized compensation expenses of $90 million resulting from the ratification of the renewal collective agreement with the PWU.

For further details on the Company's collective agreements, refer to the section, *Liquidity and Capital Resources* under the heading, *Contractual Obligations – Collective Agreements.* The Bill 124 Court Decision is discussed further in the section, *Core Business and Outlook* under the heading, *Financial Strength – Ontario Court Bill 124 Decision.*

Financial Strength

OPG's Application with the OEB for Disposition of Deferral and Variance Accounts

In December 2023, OPG filed an application with the OEB requesting disposition of regulatory account balances as at December 31, 2022, less amounts previously approved for recovery or repayment of the regulatory account balances as of December 31, 2019, through incremental rate riders on nuclear and regulated hydroelectric electricity generation. The application also addressed the anticipated impacts from the Market Renew Program, an IESO initiative to redesign Ontario's electricity markets, on OPG's regulated facilities.

In the second quarter of 2024, OPG and intervenors in the proceeding reached a proposed complete settlement on OPG's application. On June 13, 2024, the OEB issued a decision and order approving the 2024 Settlement Agreement, providing for the recovery of a net total of $481 million in connection with amounts recorded in OPG's regulatory accounts and associated income tax impacts, which represented a reduction of $22 million from the amounts sought in OPG's application. This included the resolution of the parties' positions with respect to whether any of the net proceeds from OPG sale of certain premises at 800 Kipling Avenue in Toronto, Ontario received in 2022 should be credited to ratepayers. The balances agreed by the parties are being recovered or repaid effective July 1, 2024 over a period of 30 months. The associated income tax impacts included for recovery were previously recorded as part of the regulatory asset for deferred income taxes. The 2024 Settlement Agreement also provides for regulatory mechanisms to address the anticipated impacts from the IESO's Market Renewal Program on OPG's regulated facilities until the effective date of base regulated prices arising from OPG's next application with the OEB, as part of which any of the parties may take a different position on such mechanisms on a prospective basis. In the second quarter of 2024, the Company recorded a loss of $25 million in connection with the OEB's decision and order on the 2024 Settlement Agreement. Revenue received from the recovery of regulatory account balances is largely offset by amortization expense of regulatory assets and regulatory liabilities recorded for these balances.

Further details on the Market Renewal Program can be found in the section, *Risk Management* under the heading, *Risks to Maintaining Financial Strength – Electricity Markets*.

Green Bonds

On June 7, 2024, OPG's wholly-owned Lower Mattagami Energy Limited Partnership (LME) completed a private placement bond offering with the issuance of $200 million of green bonds, 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 released its Sustainable Finance Framework, which replaced OPG's Green Bond framework and includes a broader array of eligible projects and programs such as SMRs, large new nuclear projects, low-carbon hydrogen, battery energy storage and social projects, in recognition of the demand for clean electricity and OPG's commitment to advancing economic Reconciliation with Indigenous Nations and communities.

On June 28, 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.

On September 11, 2024, OPG re-opened the June 28, 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 or re-finance Eligible Green Projects as defined under the Sustainable Finance Framework.

Acquisition of Lightstar Renewables LLC and Lightstar Operations One LLC

On January 31, 2024, OPG, under Eagle Creek, acquired 100 percent of the equity in Lightstar Renewables LLC and Lightstar Operations One LLC (collectively, Lightstar). Lightstar engages in the business of development, construction and operation of community solar generation projects in the United States, and is included in the Contracted Hydroelectric and Other Generation business segment. Total purchase consideration was $163 million (US$121 million). The identifiable assets acquired, with a fair value of $125 million, mainly comprised construction-in-progress property, plant and equipment and intangible assets pertaining to solar development projects.

President and CEO Announcement

In November 2024, OPG's Board announced Ken Hartwick's decision to retire as President and Chief Executive Officer (CEO) at the end of 2024 after nearly nine years with the Company. In line with OPG's leadership succession plan, the Board appointed Nicolle Butcher as President and CEO effective January 1, 2025. The appointment of Nicolle Butcher reflects the Company's commitment to strong leadership and strategic succession planning. With more than 25 years at OPG, Nicolle Butcher brings significant experience in managing one of North America's largest and most diverse electricity generating fleets, having most recently served as the Company's Chief Operations Officer, alongside her expertise in corporate business growth and development, and commercial business functions. The handover of responsibilities from Ken Hartwick to Nicolle Butcher was undertaken in line with a plan in place to ensure a seamless transition.

CORE BUSINESS AND OUTLOOK

Operational Excellence

Operational excellence at OPG is demonstrated through the safe, reliable and cost-effective generation of electricity from the Company's assets, by a highly trained and engaged workforce. Workplace health and safety and public safety are overriding priorities in all activities performed at OPG.

Electricity Generation Production and Reliability

Key strategic initiatives and developments in support of operational excellence, specific to each of OPG's core generating operations, are discussed below. Generation and reliability performance for 2024 is discussed by business segment in the section, *Discussion of Operating Results by Business Segment*.

Nuclear Operations

OPG is pursuing initiatives aimed at maximizing the safe and reliable operating life of the Pickering GS and targeting sustained high levels of performance at the Darlington GS over its post-refurbishment life. OPG is also focused on increasing electricity generation output from these nuclear generating stations by continuing to improve plant reliability and optimizing the planning and execution of outage and project work. OPG seeks to prioritize and optimize maintenance and project activities across the nuclear generating fleet by leveraging advancements in monitoring and diagnostic tools to enhance asset condition assessments. Establishing challenging performance targets based on comprehensive benchmarking and taking into account the operating environment of the stations continues to be a vital part of OPG's strategy to support these goals and ensure consistently strong financial performance of the Regulated – Nuclear Generation business segment.

The CNSC issues an annual report on the regulatory oversight and safety performance for nuclear power generating sites. The report assesses how well licensees are meeting regulatory requirements and program expectations in areas such as human performance, radiation and environmental protection, and emergency management and fire protection at Canada's nuclear power plants and waste management facilities. The most recent annual report, for the 2023 year, was issued by the CNSC in the fourth quarter of 2024. In the CNSC's 2023 report on OPG's nuclear safety performance, CNSC staff determined that all 14 Safety and Control Areas for the Darlington GS, Pickering GS, and the Darlington, Pickering and Western waste management facilities met CNSC staff's expectations.

On June 6, 2023, the Federal Court of Canada (Federal Court) endorsed the CNSC's move to require pre-placement and random alcohol and drug testing of workers in safety-critical positions, as mandated by the CNSC's approved regulatory document *REGDOC 2.2.4 – Fitness for Duty, Vol. II: Managing Alcohol and Drug Use* (version 3) (REGDOC 2.2.4) for use at Canadian high-security nuclear sites in November 2020. The requirements outlined in REGDOC 2.2.4 ensure that Canada is in line with the international best practices for the operation of high-security nuclear facilities. On July 11, 2023, the PWU and the Society of United Professionals (Society) filed a motion to appeal the Federal Court's June 6, 2023 decision, and a motion to stay the implementation of the pre-placement and random alcohol and drug testing regimes, pending the outcome of the appeal. On October 27, 2023, the stay motion was granted, and all licensees were restricted from implementing such testing pending the final disposition of the appeal, which was heard in January 2024. On November 6, 2024, the Federal Court of Appeal upheld the Federal Court's June 6, 2023 ruling. The unions are seeking leave to appeal the matter to the Supreme Court of Canada.

Pickering GS

OPG's plan to optimize the end of operations dates for the Pickering GS includes operating Units 5 to 8 until the end of September 2026, prior to the planned refurbishment, subject to the requisite approvals. In June 2023, OPG submitted an application to the CNSC to continue operations of Units 5 to 8 of the Pickering GS through 2026. In connection with this objective, OPG has continued to perform additional technical analysis and inspections to confirm fitness-for-service of fuel channels and other major station components in support of the station's planned end-of-life dates. Following a public hearing in June 2024, the CNSC announced in October 2024 its decision to amend the existing operating licence for the Pickering GS, authorizing the operation of Units 5 to 8 until the end of 2026.

As planned, Unit 1 and Unit 4 of the Pickering GS ceased commercial operation and were permanently taken offline on October 1, 2024 and December 31, 2024, respectively, after over 50 years of service. Following the end of commercial operation, Unit 1 and Unit 4 are being placed in a safe storage state under the existing operating licence for the Pickering GS. This involves defueling the reactors, removing all heavy water, and reconfiguring the station to isolate the units from the operating units. These activities must be conducted while meeting nuclear, radiological, industrial safety, and environmental protection standards. Defueling of the Unit 1 and Unit 4 reactors commenced on October 2, 2024 and January 5, 2025, respectively, and is continuing. Unit 2 and Unit 3 were previously permanently shut down and remain in a safe storage state. The costs associated with placing and subsequently monitoring units in a safe storage state are charged against the Nuclear Liabilities and reimbursed from the Nuclear Segregated Funds.

Following OPG's submission of a feasibility assessment as approved by the Board in August 2023, the Province announced its support for OPG proceeding with next steps toward refurbishing Units 5 to 8 of the Pickering GS in January 2024. As approved by the Board, OPG subsequently completed the project initiation phase, including certain preliminary engineering and securing certain long-lead components, in 2024. In January 2025, the Province announced its approval for OPG to proceed with the Board-approved project definition phase, which is expected to last through 2026. The Board-approved budget for the project initiation and definition activities is approximately $6.2 billion, which includes anticipated contractual commitments for future deliveries. Planning work is ongoing to determine which refurbishment activities for Units 5 to 8 could be conducted under the existing CNSC operating licence for the Pickering GS, valid until August 31, 2028. Licence amendments and renewals would be sought as required for the remainder of the refurbishment activities.

OPG continues to make strategic investments in the performance of Units 5 to 8 of the Pickering GS, with a focus on continuously improving equipment reliability and maximizing electricity generation output. This includes implementing equipment modifications and fuel handling reliability improvements, reducing equipment maintenance backlogs, and completing other critical and high priority work.

Darlington GS

OPG continues to make investments in the Darlington GS in order to ensure the station's ongoing safe and reliable operations and position it for industry-leading operating and cost performance in the longer term. In addition to completing the refurbishment of the station's generating units, this includes investments in life cycle and aging management projects, facility upgrades, and work in support of regulatory commitments. OPG continued to progress a number of such projects at the Darlington GS during 2024, including:

- Successfully completed commissioning a new water treatment plant that will supply demineralized water to the Darlington GS units as part of the operations cycle, ensuring reliable operations over the station's service life; and
- Successfully completed the replacement of key fuel handling equipment, including key lifting components for the fuel handling system and two of the eight fuelling machine heads. These projects will ensure reliable operations of the Darlington GS fuel handling equipment over the station's service life.

Based on the results of planned inspections of the units of the Darlington GS, OPG has identified that the primary moisture separators, a component of steam generators (SG), require replacement on all units to ensure ongoing safe, reliable and efficient operations throughout the station's extended lifespan. The function of the primary moisture separators is to provide high quality dry steam to the downstream turbine equipment. There are four SGs in each Darlington GS unit and each SG has 104 primary moisture separators. The replacement of the primary moisture separators in the first two SGs in Unit 3 was completed in 2023. The replacement of the four SGs in Unit 1 and the four SGs in Unit 4 was completed in the second quarter of 2024 and the fourth quarter of 2024, respectively. Actual life-to-date capital expenditures are $270 million as of December 31, 2024 and tracking below the approved budget of $380 million. The post-replacement inspection work on Unit 4 is expected to be completed in the first half of 2025, marking the completion of the project. The scope of work for Unit 2 and the remaining two SGs in Unit 3 is planned to be executed under a future project.

OPG's power reactor operating licence for the Darlington GS is valid until November 30, 2025. In June 2024, the CNSC announced its decision to amend the operating licence to authorize the production of the cobalt-60 radioisotope. In May 2024, OPG submitted an application to renew the operating licence for the Darlington GS for a period of 30 years beyond November 2025. The two-part public hearing on the application is scheduled to be held by the CNSC in March 2025 and June 2025. The first harvest of the cobalt-60 radioisotope at the Darlington GS is expected by 2028. Cobalt-60 radioisotopes are produced mainly for use in the health industry to sterilize surgical and medical supplies.

Renewable Generation Operations

As at December 31, 2024, OPG's renewable generation fleet comprises 54 regulated and 12 non-regulated hydroelectric generating station and one solar facility located in Ontario, and through Eagle Creek, 85 wholly or jointly owned and operated hydroelectric generating stations located throughout the United States.

The objectives of OPG's hydroelectric operations include operating and maintaining the generating facilities in a safe, reliable, efficient and cost-effective manner, while pursuing opportunities to increase the output and generating capacity of the fleet. OPG aims to increase the hydroelectric facilities' output by improving operational flexibility, enhancing reliability, optimizing outage planning and, subject to water conditions, increasing availability to meet electricity system demand. OPG continues to evaluate and implement plans to increase generating capacity, improve operational performance and extend the operating life of its hydroelectric generating assets.

Given the very long-term nature of the Company's hydroelectric fleet, OPG's plans to maximize the fleet's value are often accomplished through multi-year capital investment and other programs, including replacements and upgrades of turbine runners, and periodic refurbishment or replacement of existing generators, transformers and control systems. Where economical and practical, OPG also pursues opportunities to expand or redevelop its existing hydroelectric stations. To support effective operations and ensure continued high levels of safety, OPG has comprehensive programs in place to identify, prioritize and execute any necessary repair, rehabilitation or replacement work for civil hydroelectric structures. OPG seeks to enhance equipment reliability monitoring, reporting and management to support asset maintenance programs based on the condition of the facilities.

The Company continues to progress on an ongoing refurbishment program for its hydroelectric generating units across Ontario. During 2024, activities related to this program included the following:

- Initiated the execution of the refurbishment of Unit G4 at the Sir Adam Beck I GS, the first of the 19 units planned to undergo refurbishment at the Sir Adam Beck I and II generating stations. As of December 31, 2024, year-to-date and life-to-date capital expenditures for the refurbishment of both Sir Adam Beck I and II generating stations were $18 million and $23 million, respectively;
- Initiated the execution of the refurbishment of Unit 12 at the R.H. Saunders GS and continued the execution of the refurbishment of Unit 9, the first two of the station's 16 units planned to undergo refurbishment. As of December 31, 2024, year-to-date and life-to-date capital expenditures for the refurbishment of the R.H. Saunders GS were $19 million and $52 million, respectively;

- Completed the refurbishment of Unit 1 at the Barrett Chute GS and continued the execution of the refurbishment on the station's Unit 2. As of December 31, 2024, year-to-date and life-to-date capital expenditures for the station's refurbishment were $8 million and $19 million, respectively; and
- Initiated the execution of the refurbishment of Unit 1 at the Otter Rapids GS and continued the execution of the refurbishment on the station's Unit 2. As of December 31, 2024, year-to-date and life-to-date capital expenditures for the station's refurbishment were $20 million and $47 million, respectively.

Additionally, during 2024, the Company completed the replacement of the existing headgates at the Sir Adam Beck II GS, and the construction of the Otter Rapids Project Camp that will facilitate efficiencies in the execution of refurbishment work at remote generating stations in northern Ontario. Construction activities continue to progress on the rehabilitation of the concrete infrastructure at the R.H. Saunders GS, the Frederick House Lake Dam and other generating stations across Ontario.

On December 3, 2024, the Office of the Auditor General of Ontario released a Follow-Up Report building on its 2022 Performance Audit on the management and maintenance of the Company's hydroelectric fleet. In the Follow-Up Report, OPG was identified as one of the three auditees, out of the total of 16 auditees, that made the most progress toward fully implementing the recommended actions.

OPG coordinates and collaborates with various government agencies, municipalities, Indigenous partners and community stakeholders to ensure the river systems on which the Company operates are managed safely and effectively, while meeting electricity generation needs. Eastern and Southern Ontario experienced a number of heavy rainfall events in the spring and summer of 2024, resulting in sharp increases in water levels and flows in some areas. These wet seasons followed a relatively dry winter and were succeeded by a relatively dry fall across the province. OPG managed these conditions safely and effectively by maintaining a strong focus on dam and public safety and coordinating with municipalities and community stakeholders in the affected watersheds during both high and low water flow conditions.

Thermal Operations

OPG's thermal generation fleet comprises one oil/gas dual-fueled generating station, one biomass-fueled generating station, and four combined cycle plants operated through Atura Power.

These stations, which typically operate as peaking or cycling dispatchable facilities under their respective ESAs with the IESO, are an important component of maintaining the current and future reliability of Ontario's electricity system. They provide the system with the flexibility to meet changing daily system demand and capacity requirements, and enable variable sources of renewable generation such as wind and solar.

As of December 31, 2024, the contracts for Atura Power's facilities have the following terms and generating capacities, including generating capacity upgrades awarded by the IESO in 2023 and expected to be in service in 2025:

Generating Facility	Original Contract Expiry Date	Current Contract Expiry Date	Current in-Service Capacity (MW) [1]	Average Upgrade Capacity (MW)
Brighton Beach GS [2]	July 2024	July 2034	570	42.5
Portlands Energy Centre [3]	April 2029	April 2029	562	50.0
Halton Hills GS [4]	August 2030	April 2035	683	31.5
Napanee GS	March 2040	March 2040	900	-

[1] The current in-service generating capacity excludes average upgrade capacity.
[2] The facility operated under an energy conversion agreement with Shell Energy North America (Canada) Inc. until July 15, 2024. Effective July 16, 2024, the facility operates under a new ESA with the IESO for a term of 10 years.
[3] The ESA includes an option for Atura Power or the IESO to exercise, in 2028, an extension of the contract expiry by five years under certain conditions, inclusive of the generating capacity upgrades awarded in 2023.
[4] Pursuant to generating capacity upgrades awarded by the IESO in 2023, the contractual average capacity upgrade at the Halton Hills GS of 31.5 MW was placed in service and became effective February 3, 2025.

In September 2024, OPG and the IESO entered into an amended and restated ESA for the Atikokan GS, extending the contract expiry to July 2029. The extension allows the facility to continue providing renewable power for Ontario's electricity grid using biomass fuel. Atikokan GS is the largest 100 percent biomass-fueled plant in North America, providing renewable energy that can be dispatched when Ontario's power system requires it.

OPG's strategy in operating thermal generating stations is to ensure availability to meet electricity system requirements over the assets' expected remaining service lives, through station reinvestment within technical, regulatory and contractual constraints, and with an expectation of achieving an appropriate return on investment. In support of these objectives, thermal outage planning leverages agile asset management programs to prioritize equipment risks and optimize work program timing.

Improving Operational Efficiency

As part of a commitment to operational excellence, OPG is focused on pursuing productivity improvements and efficiencies in operating costs across the organization, while ensuring no adverse impact on the safety, reliability and environmental sustainability of the Company's operations. The Company continues to build on efficiencies achieved to date, leveraging investments in technology and innovation, improvements in business processes and internal service delivery models, strategic sourcing initiatives, workspace optimization, and resourcing strategies. Strategies to improve cost performance and organizational capability are implemented at the enterprise and business unit level.

The identification and continued pursuit of operational efficiencies is driven by enterprise-wide targets, set with a view to ensure the cost effectiveness of ongoing operations while supporting the advancement of corporate growth and transformation strategies and managing risks. Accomplishing these objectives is anchored in leveraging a highly skilled, high-performing, diverse and engaged workforce. OPG will continue to review its operating cost model and supporting business strategies as it enters a period with multiple planned major projects in support of energy transition and future electricity needs, including the DNNP and the planned refurbishment of Units 5 to 8 of the Pickering GS.

OPG is continuing to advance an enterprise-wide strategy to align the Company's digital infrastructure with its strategic objectives and to drive increased value from investments in technology. The strategy is focused on implementing scalable information technology infrastructure, enhancing mobility, connectivity and collaboration, streamlining information technology service support, embedding increased automation and artificial intelligence technologies, protecting digital assets, and improving data management and analytics capability. The goals of the strategy are to increase field and office productivity, improve equipment reliability and station performance, increase organizational agility, strengthen cybersecurity, and reduce operating costs.

Sale of Assets

In July 2023, Eagle Creek entered into agreements to sell 22 hydroelectric generating stations in the US with a total generating capacity of approximately 47 MW, along with two storage reservoirs in the Mid-Western US. In June 2024, the transaction was terminated. Following the termination, the criteria for classifying these assets as held for sale were no longer met, and the assets were reclassified to property, plant and equipment (PP&E) and intangible assets on the consolidated balance sheet.

Project Excellence

OPG is undertaking a number of generation development and other projects to maximize the value of and expand its generating fleet in support of Ontario's electricity system and beyond, striving for excellence in the planning and delivery of all capital and maintenance projects across the organization.

OPG's vision for project excellence is to be an industry leader in project management capability and performance. As part of its commitment to project excellence, OPG continues to enhance and streamline its approach to project planning and execution, with the goal of delivering all projects safely, on time, on budget and with high quality. Achieving project excellence involves, among others: leveraging a common, scalable project delivery model based on industry best practices across the enterprise, establishing strong project management teams to effectively execute projects, monitoring and controlling performance, optimizing contracting strategies, and engaging qualified and experienced engineering, procurement and construction vendors. The achievement of these objectives at OPG is facilitated by a centralized enterprise projects organization that ensures the necessary processes, tools and expertise are in place for project excellence.

Darlington Refurbishment

The Darlington Refurbishment project commenced in 2016 as the four Darlington GS units were approaching their originally designed end-of-life. Refurbishment of the four generating units is expected to extend the operating life of the station by at least 30 years. The refurbishment of the first unit, Unit 2, was completed in June 2020. The refurbishment of the second unit, Unit 3, was completed in July 2023, ahead of schedule. The refurbishment of the third unit, Unit 1, was completed in November 2024, ahead of its original schedule set for the second quarter of 2025. The refurbishment of the last unit, Unit 4, commenced after Unit 3 was returned to service and is scheduled to be completed in 2026.

The Darlington Refurbishment project is a multi-phase program comprising the following five major sub-projects:

- Defueling and Fuel Handling, which involves the defueling of the reactors and the refurbishment of the fuel handling equipment;
- Re-tube and Feeder Replacement (RFR), which includes the removal and replacement of feeder tubes and fuel channel assemblies in each reactor;
- Turbines and Generators, which consists of inspections and repairs of turbine generator sets and the replacement of analog control systems with digital control systems for Units 3, 4 and 1;
- Steam Generators, which includes mechanical cleaning, water lancing and inspection and maintenance work on the generators; and
- Balance of Plant, which consists of work on a number of projects to replace or repair certain other station components.

The RFR sub-project is the largest sub-project and represents a majority of the critical path schedule.

The major sub-projects are executed over four major segments for each unit:

- Shut Down, which involves removing fuel from the reactor and islanding the unit;
- Disassembly, which involves removing the required reactor components including feeder tubes, fuel channels and calandria tubes;
- Reassembly, which involves procuring, installing and inspecting new reactor components; and
- Power Up, which involves loading new fuel into the reactor, restoring the reactor vault, reconnecting the unit to the rest of the station, and returning the unit to service.

Unit 1 was returned to service in November 2024 in line with the Company's high quality and safety standards, following successful completion of start-up activities and receipt of all appropriate regulatory approvals from the CNSC. Upon the unit returning to service, capital expenditures totalling approximately $1.7 billion were placed in service.

Unit 4 refurbishment activities are progressing on schedule, having completed the Disassembly segment with the completion of the removal of fuel channel assemblies in September 2024 and are currently in the Reassembly segment. The installation of calandria tubes was completed in January 2025. The fuel channel installation series is in progress and planned to be completed in the second half of 2025. The upper and middle feeder installation series are also continuing, with the installation of 960 new feeder tubes being completed in two segments, starting with the upper and middle feeders and followed by the lower feeders. As part of the refurbishment, OPG also continues to progress through the reconditioning of the Unit 4 turbine generator, with the overhaul of the turbine generator and the installation of the turbine control systems upgrade expected to be completed in the second half of 2025.

