



700 University Avenue Toronto, ON M5G 1X6

Tel: 416-592-4008 or 1-800-592-4008 Fax: 416-592-2178 www.opg.com

Aug. 13, 2020

OPG REPORTS 2020 SECOND QUARTER FINANCIAL RESULTS

OPG returns refurbished Darlington Unit 2 reactor to service; safely restarts and advances key projects

[Toronto] Ontario Power Generation Inc. (OPG or Company) today reported its financial and operating results for the second quarter of 2020, with net income attributable to the Shareholder of \$458 million, compared to \$351 million for the same quarter of 2019.

The Company's net income for the second quarter of 2020 was favourably impacted by higher revenue from its regulated nuclear generating assets, compared to the same quarter in 2019. The increase in revenue was due to higher electricity generation in the quarter and changes in the regulated price previously approved by the Ontario Energy Board in 2018.

"As Ontario's largest electricity producer, our strong operational performance demonstrates the high quality of our diverse generating fleet, which continues to safely and reliably power the province through the current challenges. As the Ontario economy restarts, we are advancing critical infrastructure projects and initiatives that will support economic development and a clean energy future," said Ken Hartwick, OPG's President & CEO. "Our true strength comes from working together, collaborating and supporting each other, and that's what we've been doing as a company as we safely resume work on our key projects."

On June 4, 2020, the Darlington Nuclear Refurbishment Project achieved a significant milestone by successfully completing the refurbishment of the Darlington nuclear generating station's (Darlington GS) Unit 2 reactor and reconnecting it to Ontario's electricity grid. Hartwick commented, "The return to service of Darlington's Unit 2 is a historic accomplishment for OPG, the province and the industry. I want to thank our refurbishment team, project partners, vendors and construction building trades workers for safely returning the reactor to the grid during these unprecedented times. This world-class project performance demonstrates the team's expertise, innovation and commitment that will be applied to the refurbishment of the next Darlington unit, Unit 3."

In July 2020, Unit 1 reactor of the Darlington GS set a new Canadian and North American nuclear record with 895 straight days, and counting, of consecutive operation. "Unit 1's success story is a testament to the reliability of the Darlington station, which produces clean electricity 24 hours a day, seven days a week, and to our hardworking and dedicated employees who ensure that the day-to-day operations of the plant continue to run safely and efficiently, for the benefit of all Ontarians," said Hartwick.

Generation and Operating Performance

Electricity generated during the second quarter of 2020 was 20.9 terawatt hours (TWh), compared to 20.2 TWh for the same quarter in 2019. Total electricity generated during the six months ended June 30, 2020 increased to 41.6 TWh from 39.3 TWh for the same period in 2019.

Regulated – Nuclear Generation Segment

Electricity generation from the regulated nuclear stations increased by 0.3 TWh and 1.6 TWh during the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. This was primarily due to electricity generation from the return to service of Unit 2 of the Darlington GS and fewer planned cyclical maintenance outage days at the Darlington GS, partially offset by a higher number of planned outage days at the Pickering GS, in line with the cyclical maintenance schedule and other maintenance and repair work at the station.

At the Darlington GS, the unit capability factor of 93.8 per cent for the second quarter of 2020 was comparable to 95.7 per cent for the same quarter in 2019. The unit capability factor increased to 96.3 per cent for the six months ended June 30, 2020, compared to 84.2 per cent for the same period in 2019. This increase was mainly due to fewer planned cyclical maintenance outage days in the first quarter of 2020. For the second quarter of 2020, total outage days for the units not undergoing refurbishment decreased to four days from 12 days for the same period in 2019. For the six months ended June 30, 2020, total outage days for the units not undergoing refurbishment decreased to six days from 86 days for the same period in 2019.

At the Pickering nuclear generating station (Pickering GS), the unit capability factor decreased to 80.0 per cent and 79.9 per cent for the three and six month periods ended June 30, 2020, respectively, compared to 86.4 per cent and 86.5 per cent for the same periods in 2019. The decrease in both periods was due to a higher number of planned outage days at the station in 2020, in line with the station's cyclical maintenance schedule and other maintenance and repair work. For the second quarter of 2020, total outage days for the six units increased to 110 days from 75 days for the same quarter in 2019. For the six months ended June 30, 2020, total outage days increased to 220 days from 147 days for the same period in 2019.

Regulated – Hydroelectric Generation Segment

Electricity generation from the regulated hydroelectric stations decreased by 0.6 TWh in both the three and six month periods ended June 30, 2020, compared to the same periods in 2019. The decrease in both periods was primarily due to lower electricity demand in Ontario, forgone electricity generation as a result of the Company's modified approach to water management in the eastern Ontario region and lower water flows in some parts of the province. The modified approach to water management was implemented through the height of the COVID-19 pandemic's onset, reducing the need for fieldwork activities and providing increased flexibility to the electricity grid.

Availability at the regulated hydroelectric stations increased to 91.9 per cent and 90.9 per cent for the three and six month periods ended June 30, 2020, respectively, compared to 91.4 per cent and 90.7 per cent for the same periods in 2019. This was

primarily due to fewer planned outages across the regulated hydroelectric fleet as the Company temporarily deferred certain planned maintenance in response to the COVID-19 pandemic, partially offset by higher unplanned outages at the regulated hydroelectric stations in the south-central Ontario region.

Contracted Hydroelectric and Other Generation Segment

Electricity generation from the Contracted Hydroelectric and Other Generation segment increased by 0.6 TWh and 1.1 TWh during three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. The increase was primarily due to electricity generation from hydroelectric facilities in the United States acquired in October 2019.

Availability of the Ontario-based hydroelectric stations in the segment increased to 83.8 per cent and 86.7 per cent during the three and six month periods ended June 30, 2020, respectively, compared to 78.3 per cent and 82.4 for the same periods in 2019. This was primarily due to fewer planned outages at the contracted hydroelectric facilities in the northeastern Ontario region, as the Company temporarily deferred certain planned maintenance in response to the COVID-19 pandemic.

Contracted Gas Generation Segment

The Contracted Gas Generation segment was established effective in the second quarter of 2020 to report the operating results of the Company's combined-cycle natural gas-fired generating fleet in Ontario, owned and operated by a new wholly-