The total project costs, including the impacts of the COVID-19 pandemic, are on track to meet the $12.8 billion budget.

Smoky Falls Dam Safety Project

OPG has substantially completed the Smoky Falls Dam Safety project to improve dam safety at the Smoky Falls hydroelectric GS, located along the Lower Mattagami River in northeastern Ontario. The project rehabilitated the 100-year-old spillway and sluiceway structures in compliance with dam safety requirements established by the Province.

During 2024, the two new sluicegates were commissioned and placed in service ahead of the original schedule. The concrete closure of the west sluiceway was also successfully completed along with the removal of the west sluiceway superstructure and gates. With major construction activities completed during the year, the project has transitioned to site rehabilitation and closure activities, which will continue into 2025. The project is tracking within the approved budget of $390 million.

The Smoky Falls Dam supports OPG's hydroelectric generating stations on the Lower Mattagami River. The project costs are expected to be recovered under the ESA in place for the Lower Mattagami generating stations.

Atura Power Development Projects

Atura Power is advancing a project to construct the NHC in Niagara Falls, Ontario as its first site for large-scale hydrogen production. The facility will use a 20 MW electrolyzer to produce low-carbon hydrogen by utilizing water and hydroelectricity as inputs. Engineering and design activities were completed during 2024, and the project has advanced further groundwork with most substation foundations and cable trenches installed. The NHC is expected to be completed in 2026.

Atura Power is executing a project to build a 250 MW four-hour battery energy storage system at the Napanee GS site. The Napanee BESS will support Ontario's energy grid by drawing and storing electricity off-peak when power demand is low and returning it to the system at times of higher electricity demand. Following the completion of design work and procurement of critical equipment, on-site construction activities commenced during 2024, with critical equipment foundation work underway. The project is expected to be completed in 2026 and will operate under a 21-year capacity agreement with the IESO.

Details on the project to expand the combined cycle plant at the Napanee GS can be found in the section, *Significant Developments* under the heading, *Napanee Combined Cycle Generating Station Expansion*.

OPG's major projects in the execution phase as at December 31, 2024 are outlined below.

Project	Capital Expenditures		Approved Budget	Expected In-service Date	Current Status
(millions of dollars)	Year-to-date	Life-to-date			
Darlington Refurbishment Project	987	11,190	12,800 [1]	Unit 4 – 2026	Unit 1 was successfully returned to service in November 2024. Unit 4 refurbishment is progressing on schedule and is currently in the Reassembly segment. The project is tracking on budget.
Redevelopment of Kakabeka Falls Hydroelectric GS	34	39	519	2028	The project entered the execution phase in November 2024 and is progressing. For further details, refer to the section, *Significant Developments – Project Excellence* under the heading, *Redevelopment of Hydroelectric Generating Stations*.
Atura Power Development Projects	206	288	1,500 [2]	Niagara Hydrogen Centre – 2026 Napanee BESS – 2026 Napanee Combined Cycle GS Expansion Project – 2028	Engineering and design activities for the NHC project were completed during the year. The project continues to advance additional groundwork. Following the completion of design work and procurement of critical equipment, the Napanee BESS project continues to advance on-site construction, on schedule. Engineering, design and permitting activities for the Napanee GS Expansion project are progressing on schedule, with procurement of critical equipment completed. These projects are tracking within the total approved budget.

[1] The total project budget of $12.8 billion is for the refurbishment of all four units of the Darlington GS.
[2] The total project budget of approximately $1.5 billion is for the Niagara Hydrogen Centre, the Napanee BESS and the Napanee Combined Cycle GS Expansion projects.

Financial Strength

As a commercial enterprise, OPG's financial priority is to ensure a consistent level of strong financial performance that delivers an appropriate level of return on the Shareholder's investment and supports expansion of the business.

Inherent in this priority are four objectives:

- Increasing revenue, reducing costs and achieving appropriate return;
- Ensuring availability of cost effective funding for operational needs, generation development projects and other business opportunities, and long-term obligations;
- Pursuing opportunities to expand the existing core business and capitalize on new growth paths including emerging clean energy opportunities; and
- Managing risks, which is discussed in the section, *Risk Management*.

Increasing Revenue, Reducing Costs and Achieving Appropriate Return

In line with its commercial mandate, OPG is focused on increasing revenue and net income, and achieving an appropriate return on the Shareholder's investment, while seeking to minimize the impact on electricity customers through continuous improvement in the Company's cost structure.

For regulated operations, achievement of the above objectives is largely dependent on outcomes of OPG's applications for regulated prices to the OEB and prudent growth of rate base earning a return. OPG is focused on demonstrating in its applications for regulated prices that the costs required to operate and invest in the Company's regulated assets are reasonable, being prudently incurred and should be fully recovered, and that the Shareholder's investment in these assets should earn an appropriate return.

For the Regulated – Nuclear Generation business segment, the following rate base levels, OPG-specific deemed equity percentage, and formulaic rates of ROE established by the OEB on a generic basis are reflected in OPG's approved base regulated prices:

	ROE	Equity [1]	Rate Base			
(millions of dollars - except where noted)	**2022 - 2026**		**2023**	**2024**	**2025**	**2026**
Regulated – Nuclear Generation [2]	**8.66%**	**45%**	8,615	**11,033**	12,189	12,992

[1] The remaining 55 percent of rate base is deemed to be financed by debt, with an average approved cost rate of 3.6 percent per annum reflected in the nuclear base regulated prices for the 2022-2026 period.

[2] Excludes differences between approved forecast rate base additions and actual rate base additions for qualifying investments, where the revenue requirement impact of such differences is trued up through regulatory accounts, subject to the OEB's review and approval. These differences are included in rate base values shown in the table once reflected in OEB-approved base regulated prices.

For the regulated hydroelectric facilities, there is a separately approved rate base, deemed equity percentage and ROE rate. The most recent OEB-approved hydroelectric rate base value was $7,490 million, with an ROE of 9.33 percent and a deemed equity of 45 percent, all of which were reflected in the hydroelectric base regulated prices in effect prior to June 1, 2017. The hydroelectric base regulated prices for the period from June 1, 2017 to December 31, 2021 were determined by annually escalating the base regulated prices in effect prior to June 1, 2017, with some adjustments, using an approved formula. Pursuant to *Ontario Regulation 53/05*, the hydroelectric base regulated price for the period from January 1, 2022 to December 31, 2026 is equal to the 2021 hydroelectric base regulated price.

OPG continues to invest in the nuclear and hydroelectric rate base, including through the Darlington Refurbishment project. In establishing the 2022-2026 nuclear base regulated prices, the OEB approved an additional $6.8 billion in Darlington Refurbishment in-service capital additions to rate base, including the forecasted return to service from the refurbishment of Units 3, 1 and 4 of the Darlington GS at the time, bringing the total approved nuclear rate base to $13.0 billion by 2026.

As discussed in the section, *Core Business and Outlook* under the heading, *Operational Excellence – Electricity Generation Production and Reliability*, OPG continues to undertake an extensive capital program across its regulated hydroelectric operations, including the refurbishment and redevelopment of the generating facilities to ensure their continued safe and reliable operations. These renewable assets can have very long service lives and, with either maintenance efforts or rebuilding, can continue to supply electricity and be reflected in rate base for the foreseeable future.

The revenue requirement impact of differences in the amount or timing between OEB approved forecast rate base additions and actual capital in-service additions related to OPG's investments to increase the output of, refurbish or add generating capacity to one or more of its nuclear or hydroelectric regulated facilities, including the Darlington Refurbishment project, are recorded for future review and disposition in a variance account authorized by the OEB pursuant to *Ontario Regulation 53/05*. The regulation also provides for a variance account to record and recover the revenue requirement impact of differences between any OEB approved forecast capital and non-capital costs incurred for new nuclear generation facilities and such actual costs, subject to review by the OEB.

As part of OPG's 2022-2026 application for new regulated prices, the OEB approved a mechanism for customers to share, on a 50 percent basis, in the regulatory earnings achieved by OPG's regulated operations that are more than 100 basis points over the approved ROE levels, assessed on a five-year cumulative basis over the 2022-2026 period. Any such amounts shared with customers will be recorded in a separate deferral account for disposition following the five-year period. Additionally, the regulatory frameworks in effect for the 2022-2026 period include a symmetrical 300 basis points trigger around the approved ROE, based on achieved regulatory earnings, where the OEB may initiate a regulatory review.

In 2024, the OEB initiated a generic cost of capital proceeding to review the methodology for determining the cost of capital parameters and deemed capital structure used for setting utility rates, which was last reviewed by the OEB in 2009. OPG is participating in this proceeding. The outcome of the proceeding is expected in 2025.

For generation assets that do not form part of the rate regulated operations, OPG generally seeks to secure long-term revenue arrangements that support an appropriate return on the investment. In line with this strategy, all of OPG's non-regulated facilities in Ontario are subject to ESAs with the IESO. These contracts are generally designed to provide for recovery of operating costs and capital investment in the underlying facilities and a return on invested capital, subject to the facilities continuing to meet their contractual obligations.

While a number of the Company's generating facilities in the US are subject to energy and capacity supply contracts, and longer term contracts are pursued where considered financially advantageous, the majority of OPG's generating facilities in the US currently earn revenue from wholesale electricity markets. Although revenue from wholesale electricity markets in the US represents a small portion of OPG's overall revenue, the Company may enter into hedging arrangements from time to time to further mitigate the commodity price risks.

Ensuring Availability of Cost Effective Funding

OPG actively monitors its funding requirements and forecasts availability of funds to ensure that it can meet the Company's operational needs, project and other commitments, and long-term obligations. In addition to funds generated from operations, OPG utilizes the following primary funding sources: commercial paper; letters of credit; credit facilities; public debt offerings; debt sourced from the Ontario Electricity Financial Corporation (OEFC) and Ontario Financing Authority (OFA), agencies of the Province; and private placement and other project financing arrangements.

Credit Ratings

Maintaining an investment grade credit rating supports OPG's ability to access cost effective financing. As at December 31, 2024, the Company's credit ratings were as follows:

Type of Rating	DBRS Limited (DBRS) [1]	S&P Global Ratings (S&P) [2]	Moody's Investors Service (Moody's) [3]
Issuer rating	A (low)	BBB+	A3
Senior unsecured debt	A (low)	BBB+	A3
Trend/Outlook	Stable	Stable	Stable
Commercial paper program – Canada	R-1 (low)	A-1 (low)	NR [4]
Commercial paper program – US	NR [4]	A-2	P-2

[1] In April 2024, DBRS confirmed OPG's A (low) issuer rating, A (low) senior unsecured debt rating and R-1 (low) Canadian commercial paper rating, all with Stable trends.
[2] In August 2024, S&P confirmed OPG's ratings including BBB+ issuer rating with stable outlook, BBB+ senior unsecured debt rating and A-1 (low) Canada commercial paper rating.
[3] In May 2024, Moody's confirmed OPG's A3 issuer rating with stable outlook, A3 senior unsecured debt rating and P-2 US commercial paper rating.
[4] NR indicates no rating assigned.

Additional discussion of the Company's credit facilities and liquidity can be found in the section, *Liquidity and Capital Resources*.

Federal Clean Energy Investment Tax Credits

In March 2023, the Government of Canada announced certain refundable investment tax credits (ITC) for clean energy investments. The Clean Technology ITC (CTITC) and the Clean Hydrogen ITC (CHITC) were enacted during the second quarter of 2024. The CTITC provides a 30 percent refundable tax credit and the CHITC provides a refundable tax credit ranging from 15 percent to 40 percent depending on the carbon intensity of the project, and both credits are available to federally taxable entities. If certain labour conditions are not met, these refundable credits are reduced by ten percent. OPG's federally taxable entities making eligible investments may qualify for the CTITC and the CHITC.

Draft legislation for the Clean Electricity ITC (CEITC), a 15 percent refundable tax credit available to federally tax exempt entities including OPG, was published by the Government of Canada in August 2024. The draft legislation was terminated upon prorogation of Parliament in January 2025. Certain OPG projects are expected to qualify for the CEITC if it is legislated. The Company continues to monitor CEITC developments.

Ontario Court Bill 124 Decision

Protecting a Sustainable Public Sector for Future Generations Act, 2019 (Bill 124), which came into force on November 8, 2019, set limits on compensation increases for unionized and non-unionized employees in the Ontario public sector and applied to OPG. Bill 124 limited the maximum annual increase in both wages and total compensation to one percent for a three-year period, subject to certain exceptions. A broad range of unions and organizations challenged the constitutionality of Bill 124. In a decision dated November 29, 2022, the Ontario Superior Court found that Bill 124 was unconstitutional and declared it to be void and of no effect. On December 29, 2022, the Government of Ontario filed an appeal of the decision with the Ontario Court of Appeal. On February 12, 2024, the Ontario Court of Appeal upheld the lower court decision and found Bill 124 to be unconstitutional as it pertains to unionized employees but constitutional in its application to non-unionized employees. Following the decision, the Province repealed Bill 124 in its entirety.

OPG's approved regulated prices for the 2022-2026 period were set on the basis of cost forecasts that assumed the application of Bill 124. In March 2023, OPG filed an application with the OEB requesting to establish a variance account to record and therefore offset compensation cost impacts attributable to the nuclear facilities as a result of the Bill 124 Court Decision, subject to future review and disposition by the OEB. In June 2023, the OEB issued a decision and order denying OPG's request. In July 2023, OPG filed a motion asking the OEB to review the June 2023 decision, which was reaffirmed by the OEB in its decision on OPG's motion issued in October 2023. As a result, OPG is unable to record compensation cost impacts of the Bill 124 Court Decision in the proposed variance account.

Growth and Transformation

OPG strives to be a leader in the North American energy transition, while maintaining and expanding the Company's scale and industry leadership through the pursuit of commercial-based opportunities. This strategy considers the Company's financial position, anticipated future changes in the generating fleet, and the evolving external environment in which it operates. The strategy is also informed by industry, technological, environmental, social, and economic factors. Opportunities are evaluated on an ongoing basis using financial and risk-based analyses as well as the application of strategic considerations, including the evaluation of partnership opportunities with other entities where aligned with OPG's business objectives.

OPG's strategy includes the renewal and expansion of the Company's portfolio of generating assets, including the redevelopment and expansion of existing sites, pursuit of new developments and business acquisitions. The strategy leverages OPG's operating and project development expertise across its diverse physical asset base. Acquisition opportunities consider potential operating synergies, strategic benefits, financial returns and risk profile.

OPG also actively seeks to expand beyond its core generation business, either directly or through its subsidiaries and partnerships, with investments in innovative technologies and new lines of business in the electricity sector, including nuclear innovation, transport electrification, low-carbon hydrogen production, battery energy storage, hydroelectric pumped storage, and other opportunities.

New Nuclear

In January 2024, OPG and Capital Power Corporation, an Alberta-based company, entered into an agreement to jointly assess the feasibility of developing and deploying grid-scale SMRs in Alberta, including possible ownership and operating structures, over the next two years.

OPG is preparing for possible development of new large nuclear reactors in Ontario. This includes preparing information for the Wesleyville site to explore new nuclear opportunities with local communities and First Nations, as announced by the Province in January 2025, as well as continuing to evaluate the suitability of the Company's other existing sites for potential nuclear energy generation. OPG has also begun preliminary evaluations of available large nuclear reactor technologies and, subject to successful engagement with local communities and First Nations, approaches to a potential site licensing process. The costs for these activities are recorded in an existing regulatory account for future recovery, subject to review by the OEB.

Nuclear Project Management Organization Services

In June 2024, Canadian Nuclear Partners S.A. (CNPSA), a subsidiary of Laurentis Energy Partners (LEP), a wholly-owned subsidiary of OPG, entered into a long-term framework agreement with S.N. Nuclearelectrica S.A., a Romania-based nuclear energy company. Pursuant to the agreement, CNPSA will provide project management organization services necessary for the preparation and implementation of the Unit 1 refurbishment project at the Cernavoda Nuclear Power Plant in Romania, including project management, technical assistance and staff training.

Global First Power Partnership Divestiture

In August 2024, OPG executed a separation agreement under which OPG divested its interest in Global First Power Limited and Global First Power Limited Partnership to USNC-Power, Ltd.

Marmora Pumped Hydroelectric Storage Facility Project Exit

During 2024, OPG exited the partnership with Northland Power Inc. for a proposed 400 MW hydroelectric pumped storage project in Marmora, Ontario, with Northland Power Inc. becoming the sole project developer.

Ivy Charging Network Divestiture

Ivy Charging Network (Ivy), a joint-venture between OPG and a subsidiary of Hydro One Limited (Hydro One), continued to own and operate electrical vehicle (EV) fast charging stations throughout Ontario during 2024, with a total of 81 charging ports and 154 fast chargers in operation as of the end of the year.

In the first quarter of 2025, OPG entered into an agreement to divest its interest in the Ivy partnership to Hydro One. The transaction was completed during the same quarter.

Clean Energy Credits

Building on the Company's strategy to help the markets where it operates achieve net-zero carbon economies, OPG offers electricity consumers voluntary Clean Energy Credits (CECs) from its hydroelectric and nuclear facilities in Ontario and, through Eagle Creek, offers Renewable Energy Credits (RECs) from its hydroelectric facilities in the United States. The purchase of CECs and RECs allows electricity consumers to demonstrate that their electricity comes from clean generating sources.

In January 2025, OPG entered into an agreement with a leading global automotive supplier, Magna International Inc. (Magna), to supply CECs sourced from the Sir Adam Beck hydroelectric generating complex. The majority of the proceeds from the sale of CECs will be directed to the Province's Future Clean Electricity Fund, which will help lower costs for electricity customers by supporting the development of new clean energy projects in Ontario.

Social Licence

OPG holds itself accountable to the public and its employees, and continues to focus on maintaining public trust. OPG is committed to maintaining high standards of public health and safety and corporate citizenship, including environmental stewardship, transparency, community engagement and Indigenous relations. The Company also strives to be a leader in climate change action, ED&I practices, and in advancing reconciliation with Indigenous peoples.

Further details on social licence activities and initiatives can be found in the section, *Environmental, Social, Governance and Sustainability*.

Outlook

Operating Performance

OPG expects net income for the 2025 year to be higher than the 2024 year, primarily due to higher nuclear electricity generation anticipated in 2025 as a result of three units of the Darlington GS being operational for the full year and fewer planned outage days in the cyclical maintenance schedule for the Darlington GS, partially offset by the end of commercial operation of Unit 1 and Unit 4 of the Pickering GS in 2024.

The OEB-approved regulated prices are expected to continue to provide regulatory certainty up to 2026. Additionally, regulatory accounts are expected to continue to reduce the relative variability of the regulated business segments' contribution to the Company's net income, particularly for the Regulated – Hydroelectric Generation business segment. This includes accounts that capture the gross margin impact of variability in water flows and forgone production due to

SBG conditions at the regulated hydroelectric stations. There are no regulatory accounts in place related to the impact of variability in OPG's nuclear stations' generation performance on revenue from base regulated prices.

The ESAs in place for the Ontario-based non-regulated assets reported in the Contracted Hydroelectric and Other Generation and Atura Power business segments are expected to contribute a generally stable level of earnings in 2025, consistent with 2024. Earnings from the US-based hydroelectric facilities reported in the Contracted Hydroelectric and Other Generation segment are subject to variability in water flows and the impact of wholesale electricity prices on uncontracted facilities.

The Company's operating results in 2025 may be impacted by macro-economic factors and geopolitical events, including tariffs and other trade restrictions, as discussed further in the section, *Risk Management.*

Nuclear Segregated Funds

OPG's operating results can be affected by earnings on the Nuclear Segregated Funds as part of the Regulated – Nuclear Sustainability Services business segment. While the Nuclear Segregated Funds are managed to achieve, in the long term, the target rate of return based on the discount rate specified in the Ontario Nuclear Funds Agreement (ONFA) between OPG and the Province, rates of return earned in a given period are subject to volatility due to financial market conditions and, for the portion of the Used Fuel Segregated Fund guaranteed by the Province, changes in the Ontario consumer price index (CPI). This volatility can cause fluctuations in the Company's net income in the short term if the funds are not in a fully funded or overfunded position. The volatility is reduced by the impact of an OEB-authorized regulatory account.

As at December 31, 2024, the Decommissioning Segregated Fund was overfunded by approximately 47 percent and, after taking into account the rate of return guarantee provided by the Province, the Used Fuel Segregated Fund was overfunded by approximately ten percent based on the current approved ONFA reference plan in effect for the years 2022 to 2026 (2022 ONFA Reference Plan).

Capital Expenditures

OPG's total capital expenditures for 2025 are planned to be approximately $5 billion. The annual forecast is higher than the capital expenditures in 2024, primarily reflecting the advancement of major projects, including: definition phase activities for the planned refurbishment of Units 5 to 8 at the Pickering GS, planned start of construction activities for the first SMR at the DNNP site, subject to CNSC regulatory approval and other requisite approvals, execution of redevelopment and refurbishments projects across the hydroelectric fleet, and advancement of Atura Power's development projects.

The capital expenditure outlook may be impacted by finalization of project budgets and timing of project approvals, as well as macro-economic factors and geopolitical events, including potential tariffs and other trade restriction impacts, as discussed further in the section, *Risk Management.*

Financing and Liquidity

The Company expects to generate a higher level of cash flow from operating activities in 2025 compared to 2024, mainly due to higher nuclear electricity generation anticipated in 2025. The level of cash flow from operating activities in 2025 will also be affected by electricity generation volumes at the hydroelectric generating stations depending on water conditions. Taking into account the planned capital expenditure program, OPG expects existing funding sources to continue to be sufficient to meet financing requirements and support ongoing liquidity during 2025. Further details of OPG's credit facilities can be found in the section, *Liquidity and Capital Resources* under the heading, *Financing Activities*.

ENVIRONMENTAL, SOCIAL, GOVERNANCE AND SUSTAINABILITY

OPG recognizes that operating in a manner consistent with ESG principles is directly connected to business success and is expected by the Company's customers, stakeholders, Rightsholders and Shareholder. As Ontario's largest clean, low-carbon energy provider, the Company strives to be a leader in sustainability, climate change action, and Indigenous relations. This is accomplished through the implementation of operational and growth strategies that minimize the Company's environmental impacts, support reductions in greenhouse gas (GHG) emissions, increase operations' resilience to climate change impacts, and advance Indigenous reconciliation, all while taking into account impacts on customers. A central part of OPG's ESG and sustainability focus is its commitment to becoming a global ED&I best practice leader by 2030.

OPG's latest Integrated ESG and Annual Report is available on the Company's website at www.opg.com.

Health and Safety

Workplace health and safety and public safety are fundamental core values at OPG. OPG is committed to operating its facilities in a safe, secure and reliable manner. Health and safety are overriding priorities in all activities performed at OPG's generating and other facilities, and employees and contractors are expected to conduct themselves in a manner that ensures workplace health and safety and public safety in line with the Company's health and safety culture, the Employee Health and Safety Policy and the Safe Operations Policy.

OPG is committed to achieving excellent performance in the area of workplace health and safety through continuous improvement and a strong health and safety culture. OPG utilizes integrated health and safety management systems and a set of operational risk control procedures to ensure continued monitoring of health and safety performance and to support continuous learning and improvement in this area. Over the past several years, OPG has stood in the top quartile of its comparator Canadian electrical utilities in various safety performance metrics. In November 2024, OPG received the Electricity Canada President's Award of Excellence for Employee Safety, in recognition of OPG's top safety performance within the comparator group in the previous year.

OPG uses Total Recordable Injury Frequency (TRIF) as a performance measure to benchmark OPG's performance against other Electricity Canada utilities. OPG also uses Serious Injury Incidence Rate (SIIR) as a key corporate safety metric. SIIR captures a more serious sub-set of injuries than the TRIF metric and helps OPG maintain a focus on high consequence hazards as part of its health and safety culture.

OPG's employee workplace safety performance as measured by the TRIF and SIIR indicators was as follows:

Safety data[1]	2024	2023
TRIF *(injuries per 200,000 hours)*	**0.23**	0.18
SIIR *(serious injuries per 200,000 hours)*	**0.02**	0.00

[1] Performance is inclusive of OPG and its subsidiaries.

OPG's TRIF and SIIR slightly increased in 2024 compared to 2023. To strengthen its safety performance, the Company continues to implement a number of initiatives to target injury and high-energy incident trends based on the analysis of safety events and the use of human performance tools including increased field supervisory oversight and monitoring the presence of safety defences.

Approaches to safe work planning, learning from events, employee engagement, field observations and coaching, and education and communication are also being continuously strengthened to reinforce safety as a foundational element of the Company's values-based culture. Additionally, employee safety has been identified as a key element of OPG's sustainability-linked credit facilities demonstrating OPG's commitment to employee safety.

Contractors are required to conduct work safely at OPG sites. In support of this requirement, OPG utilizes an independent contractor pre-qualification process, provides on-site safety support for many of its major projects, and works with contract partners to improve their health and safety programs to meet OPG's requirements.

OPG continues to promote a health and wellness program aimed at embedding a health culture that supports employees and their families in achieving an optimal level of health and functioning, through health education, health promotion, disease and injury prevention, and crisis intervention. This includes providing resources to support mental health and access to a virtual healthcare platform for employees and their families.

OPG continues to maintain a strong focus on the nuclear safety program and to invest in nuclear safety systems. To ensure continued public safety, radiation exposure to members of the public resulting from the operation of OPG's nuclear generating stations is estimated on an annual basis for individuals living or working near the stations. The annual dose to the public resulting from operations of each nuclear facility is expressed in microsieverts (μSv), which is an international unit of radiation dose measurement.

The doses to the public resulting from OPG's nuclear operations were as follows:

Annual public dose	2023		2022	
	μSv	% of annual legal limit [1]	μSv	% of annual legal limit [1]
Darlington GS	**0.7**	**<0.1%**	0.6	<0.1%
Pickering GS	**1.5**	**0.2%**	1.9	0.2%

[1] The annual legal limit is 1,000 μSv for each nuclear generating station.

While the public doses from OPG's nuclear operations for the 2024 operating year will not be finalized until the second quarter of 2025, they are not expected to differ significantly from the 2023 levels.

OPG remains committed to high standards of public safety on waterways around hydroelectric generating stations and dams, and continues to make investments in waterway public safety and dam safety upgrades. OPG's dam safety program encompasses dam safety, emergency management and public safety around dams in compliance with the Safe Operations Policy. The Company's practices in these areas for Ontario-based operations are routinely reviewed by an independent panel comprised of internationally recognized experts, who have consistently concluded that many aspects of OPG's dam safety program are industry leading, and a strong culture of continuous improvement exists. At its US-based facilities, OPG continues to advance investments in waterway and dam safety upgrades to ensure compliance with FERC regulations and a continuous improvement path toward the Company's Ontario-based assets.

Environmental

OPG is committed to meeting and, where appropriate, exceeding the Company's environmental obligations and commitments. Specifically, OPG's Environmental Policy commits the Company to:

- Maintain an environmental management system (EMS), and registration for this system to the ISO 14001 Environmental Management System standard for OPG, excluding subsidiaries;
- Work to prevent or mitigate adverse impacts on the environment with a long-term objective of continual improvement;
- Execute its Climate Change Plan and strive to achieve the milestones and goals therein; and
- Manage sites in a manner that strives to maintain or, where it makes business sense, enhance significant natural areas and associated species of concern.

Within the EMS, OPG sets environmental objectives and maintains planning, operational control and monitoring programs to manage its negative and positive impacts on the environment. The most significant environmental aspects of OPG's operations include spills, water flow and level changes, radiological emissions, non-radiological emissions, L&ILW, non-radiological waste, wildlife habitat, and fish impingement, entrainment and spawning disruption.

The EMS is reviewed annually to ensure it remains appropriate to the purpose and context of the Company's operations. Environmental performance targets are set as part of the annual business planning process. These targets are based on past performance and external benchmarking to promote continual improvement. OPG met or outperformed its 2024 targets for spills, environmental infractions, carbon-14 emissions to air, volume of L&ILW produced, and tritium emissions to air and water. There were no significant environmental events during 2024.

OPG has developed biodiversity conservation plans that identify significant natural areas, conservation goals, threats and proposed actions to sustain biodiversity at the Company's operating sites and across Ontario. To maximize benefits and manage impacts, conservation initiatives include biodiversity monitoring, site naturalization, habitat creation and control of invasive species. During 2024, OPG continued to work with community and Indigenous partners to support regional ecosystems and biodiversity, including nature-based solutions to protect and restore habitat, and to promote biodiversity education and awareness to help restore Ontario's natural landscapes. In 2024, OPG and its conservation partners planted approximately 533,000 native trees and shrubs.

On December 17, 2024, the Government of Canada released final *Clean Electricity Regulations* (CER). Beginning in 2035, the CER will set limits on carbon dioxide emissions from fossil fuel-burning electricity generation units with a generating capacity of 25 MW or greater connected to an electricity system that is subject to North American Electric Reliability Corporation standards. OPG's Lennox GS, Atikokan GS and Atura Power's combined cycle plants must register under the CER by the end of 2025. OPG is assessing the impact of this regulation on its thermal generating facilities and will continue to monitor CER-related developments.

Details of OPG's environmental performance and initiatives to fulfill the Company's Environmental Policy can be found on the Company's website at www.opg.com.

Climate Change

OPG continues to monitor the development of voluntary sustainability and climate-related financial information disclosures that are measurable and relevant to investors and other stakeholders, including those of the International Sustainability Standards Board and the Canadian Sustainability Standards Board. OPG also continues to monitor the Canadian Securities Administrators' proposed mandatory climate-related disclosure requirements per National Instrument 51-107 – *Disclosure of Climate-related Matters*. OPG's current strategy, governance, risk management approach and initial performance metrics related to climate change are discussed below.

Climate Strategy

OPG recognizes the importance of developing and implementing climate change adaptation measures to ensure ongoing safe, reliable and cost-effective operation of its generating fleet over the medium and long term. Through its business strategies, the Company is also focused on maximizing the decarbonizing potential of its assets and the broader electricity sector as a means of mitigating climate change. This includes continue to embed climate change adaptation and mitigation as an enterprise-wide priority and a key principle in decision-making. In advancing these strategies, OPG seeks to make prudent investments in viable new technologies and to ensure that planned actions are executable and aligned with strategic, operational and financial objectives.

Climate Change Plan

OPG's Climate Change Plan released in 2020 describes the Company's ambition to be a North American clean energy leader and an enabler of efficient, economy-wide energy transition. The plan outlines OPG's goals and a range of solutions to help achieve decarbonization while balancing economic and environmental benefits and electricity system needs.

The Company has set the following goals as part of the Climate Change Plan:

- Become a net-zero carbon emissions company by 2040; and
- Support broader economy-wide decarbonization by 2050.

To pursue these goals, OPG has developed an action plan in the areas of carbon emissions reductions, climate change adaptation, energy sector innovation and climate change leadership.

Since the launch of its Climate Change Plan in 2020, OPG has made advancements in a number of areas with the objective of achieving sustainable, resilient operations and investing in the generation of low-carbon energy. This includes progressing the Darlington Refurbishment project, leading the deployments of SMRs, and safely maximizing

the operating life of Units 5 to 8 of the Pickering GS. OPG also continues to advance projects to increase the generating capacity of its hydroelectric generating stations, and is exploring the potential for new hydroelectric development. Through its subsidiaries, OPG is supporting the electrification of Ontario's transportation sector, laying the groundwork for low-carbon hydrogen production, and constructing a grid-connected battery energy storage system. OPG intends to periodically review and update the Climate Change Plan to reflect the Company's current climate-related initiatives and any changes to government policy, technology development and electricity supply and demand expectations.

OPG's Climate Change Plan can be found on the Company's website at www.opg.com.

Oversight of Climate-related Risks and Opportunities

OPG's Board is responsible for the governance and stewardship of the Company, including the oversight of climate-related risks and opportunities over the near and long term. On at least a quarterly basis, and during the annual strategy session, the Board engages with OPG's senior management on the Company's near-term and long-term business strategies, including climate-related matters. OPG's Climate Change Plan, which was reviewed and approved by the Board, is an integral part of the Company's overall business strategy and underpins OPG's corporate strategic planning process.

The Board's risk oversight responsibilities are fulfilled through OPG's Enterprise Risk Management (ERM) Framework, with oversight by the Audit and Risk Committee of the Board. The ERM Framework is used to manage the Company's risk profile, as well as its internal audit program. The ERM Framework assists the Board in understanding how risks may affect the Company and how they are being addressed by management. The Audit and Risk Committee receives quarterly reports from OPG's Chief Audit Executive on enterprise-wide risks and internal audit findings. Climate-related risks are being identified and managed as part of the ERM Framework. Further details on the Company's approach to risk management can be found in the section, *Risk Management*.

OPG's internal governance includes a documented framework to guide the management of climate change and a reporting structure for the Board's oversight of climate-related risks and opportunities. Board oversight of climate-related risks and opportunities is achieved through bi-annual reporting by OPG's Environment, Health and Safety department, with support from the Climate Steering Committee and other departments, as required.

OPG pension plan and Nuclear Segregated Funds investment strategies in equity markets, and of specific assets in the real estate and infrastructure portfolio, are guided by respective Responsible Investing Policies in place for the OPG pension plan and for the Nuclear Segregated Funds. OPG continues to build on the existing strategies to formalize a climate change action plan for the OPG pension plan and, in collaboration with the Province, for the Nuclear Segregated Funds that supports the Company's overall climate change goals.

Identification and Integration of Climate-related Risks

In recent years, OPG has experienced operational impacts exacerbated by changes in climate. The physical risks of severe weather events and changing climate parameters, such as precipitation patterns and intensity, and water and air temperatures, are expected to remain long-term concerns. In addition to the potential impacts on electricity generation at hydroelectric generating stations and cooling water efficiency at nuclear and thermal generating stations, changes in climate can also affect the reliability and life expectancy of major equipment. OPG's resilience against these risks is anticipated to increase as adaptation actions are identified and completed. Over the medium and long term, government policies and regulations in support of a shift to a lower-carbon economy may result in transition risks, such as changes in the electricity supply and demand profiles in the regions where OPG operates and impacts on the Company's carbon-based generating technologies.

OPG's strategy to guide the Company's adaptation priorities includes integrating considerations of climate-related risks and opportunities into applicable business processes, such as investment decisions and engineering processes, and implementing standardized decision supports to enable this integration. The Company is also continuing to evaluate and prioritize potential physical and transition risks over the near, medium and long term timeframes. As part of this process, OPG continues to increase data collection and develop modelling to better understand the range of potential climate impacts on the business and to identify opportunities for increasing resilience. OPG also participates in practical research studies with external consortiums and industry groups to develop and advance industry specific adaptation strategies and frameworks.

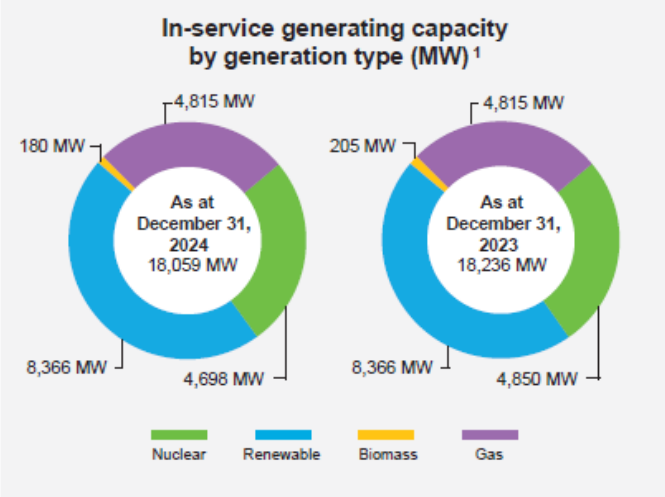
Internal Carbon Prices

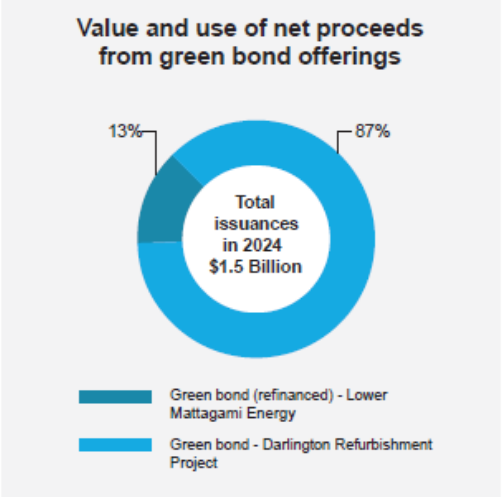
The Canadian federal *Greenhouse Gas Pollution Pricing Act* provides for a price of carbon through an Output-Based Pricing System for industrial facilities and a fuel charge for non-exempt fossil fuel purchases, with the federal carbon price per tonne of carbon dioxide equivalent (CO^2e) emissions increasing by $15 per year, from $65 in 2023 to $170 in 2030. Ontario's Emissions Performance Standard program aligns with the federal carbon pricing. For OPG, compliance obligations for carbon pricing apply to the Lennox GS and Atura Power's combined cycle plants. OPG has implemented processes to recover carbon costs to the extent possible under the current revenue arrangements for these assets. As a result, the carbon pricing is not expected to have a material financial impact on the Company.

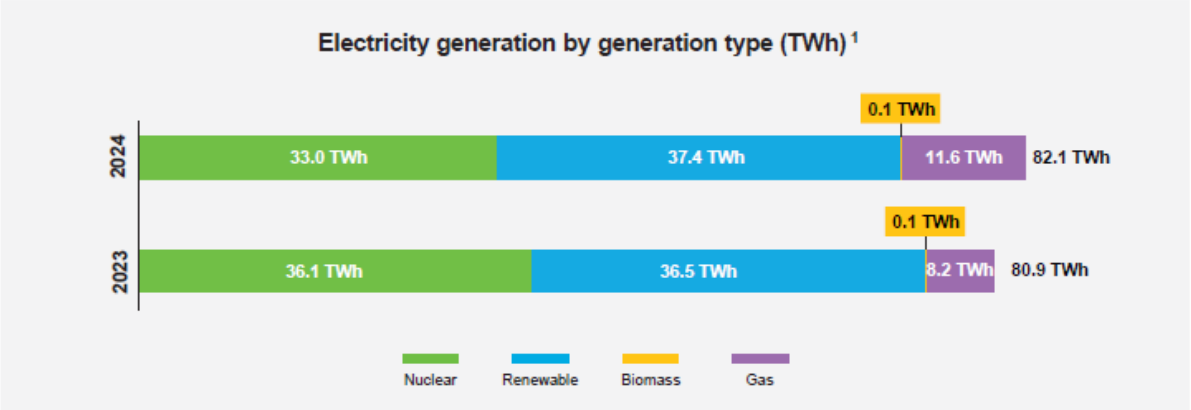
Climate-Related Performance and Key Metrics

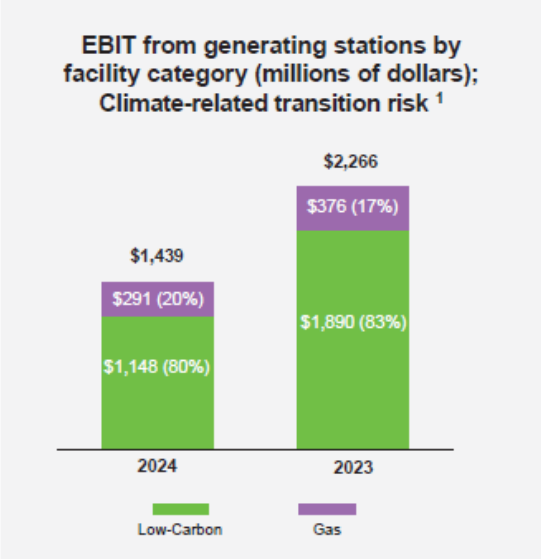
OPG continues to determine the most relevant climate-related impacts for the business in the context of its ESG and Sustainability framework and is engaged in aligning with industry metrics. OPG is in the process of developing such quantitative metrics and targets for climate change as part of an effort to integrate climate considerations into business processes. In the meantime, OPG has identified certain initial metrics that it considers relevant to stakeholders, which are as follows as at and for the years ended December 31:

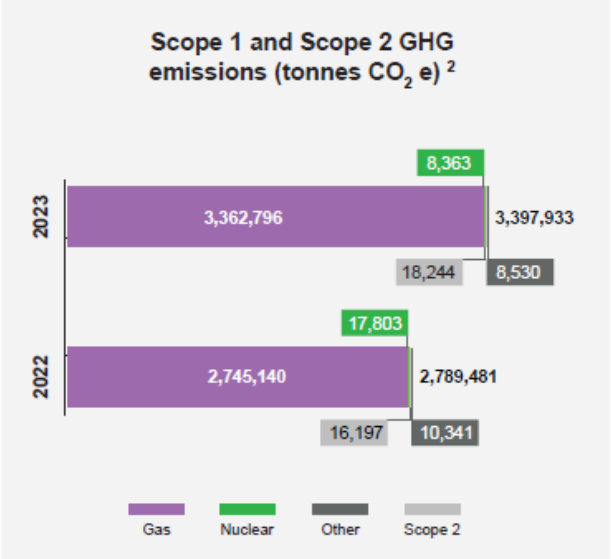
Climate Change Metrics











1 Includes OPG's proportionate share of in-service generating capacity and electricity generation from co-owned and minority-held facilities. Nuclear generating units undergoing refurbishment are excluded. Gas category includes the dual-fueled Lennox GS and the Company's combined cycle plants operated through Atura Power.

2 OPG continues to evaluate and enhance its Scope 1 and 2 GHG emission sources and quantification processes.

In-service generating capacity by generation type [1]	In-service generating capacity from low-carbon emitting and gas generation sources decreased as at December 31, 2024, compared to December 31, 2023. The decrease was primarily due to Unit 1 and Unit 4 of the Pickering GS ceasing commercial operation and being permanently taken offline on October 1, 2024, and December 31, 2024, respectively. The decrease was partially offset by Unit 1 of the Darlington GS returning to service from refurbishment on November 27, 2024. Low-carbon sources continue to account for the majority of OPG's total in-service generating capacity.
Electricity generation by generation type [2]	OPG's total electricity generation supplied by low-carbon sources for the year ended December 31, 2024 was approximately 86 percent of OPG's total electricity generation in 2024, compared to approximately 90 percent in 2023. The decrease in the percentage of generation from low-carbon sources was primarily due to lower electricity generation from the Regulated – Nuclear business segment as a result of higher planned and unplanned outage days at the Darlington GS and the cessation of commercial operation of Unit 1 of the Pickering GS, and from an increase in electricity generation from the Atura Power business segment due to higher demand for electricity generation from the combined cycle plants.
EBIT from generating stations by facility category; Climate-related transition risk [3]	Earnings before interest and income taxes from low-carbon electricity generation decreased in 2024, compared to 2023, primarily due to lower revenue from the Regulated – Nuclear Generation business segment and lower earnings from the Contracted Hydroelectric and Other Generation business segment. For further details, refer to the sections, *Regulated – Nuclear Generation Segment* and *Contracted Hydroelectric and Other Generation Segment* under the heading, *Discussion of Operating Results by Business Segment*.
Value and use of net proceeds from the green bond offerings	In June 2024, OPG's wholly-owned LME completed a private placement bond offering with the issuance of $200 million of green bonds, the net proceeds of which were used to refinance LME debt maturities in June 2024. OPG issued $1 billion of green bonds under its Medium Term Note Program in June 2024 and, in September 2024, re-opened these issuances for an additional $300 million. The net proceeds from these issuances were used to finance or re-finance Eligible Green Projects as defined under OPG's Sustainable Finance Framework. For further details, refer to the section, *Significant Developments* under the heading, *Financial Strength – Green Bonds*. OPG's Sustainable Finance Framework is available on the Company's website at www.opg.com.
Scope 1 GHG emissions – Direct and Emission Rate [4]	The Scope 1 GHG emissions metric identifies direct CO_2e emissions from OPG's thermal and nuclear operations and other facilities. For the year ended December 31, 2023, 3,362,796 tonnes of CO_2e (2022 – 2,745,140 tonnes of CO_2e) were emitted by thermal operations, representing over 99 percent of OPG's total CO_2e emissions, with the remainder emitted by nuclear operations and other facilities. The increase in CO_2e emissions in 2023 was primarily due to increased electricity generation from Atura Power's combined cycle plants. For the year ended December 31, 2023, OPG emitted CO_2e at an average rate of 41.7 grams per kilowatt-hour (kWh) of its total electricity generation (2022 – 35.3 grams per kWh).
Scope 2 GHG emissions – Indirect [4]	The Scope 2 GHG emissions metric identifies indirect CO_2e emissions from the purchase of energy from utility providers. For the year ended December 31, 2023, an estimated 18,244 tonnes of CO_2e (2022 – 16,197 tonnes of CO_2e) were emitted based on purchases of energy. The increase in CO_2e emissions in 2023 was primarily due to ongoing efforts to improve the GHG emissions inventory for this category.

1 Identifies capacity available from OPG's different generation sources and tracks low-carbon energy capacity relative to other sources. Nuclear, Renewable (which includes hydroelectric and solar) and Biomass (which uses wood pellets from sustainably managed forests) generation are considered to be low-carbon emitting generation sources.
2 Identifies electricity generated from OPG's different generation sources and tracks low-carbon energy generation sources (Nuclear, Renewable and Biomass) relative to other sources.
3 Identifies the portion of OPG's EBIT from electricity generating stations derived from low-carbon generation sources.
4 Scope 1 GHG emissions, Emission Rate and Scope 2 GHG emissions are reported annually.

Equity, Diversity and Inclusion

OPG is committed to workplace ED&I as part of a culture in which all employees, contractors and business partners are treated with fairness and respect. OPG recognizes that ED&I is integral to having a diverse, committed and agile workforce in a dynamic and changing industry, and is fundamental to achieving the Company's strategic goals.

With the support of its employees, host communities and business partners, the Company continues to advance its ED&I strategy and priorities, as follows:

- Accelerate equity – Ensure the Company's workforce is reflective of the communities it serves;
- Celebrate diversity – Celebrate employees with unique backgrounds, skills and characteristics; and
- Foster a culture of inclusion – Create inclusive cultures where everyone can connect, belong and grow.

The Company's commitment to ED&I underpins its 10-year ED&I Strategy and is reinforced through the Company's Code of Business Conduct and related governance. OPG's ED&I Strategy can be found on the Company's website www.opg.com.

In 2024, OPG received the Government of Canada's Employment Equity Achievement Award for Innovation. This award recognized OPG for achievement in implementing employment equity in the workplace, reflecting OPG's commitment to the Company's values of innovation and inclusion.

OPG continues to advance its ED&I commitment at the enterprise and site levels of the organization through comprehensive programming and support for local ED&I committees and employee resource groups across the province. These structures support ED&I policies, programs and initiatives, and facilitate employee engagement, feedback, networking opportunities, peer-to-peer discussion, and the promotion of ED&I awareness. During the third quarter of 2024, OPG completed a benchmarking exercise of its employee resource groups to better understand best practices and identify opportunities to enhance engagement and effectiveness of these structures.

OPG is committed to proactive employment practices to increase representation of the four designated groups under the *Employment Equity Act*. OPG uses metrics provided by Employment and Social Development Canada to assess progress and identify gaps between external availability and internal representation of the four designated groups. Labour market availability (LMA) calculations are based on data from Statistics Canada and the Canadian Survey on Disability, and are specific to OPG's industry, geographic locations and occupational categories. Under the *Employment Equity Act*, a workforce achieves employment equity when the internal representation of designated groups is equal to the relevant LMA.

OPG's workforce representation of these groups as at December 31 was as follows, compared to LMA:

Designated Group [1]	Labour Market Availability [2]	2024 [3]	2023 [3]
Women	27.7%	**24.6%**	24.0%
Indigenous Peoples	2.3%	**2.5%**	2.1%
Racialized People	23.9%	**22.9%**	19.3%
Persons with Disabilities	8.5%	**7.2%**	6.2%

[1] OPG's workforce representation values depend on employees voluntarily self-identifying.
[2] The LMA values shown are from 2023, as 2024 LMA data is not yet available.
[3] In 2024, workforce representation values were expanded to include temporary employees. For comparability, 2023 workforce representation values have been updated to also include temporary employees.

During 2024, OPG's continued to advance proactive employment equity initiatives that support the recruitment and advancement of designated group members, and conducted targeted outreach to increase the employees' response rate on OPG's employment equity workforce census. These efforts contributed to an increase in the overall workforce representation for the four designated groups in 2024, compared to 2023. OPG recognizes that representation gaps exist at various job levels and is committed to continuing to build a workforce that is reflective of the communities it serves across the organization.

OPG applies ED&I principles to succession planning and metrics to ensure candidate pools for management positions are diverse and equitable. Representation of designated groups at the Board and senior management level as of December 31, 2024 was as follows:

	Women		Total
Directors	**6**	**54.5%**	**11**
Diverse Directors [1]			**>50%**
Corporate Officers [2]	**4**	**44.4%**	**9**
Enterprise Leadership Team [3]	**6**	**54.5%**	**11**
Senior Leadership Team [4]	**25**	**34.7%**	**72**

[1] Under the *Canada Business Corporations Act* definition, OPG's Directors include three individuals who are members of more than one of the four designated groups.
[2] OPG management designated as corporate officers as defined by the *Business Corporations Act* (Ontario).
[3] Enterprise Leadership Team (ELT) comprises the OPG President and CEO, C-Suite Officers and Senior Vice Presidents who report directly to the CEO or who may be named to the ELT.
[4] In 2024, Senior Leadership Team values were expanded to include vice presidents, or equivalent, who do not report directly to a member of the ELT.

Indigenous Relations

OPG owns and operates electricity generation assets within the treaty and traditional territories of Indigenous peoples across Ontario. OPG's Indigenous Relations Policy and Reconciliation Action Plan formalize the Company's commitment to working with Indigenous communities to foster positive and mutually beneficial relationships that will create social and economic benefits through partnership and collaboration. OPG seeks to establish these relationships based on a foundation of respect, transparency and mutual responsibility. OPG's commitment in the area of Indigenous relations includes, where appropriate, pursuing generation-related development partnerships on the basis of long-term commercial arrangements and other joint projects proximate to the Company's present and future operations. OPG maintains a certified Gold Designation under the Canadian Council for Indigenous Business' Partnership Accreditation in Indigenous Relations program, which recognizes OPG as a national best-practices organization with a demonstrated commitment in the area of Indigenous relations. OPG's Reconciliation Action Plan can be found on the Company's website www.opg.com.

The Company has partnered successfully with Indigenous communities in Ontario on the construction of the Peter Sutherland Sr. hydroelectric GS project, the Lower Mattagami River hydroelectric project, the Lac Seul hydroelectric GS and the Nanticoke solar facility. The following table provides aggregate statistics related to these generation-related development partnerships for the years ended December 31:

Indigenous partnerships data	**2024**	**2023**
In-service generating capacity constructed in partnership with Indigenous communities *(MW)*	**574**	574
Electricity generation revenues earned in partnership with Indigenous Communities *(millions of dollars)*	**263**	261

OPG continues to undertake proactive and ongoing engagement with Indigenous communities in relation to the Company's operations and projects, including the following:

- On May 25, 2024, OPG delivered a formal apology to Wahnapitae First Nation (WFN) leadership and community members for historical impacts created when the Wanapitei Lake Dam was built, more than 100 years ago. The apology ceremony was part of a past grievance resolution process which OPG and WFN concluded with the signing of a final settlement agreement (FSA) in 2013. As part of the FSA, OPG and WFN were to complete shoreline protection in the community before the apology was delivered; and
- OPG is actively engaged with multiple Indigenous Nations and communities that have Aboriginal, Treaty and Inherent rights or interests on the lands and territories on which the DNNP is located. Twice monthly meetings took place throughout 2024 to ensure the First Nations with recognized Treaty Rights had access to information and were able to impact the project outcomes.

Increasing access to employment and procurement opportunities for Indigenous Peoples remains a key commitment in OPG's Reconciliation Action Plan. Central to this effort is OPG's Indigenous Opportunities Network (ION) program, which completed its seventh year in 2024. The program, a collaboration between OPG, the Electrical Power Systems Construction Association (EPSCA), Kagita Mikam Aboriginal Employment and Training, unions, and vendors engaged on the Darlington Refurbishment project, places Indigenous participants in energy sector building trades, such as carpenters, boilermakers, and millwrights.

In 2024, OPG initiated a cross-functional process to develop a new ION Strategy to identify areas of success and opportunities for growth, informed by feedback from former program participants, Indigenous communities and stakeholders as well as industry trends. As of December 31, 2024, the ION program exceeded its annual target by 10 percent, with 55 ION participants placed into employment roles. Since the program was launched in 2018, a total of 180 ION participants have been placed into employments roles.

OPG continues to focus on increasing opportunities for Indigenous businesses to participate in the Company's supply chain through competitive procurement processes. Over the course of 2024, OPG awarded approximately $170 million in such contracts to Indigenous businesses and partnerships. Since the launch of OPG's Reconciliation Action Plan in 2021, OPG has awarded approximately $370 million in contracts to Indigenous businesses, representing approximately 37 percent of the Company's commitment to generate $1 billion in economic impact with Indigenous businesses and communities over a 10-year period.

BUSINESS SEGMENTS

As at December 31, 2024, OPG had the following five reportable business segments:

- Regulated – Nuclear Generation;
- Regulated – Nuclear Sustainability Services;
- Regulated – Hydroelectric Generation;
- Contracted Hydroelectric and Other Generation; and
- Atura Power.

Regulated – Nuclear Generation Segment

The Regulated – Nuclear Generation business segment operates in Ontario, generating and selling electricity from the Darlington and Pickering nuclear generating stations, both owned and operated by OPG. The business segment also includes revenue under the terms of a long-term lease arrangement and related non-lease agreements with Bruce Power related to the Bruce nuclear generating stations. This includes lease revenue, fees for nuclear waste management services, and revenue from heavy water sales and detritiation services. The segment also earns revenue from regulated isotope sales contracts and from supplying ancillary services to the electricity system from the nuclear generating stations operated by OPG. Additionally, the segment includes expenditures related to the development of SMRs at the DNNP site as these SMRs are prescribed for rate regulation by the OEB.

Regulated – Nuclear Sustainability Services Segment

OPG's Regulated – Nuclear Sustainability Services business segment reports the results of the Company's operations associated with the management of used nuclear fuel and L&ILW, the decommissioning of OPG's nuclear generating stations including the stations on lease to Bruce Power and other facilities, the management of the Nuclear Segregated Funds, and related activities including the inspection and maintenance of the used nuclear fuel and L&ILW storage facilities. Accordingly, accretion expense, which is the increase in the Nuclear Liabilities carried on the consolidated balance sheets in present value terms due to the passage of time, and earnings from the Nuclear Segregated Funds are reported under this segment.

As the nuclear generating stations operate over time, OPG incurs incremental costs related to used nuclear fuel and L&ILW, which increase the Nuclear Liabilities. OPG charges these incremental costs to current operations in the Regulated – Nuclear Generation business segment to reflect the cost of producing energy from the Darlington and Pickering nuclear generating stations and earning revenue under the Bruce Power lease arrangement and related agreements. Since the incremental costs increase the Nuclear Liabilities reported in the Regulated – Nuclear Sustainability Services business segment, OPG records an inter-segment charge between the Regulated – Nuclear Generation and the Regulated – Nuclear Sustainability Services business segments. The impact of the inter-segment charge is eliminated in the consolidated statements of income and balance sheets.

The Regulated – Nuclear Sustainability Services business segment is considered regulated because OPG's costs associated with the Nuclear Liabilities are included in the OEB's determination of regulated prices for electricity produced from the Darlington and Pickering nuclear generating stations.

Regulated – Hydroelectric Generation Segment

OPG's Regulated – Hydroelectric Generation business segment operates in Ontario, generating and selling electricity from most of the Company's hydroelectric generating stations. The business segment comprises the results of 54 regulated hydroelectric generating stations located across a number of major river systems in the province. Additionally, the business segment includes revenues from supplying ancillary services to the electricity system and other revenues from OPG's regulated hydroelectric stations.

Contracted Hydroelectric and Other Generation Segment

The Contracted Hydroelectric and Other Generation business segment operates in Ontario and in the US, generating and selling electricity from the Company's non-regulated generating stations. The segment primarily includes generating facilities that operate under ESAs with the IESO. The majority of the generating facilities in the US currently supply energy and capacity into wholesale electricity markets.

The Contracted Hydroelectric and Other Generation business segment includes OPG's share of equity income from co-owned and minority-held non-regulated electricity generating facilities, and revenues from supplying ancillary services to the electricity system and other revenues from the stations included in the segment.

Atura Power Segment

The Atura Power business segment operates in Ontario, generating and selling electricity from the Company's fleet of combined cycle generating stations. All of the generating facilities included in the segment operate under ESAs with the IESO. The segment also includes revenues from participation in the IESO's operating reserve markets and generation cost guarantee programs. Additionally, the segment includes Atura Power's expenditures on development projects, including low-carbon hydrogen production, battery energy storage systems and combined cycle plant expansion.

DISCUSSION OF OPERATING RESULTS BY BUSINESS SEGMENT

Regulated – Nuclear Generation Segment

(millions of dollars – except where noted)	**2024**	**2023**
Electricity generation (TWh)	**33.0**	36.1
Revenue	**3,798**	4,277
Fuel expense	**288**	269
Gross margin	**3,510**	4,008
Operations, maintenance and administration expenses	**2,474**	2,410
Property taxes	**25**	25
Other losses	**9**	-
Earnings before interest, income taxes, depreciation and amortization	**1,002**	1,573
Depreciation and amortization expenses	**665**	527
Earnings before interest and income taxes	**337**	1,046

Earnings before interest and income taxes from the segment decreased by $709 million in 2024, compared to 2023.

The decrease in segment earnings was primarily due to lower revenue of $324 million driven by lower electricity generation of 3.1 TWh, and a decrease in revenue of $146 million from a lower OEB-approved nuclear base regulated price in effect during 2024.

Higher OM&A expenses of $64 million and lower amounts deferred in the Rate Smoothing Deferral Account of $64 million also contributed to the lower segment earnings. The higher OM&A expenses were primarily due to higher expenditures related to the cyclical maintenance activities and other planned maintenance work executed as a result of higher planned outage days at the Darlington GS, partially offset by lower expenses due to fewer planned outage days at the Pickering GS. The decrease in segment earnings was partially offset by a higher amount of $48 million recorded as recoverable from customers in the Pickering B Extension Variance Account in connection with forgone electricity generation due to activities associated with the extension of commercial operation of Units 5 to 8 of the Pickering GS to September 2026, prior to the planned refurbishment.

Increased compensation expenses in 2024 resulting from the ratification of a three-year renewal collective agreement between the PWU and OPG in November 2024 were offset by the higher compensation expenses recognized in 2023 related to the impact on OPG's collective agreements from the Bill 124 Court Decision and the OEB's subsequent decisions issued in 2023 that denied OPG's request for a regulatory variance account to record these cost impacts.

The higher depreciation and amortization expenses of $101 million in 2024, compared to 2023, excluding amortization expense related to the recovery and repayment of OEB-authorized regulatory account balances, were primarily due to higher depreciation expense recognized from placing capital in service, including the return to service of Unit 3 and Unit 1 of the Darlington GS following refurbishment in July 2023 and November 2024, respectively, and lower amounts of depreciation expense recorded as recoverable from customers through regulatory accounts.

An increase in revenue in 2024 reflecting the impact of the new rate riders for disposition of regulatory accounts under the OEB's June 2024 decision and order approving the 2024 Settlement Agreement, effective July 1, 2024, was largely offset by a corresponding increase in the amortization expense of regulatory assets and regulatory liabilities recorded for regulatory account balances.

The planned and unplanned outage days at the Darlington and Pickering nuclear generating stations were as follows:

	2024	2023
Planned Outage Days		
Darlington GS [1]	**118.3**	11.8
Pickering GS	**295.6**	371.2
Unplanned Outage Days		
Darlington GS [1]	**88.3**	20.9
Pickering GS	**76.6**	76.1

[1] The planned and unplanned outage days exclude unit(s) during the period in which they are undergoing refurbishment. Accordingly, Unit 3 and Unit 1 of the Darlington GS were excluded from the reported planned and unplanned outage days during their refurbishment periods of September 3, 2020 to July 17, 2023, and February 15, 2022 to November 27, 2024, respectively. Unit 4 of the Darlington GS has been excluded from the measure since commencing refurbishment on July 19, 2023.

The higher planned outage days at the Darlington GS during 2024, compared to 2023, were driven by the impact of the station's cyclical maintenance schedule and other planned maintenance work executed on the station's Unit 2 in the first half of the year.

The lower planned outage days at the Pickering GS during 2024, compared to 2023, were driven by the impact of the station's cyclical maintenance schedule and other planned maintenance work executed at the station in 2023.

The higher unplanned outage days at the Darlington GS during 2024, compared to 2023, were primarily due to non-routine turbine generator maintenance activities on the station's Unit 2 in the fourth quarter of 2024 and steam generator repair activities on the station's Unit 3 during the first half of 2024.

The unplanned outage days at the Pickering GS during 2024 were comparable to 2023.

The Unit Capability Factors for the Darlington and Pickering nuclear generating stations were as follows:

	2024	2023
Unit Capability Factor *(%)* [1, 2]		
Darlington GS	**74.6**	97.0
Pickering GS	**83.3**	80.7

[1] Nuclear Unit Capability Factor excludes unit(s) during the period in which they are undergoing refurbishment.
[2] Nuclear Unit Capacity Factor is defined in the section, *Key Operating Performance Indicators and Non-GAAP Financial Measures*.

The Unit Capability Factor at the Darlington GS decreased in 2024, compared to 2023, primarily due to a higher number of planned and unplanned outage days. The higher Unit Capability Factor at the Pickering GS in 2024, compared to 2023, was due to fewer planned outage days.

Regulated – Nuclear Sustainability Services Segment

(millions of dollars – except where noted)	**2024**	**2023**
Revenue	**185**	203
Operations, maintenance and administration expenses	**185**	203
Accretion on nuclear fixed asset removal and nuclear waste management liabilities	**1,210**	1,167
Earnings on nuclear fixed asset removal and nuclear waste management funds	**(1,102)**	(1,057)
Loss before interest and income taxes	**(108)**	(110)

The segment loss before interest and income taxes decreased by $2 million in 2024 compared to 2023. The decrease was primarily due to higher earnings on the Nuclear Segregated Funds, largely offset by higher accretion expense on the Nuclear Liabilities. The higher accretion expense on the Nuclear Liabilities was due to the increase in the present value of the underlying obligation to reflect the passage of time.

The higher earnings from the Nuclear Segregated Funds were primarily due to the growth in the present value of the underlying funding liabilities per the approved ONFA reference plan in effect. As both the Decommissioning Segregated Fund and the Used Fuel Segregated Fund were in an overfunded position during both 2024 and 2023, they were not impacted by market returns or the rate of return guarantee provided by the Province for a portion of the Used Fuel Segregated Fund. When both funds are in an overfunded position, OPG limits the amount of Nuclear Segregated Funds assets reported on the consolidated balance sheet to the present value of the underlying funding liabilities per the approved ONFA reference plan in effect. Further details on the accounting for the Nuclear Segregated Funds can be found in the section, *Critical Accounting Policies and Estimates* under the heading, *Nuclear Fixed Asset Removal and Nuclear Waste Management Funds*.

Regulated – Hydroelectric Generation Segment

(millions of dollars – except where noted)	2024	2023
Electricity generation (TWh)	**32.5**	31.4
Revenue [1]	**1,571**	1,485
Fuel expense	**335**	327
Gross margin	**1,236**	1,158
Operations, maintenance and administration expenses	**413**	391
Property tax	**1**	1
Other losses	**11**	9
Earnings before interest, income taxes, depreciation and amortization	**811**	757
Depreciation and amortization expenses	**227**	181
Earnings before interest and income taxes	**584**	576

[1] During 2024 and 2023, the Regulated – Hydroelectric Generation business segment revenue included incentive payments of $28 million and $15 million, respectively, related to the OEB-approved hydroelectric incentive mechanism. The mechanism provides a pricing incentive to OPG to shift hydroelectric production from lower market price periods to higher market price periods, reducing the overall costs to customers. The incentive payments are reduced to remove incentive revenues arising in connection with SBG conditions.

Earnings before interest and income taxes from the segment increased by $8 million in 2024, compared to 2023. The increase in segment earnings was mainly due to higher revenues, largely driven by fewer outages impacting production at the regulated hydroelectric generating stations in 2024 and higher hydroelectric incentive mechanism payments, which was partly offset by higher OM&A expenses, mainly driven by increased planned maintenance activities.

An increase in revenue in 2024 reflecting the impact of the new rate riders for disposition of regulatory accounts under the OEB's June 2024 decision and order approving the 2024 Settlement Agreement, effective July 1, 2024, was largely offset by a corresponding increase in the amortization expense of regulatory assets and regulatory liabilities recorded for regulatory account balances.

The Hydroelectric Availability for the generating stations reported in the Regulated – Hydroelectric Generation business segment was as follows:

	2024	2023
Hydroelectric Availability *(%)* [1]	**85.8**	85.4

[1] Hydroelectric Availability is defined in the section, *Key Operating Performance Indicators and Non-GAAP Financial Measures*.

The Hydroelectric Availability in 2024 was comparable to 2023.

Contracted Hydroelectric and Other Generation Segment

(millions of dollars – except where noted)	**2024**	**2023**
Electricity generation (TWh)	**5.0**	5.2
Revenue	**815**	815
Fuel expense	**59**	58
Gross margin	**756**	757
Operations, maintenance and administration expenses	**307**	274
Accretion on fixed asset removal liabilities	**9**	8
Property taxes	**18**	18
Other losses	**6**	4
Earnings before interest, income taxes, depreciation and amortization	**416**	453
Depreciation and amortization expenses	**174**	165
Earnings before interest and income taxes	**242**	288

Earnings before interest and income taxes from the segment decreased by $46 million in 2024, compared to 2023. The decrease was primarily due to lower earnings from the US operations, largely driven by OM&A expenses reflecting business development activities for community solar generation projects following the acquisition of Lightstar in January 2024, and higher depreciation and amortization expenses. The higher depreciation and amortization expenses were driven primarily by a depreciation adjustment recorded during the second quarter of 2024 in relation to the reclassification of certain US-based hydroelectric facilities from being held for sale to PP&E and intangible assets.

The Hydroelectric Availability and the Thermal Equivalent Forced Outage Rate (EFOR) within the Contracted Hydroelectric and Other Generation business segment were as follows:

	2024	**2023**
Hydroelectric Availability *(%)* [1, 2]	**80.8**	85.9
Thermal EFOR *(%)* [2]	**3.8**	1.8

[1] Hydroelectric Availability reflects hydroelectric generating stations in Ontario and the United States.
[2] Hydroelectric Availability and Thermal EFOR are defined in the section, Key Operating Performance Indicators and Non-GAAP Financial Measures.

The Hydroelectric Availability decreased in 2024, compared to 2023, primarily due to higher planned outages at the Lower Mattagami hydroelectric generating stations.

The Thermal EFOR increased in 2024, compared to 2023, primarily due to higher unplanned outages at the Lennox GS and the Atikokan GS.

Atura Power Segment

(millions of dollars – except where noted)	**2024**	**2023**
Electricity Generation (TWh)	**11.6**	8.2
Revenue	**871**	789
Fuel expense	**367**	320
Gross margin	**504**	469
Operations, maintenance and administration expenses	**98**	80
Accretion on fixed asset removal liabilities	**2**	2
Property taxes	**2**	3
Other losses (gains)	**1**	(93)
Earnings before interest, income taxes, depreciation and amortization	**401**	477
Depreciation and amortization expenses	**125**	121
Earnings before interest and income taxes	**276**	356

Earnings before interest and income taxes from the segment decreased by $80 million in 2024 compared to 2023. The decrease was primarily due to the release of a previously recognized contingent liability in the fourth quarter of 2023 under a 2021 settlement agreement related to an acquisition of combined cycle plants. The decrease was partially offset by higher gross margin as a result of higher demand for electricity generation from the combined cycle plants. The higher OM&A expenses were due to increased maintenance activities at the combined cycle plants.

The Thermal Availability for the assets within the Atura Power business segment was as follows:

	2024	**2023**
Thermal Availability *(%)* [1]	**86.4**	89.5

[1] Thermal Availability is defined in the section, *Key Operating Performance Indicators and Non-GAAP Financial Measures*. The measure reflects the availability of the combined cycle plants as at the year-end date, calculated on a three-year rolling average basis.

The Thermal Availability for the combined cycle plants decreased as at December 31, 2024, compared to December 31, 2023, primarily due to a planned outage at the Halton Hills GS.

LIQUIDITY AND CAPITAL RESOURCES

OPG maintains a range of funding sources to ensure sufficient liquidity and meet financing requirements. These sources are used for multiple purposes including: to invest in plants and technologies, undertake major projects and business acquisitions, fund long-term obligations such as contributions to the pension fund, make payments under the OPEB plans, fund expenditures on Nuclear Liabilities not eligible for reimbursement from the Nuclear Segregated Funds, service and repay long-term debt, and provide general working capital.

Changes in cash and cash equivalents for 2024 and 2023 were as follows:

(millions of dollars)	**2024**	**2023**
Cash, cash equivalents and restricted cash, beginning of period	**1,481**	1,595
Cash flow provided by operating activities	**2,211**	2,538
Cash flow used in investing activities	**(3,668)**	(2,969)
Cash flow provided by financing activities	**1,326**	320
Effect of exchange rate changes on cash, cash equivalents and restricted cash	**13**	(3)
Net decrease in cash, cash equivalents and restricted cash	**(118)**	(114)
Cash and cash equivalents and restricted cash, end of period	**1,363**	1,481

For a discussion of cash flow provided by operating activities, refer to the details in the section, *Highlights* under the heading, *Overview of Results*.

Investing Activities

Electricity generation is a capital-intensive business. It requires continued investment in plants and technologies to maintain and improve operating performance including asset reliability, safety and environmental performance, to increase the generating capacity and extend the operating life of existing stations, and to invest in the development of new generating facilities, emerging technologies and other business growth opportunities.

Cash flow used in investing activities increased by $699 million in 2024, compared to 2023, primarily due to higher capital expenditures, mainly within the Regulated – Nuclear Generation business segment, and the acquisition of Lightstar on January 31, 2024. The increase was partially offset by the purchase of the new corporate headquarters building and surrounding lands at 1908 Colonel Sam Drive in Oshawa, Ontario in February 2023.

Financing Activities

As at December 31, 2024, long-term debt outstanding was $11,707 million, with $604 million representing amounts due within one year. Short-term debt outstanding as at December 31, 2024 was $215 million.

Cash flow provided by financing activities increased by $1,006 million in 2024, compared to 2023, primarily due the issuance of $1.3 billion of green bonds through the Company's Medium Term Note Program during 2024. The increase was partially offset by higher repayments of long-term debt and lower net issuances of short-term debt during 2024.

Committed credit facilities and maturity dates as at December 31, 2024 were as follows:

(millions of dollars)		**Amount**
Bank facilities:		
Corporate [1, 2]		**1,211**
Corporate [1]	US Dollars	**750**
Lower Mattagami Energy Limited Partnership [3]		**460**
OPG Eagle Creek Holdings LLC and subsidiaries	US Dollars	**20**
Ontario Financing Authority facility [2]		**1,250**
Ontario Electricity Financial Corporation facility [2]		**750**

[1] Certain corporate credit facilities contain a sustainability-linked feature that allows reduced pricing if the Company meets certain sustainability targets.
[2] Represents amounts available under the facility net of debt issuances.
[3] Letter of credit of $60 million was outstanding under this facility as at December 31, 2024.

Short-term debt, letters of credit and guarantees as at December 31 were as follows:

(millions of dollars)	**2024**	**2023**
Lower Mattagami Energy Limited Partnership	**215**	200
Total short-term debt	**215**	200
Letters of credit	**504**	525
Guarantees [1]	**30**	32

[1] As at December 31, 2024, the potential impact of the fair value of the outstanding guarantees to income is $1 million and OPG does not expect to make any payments associated with these guarantees.

As of December 31, 2024, a total of $504 million of letters of credit had been issued. As of December 31, 2024, this included $314 million for the supplementary pension plans, $60 million for Lower Mattagami Energy Limited Partnership, $51 million for general corporate purposes, $45 million for Atura Power, $19 million for Eagle Creek and its subsidiaries, $14 million for UMH Energy Partnership, and $1 million for PSS Generating Station Limited Partnership.

Long-term debt balances as at December 31 were as follows:

(millions of dollars)	**2024**	**2023**
Medium Term Notes payable	**5,950**	4,650
Senior notes payable under OEFC and corporate credit facilities	**2,859**	2,822
Project financing	**2,916**	2,877
Other	**25**	25
Total Long-term debt [1]	**11,750**	10,374

[1] Excludes the impact of fair value premium and unamortized bond issuance fees.

Further details on financing activities during the year can be found in the section, *Significant Developments* under the heading, *Financial Strength*.

Share Capital

As at December 31, 2024 and 2023, OPG had 256,300,010 common shares issued and outstanding at a stated value of $5,126 million. OPG is authorized to issue an unlimited number of common shares without nominal or par value. Any issue of new shares is subject to the consent of OPG's shareholder, the Province.

As at December 31, 2024 and 2023, OPG had 18,343,815 Class A shares issued and outstanding at a stated value of $787 million. OPG is entitled to redeem outstanding Class A shares as may be approved by OPG's Board.

Contractual Obligations

OPG's contractual obligations as at December 31, 2024 were as follows:

(millions of dollars)	2025	2026	2027	2028	2029	Thereafter	Total
Fuel supply agreements	218	186	172	143	109	343	1,171
Contributions to the OPG registered pension plan [1]	125	128	-	-	-	-	253
Long-term debt repayment	604	674	530	269	505	9,168	11,750
Interest on long-term debt	439	421	410	392	379	5,153	7,194
Short-term debt repayment	215	-	-	-	-	-	215
Commitments related to Darlington Refurbishment project [2]	163	-	-	-	-	-	163
Commitments related to Atura Power development projects [2]	503	132	-	16	-	-	651
Commitments related to Pickering Refurbishment project and DNNP [2]	229	-	-	-	-	-	229
Operating licences	57	57	64	62	51	105	396
Operating lease obligations	15	14	11	4	3	36	83
Accounts payable, accrued charges and other payables	1,890	9	10	9	10	278	2,206
Other	50	71	49	33	20	89	312
Total	4,508	1,692	1,246	928	1,077	15,172	24,623

[1] Represents the estimated pension contributions consistent with the period covered by the actuarial valuation of the OPG registered pension plan as at January 1, 2024. The next actuarial valuation of the OPG registered pension plan must have an effective date no later than January 1, 2027. Funding requirements after January 1, 2027 are excluded due to significant variability in the assumptions required to project the timing of future cash flows.

[2] Represents estimated currently committed costs to close the projects, including accruals for completed work, demobilization of project staff and cancellation of existing contracts and material orders.

Ontario Nuclear Funds Agreement

Pursuant to the ONFA, OPG may be required to make contributions to the Nuclear Segregated Funds, based on life cycle cost estimates and resulting funding liabilities for nuclear facilities decommissioning and nuclear waste management, determined under periodically updated reference plans as approved by the Province. Based on the 2022 ONFA Reference Plan approved by the Province, OPG is currently not required to make overall contributions to the Nuclear Segregated Funds. Contributions may be required in the future should the Nuclear Segregated Funds be in an underfunded position at the time of the next ONFA reference plan update, which is scheduled to be completed at the end of 2026. Such may be the case as a result of variability in fund asset performance due to volatility inherent in financial markets and, for the portion of the Used Fuel Segregated Fund guaranteed by the Province, changes in the Ontario CPI, as well as changes in funding liability estimates.

Further details on the Nuclear Segregated Funds can be found in the section, *Critical Accounting Policies and Estimates* under the heading, *Nuclear Fixed Asset Removal and Nuclear Waste Management Funds*.

Collective Agreements

As at December 31, 2024, OPG and its wholly-owned subsidiaries had approximately 11,030 regular and term-based employees (regular workforce), mostly in Ontario. Pursuant to collective agreements, term-based unionized employees may be hired in place of regular unionized employees for positions likely to be eliminated as a result of the shutdown of the Pickering GS units. Most of OPG's regular workforce in Ontario is represented by two unions:

- PWU – As at December 31, 2024, this union represented approximately 5,180 regular and term-based employees, or 47 percent of OPG and its subsidiaries' regular workforce. Union membership includes station operators, technicians, skilled trades, clerical staff and security personnel. On November 20, 2024, the PWU membership ratified a three-year renewal collective agreement negotiated by the parties, covering the period from April 1, 2024 to March 31, 2027.

  Additionally, there are two collective agreements between the PWU and Atura Power, and a collective agreement between the PWU and LEP. On July 19, 2024, a two-year renewal collective agreement expiring on November 16, 2025 was ratified by the PWU-represented employees at the Brighton Beach GS. The governing collective agreement covering PWU-represented employees at Atura Power's other facilities expired on December 31, 2024, and negotiations for a renewal collective agreement are ongoing. The governing two-year collective agreement between PWU and LEP expired on February 28, 2025, and negotiations for a renewal collective agreement are ongoing.

- Society – As at December 31, 2024, this union represented approximately 4,000 regular and term-based employees, or 36 percent of OPG and its subsidiaries' regular workforce. Union membership includes supervisors, professional engineers, scientists and other professionals. The current two-year collective agreement between the Society and OPG expires on December 31, 2025.

  In June 2023, the Society filed a related employer application with the Ontario Labour Relations Board. The application identified OPG and Atura Power as responding parties and asserted that they constitute a single employer for purposes of the Ontario *Labour Relations Act, 1995*, or in the alternative that a sale of business has occurred. Both OPG and Atura Power are opposing the application. Discussions are ongoing between the parties and two additional hearing dates have been scheduled in September 2025.

In addition, construction work in Ontario is performed through craft unions with established bargaining rights at OPG facilities. These bargaining rights are established either through the EPSCA or directly with OPG or its wholly-owned subsidiaries. The associated collective agreements are negotiated either directly between the parties or through the EPSCA, as applicable. Most of these collective agreements currently have multi-year terms that expire on April 30, 2025. Negotiations for the renewal of such collective agreements are ongoing, with 11 agreements finalized, one pending ratification, and nine agreements pending negotiations. All renewal agreements are expected to have five-year terms covering the period from May 1, 2025 to April 30, 2030. EPSCA is a voluntary association of owners and contractors who perform work in Ontario's electrical power systems sector.

BALANCE SHEET HIGHLIGHTS

The following section provides other highlights of OPG's 2024 audited consolidated financial position using selected balance sheet data as at December 31:

(millions of dollars)	2024	2023
Property, plant and equipment – net The increase was primarily due to capital expenditures during the year, partially offset by depreciation expense. Further details on capital expenditures can be found in the section, Highlights under the heading, *Capital Expenditures.*	**36,131**	33,460
Nuclear fixed asset removal and nuclear waste management funds *(current and non-current portions)* The increase was primarily due to earnings recognized on the Nuclear Segregated Funds, partially offset by reimbursement of eligible expenditures on nuclear fixed asset removal and nuclear waste management activities from the Nuclear Segregated Funds.	**22,412**	21,563
Long-term debt *(current and non-current portions)* The increase was primarily due to issuances under the Company's Medium Term Note Program and corporate credit facilities, net of debt repayments to the OEFC.	**11,707**	10,342
Fixed asset removal and nuclear waste management liabilities The increase was primarily a result of accretion expense, partially offset by expenditures on fixed asset removal and nuclear waste management activities.	**26,042**	25,386
Pension liabilities The decrease was primarily due to the excess of actual returns on pension plan assets over interest costs on the liabilities during 2024 and the remeasurement of the liabilities at the end of 2024 reflecting higher discount rates.	**46**	883

Off-Balance Sheet Arrangements

In the normal course of operations, OPG engages in a variety of transactions that, under US GAAP, are either not recorded in the Company's consolidated financial statements or are recorded in the Company's consolidated financial statements using amounts that differ from the full contract amounts. Principal off-balance sheet activities for OPG include guarantees and long-term contracts.

Guarantees

As part of normal business, OPG and certain of its subsidiaries and joint ventures enter into various agreements to provide financial or performance assurance to third parties. Such agreements include guarantees, standby Letters of Credit and surety bonds.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

OPG's significant accounting policies, including the impact of major recent accounting pronouncements, are outlined in Note 3 of OPG's 2024 audited consolidated financial statements. Certain of these policies are recognized as critical accounting policies by virtue of the subjective and complex judgments and estimates required around matters that are inherently uncertain and could result in materially different amounts being reported under different conditions or assumptions. The critical accounting policies and estimates that affect OPG's US GAAP consolidated financial statements are highlighted below.

Exemptive Relief for Reporting under US GAAP

In September 2022, OPG received an extension to its exemptive relief from the OSC requirements of section 3.2 of National Instrument 52-107 – *Acceptable Accounting Policies and Auditing Standards*. The exemption allows OPG to file consolidated financial statements based on US GAAP, rather than IFRS, without becoming a Securities and Exchange Commission registrant. This exemption replaced the previous exemptive relief received by OPG from the OSC in April 2018. The exemption will terminate on the earliest of the following:

- January 1, 2027;
- The financial year that commences after OPG ceases to have activities subject to rate regulation; and
- The financial year that commences on or following the later of:
    I. The effective date prescribed by the International Accounting Standards Board (IASB) for the mandatory application of a standard within IFRS specific to entities with rate regulated activities (Mandatory Rate-regulated Standard); and
    II. Two years after the IASB publishes the final version of a Mandatory Rate-regulated Standard.

The IASB's current standard-setting project related to entities with rate-regulated activities is ongoing.

Rate Regulated Accounting

The *Ontario Energy Board Act, 1998* and *Ontario Regulation 53/05* provide that OPG receives regulated prices for electricity generated from the 54 prescribed hydroelectric generating stations and the Darlington and Pickering nuclear generating stations located in Ontario. OPG's regulated prices for these facilities are determined by the OEB.

The OEB is a self-funding Crown corporation. Its mandate and authority come from the *Ontario Energy Board Act, 1998*, the *Electricity Act, 1998* and a number of other provincial statutes. The OEB is an independent, quasi-judicial tribunal that reports to the Legislature of the Province through the Ontario Ministry of Energy and Electrification. It regulates market participants in Ontario's natural gas and electricity industries. The OEB carries out its regulatory functions through public hearings and other more informal processes such as consultations.

US GAAP recognizes that rate regulation can create economic benefits and obligations that are required by the regulator to be obtained from, or settled with, the customers. When the Company assesses that there is sufficient assurance that incurred costs in respect of the regulated facilities will be recovered in the future, those costs are deferred and reported as a regulatory asset. When the Company is required to refund amounts to customers in the future in respect of the regulated facilities, including amounts related to costs that have not been incurred and for which the OEB has provided recovery through regulated prices, the Company records a regulatory liability.

Certain regulatory assets and regulatory liabilities recognized by the Company relate to regulatory accounts authorized by the OEB, or *Ontario Regulation 53/05*. The measurement of these regulatory assets and regulatory liabilities is subject to certain estimates and assumptions, including assumptions made in the interpretation of *Ontario Regulation 53/05* and the OEB's decisions. The estimates and assumptions made in the interpretation of the regulation and the OEB's decisions are reviewed as part of the OEB's regulatory process.

Regulatory assets and regulatory liabilities for regulatory account balances approved by the OEB for inclusion in regulated prices are amortized based on approved recovery or repayment periods.

In addition to regulatory assets and regulatory liabilities for regulatory accounts, OPG recognizes regulatory assets and regulatory liabilities for unamortized amounts recorded in accumulated other comprehensive income or loss (AOCI) in respect of pension and OPEB obligations, deferred income taxes, and, as applicable, differences between interim regulated prices charged to customers during an interim rate period and final regulated prices authorized or to be authorized by the OEB for that period, to reflect the expected recovery or repayment of these amounts through future regulated prices to be charged to customers. There are measurement uncertainties related to these balances due to the assumptions made in the determination of pension and OPEB obligations and deferred income taxes that are attributed to the regulated business segments, and assumptions made with respect to final regulated prices to be authorized by the OEB for an interim rate period.

The regulatory assets and regulatory liabilities recognized by the Company for unamortized pension and OPEB amounts recorded in AOCI has reflected the OEB's use, since April 1, 2008, of the accrual basis of accounting for including pension and OPEB amounts in approved regulated prices for OPG. This is also the manner in which these costs are recognized in OPG's audited consolidated financial statements. Therefore, unamortized amounts in respect of OPG's pension and OPEB plans recognized in AOCI generally would not be reflected in regulated prices until they have been reclassified from AOCI and recognized as amortization components of the benefit costs for these plans. The regulatory assets and regulatory liabilities are reduced as underlying unamortized balances are amortized as components of the benefit cost.

For the period from November 1, 2014 to December 31, 2021, the OEB limited amounts for pension and OPEB costs included in the nuclear and hydroelectric regulated prices to the respective regulated business' portions of the Company's cash expenditures for its pension and OPEB plans. The differences between actual pension and OPEB costs determined using the accrual method applied in OPG's audited consolidated financial statements and OPG's actual cash expenditures for these plans were captured in the OEB-authorized Pension & OPEB Cash Versus Accrual Differential Deferral Account for future consideration by the OEB.

In 2017, the OEB issued a report outlining the guiding principles and policy for recovery mechanisms of pension and OPEB costs of rate regulated utilities in the Ontario electricity and natural gas sectors. The report established the accrual basis of accounting as the method of determining pension and OPEB amounts for rate-setting purposes, unless the OEB finds that this method does not result in just and reasonable rates in the circumstances of a particular utility.

The OEB's February 2019 decision and order approving the proposed settlement reached by OPG and intervenors on OPG's August 2018 application to disposition regulatory accounts resulted in approval to recover the balance recorded in the Pension & OPEB Cash Versus Accrual Differential Deferral Account as of December 31, 2017, without adjustments. In making that decision and order, the OEB approved that the accrual method was the appropriate regulatory accounting and cost recovery basis for the December 31, 2017 pension and OPEB-related balances in the Pension & OPEB Cash Versus Accrual Differential Deferral Account.

The 2021 Settlement Agreement provided for recovery of pension and OPEB costs in the nuclear revenue requirements using the accrual method of accounting, with the differences between actual pension and OPEB costs determined using such method and corresponding forecast amounts reflected in the approved revenue requirements to be recorded in the Pension and OPEB Cost Variance Account for subsequent review and approval by the OEB. For the hydroelectric facilities, the Pension & OPEB Cash Versus Accrual Differential Deferral Account continues to record the differences between actual pension and OPEB costs determined using the accrual method and actual cash expenditures for these plans. The 2021 Settlement Agreement and the 2024 Settlement Agreement provided for recovery of the balance recorded in the Pension & OPEB Cash Versus Accrual Differential Deferral Account as of December 31, 2019 and December 31, 2022, respectively, without adjustments.

It is the Company's position that the above outcomes have collectively established the accrual basis of accounting as the default method of determining pension and OPEB amounts for rate-setting purposes and that there is sufficient likelihood that unamortized pension and OPEB amounts that have not yet been reclassified from AOCI, as well as amounts recorded in the Pension & OPEB Cash Versus Accrual Differential Deferral Account subsequent to

December 31, 2022 will be included in future regulated prices. Therefore, the Company continues to recognize regulatory assets and regulatory liabilities for these balances.

Useful Lives of Long-Lived Assets

The accounting estimates related to end-of-life assumptions for PP&E and intangible assets require significant management judgment, including consideration of various operating, technological and economic factors. OPG reviews the estimated useful lives for its PP&E and intangible assets, including end-of-life assumptions for major generating assets, on a regular basis. Major nuclear station components are depreciated over the lesser of the station life and the life of the components.

For nuclear generating stations operated by OPG, establishing station end-of-life assumptions primarily involves an assessment of operating lives of major life-limiting components such as fuel channel assemblies, taking into account expectations of future ability to economically operate and as appropriate refurbish the station for continued use. Expected operating lives of major life-limiting components are established through technical assessments of their fitness-for-service. Expectations of future ability to operate the station may be affected by operating licence requirements, ability to recover capital, operating and decommissioning costs and government policy, among other factors.

Although there is a link between the age of a hydroelectric generating facility and the capital investment required to maintain that facility, age does not generally establish an overall upper limit on the expected useful life of a hydroelectric generating station. Regular maintenance and the replacement of specific components typically allow hydroelectric stations to operate for very long periods. An estimated useful life not exceeding 100 years is used by OPG to depreciate dams and other major hydroelectric station structures.

Station end-of-life assumptions for thermal and solar generating assets are established based on operating life expectations of major components and expectations of future ability to economically operate the facility taking into consideration available revenue mechanisms.

Goodwill

Goodwill represents the excess of the purchase price of an acquired business over the fair value of the assets acquired and liabilities assumed.

The Company allocates goodwill to operating segments that are expected to benefit from the goodwill recognized. At least once a year, the Company assesses qualitative and quantitative factors to determine whether it is more likely than not that the fair value of a reporting unit to which goodwill is attributed is less than its carrying amount. If it is more likely than not that a reporting unit's fair value is less than its carrying amount or if a quantitative assessment is elected, the Company calculates the fair value of the reporting unit. The carrying amount of a reporting unit's goodwill is considered not recoverable if the carrying amount of the reporting unit exceeds its fair value. Any impairment charge represents the excess of the reporting unit's carrying amount over its fair value, to the extent that the impairment charge is limited to the total amount of goodwill allocated to the reporting unit. Goodwill is tested for impairment between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount.

Nuclear Fixed Asset Removal and Nuclear Waste Management Funds

In accordance with the ONFA, OPG sets aside and invests funds that are held in segregated custodian and trustee accounts specifically for discharging its life cycle obligation for nuclear decommissioning and long-term nuclear waste management in connection with the existing facilities. The Decommissioning Segregated Fund was established to fund the future costs of nuclear fixed asset removal and long-term L&ILW management, and certain costs of used nuclear fuel storage incurred after the nuclear generating stations are shut down. The Used Fuel Segregated Fund was established to fund the future costs of long-term used nuclear fuel management and certain costs of used nuclear fuel storage incurred after the nuclear generating stations are shut down. Costs for interim management of L&ILW and used

nuclear fuel storage incurred during respective station operation are not generally reimbursed from the Nuclear Segregated Funds. Such costs are funded through the Company's operating cash flow or other sources of liquidity. The Ontario NFWA Trust (NFWA Trust), a trust fund established by OPG as an owner of used nuclear fuel to fund certain long-term used nuclear fuel management costs pursuant to the *Nuclear Fuel Waste Act* (Canada), forms part of the Used Fuel Segregated Fund, with any portion of the fund not in the NFWA Trust being able to be applied towards the NFWA Trust's annual contribution requirements.

Decommissioning Segregated Fund

Upon termination of the ONFA, the Province has the sole right to any excess funds in the Decommissioning Segregated Fund. Accordingly, when the Decommissioning Segregated Fund is overfunded, OPG limits the fund earnings it recognizes in the consolidated financial statements by recording an amount due to the Province, such that the fund asset recognized on the consolidated balance sheet is equal to the cost estimate of the liability based on the most recently approved ONFA reference plan. Additionally, OPG recognizes the portion of the surplus that it may direct to the Used Fuel Segregated Fund, which is possible when the surplus is such that the underlying liabilities, as defined by the most recently approved ONFA reference plan, are at least 120 percent funded. In those circumstances, OPG may direct, at the time a new or amended reference plan is approved, up to 50 percent of the surplus over 120 percent to the Used Fuel Segregated Fund, with the OEFC being entitled to a distribution of an equal amount. Therefore, when the Decommissioning Segregated Fund is at least 120 percent funded, OPG recognizes 50 percent of the excess greater than 120 percent in income, up to the amount by which the Used Fuel Segregated Fund is underfunded.

The amount due to the Province in respect of the Decommissioning Segregated Fund could be reduced in subsequent periods in the event that the fund earns less than its target rate of return, a new or amended ONFA reference plan is approved with a higher underlying funding liability, or the amount of the underfunding, if any, in the Used Fuel Segregated Fund increases.

When the Decommissioning Segregated Fund is underfunded, the earnings on the fund reflect actual fund returns based on the market value of the fund assets.

Used Fuel Segregated Fund

Under the ONFA, the Province guarantees OPG's annual return in the Used Fuel Segregated Fund at 3.25 percent plus the change in the Ontario CPI, as defined in the ONFA, for funding related to the first 2.23 million used nuclear fuel bundles (committed return). OPG recognizes the committed return on the Used Fuel Segregated Fund as earnings on the Nuclear Segregated Funds. The difference between the committed return and the actual market return determined based on the fair value of the fund assets related to the first 2.23 million used nuclear fuel bundles is recorded as due to or due from the Province. This amount represents the amount OPG would pay to, or receive from, the Province if the committed return were to be settled as of the consolidated balance sheet date. Upon approval of a new or amended ONFA reference plan, the Province is obligated to make an additional contribution to the Used Fuel Segregated Fund in relation to the first 2.23 million used nuclear fuel bundles if the fund assets earned a rate of return that is less than the guaranteed rate of return. If the return on the fund assets exceeded the Province's guaranteed rate of return, the Province is entitled to withdraw any portion of such excess related to the first 2.23 million used nuclear fuel bundles, upon approval of a new or amended ONFA reference plan. The 2.23 million threshold represents the number of estimated total life cycle fuel bundles based on the initial estimated useful lives of the nuclear generating stations assumed in the ONFA.

As prescribed under the ONFA, OPG's contributions attributed to the used nuclear fuel bundles in excess of the first 2.23 million are not subject to the rate of return guaranteed by the Province, and earn a return based on changes in the market value of the assets of the Used Fuel Segregated Fund.

If there is a surplus in the Used Fuel Segregated Fund such that the underlying liabilities, as defined by the most recently approved ONFA reference plan, are at least 110 percent funded after taking into account the committed return adjustment, the Province has the right, at any time, to access the excess amount greater than 110 percent.

Upon termination of the ONFA, the Province has the sole right to any surplus in the fund. Accordingly, when the Used Fuel Segregated Fund is overfunded after taking into account the committed return adjustment, OPG limits the fund earnings it recognizes in the consolidated financial statements by recording an amount due to the Province, such that the balance of the fund is equal to the cost estimate of the funding liability based on the most recently approved ONFA reference plan. In accordance with the ONFA, neither OPG nor the Province have a right to direct any amounts from the Used Fuel Segregated Fund to the Decommissioning Segregated Fund.

Provincial Guarantee

In accordance with the *Nuclear Safety and Control Act* (Canada), the CNSC requires OPG to have sufficient funds available to discharge its existing nuclear waste management and nuclear facilities decommissioning obligations. The CNSC process requires the CNSC financial guarantee requirement to be updated once every five years and for OPG to provide an annual report to the CNSC on the assumptions, fund asset values and resulting financial guarantee requirements. The CNSC financial guarantee requirement calculation takes into account used nuclear fuel and L&ILW expected to be generated to the end of each year.

In 2022, the CNSC accepted OPG's proposed CNSC financial guarantee requirement for the 2023-2027 period to be satisfied by the forecast fair market value of the Nuclear Segregated Funds without the requirement of a Provincial guarantee. As provided by the terms of the ONFA, the Province is committed to provide a Provincial guarantee to the CNSC as required, on behalf of OPG, should there be a shortfall between the CNSC financial guarantee requirement and the fair market value of the Nuclear Segregated Funds during the 2023-2027 period, as it has done in the past. OPG pays the Province an annual guarantee fee equal to 0.5 percent of the outstanding amount, if any, of the Provincial guarantee.

Pension and Other Post-Employment Benefits

The determination of OPG's pension and OPEB costs and obligations is based on accounting policies and assumptions discussed below.

OPG's post-employment benefit programs covering most of the regular employees include a contributory defined benefit registered pension plan, a defined benefit supplementary pension plan, other post-retirement benefits (OPRB) including group life insurance and health care benefits, and long-term disability (LTD) benefits. Certain post-employment defined benefit programs are also provided by the Nuclear Waste Management Organization (NWMO) and subsidiaries of the Company, all of which are consolidated into OPG's financial results. Certain subsidiaries of the Company sponsor defined contribution employee savings plans for eligible employees, under which each of employer and employees make contributions according to the plan terms. The OPG defined benefit pension plan is indexed to inflation, subject to certain maximums. Unless otherwise noted, information on the Company's post-employment benefit programs is presented on a consolidated basis.

Accounting Policy

OPG recognizes the funded status of its defined benefit plans on the consolidated balance sheets. The funded status is measured as the difference between the fair value of plan assets and the benefit obligation, on a plan-by-plan basis.

OPG accrues its obligations under defined benefit pension and OPEB plans in accordance with US GAAP. The obligations for defined benefit pension and OPRB are determined using the projected benefit method pro-rated on service. The obligation for LTD benefits is determined using the projected benefit method on a terminal basis. Defined benefit pension and OPEB obligations are impacted by factors including demographic (such as mortality and retirement) and economic (such as discount rates, salary levels, inflation and health care cost escalation) assumptions, experience gains or losses, and adjustments arising from plan amendments. Defined benefit pension and OPEB costs and obligations are determined annually by independent actuaries using management's best estimate assumptions.

Pension fund assets include domestic and international equity securities, corporate and government fixed income securities, pooled funds, real estate, infrastructure and other investments. These assets are managed by professional

investment managers. The pension funds do not invest in equity or debt securities issued by OPG or its subsidiaries and partnerships. Pension fund assets of defined benefit pension plans are valued using market-related values for purposes of determining the amortization of actuarial gains or losses and the expected return on plan assets. The market-related value for pension fund assets of the OPG defined benefit pension plan recognizes gains and losses on equity assets relative to a six percent assumed real return over a five-year period.

Defined benefit pension and OPEB costs include current service costs, interest costs on the obligations, the expected return on pension plan assets, recognition of past service costs or credits resulting from plan amendments, and recognition of actuarial gains or losses resulting from changes in assumptions and experience gains and losses. Past service costs or credits arising from defined benefit pension and OPRB plan amendments are amortized on a straight-line basis over the expected average remaining service life to full eligibility of the employees covered by the corresponding plan. Past service costs or credits arising from amendments to LTD benefits are immediately recognized as OPEB costs in the period incurred. Due to the long-term nature of pension and OPRB liabilities, the excess of the net cumulative unamortized gain or loss over ten percent of the greater of the benefit obligation and the market-related value of the plan assets (the corridor) for each plan is amortized over the expected average remaining service life of the employees covered by the plan, which represents the period during which the associated economic benefits are expected to be realized by the Company. Actuarial gains or losses for LTD benefits are immediately recognized as OPEB costs in the period incurred.

Actuarial gains or losses and past service costs or credits arising during the year that are not recognized immediately as components of defined benefit plan costs are recognized as increases or decreases in other comprehensive income (OCI), net of income taxes. These unamortized amounts in AOCI are subsequently reclassified and recognized as amortization components of pension and OPRB costs as described above.

As at December 31, 2024, the unamortized net actuarial loss (gain) and unamortized past service costs (credits) for the defined benefit pension and OPEB plans totalled a net gain of $23 million (2023 – a net loss of $664 million). Details of the unamortized net actuarial loss (gain) and unamortized past service costs (credits) as at December 31 were as follows:

	Registered Pension Plans		**Supplementary Pension Plans**		**Other Post-Employment Benefits**	
(millions of dollars)	**2024**	**2023**	**2024**	**2023**	**2024**	**2023**
Net actuarial (gain) loss not yet subject to amortization due to use of market-related values	**(340)**	180	**-**	-	**-**	-
Net actuarial loss (gain) not subject to amortization due to use of the corridor	**853**	1,057	**40**	38	**(259)**	(251)
Net actuarial (gain) loss subject to amortization	**(9)**	-	**57**	49	**(428)**	(435)
Unamortized net actuarial loss (gain)	**504**	1,237	**97**	87	**(687)**	(686)
Unamortized past service costs (credits)	**11**	(5)	**-**	-	**52**	31

OPG records an offsetting regulatory asset or regulatory liability for the portion of the pension and OPEB-related adjustments to AOCI that is attributable to the regulated operations in order to reflect the expected recovery or refund of these amounts through future regulated prices charged to customers. For such recoverable or refundable portion, OPG records a corresponding change in this regulatory asset or regulatory liability for the amount of the increases or decreases in OCI and for the reclassification of AOCI amounts into benefit costs during the period.

When the recognition of the transfer of employees and employee-related benefits gives rise to both a curtailment and a settlement, the curtailment is accounted for prior to the settlement. A curtailment is the loss by employees of the right to earn future benefits under the plan. A settlement is the discharge of a plan's liability.

Accounting Assumptions

Assumptions are significant inputs to actuarial models that measure defined benefit pension and OPEB obligations and related effects on operations. Discount rate, inflation rate and changes in salary levels are three key assumptions in the determination of benefit costs and obligations. In addition, the expected long-term rate of return on plan assets is a key assumption in the determination of defined benefit registered pension plan cost and the health care cost trend rate is a key assumption in the determination of OPEB cost and obligations. These assumptions, as well as other assumptions involving demographic factors such as retirement age, mortality and employee turnover, are evaluated periodically by management in consultation with independent actuaries. During the evaluation process, the assumptions are updated to reflect past experience and expectations for the future. Actual results in any given year will often differ from actuarial assumptions because of economic and other factors giving rise to actuarial gains and losses.

The discount rates, which are representative of the AA corporate bond yields, are used to calculate the present value of the expected future cash flows on the measurement date in order to determine the projected benefit obligations for the Company's employee benefit plans. A higher discount rate decreases the benefit obligations and decreases benefit costs. The discount rate used to determine the projected defined benefit pension and OPEB benefit obligations as at December 31, 2024 was approximately 4.7 percent**.** This represents an increase compared to the discount rate of approximately 4.6 percent that was used to determine the obligations as at December 31, 2023.

OPG uses a full yield curve approach to estimate the service and interest cost components of defined benefit pension and OPEB costs, whereby specific spot rates along the yield curve used in the determination of the projected benefit obligations are applied to the relevant projected cash flows.

The expected rate of return on defined benefit pension plan assets is determined based on the pension fund's asset allocation and the expected return considering long-term risks and returns associated with each asset class within the plan portfolio. A lower expected rate of return on plan assets increases pension cost.

A new actuarial valuation of the OPG registered pension plan was filed with the Financial Services Regulatory Authority of Ontario in September 2024, with an effective date of January 1, 2024. The estimated annual funding requirements taking into account the new actuarial valuation are outlined in the section, *Liquidity and Capital Resources* under the heading, *Contractual Obligations*. As part of the valuation, the plan's demographic and other assumptions were reviewed and revised, as necessary, by independent actuaries. Using updated demographic data as at January 1, 2024 and demographic assumptions consistent with the new funding valuation for the registered pension plan, OPG conducted a comprehensive actuarial valuation for accounting purposes of the OPG defined benefit pension and OPEB plans in 2024. The results of this valuation were reflected in the 2024 year-end obligations reflecting appropriate assumptions for accounting purposes as at December 31, 2024.

The position of the registered pension plan, for accounting purposes, increased from a deficit of $522 million as at December 31, 2023 to a surplus of $337 million as at December 31, 2024. This increase was largely due to the excess of actual return on pension assets values over interest costs on the liabilities during 2024 and a re-measurement of the benefit obligations at the end of 2024 reflecting an increase in the discount rates.

The projected benefit obligations for OPEB plans increased from $2,770 million as at December 31, 2023 to $2,848 million as at December 31, 2024. This increase was largely due to the interest costs on the liabilities during 2024.

A change in the following assumptions, holding all other assumptions constant, would increase (decrease) defined benefit pension and OPEB costs for the year ended December 31, 2024 as follows:

(millions of dollars)	Registered Pension Plans [1]	Supplementary Pension Plans [1]	Other Post-Employment Benefits [1]
Expected long-term rate of return			
0.25% increase	**(40)**	**n/a**	**n/a**
0.25% decrease	**40**	**n/a**	**n/a**
Discount rate			
0.25% increase	**(13)**	**(1)**	**(10)**
0.25% decrease	**14**	**1**	**11**
Inflation [2]			
0.25% increase	**60**	**2**	**1**
0.25% decrease	**(54)**	**(1)**	**(1)**
Salary increases			
0.25% increase	**16**	**4**	**1**
0.25% decrease	**(15)**	**(3)**	**(1)**
Health care cost trend rate			
1% increase	**n/a**	**n/a**	**66**
1% decrease	**n/a**	**n/a**	**(50)**

n/a – change in assumption not applicable.

[1] Excludes the impact of regulatory accounts.

[2] With a corresponding change in the salary increase assumption.

Asset Retirement Obligation

OPG recognizes an ARO related to fixed asset removal and nuclear waste management, discounted for the time value of money. OPG estimates both the amount and timing of future cash expenditures based on the plans for fixed asset removal and nuclear waste management. The ARO is comprised of expected costs to be incurred up to and beyond termination of operations and the closure of nuclear, thermal, and solar generating facilities and other facilities. Costs are expected to be incurred for activities such as preparation for safe storage and safe storage of nuclear generating stations, dismantlement, demolition and disposal of facilities and equipment, remediation and restoration of sites, and the ongoing and long-term management of used nuclear fuel and L&ILW. The liabilities associated with the decommissioning of the nuclear generating stations and the long-term management of used nuclear fuel comprise the most significant amounts of the total obligation.

The nuclear decommissioning liability includes the estimated costs of closing the nuclear generating stations after the end of their service lives, which includes preparation and placement of the stations into a safe storage state followed by an assumed safe storage period prior to station dismantlement and site restoration. Activities associated with the placement of stations into a safe storage state include defueling and de-watering of the nuclear reactors. OPG is responsible for the nuclear waste management and nuclear decommissioning obligations associated with the Bruce nuclear generating stations and includes the associated costs in its ARO. Pursuant to the lease agreement, Bruce Power must return the Bruce nuclear generating stations to OPG together, in a defueled and de-watered state. As such, these defueling and de-watering costs are not part of OPG's ARO.

To estimate the liability for used nuclear fuel management, OPG has adopted an approach consistent with the Adaptive Phased Management (APM) concept approved by the Government of Canada. The NWMO is responsible for the design and implementation of Canada's plan for the long-term management of used nuclear fuel. The APM plan contemplates the long-term permanent disposal of the used nuclear fuel in a deep geological repository (DGR) after a collaborative process of communication and engagement with Canadians aimed at selecting a suitable geological site with an informed and willing host community.

The life cycle costs of L&ILW management include the costs of processing and storage of such materials during and following the operation of the nuclear generating stations, as well as the costs of the ultimate long-term management of these materials. The assumptions used to establish the obligation for these costs recognized in the consolidated financial statements at December 31, 2024 include conceptual long-term disposal strategy assumptions consistent with the NWMO's recommended strategy for the long-term management of irradiated wastes in Canada as set out in its Integrated Strategy for Radioactive Waste (ISRW) prepared at the request of the Government of Canada and subsequently accepted by the federal Minister of Energy and Natural Resources in 2023. The strategy contemplates disposal of low-level waste in near-surface disposal facilities to be implemented by the waste owners and disposal of intermediate-level waste and the small amount of non-fuel high-level waste in a central DGR to be implemented by the NWMO. OPG will continue to evaluate underlying assumptions and estimates based on available information, including developments related to the NWMO's future siting process for such DGR.

The following costs are recognized as a liability on OPG's consolidated balance sheets:

- the present value of the costs of decommissioning the nuclear, thermal and solar generating facilities and other facilities after the end of their useful lives;
- the present value of the fixed cost portion of nuclear waste management programs that are required based on the total volume of used nuclear fuel and L&ILW expected to be generated over the assumed lives of the nuclear generating stations; and
- the present value of the variable cost portion of nuclear waste management programs taking into account volumes of such materials generated to date.

A number of significant assumptions used in the calculation of the accrued liabilities are subject to inherent uncertainty and judgement. The significant assumptions underlying operational and technical factors used in the calculation of the accrued liabilities are subject to periodic review. Changes to these assumptions, including changes to assumptions on the timing of the programs, construction of assumed disposal facilities, station end-of-life dates, disposal methods, financial indicators, decommissioning strategy and the technology employed, may result in significant changes to the value of the accrued liabilities. With programs of such long-term duration and the evolving technology to handle nuclear waste, there is a significant degree of inherent uncertainty surrounding the measurement of the costs for these programs, including from factors beyond the Company's control. These costs may increase or decrease materially over time.

The estimates for the Nuclear Liabilities are reviewed on an ongoing basis as part of the overall nuclear waste management program. A comprehensive reassessment of all underlying assumptions and baseline cost estimates is performed periodically, at least once every five years, in line with the required ONFA reference plan update process. Changes in the Nuclear Liabilities resulting from changes in assumptions or estimates that impact the amount or timing of the estimated undiscounted future cash flows are recorded as an adjustment to the liabilities. Upward revisions in the Nuclear Liabilities represent the present value of a net increase in future undiscounted cash flows determined using a current credit-adjusted risk-free rate. Downward revisions in the Nuclear Liabilities represent the present value of a net decrease in future undiscounted cash flows determined using the weighted average discount rate reflected in the existing liability. Resulting changes in the related asset retirement costs are capitalized as part of the carrying amount of nuclear fixed assets in-service.

The most recent comprehensive update of the baseline cost estimates for the Nuclear Liabilities was completed in December 2021 and is contained in the 2022 ONFA Reference Plan. Effective December 31, 2023, OPG revised the accounting end-of-life assumptions for Units 5 to 8 of the Pickering GS from 2024 to 2070, reflecting the results of the updated refurbishment feasibility assessment approved by the Board in August 2023 and the Province's January 2024 announcement supporting OPG to proceed with next steps toward refurbishing these units. A resulting increase of $160 million was recorded to the Nuclear Liabilities and associated asset retirement costs capitalized as part of the carrying value of the assets as at December 31, 2023. These changes did not have a material impact on net income in 2024, with the associated impact on expenses largely offset by OEB-authorized regulatory accounts.

For the purposes of calculating OPG's Nuclear Liabilities, as at December 31, 2024, consistent with the current accounting end-of-life assumptions, nuclear facilities decommissioning activities are projected to occur over approximately the next 80 years.

The liability for nuclear fixed asset removal and nuclear waste management on a present value basis as at December 31, 2024 is $25,773 million (2023 – $25,116 million). As at December 31, 2024, the undiscounted estimated future cash flows associated with OPG's Nuclear Liabilities in 2024 dollars are as follows:

(millions of dollars)	**2025**	**2026**	**2027**	**2028**	**2029**	**Thereafter**	**Total**
Expenditures for nuclear fixed asset removal and nuclear waste management [1]	814	849	597	499	374	47,050	50,183

[1] The majority of the expenditures are expected to be reimbursed by the Nuclear Segregated Funds established by the ONFA. Any contributions required under the ONFA are not included in these undiscounted cash flows.

The liability for non-nuclear fixed asset removal was $269 million as at December 31, 2024 (2023 – $270 million). This liability primarily represents the present value of estimated costs of decommissioning OPG's thermal generating stations at the end of their service lives. For the purpose of measuring the non-nuclear fixed asset removal liability, thermal asset removal activities are assumed to take place over approximately the next 40 years. The amount of undiscounted estimated future cash flows associated with the thermal fixed asset removal liabilities is approximately $351 million.

OPG has no legal obligation associated with the decommissioning of its hydroelectric generating facilities and the costs cannot be reasonably estimated because of the long service life of these assets. With either maintenance efforts or rebuilding, the water control structures are assumed to be used for the foreseeable future. Accordingly, OPG has not recognized a liability for the decommissioning of its hydroelectric generating facilities.

Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly arm's-length transaction between market participants at the measurement date. Fair value measurements are required to reflect the assumptions that market participants would use in pricing an asset or liability based on the best available information. These assumptions include the risks inherent in a particular valuation technique, such as a pricing model, and the risks inherent in the inputs to the model.

The fair value of financial assets and liabilities for which quoted prices in an active market are available, including exchange traded derivatives and other financial instruments, are determined directly from those quoted market prices.

For financial instruments for which quoted market prices are not directly available, fair values are estimated using forward price curves developed from observable market prices or rates. The estimation of fair value may include the use of valuation techniques or models, based wherever possible on assumptions supported by observable market prices or rates prevailing as at the consolidated balance sheet dates. This is the case for over-the-counter derivatives and securities, which include energy commodity derivatives, foreign exchange derivatives, interest rate swap derivatives and fund investments. Various other fund investments are valued at the unit values supplied by the fund administrators. The unit values represent the underlying net assets at fair values, determined using closing market prices. Valuation models use general assumptions and market data and therefore do not reflect the specific risks and other factors that may affect a particular instrument's fair value. The methodologies used for calculating the fair value adjustments are reviewed on an ongoing basis to ensure that they remain appropriate. If the valuation technique or model is not based on observable market data, specific valuation techniques are used, primarily based on recent comparable transactions, comparable benchmark information, bid/ask spread of similar transactions and other relevant factors.

OPG's use of financial instruments exposes the Company to certain risks, including credit risk, foreign currency risk and interest rate risk. A discussion of how OPG manages these and other risks is found in the section, *Risk Management*.

RISK MANAGEMENT

Overview

OPG faces various risks that could significantly impact the achievement of its business imperatives. The objective of risk management is to identify, assess and mitigate key risks and to preserve and increase the value of the Shareholder's investment in the Company.

The Audit and Risk Committee of the Board is mandated to fulfill the Board's oversight responsibilities for matters relating to the identification and management of the Company's key business risks. OPG's ERM Framework is designed to identify and evaluate risks on the basis of their potential impact on the Company's business imperatives and business plan objectives. Formal risk management policies, procedures and systems are in place to identify, assess and mitigate risks to the Company. Senior management also establishes set limits for market risk, credit risk and energy trading activities of the Company.

The key risks to OPG's business imperatives are briefly described below. These are key risks that management believes could materially affect the Company's business, revenues, net income, cash flow, assets or capital resources. There may be further risks and uncertainties that are not presently known, or that are not currently believed to be material, that may in the future adversely affect the Company's performance or financial condition.

Risks to Achieving Operational Excellence

OPG is exposed to a range of operational risks associated with its existing assets that could adversely impact generation output, safety performance and operating results. As described below, the operational risks of a generating station include aspects such as cyber security, supply chain, occupational safety, equipment reliability, human resources, climate change, regulatory requirements and emergency management.

Cyber Security

Cyber security incidents may compromise the availability, integrity, or confidentiality of OPG's information systems, with potential impacts on energy production, public and employee safety, and the Company's reputation. Global cyber threats are rising, with geopolitical tensions and Artificial Intelligence use by threat actors for malicious purposes intensifying risks. OPG's cyber security program includes policies and strategies to detect, respond to, and recover from incidents. OPG continuously assesses its cyber security risk profile and enhances protection measures, workforce training, and third-party management to address evolving threats.

OPG's operations in Ontario must comply with reliability standards that apply to the Bulk Electric System elements specified under North American Electric Reliability Corporation and the relevant Bulk Power System facilities as determined by the Northeast Power Coordinating Council. A subset of these standards establishes the reliability requirements that relate to cyber security. OPG's operations in the US must comply with applicable cyber security requirements as set out by the FERC. In addition, OPG's nuclear cyber assets are subject to CNSC licensing conditions and regulatory requirements. For other cyber assets not subject to applicable regulatory requirements, OPG has adopted a risk-based approach based on the National Institute of Standards and Technology Cyber Security Framework to manage its cyber security.

The Company has policies and programs in place to manage cyber risks; these programs are subject to oversight by management and the Board. OPG's current cyber programs primarily focus on the following:

- Protecting the Company's assets from cyber attacks and safeguarding sensitive information;
- Improving cyber security protection, detection, incident response and recovery capabilities to minimize the impact of adverse cyber events;
- Adopting industry leading practices to reduce third-party cyber security risks by introducing cyber security requirements into commercial agreements and enhancing related governance;

- Ongoing cyber security awareness and training of the workforce; and
- Embedding security by design across the Company to proactively assess and manage cyber risk.

Supply Chain

OPG's ability to operate effectively is in part dependent upon timely access to equipment, materials and service suppliers. Loss of key suppliers, particularly for the nuclear business given the limited number of qualified vendors, and vendor performance risks could affect OPG's operations and execution of major capital projects. This includes OPG's new development and refurbishment projects which require commitment from experienced vendors who may be limited in their capacity to successfully service OPG and other key customers in parallel, given an increased focus on energy transition and energy security in Canada and globally. These constraints could affect OPG's growth initiatives.

OPG mitigates these risks, to the extent possible, through:

- Contract negotiations to achieve mutually agreeable procurement terms;
- Programmatic partnerships with original equipment manufacturers;
- Supplier monitoring, including supplier scorecards and relationship management;
- Advanced procurement of critical long-lead components; and
- Diversification of supplier base and business continuity plans.

Through OPG's supply chain capacity program, increased activities are underway to identify critical goods and services risks by assessing supply and demand conditions and to develop mitigation strategies for the top risk areas. OPG also seeks to ensure that vendors have appropriate strategies, such as effective succession planning, to successfully execute on their contracted deliverables over the life of the projects.

OPG also faces industry-wide risks related to inflation, material availability and geopolitical tensions including trade disputes that could potentially lead to supply chain disruptions or cost increases. The risk related to trade disputes is discussed under the heading, *Tariffs and Other Trade Restrictions*.

Tariffs and Other Trade Restrictions

The potential imposition of tariffs and other trade restrictions may result in supply chain disruptions and increased costs of procurement. The trade disputes could also impact demand for Ontario's electricity, both due to reduced economic output as well as the potential for energy trade restrictions between Canada and the United States. A prolonged trade dispute between Canada and the United States has the potential to structurally alter the Canadian economy, depreciate the Canadian dollar in the near term, and impact inflation and costs of financing. This may adversely impact OPG's operations, projects, growth initiatives and financial condition.

OPG is monitoring and managing the above risks by working with the supplier partners, negotiating appropriate contractual terms for new purchases, reviewing procurement strategies, and evaluating and managing procurement exposures from foreign countries. OPG is also proactively engaging with the Canadian federal and provincial governments and industry groups to identify and determine the impact on critical materials and equipment needed to maintain and build electricity infrastructure.

Labour Relations

As at December 31, 2024, approximately 83 percent of OPG and its subsidiaries' regular workforce was represented by a union. As such, there is an inherent risk of labour relations disputes in the Company's operations. There is also a risk that a renewal collective agreement in the future may include terms that will unfavourably impact OPG's costs and ability to efficiently manage operations. OPG has contingency plans in place in the event of a labour disruption.

For further details on the collective bargaining agreements, refer to the section, *Significant Developments* under the heading, *Operational Excellence – Power Workers' Union Collective Agreement* and the section, *Liquidity and Capital Resources* under the heading, *Contractual Obligations – Collective Agreements*.

Health and Safety

OPG's operations involve inherent occupational safety risks and hazards that could impact the achievement of the Company's health and safety goals. OPG is committed to continuous improvement through its safety management systems and by continuing to foster a strong health and safety culture among its employees and contractors. The safety management systems serve to focus the Company on proactively managing safety risks and hazard exposures to employees and contractors. OPG also strategically engages with external parties to conduct benchmarking and audits. These activities are designed to ensure that the safety management systems achieve the intended results and maximize the opportunity to incorporate program improvements.

Generating Asset End of Life

Major damage or deterioration of station components and systems may result in generating assets reaching end of life prematurely. An earlier than planned retirement of a generating unit or station would result in a reduction of OPG's future generation revenue and cash flow, asset impairment or write-down and reductions in the workforce. Key life-limiting components at OPG's nuclear generating stations include fuel channels, feeder tubes, steam generators and other reactor components.

Risks inherent in maintaining commercial operations to a generating station or unit's planned end of life include:

- Discovery of unexpected conditions;
- Equipment failures;
- Rate of degradation of critical plant components; and
- A requirement for significant plant modifications.

To mitigate these risks, for the nuclear operations, OPG implements actions recommended by technical assessments into each generating station's outage work program. OPG also incorporates these actions into a comprehensive inspection and maintenance program as part of the stations' life cycle management plans. The risks include fuel channel degradation resulting in Units 5 to 8 of the Pickering GS ending pre-refurbishment operations prior to September 2026. This risk is being addressed through fuel channel life extension activities, which include surveillance, inspections and technical analysis to confirm fitness-for-service of fuel channels components.

For non-nuclear operations, OPG maintains a rigorous maintenance and asset management program to ensure continuing operations of hydroelectric, thermal and solar assets.

Asset Condition and Generation Variability

The uncertainty associated with electricity production by OPG's generating units is primarily driven by the condition of station components and systems, which are subject to the effects of aging. Deterioration in station components or systems may be significantly greater than anticipated or may occur in an unexpected manner. The primary implications of these risks may include additional safety requirements, lower than expected electricity generation and revenues, and higher than expected operating or capital costs. To respond to these risks, OPG continues to:

- Make enhancements to the asset management program;
- Monitor performance and implement inspection and maintenance programs;
- Identify future work required to sustain and, as appropriate, upgrade station equipment; and
- Undertake projects required to reliably operate within design and operating parameters.

Following inspections, it was determined that the primary moisture separators need to be replaced on all Darlington GS units. Operating units with degraded moisture separators could impact downstream components and result in an unplanned outage or extension of a planned outage. OPG is utilizing a comprehensive lessons learned program and robust risk management practices as it continues to replace the primary moisture separators on the Darlington GS units. There is also a strategy in place to address secondary moisture separator degradation through planned inspections and limited secondary moisture separator repair. Further information on the project can be found in the section, *Core Business and Outlook under* the heading, *Operational Excellence – Electricity Generation Production and Reliability – Darlington GS*.

Human Capital	The development of new leaders and attraction and retention of qualified employees in critical roles are key factors to OPG's success. The risk associated with the availability of skilled and experienced resources continues to exist for OPG in specific areas, including engineering, operations, leadership and project management positions. To mitigate this risk, OPG utilizes workforce planning and resourcing strategies to ensure that the Company has a diverse workforce with the right skill sets for the safe and effective operations of generating facilities and successful delivery of major projects and growth and transformation strategies. Risk mitigation includes succession planning, talent attraction and retention strategies, and knowledge management programs to ensure ongoing workforce capability. OPG expects to continue to meet the human resource needs of the business by developing existing employees and hiring in specific areas while addressing the workforce implications associated with the end of commercial operation of Unit 1 and Unit 4 of the Pickering GS and transition to the planned refurbishment of Units 5 to 8 of the Pickering GS. Legislative compensation constraints continue to pose challenges to OPG's ability to attract and retain necessary talent. This includes the *Compensation Framework Regulation 406/18* under the *Broader Public Sector Executive Compensation Act, 2014*, which imposes a cap on base salary, on a role by role basis, for designated executives in Ontario's broader public sector.
Nuclear Waste	There are currently no licensed facilities in Canada for the permanent disposal of used nuclear fuel, low-level waste or intermediate-level waste. The lack of a permanent disposal site means that these materials are stored in temporary locations. The interim storage of used nuclear fuel and L&ILW at OPG is subject to rigorous oversight and monitoring. OPG's assumptions related to the long-term management of used nuclear fuel and L&ILW are informed by Canada's *Policy for Radioactive Waste and Decommissioning.* For used nuclear fuel, the NWMO has developed a process for moving forward with the APM plan as the long-term solution for Canada's used nuclear fuel. The APM plan contemplates the long-term permanent disposal of used nuclear fuel in a DGR. On November 28, 2024, the NWMO announced that it had selected Wabigoon Lake Ojibway Nation and the Township of Ignace, Ontario as the host communities for the future site of Canada's DGR for used nuclear fuel. The NWMO is now advancing the project into the regulatory decision-making process, with DGR operations planned to begin between 2040 and 2045. In October 2023, the Government of Canada accepted the NWMO's ISRW submission, including the recommendation that intermediate-level waste and the small amount of non-fuel high-level waste be disposed in a central DGR to be implemented by the NWMO. In January 2024, the CNSC granted Canadian Nuclear Laboratories a licence to construct Canada's first near-surface disposal facility, at the Chalk River site in Deep River, Ontario, for the purpose of permanently disposing of solid low-level irradiated waste. OPG continues to monitor developments related to the implementation of the APM plan and the ISRW and to explore solutions for the safe long-term management of its low-level waste. The Company also continues to advance initiatives to safely reduce the environmental footprint of L&ILW requiring long-term disposal by maximizing opportunities for processing, volume reduction, and recycling of clean materials.
Climate Change and Extreme Weather Events	In recent years, Ontario and other regions in North America where OPG operates have experienced an increase in climate and extreme weather events such as severe flooding during spring freshets and low water levels in late summer. Such events may impact OPG's operations and condition of the generating fleet. To mitigate the physical risks posed by extreme weather, OPG monitors developments in climate science and adaptation practices, and works with stakeholders to define adaptation requirements through analysis and by understanding the potential impacts on watersheds, assets, operations and the electricity market. OPG collaborates with all levels of government in Canada, local communities and industry on climate change adaptation initiatives,

with the goal of increasing the resilience of the electricity sector and other critical infrastructure. Resilience programs to protect OPG's assets against severe weather events remain in place and are incorporated into the Company's Climate Change Plan.

The risks and opportunities related to climate change legislation are discussed under the heading, *Risks to Maintaining Financial Strength – Government Legislation and Regulation Changes*. For further details on OPG's response to the effects of climate change, refer to the section, *Environmental, Social, Governance and Sustainability.*

Environment

OPG's operations and facilities are subject to environmental compliance obligations in the jurisdictions in which they operate. These obligations include protection of land, water, air, living organisms and natural systems. Failure to comply with applicable environmental laws and regulations, including violation of regulatory limits on emissions, may result in enforcement actions, remediation actions or restrictions to operations. Changes in compliance obligations can result in new requirements and increased costs. OPG has an EMS to manage its environmental responsibilities. For further details, refer to the section, *Environmental, Social, Governance and Sustainability*.

Hydroelectric Generation

OPG's hydroelectric generation is exposed to risks associated with water flows and Ontario SBG conditions.

The extent to which OPG can operate its hydroelectric generating facilities depends upon the availability of water. Significant variability in weather, including impacts of climate change and the extreme weather associated with it, could affect water flows. Longer term changes in precipitation patterns and amounts, water temperatures and ambient air temperatures can impact the availability of water resources and resulting electricity production at OPG's hydroelectric generating stations. For OPG's regulated hydroelectric generation, the financial impact of variability in electricity production due to differences between the forecast water conditions underpinning the hydroelectric base regulated prices and the actual water conditions is captured in an OEB-approved regulatory account.

Surplus baseload generation continues to be present in Ontario when electricity supply exceeds demand, including exports out of the province. To manage SBG conditions, the IESO may require OPG to reduce hydroelectric generation. A regulatory account authorized by the OEB helps to mitigate the financial impact of electricity production forgone due to SBG conditions at OPG's regulated hydroelectric generating stations in Ontario.

Regulatory Compliance

OPG is subject to extensive legislation and regulations by various entities in the jurisdictions in which it operates, including the CNSC, the OEB, the IESO and the FERC.

The uncertainty associated with nuclear regulatory compliance is driven by plant aging, changes to technical codes, and challenges raised by members of the public at regulatory hearings, particularly in the areas of safety, environment and emergency preparedness. Addressing these requirements could add incremental cost to operations, including replacement or modification of station components or additional requirements for management of nuclear waste. In some instances, there may be additional requirements resulting from changes in the interpretation of technical regulations or from emergent conditions that may result in increased effort on the part of the Company.

The operation of most of OPG's hydroelectric facilities in the US is authorized by the FERC, which includes the issuance of licences for larger facilities with terms ranging 30 to 50 years. A number of OPG facilities are in various stages of the relicensing process. There is a risk that in issuing a new licence, the FERC will impose new conditions that either restrict operations or require incremental expenditures related to the environment, recreation or other infrastructure at the facilities.

The risks related to other regulatory bodies are discussed under the headings, *Risks to Maintaining Financial Strength – Rate Regulation*, *Risks to Maintaining Financial Strength – Electricity Markets* and *Risks to Maintaining Financial Strength – Government Legislation and Regulation Changes.*

Business Continuity and Emergency Management	OPG may be exposed to natural, technological or human-caused hazards including significant events against which it is not fully insured or indemnified. These hazards have the potential to disrupt operations resulting in decreased electricity generation revenue or additional costs to repair damages and restore operations. OPG's business continuity program provides a framework to build resilience into critical business processes to ensure continued operation of critical business functions. OPG's emergency management program is designed to ensure that the Company can resolve an emergency in a timely and effective manner. OPG's plans and implementation procedures identify immediate response actions to be taken to protect the health and safety of workers and the public, and to limit the impact of an incident on site security, production capability and the environment. The program elements are designed to meet or exceed legal and regulatory requirements. OPG regularly monitors and assesses global events, such as emerging geopolitical events, natural disasters and pandemics, and prepares contingency plans should they have the potential to impact OPG's operations, workers, customers or stakeholders.

Risks to Achieving Project Excellence

As a capital-intensive business, OPG undertakes a large portfolio of projects with significant investments. There may be an adverse effect on the Company if it is unable to obtain necessary approvals for the projects, effectively manage the projects on time and on budget, or fully recover project costs and earn an appropriate return on project investments. Projects may also impact OPG's borrowing capacity and credit rating. OPG mitigates risks associated with project execution through a scalable project management methodology applicable to projects across the Company. Risks associated with certain current major projects are described below. Additionally, there are risks associated with the loss of key suppliers, as further discussed under the heading, *Risks to Achieving Operational Excellence – Supply Chain.*

Key Trades Availability	Competing capital and infrastructure projects within Ontario, and throughout Canada, may limit the availability of key tradespeople to work on OPG's current and future projects, including the Darlington Refurbishment project, refurbishment and expansion of hydroelectric generating stations, the DNNP and the planned refurbishment of Units 5 to 8 of the Pickering GS. There is a risk that skilled tradespeople may choose to work on non-OPG projects, thereby impacting the Company's ability to complete projects on schedule and budget and with requisite quality. OPG has a dedicated team that is mitigating this risk through: active monitoring of the supply and demand of key tradespeople; collaborating with competing organizations, such as Bruce Power, to build capacity within the current supply by coordinating timing of project schedules, where appropriate; building new sources of supply through partnerships with other organizations, trade unions, and educational institutions; and implementing strategies for resource retention.
Darlington Refurbishment	There are potential financial and reputational risk exposures for OPG if actual costs for the Darlington Refurbishment project exceed the budget or if OPG does not meet the project schedule, with recovery of any project costs exceeding $12.8 billion subject to a future review by the OEB. In addition, failure to achieve the objectives of the project may potentially impact the post-refurbishment performance or useful life of the generating units. With three of the four units successfully returned to service to date, OPG is continuing to utilize a comprehensive lessons learned program to benefit project performance on the final unit being refurbished. OPG is also continuing to use robust risk management practices to manage a number of risks related to the Darlington Refurbishment project, including availability of skilled craft resources and vendor performance.
Small Modular Reactors	OPG is advancing the deployment of SMRs to help meet future electricity needs, with the DNNP progressing toward construction of Canada's first commercial grid-scale SMR. The selected SMR design for the DNNP, GE Hitachi Nuclear Energy's (GE-Hitachi) BWRX-300, is the tenth evolution of the boiling water reactor, which partially mitigates risks associated with this first-of-a-kind technology. Nevertheless, there are inherent risks to OPG's plans to deploy SMRs at the DNNP site. Risks associated with the SMR deployment include: uncertainties associated with obtaining regulatory approvals for new nuclear technology; project cost and schedule risks; potential for opposition from Indigenous communities; and public acceptance of additional nuclear waste. Risk mitigation strategies include robust project planning and project oversight; completion of engineering design with OPG's oversight; implementation of an integrated project delivery model with partners; and meaningful engagement with Indigenous communities and stakeholders. Ontario Regulation 53/05 prescribes any SMR at the DNNP site as a regulated facility by the OEB and provides for recovery of associated planning, preparation and construction costs, subject to a review by the OEB. OPG applies appropriate technical and commercial risk oversight to evaluate potential opportunities for commercial deployment of SMRs, including identification of any regulatory, market and credit risks that may arise.

Pickering Refurbishment	In January 2024, the Province announced its support for OPG to proceed with next steps toward refurbishing Units 5 to 8 of the Pickering GS after their planned shutdown in 2026. In January 2025, the Province further announced its approval for OPG's plan to proceed with the project definition phase. This complex megaproject presents inherent cost, schedule and regulatory risks, which will continue to be managed consistent with OPG's enterprise project management approach. As part of the definition phase, OPG will complete a high-quality cost estimate and schedule for the project, progress detailed engineering, further procurement and contracting work, continue to optimize project scope, and develop the project execution plan. OPG will also leverage lessons learned from the Darlington Refurbishment project to inform risks and project management activities as the project advances. Further details can be found in the section, *Significant Developments* under the heading, *Project Excellence – Pickering Refurbishment.*

Risks to Maintaining Financial Strength

Risks related to macro-economic factors, rate regulation, commodity markets, financial markets and long-term obligations could significantly impact OPG's financial performance. The Company is also exposed to risks due to changes in the electricity markets and renewal of energy supply contracts. Geopolitical tensions and conflicts could increase a number of these risks by driving long-lasting implications for commodity, financial and electricity markets, as well as government policy. As a result of changes in economic factors or the electricity market, OPG may make decisions to invest, divest, or discontinue investments to maintain or enhance long-term financial strength.

Government Legislation and Regulation Changes	OPG's core business and strategy may be impacted by changes to legislation and regulations in the jurisdictions in which the Company operates. Matters that are subject to regulation include, among others, rate regulation, electricity generating operations, nuclear waste management and nuclear decommissioning, the electricity market, the environment, trade and taxation, including investment tax credit programs. Regulatory bodies may change or enact regulations or rules that could increase OPG's costs, decrease OPG's revenue or limit the Company's ability to recover appropriate costs and earn an appropriate return on its asset investments. To mitigate legislative risks, where possible, OPG monitors and actively engages with all levels of government in order to determine if future legislation will impact the Company. In 2019, legislation to amend the *Fisheries Act* to further protect fish and fish habitat came into force in Canada. There is a risk that strengthened fish and fish habitat protection provisions under the *Fisheries Act* may affect OPG's hydroelectric operations. To mitigate this risk, OPG and its industry partners are working with Fisheries and Oceans Canada to help develop the codes, policies and procedures that will determine how the regime is administered. OPG is also developing a compliance strategy. Canada's plan is to reach net-zero carbon emissions by 2050. In 2021, the Government of Canada passed legislation that commits Canada to achieving this goal. This legislation also establishes requirements for the government to set interim national emissions-reduction targets and credible, science-based plans to achieve these targets. In December 2024, the Government of Canada released the CER, which may limit operations of OPG's thermal generating stations beyond 2035. OPG's Climate Change Plan goals for OPG to be a net-zero company and a catalyst for net-zero economies are in line with Canada's goal of net-zero carbon emissions by 2050. The Company continues to engage in the development of federal plans and legislation related to energy transition and intends to adapt OPG's Climate Change Plan to changing government policies as appropriate. Further details on the CER, OPG's GHG compliance obligations and response to climate change can be found in the section, *Environmental, Social, Governance and Sustainability* under the headings, *Environmental* and *Climate Change.* As discussed in the section, *Core Business and Outlook* under the heading, *Financial Strength – Federal Clean Energy Investment Tax Credits*, OPG is monitoring developments from the

Government of Canada related to the status of the proposed CEITC, for which draft legislation was terminated upon prorogation of the parliament in January 2025. Should these tax credits or similar mechanisms ultimately not be available to OPG, the Company will need to increase the amount of funding from other sources in order to finance certain planned investments in clean energy projects.

Rate Regulation

There is a risk that base regulated prices established by the OEB may not provide for full recovery of actual costs incurred by OPG's regulated operations or allow the regulated operations to earn an appropriate return on the assets, adversely affecting the Company's earnings and cash flow provided by operating activities. This could occur if:

- In setting regulated prices, the OEB makes adjustments to forecasts submitted by OPG or disallows recovery of incurred capital costs;
- OPG is unable to achieve cost reductions in line with OEB-approved stretch factors included in regulated prices under incentive ratemaking; or
- Actual production or costs significantly differ from the forecasts approved by the OEB, due to such factors as unplanned outages or project execution risks.

There is also uncertainty associated with the outcomes of requests for the recovery or refund of regulatory account balances, with a number of such accounts being subject to an OEB prudence review, and outcomes of other regulatory proceedings.

In providing evidence in support of its applications for regulated prices, including disposition of regulatory account balances, OPG aims to clearly demonstrate to the OEB that the costs for the regulated operations are reasonable, prudently incurred and should be fully recovered from customers.

Nuclear Liabilities and Nuclear Segregated Funds

The cost estimates for OPG's nuclear waste management and nuclear decommissioning obligations are based on multiple underlying assumptions and estimates that may change significantly over time. To address this inherent uncertainty, OPG performs a comprehensive review of the underlying assumptions and baseline cost estimates at least once every five years, in line with the required reference plan update process under the ONFA.

The Nuclear Segregated Funds are managed to achieve, in the long term, the target rate of return based on the discount rate specified in the ONFA. Investments in the Nuclear Segregated Funds are allocated to domestic and international equity securities, corporate and government fixed income securities, pooled funds, real estate, infrastructure, and other investments. The rates of return earned on the funds in a given period may vary depending on financial market conditions. The asset mix of the funds is determined jointly by OPG and the Province in accordance with the ONFA.

OPG bears the market risk for investment performance related to the portion of the Nuclear Segregated Funds set aside for:

- Decommissioning of the nuclear generating stations; and
- Long-term management of used nuclear fuel in excess of the first 2.23 million bundles and long-term management of L&ILW.

In accordance with the OEB-approved cost recovery methodologies, the performance of the portion of the Nuclear Segregated Funds attributed to the Bruce nuclear generating stations is subject to the Bruce Lease Net Revenues Variance Account. Subject to the funded status of the funds, under the OEB-approved cost recovery methodologies, OPG's net income is exposed to the rate of return risk related to the portion of the Nuclear Segregated Funds attributed to the Darlington and Pickering nuclear generating stations. The income statement impact of the rate of return risk is partly mitigated when the funds are in a fully funded or overfunded position, as a reduction in the Nuclear Segregated Funds due to market conditions would first reduce the surplus in the respective fund before impacting OPG's net income. As at December 31, 2024, both the Decommissioning Segregated Fund and the Used Fuel Segregated Funds were in an overfunded position based on

	the most recently approved ONFA reference plan. For further details, refer to the section, *Core Business and Outlook* under the heading, *Outlook*.
Post-Employment Benefit Obligations	OPG's post-employment benefit obligations and costs and defined benefit registered pension plan contributions could be materially affected in the future by numerous factors including: changes in discount rates, inflation rates and other actuarial assumptions; future investment returns on pension plan assets; experience gains and losses; the funded status of the pension plans; changes in benefits; changes in the regulatory environment including potential changes to the *Pension Benefits Act* (Ontario); changes in OPG's operations; and the measurement uncertainty incorporated into the actuarial valuation process. Contributions to the OPG registered pension plan are determined based on actuarial valuations, which are filed with the appropriate regulatory authorities at least every three years. OPG is required to file actuarial valuations on an annual basis if the solvency funded status of the plan declines below the threshold specified in the regulations of the *Pension Benefits Act* (Ontario). Future actuarial valuations could increase OPG's funding requirements due to market and economic-related conditions. OPG's OPEB obligations are not funded and the associated employee benefits are paid from cash flow provided by operating activities or other sources of liquidity.
Ownership by the Province	The Province owns all of OPG's issued and outstanding common shares and Class A shares. Accordingly, the Province, as represented by the Ontario Ministry of Energy and Electrification, has the authority to make appointments to OPG's Board. OPG could be subject to Shareholder direction under section 108 of the *Business Corporations Act* (Ontario) that can directly influence major decisions. These directions could relate to project development, applications for regulated prices, asset acquisitions, divestitures or other transactions, financing and capital structure, and other matters. As a result, OPG could be required to undertake activities that result in increased expenditures, or that reduce revenue or cash flow relative to the business activities or strategies that would have otherwise been undertaken. In addition, the obligation of OPG's Shareholder to respond to a broad range of matters in its role as the Government of Ontario may create opportunities or risks for OPG which would be pursued or, to the extent possible, would be mitigated to achieve OPG's strategic and business plan objectives. This includes, but is not limited to, actions that may be taken by the Province to support future electricity planning decisions, to mitigate the impact of electricity prices on Ontario consumers, or to respond to trade disputes and other geopolitical tensions.
Credit	The Company's credit risk exposure is a function of its electricity sales, trading and hedging activities, and treasury activities including investing and commercial transactions with various suppliers of goods and services. OPG's credit risk exposure relating to electricity sales is considered low as the majority of sales are through the IESO-administered market in Ontario. The IESO oversees the credit worthiness of all market participants. In accordance with the IESO's prudential support requirements, market participants are required to provide collateral to cover funds that they might owe to the market.

The following table summarizes OPG's credit exposure to all counterparties from electricity transactions and trading as at December 31, 2024:

	All Counterparties		Largest Counterparties	
Credit Rating [1]	Number of Counterparties [2]	Potential Exposure [3] *(millions of dollars)*	Number of Counterparties	Potential Exposure *(millions of dollars)*
Investment grade	**49**	**84**	**5**	**70**
IESO [4]	**6**	**607**	**1**	**507**
Other	**29**	**3**	**2**	**1**
Total	**84**	**694**	**8**	**578**

[1] Credit ratings are based on OPG's own analysis, taking into consideration external rating agency analysis where available, as well as recognizing explicit credit support provided through parental guarantees, Letters of Credit or other forms of security. Other category represents counterparties for which the credit rating has not been analyzed by OPG.
[2] OPG's counterparties are defined on the basis of individual master agreements.
[3] Potential exposure is OPG's statistical assessment of maximum exposure over the life of each transaction at a 95 percent confidence interval.
[4] Credit exposure represents an estimated short-term receivable amount arising from OPG's electricity sales into the IESO market. The credit exposure and associated receivable vary each month based on electricity sales. The monthly receivable from the IESO is typically paid to OPG in the subsequent month as per the IESO payment schedule.

Other major components of OPG's credit risk exposure include those associated with vendors that are contracted to provide services or products. OPG manages its exposure to various suppliers or counterparties by evaluating their financial condition and ensuring that the Company holds appropriate collateral or other forms of security.

Commodity Markets

Changes in the market prices of fuels used to produce electricity can adversely impact OPG's earnings and cash flow provided by operating activities.

To manage the risk of unpredictable increases in the price of fuels, the Company has fuel hedging programs, which include using fixed price and indexed contracts.

The percentages hedged of OPG's fuel requirements are shown in the following table. These amounts are based on yearly forecasts of electricity generation and supply mix and, as such, are subject to change as these forecasts are updated.

	2025	2026	2027
Estimated fuel requirements hedged *(%)* [1]	78	77	88

[1] Represents the approximate portion of megawatt-hour (MWh) of expected electricity generation (and year-end inventory targets) from each type of OPG-operated facility (nuclear, hydroelectric and thermal) for which the price of fuel is fixed, or for which the Company has entered into contractual arrangements to secure the price of fuel or secure the recovery of fuel costs. In the case of regulated and contracted hydroelectric electricity generation in Ontario, this represents the gross revenue charge and water rental charges. Excess fuel inventories (nuclear and thermal) in a given year are attributed to the next year for the purpose of measuring hedge ratios.

Foreign Exchange

OPG's financial results are exposed to volatility in the Canadian/US foreign exchange rate as certain materials, services and fuels purchased for generating stations and major projects, as well as debt issuances, may be denominated in or tied to US dollars. To manage this risk, OPG may periodically employ various financial instruments such as forwards and other derivative contracts, in accordance with approved risk management policies. As at December 31, 2024, OPG had nil in foreign exchange contracts outstanding. Additionally, volatility in the Canadian/US foreign exchange rate impacts OPG's financial results from certain of its subsidiaries, whose operations are based exclusively in the United States.

Interest Rates

Interest rate risk is the risk that the value of assets and liabilities can change due to movements in related interest rates. Interest rate risk for OPG arises with the need to refinance existing debt or undertake new financing. The management of these risks includes using derivatives to hedge the

	exposure in accordance with approved risk management policies. OPG may use interest rate swap agreements to mitigate elements of interest rate risk exposure associated with anticipated financing.
Liquidity	The Company's ability to arrange sufficient and cost-effective debt financing as part of its funding requirements could be adversely affected by a number of factors, including financial market and general economic conditions, the regulatory environment, the Company's results from operations, financial condition and the ratings assigned to the Company by credit rating agencies. In mitigating these risks, OPG utilizes multiple funding sources and forecasts availability of funds, actively monitors funding requirements and strives to maintain its investment grade credit ratings. A discussion of corporate liquidity is included in the section, *Liquidity and Capital Resources*.
Electricity Markets	OPG's revenue can be impacted by external factors related to electricity markets including: the entrance of new participants into the markets; the competitive actions of market participants; electricity demand including exports out of Ontario; changes in the regulatory environment; and variability in wholesale electricity prices in applicable markets. A number of OPG's hydroelectric facilities in the US sell energy and capacity into wholesale electricity markets and therefore are subject to volatility of wholesale electricity market pricing. Revenue from these facilities represents a small portion of OPG's overall revenue. From time to time, the Company may enter into hedging arrangements to further mitigate this risk. OPG continues to monitor the effects of electricity market prices on its US operations. In October 2024, the IESO approved market rules and design required to operationalize the Market Renewal Program, an IESO initiative to redesign the Ontario's electricity markets. According to the IESO, the renewed electricity markets will be launched on May 1, 2025. OPG is actively participating in the Market Renewal Program and continues to collaborate with the IESO. Additionally, OPG is consolidating and upgrading its internal systems and processes to be able to effectively participate in the new market. This requires concurrent changes to certain common business processes and information technology systems, which is being addressed through change management initiatives. This work is progressing as planned. The 2024 Settlement Agreement provides for regulatory mechanisms to address the anticipated impacts from the IESO's Market Renewal Program on OPG's regulated facilities until the effective date of base regulated prices arising from OPG's next application with the OEB. The Market Renewal Program is not expected to have a material impact on OPG's net income.
Contracted Generation	The Company's generating stations in Ontario that operate under ESAs with the IESO are subject to several obligations, including but not limited to availability targets and must-offer obligations committing units to the market during specific hours, as specified in the respective contracts. OPG could incur penalties up to and including termination of the respective contract if these facilities fail to meet their contractual obligations. This risk is mitigated through implementation of maintenance, capital investment and other programs, and internal processes to communicate, monitor and address contractual obligations and milestones. While OPG expects that the generating stations operating under ESAs or other contracts will continue to provide energy and capacity to the respective markets over the term of such agreements, there is a risk that the contracts may not be renewed upon their expiry or that replacement contracts may not be available on acceptable terms.
Litigation	OPG and its subsidiaries are involved in various legal proceedings covering a range of matters arising out of their business activities. Each of these matters is subject to various uncertainties and some of these matters may be resolved unfavourably. It is the Company's belief that the resolution of these matters is not likely to have a material adverse impact on its consolidated financial position.

Risks to Maintaining Social Licence

OPG is exposed to risks associated with its social licence and public profile due to changes in the opinions of various stakeholders, including electricity customers, local communities and government agencies, Rights Holders and partners.

Maintaining public trust and meeting stakeholders and partners' expectations is critical to OPG's business success. OPG focuses on maintaining its social licence and corporate reputation through safe, reliable and sustainable operations as well as corporate citizenship, engagement and public education initiatives. Additionally, OPG is committed to advancing reconciliation with Indigenous communities and Indigenous people and enhancing its workplace culture by fostering excellence in ED&I practices.

An inability to maintain safe, reliable and environmentally responsible operations could negatively impact OPG's reputation and result in a loss of public support.

Indigenous Communities	The quality of OPG's relationships and the outcome of negotiations with Indigenous communities may impact OPG's project and financial performance, as well as its social licence to operate. OPG may be subject to claims by Indigenous communities. These claims may stem from projects or generation development activities, activities related to the operations of OPG including nuclear waste management, and historic operations of OPG's predecessor companies, which may have impacted Aboriginal and/or Treaty rights. These risks are partly mitigated by delivering on OPG's Indigenous Relations Policy, which sets out the Company's commitment to proactively build and maintain positive relationships with Indigenous communities, and the Company's Reconciliation Action Plan. OPG has also been successful in working collaboratively with Indigenous communities to resolve a number of past grievances and to establish commercial partnerships related to new generation development. However, the outcomes of ongoing and any future negotiations will depend on a number of factors, including legislation, regulations and precedents created by court rulings, which are subject to change over time.

RELATED PARTY TRANSACTIONS

Given that the Province owns all of the shares of OPG, related parties include the Province and other entities controlled by the Province.

The related party transactions summarized below include transactions with the Province and the principal successors to the former Ontario Hydro's integrated electricity business, including Hydro One, the IESO and the OEFC. Transactions between OPG and related parties are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties. As one of several wholly owned government business enterprises of the Province, OPG also has transactions in the normal course of business with various government ministries and organizations in Ontario that fall under the purview of the Province.

The related party transactions for the years ended December 31 were as follows:

	2024		2023	
(millions of dollars)	**Income**	**Expense**	**Income**	**Expense**
Hydro One				
Electricity sales	**18**	**-**	16	-
Services	**-**	**9**	-	11
Dividends	**5**	**-**	5	-
Province of Ontario				
Change in Decommissioning Segregated Fund amount due to Province [1]	**-**	**1,137**	-	646
Change in Used Fuel Segregated Fund amount due to Province [1]	**-**	**1,459**	-	820
Hydroelectric gross revenue charge	**-**	**118**	-	114
OEFC				
Hydroelectric gross revenue charge	**-**	**223**	-	216
Interest expense on long-term notes	**-**	**88**	-	94
Income taxes	**-**	**377**	-	526
Property taxes	**-**	**13**	-	13
IESO				
Electricity related revenue	**6,473**	**-**	6,694	-
Fair Hydro Trust				
Interest income	**33**	**-**	33	-
	6,529	**3,424**	6,748	2,440

[1] The Nuclear Segregated Funds are reported on the consolidated balance sheets net of amounts recognized as due to the Province in respect of any excess funding and, for the Used Fuel Segregated Fund, the Province's rate of return guarantee. As at December 31, 2024 and 2023, the Nuclear Segregated Funds were reported net of amounts due to the Province of $10,236 million and $7,640 million, respectively.

Balances between OPG and its related parties as at December 31 were as follows:

(millions of dollars)	**2024**	**2023**
Receivables from related parties		
Hydro One	**3**	4
IESO – Electricity related receivables	**608**	623
Fair Hydro Trust	**4**	4
Province of Ontario	**1**	-
Loan receivable		
Fair Hydro Trust	**902**	905
Equity securities		
Hydro One shares	**159**	164
Accounts payable, accrued charges and other payables		
Hydro One	**3**	2
OEFC	**85**	82
Province of Ontario	**10**	8
IESO − Electricity related payables	**-**	1
Long-term debt (including current portion)		
Notes payable to OEFC	**2,100**	2,500

OPG may hold Province of Ontario bonds and treasury bills in the Nuclear Segregated Funds and the OPG registered pension plan. As at December 31, 2024, the Nuclear Segregated Funds held $1,740 million of Province of Ontario bonds (2023 – $1,603 million) and $8 million of Province of Ontario treasury bills (2023 – $4 million). As of December 31, 2024, the OPG registered pension plan held $327 million of Province of Ontario bonds (2023 − $336 million) and $9 million of Province of Ontario treasury bills (2023 – $5 million). These Province of Ontario bonds and treasury bills are publicly traded securities and are measured at fair value. OPG jointly oversees the investment management of the Nuclear Segregated Funds with the Province.

INTERNAL CONTROL OVER FINANCIAL REPORTING AND DISCLOSURE CONTROLS

Management, including the President and CEO and the Chief Financial Officer (CFO), are responsible for maintaining Disclosure Controls and Procedures (DC&P) and Internal Control over Financial Reporting (ICOFR). DC&P is designed to provide reasonable assurance that all relevant information is gathered and reported to senior management, including the President and CEO and the CFO, on a timely basis so that appropriate decisions can be made regarding public disclosure. ICOFR is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements in accordance with US GAAP.

There were no changes in OPG's ICOFR during the year ended December 31, 2024 that have materially affected or are reasonably likely to materially affect OPG's financial reports.

Management, including the President and CEO and the CFO, concluded that, as of December 31, 2024, OPG's DC&P and ICOFR, as defined in National Instrument 52-109 – *Certification of Disclosure in Issuers' Annual and Interim Filings*, were effective.

FOURTH QUARTER

Discussion of Results

(millions of dollars) (unaudited)	Three Months Ended December 31 2024	2023
Revenue	**1,838**	1,894
Fuel expense	**289**	272
Operations, maintenance and administration expenses	**833**	817
Depreciation and amortization expenses	**335**	284
Accretion on fixed asset removal and nuclear waste management funds	**307**	293
Earnings on nuclear fixed asset removal and nuclear waste management funds	**(280)**	(268)
Other net expenses (gains)	**38**	(91)
Earnings before interest and income taxes	**316**	587
Net interest expense	**42**	17
Income tax expense	**42**	116
Net income	**232**	454
Net income attributable to the Shareholder	**228**	450
Net income attributable to non-controlling interest [1]	**4**	4

[1] Relates to the following: 25 percent interest of Amisk-oo-Skow Finance Corporation, a corporation wholly owned by the Moose Cree First Nation, in Lower Mattagami Limited Partnership; 33 percent interest of Coral Rapids Power Corporation, a corporation wholly owned by the Taykwa Tagamou Nation, in PSS Generating Station Limited Partnership; 15 percent interest and 5 percent interest of corporations wholly owned by Six Nations of Grand River Development Corporation and the Mississaugas of the Credit First Nation, respectively, in Nanticoke Solar LP; and non-controlling interests in certain electricity generating facilities in the United States.

Net income attributable to the Shareholder for the fourth quarter was $228 million, compared to $450 million for the same quarter in 2023. Earnings before interest and income taxes were $316 million for the fourth quarter of 2024, representing a decrease of $271 million compared to the same quarter in 2023.

Significant factors that decreased EBIT:

- Net decrease in revenue of $147 million from the Regulated – Nuclear Generation business segment, as a result of lower electricity generation of 0.9 TWh and a lower nuclear base regulated price in effect during 2024. The lower electricity generation was expected and primarily due to the cessation of commercial operation of Unit 1 of the Pickering GS on October 1, 2024. An increase in revenue reflecting the impact of the new rate riders for disposition of regulatory accounts under the OEB's June 2024 decision and order approving the 2024 Settlement Agreement, effective July 1, 2024, was largely offset by a corresponding increase in the amortization expense of regulatory assets and regulatory liabilities recorded for regulatory account balances; and
- Lower EBIT of $82 million from Atura Power business segment, primarily due to the release of a previously recognized contingent liability in the fourth quarter of 2023 under a 2021 settlement agreement related to an acquisition of combined cycle plants.

Net interest expense increased by $25 million during the fourth quarter of 2024, compared to the same quarter in 2023, largely due to higher interest on the Company's long-term debt due to bond issuances during 2024.

Income tax expense decreased by $74 million during the fourth quarter of 2024, compared to the same quarter in 2023. The decrease was primarily due to the impact of lower earnings before income taxes.

Electricity Generation

OPG's electricity generation for the three months ended December 31, 2024 and 2023 was as follows:

(TWh)	Three Months Ended December 31 2024	2023
Regulated – Nuclear Generation	**8.3**	9.2
Regulated – Hydroelectric Generation	**7.9**	7.8
Contracted Hydroelectric and Other Generation [1]	**1.2**	1.2
Atura Power	**3.0**	2.6
Total OPG electricity generation	**20.4**	20.8

[1] Includes OPG's proportionate share of electricity generation from co-owned and minority shareholdings in electricity generating facilities.

The decrease in OPG's total electricity generation of 0.4 TWh during the fourth quarter of 2024, compared to the same quarter in 2023, was primarily due to lower electricity generation of 0.9 TWh from the Regulated – Nuclear Generation business segment as a result of the cessation of commercial operation of Unit 1 of the Pickering GS on October 1, 2024, partially offset by fewer planned outage days at the Pickering GS, and higher electricity generation from the Atura Power business segment, primarily due to higher demand for electricity generation from the combined cycle plants.

Ontario's electricity demand as reported by the IESO was 35.0 TWh during the fourth quarter of 2024, compared to 34.5 TWh for the same period in 2023. Ontario's electricity demand excludes electricity exports out of the province.

Liquidity and Capital Resources

Cash flow provided by operating activities during the three months ended December 31, 2024 was $429 million, compared to $657 million for the same period in 2023. The decrease was primarily due to lower revenue receipts from the Regulated – Nuclear Generation business segment and higher OM&A expenditures, mainly offset by higher revenue receipts from the Regulated – Hydroelectric Generation business segment and lower income tax installment payments.

Cash flow used in investing activities was $992 million during the three months ended December 31, 2024, compared to $906 million during the same period in 2023. This increase was primarily due to increased capital expenditures for the Pickering Refurbishment project and DNNP within the Regulated – Nuclear Generation business segment during the fourth quarter of 2024.

Cash flow used in financing activities increased by $129 million during the three months ended December 31, 2024, compared to the same period in 2023. The increase was primarily due to a net repayment of short-term debt, mainly offset by a higher net issuance of long-term debt.

QUARTERLY AND ANNUAL FINANCIAL HIGHLIGHTS

The following tables set out selected annual financial information for the last three years and financial information for each of the eight most recently completed quarters. This information is derived from OPG's unaudited interim consolidated financial statements and the audited annual consolidated financial statements, and has been prepared in accordance with US GAAP.

Annual Financial Information

(millions of dollars – except where noted)	**2024**	**2023**	**2022**
Revenue	**7,187**	7,434	7,349
Net income attributable to the Shareholder	**988**	1,741	1,636
Earnings per share, attributable to the Shareholder *(dollars)*	**$3.60**	$6.34	$5.96
Total assets	**68,976**	65,688	62,343
Total long-term liabilities	**44,044**	42,434	41,259
Weighted average shares outstanding *(millions)*	**274.6**	274.6	274.6

Quarterly Financial Information

	2024 Quarters Ended				
(millions of dollars – except where noted) *(unaudited)*	**December 31**	**September 30**	**June 30**	**March 31**	**Total**
Electricity generation (*TWh*)	**20.4**	**21.7**	**18.9**	**21.1**	**82.1**
Revenue	**1,838**	**1,891**	**1,691**	**1,767**	**7,187**
Net income	**232**	**383**	**166**	**225**	**1,006**
Less: Net income attributable to non-controlling interest	**4**	**4**	**6**	**4**	**18**
Net income attributable to the Shareholder	**228**	**379**	**160**	**221**	**988**
Earnings per share, attributable to the Shareholder *(dollars)*	**$0.83**	**$1.38**	**$0.58**	**$0.80**	**$3.60**

	2023 Quarters Ended				
(millions of dollars – except where noted) *(unaudited)*	**December 31**	**September 30**	**June 30**	**March 31**	**Total**
Electricity generation (*TWh*)	20.8	20.9	19.5	19.7	80.9
Revenue	1,894	1,882	1,828	1,830	7,434
Net income	454	449	423	433	1,759
Less: Net income attributable to non-controlling interest	4	5	5	4	18
Net income attributable to the Shareholder	450	444	418	429	1,741
Earnings per share, attributable to the Shareholder *(dollars)*	$1.64	$1.62	$1.52	$1.56	$6.34

Trends

OPG's quarterly electricity generation and the financial results of the Regulated – Nuclear Generation business segment are primarily impacted by outage activities at the nuclear generating stations. The frequency and timing of planned outages under a station's maintenance outage cycle and the timing of refurbishment activities may result in period-over-period variability in OPG's financial results. The maintenance outage cycle at each of OPG's nuclear generating stations determines the number of planned outages in a particular year. Outage cycles are designed to ensure continued safe and reliable long-term operations of the stations and their compliance with the CNSC's regulatory requirements.

The Darlington and Pickering nuclear generating stations have been designed to operate at full power as baseload generating facilities and therefore their electricity production does not vary with changes in grid-supplied electricity demand.

OPG's quarterly electricity generation from the Regulated – Hydroelectric Generation, Contracted Hydroelectric and Other Generation, and Atura Power business segments is affected by changes in grid-supplied electricity demand. Changes in grid-supplied electricity demand are primarily caused by variations in seasonal weather conditions, changes in economic conditions, the impact of small-scale generation embedded in distribution networks, and the impact of conservation efforts. Historically, there has been greater electricity demand in Ontario during the winter and summer months due to heating and air conditioning demands. The financial impact of forgone hydroelectric electricity generation from the Regulated – Hydroelectric Generation business segment due to SBG conditions is mitigated by a regulatory account.

OPG's quarterly electricity generation from hydroelectric facilities is impacted by weather conditions that affect water flows. Historically, there have been higher water flows in the second quarter as a result of snow and ice melt entering the river systems. The financial impact of variability in water flows on the Regulated – Hydroelectric Generation business segment is mitigated by regulatory accounts.

The financial impact of variability in electricity generation from the Contracted Hydroelectric and Other Generation business segment and the Atura Power business segment is mitigated by the terms of the applicable ESAs with the IESO for the contracted generating facilities in Ontario.

KEY OPERATING PERFORMANCE INDICATORS AND NON-GAAP FINANCIAL MEASURES

Key Operating Performance Measures

OPG evaluates the performance of its generating stations using a number of key indicators. Key operating performance indicators aligned with corporate business imperatives include measures of production reliability, cost effectiveness, environmental performance and safety performance. Certain of the measures used vary depending on the generating technology.

Nuclear Unit Capability Factor

The nuclear Unit Capability Factor is a key measure of nuclear station performance. It measures the amount of energy that the unit(s) generated over a period of time, adjusted for externally imposed constraints such as transmission or demand limitations, as a percentage of the amount of energy that would have been produced over the same period had the unit(s) produced maximum generation. Capability factors are primarily affected by planned and unplanned outages. An outage day represents a single unit being offline or derated for an amount of time equivalent to one day. By industry definition, capability factors exclude production losses beyond plant management's control, such as grid-related unavailability. The nuclear Unit Capability Factor also excludes unit(s) during the period in which they are undergoing refurbishment.

Hydroelectric Availability

Hydroelectric Availability represents the percentage of time the generating unit is capable of providing service, whether or not it is actually generating electricity, compared to the total time for the respective period, weighted by unit capacity.

Thermal Equivalent Forced Outage Rate

Equivalent forced outage rate is an index of the reliability of a generating unit at OPG's wholly-owned thermal stations. It is measured by the ratio of time a generating unit is forced out of service by unplanned events, including any forced deratings, compared to the amount of time the generating unit was available to operate.

Thermal Availability

Thermal Availability represents the percentage of time a generating unit at Atura Power's combined cycle plants is capable of providing service, whether or not it is actually generating electricity, compared to the total time for the respective period, averaged by the number of facilities owned and operated through Atura Power. The measure is calculated on a three-year rolling average basis.

Other Key Indicators

OPG has also identified certain environmental and safety performance measures, which are discussed in the section, *Environmental, Social, Governance and Sustainability*.

Non-GAAP Financial Performance Measures

In addition to net income and other financial information in accordance with US GAAP, certain non-GAAP financial measures are also presented in this MD&A. These non-GAAP measures do not have any standardized meaning prescribed by US GAAP and, therefore, may not be comparable to similar measures presented by other issuers. OPG utilizes these measures to make operating decisions and assess performance. Readers of the MD&A would utilize these measures in assessing the Company's financial performance from ongoing operations. The Company believes that these indicators are important since they provide additional information about OPG's performance, facilitate comparison of results over different periods and present measures consistent with the Company's strategies to provide value to the Shareholder, improve cost performance and ensure availability of cost-effective funding. These non-GAAP financial measures have not been presented as an alternative to net income or any other measure in accordance with US GAAP, but as indicators of operating performance.

The definitions of the non-GAAP financial measures are as follows:

(1) Earnings before interest, income taxes, depreciation and amortization is defined as net income before net interest expense, income tax expense and depreciation and amortization expenses.

(2) Gross margin is defined as revenue less fuel expense.

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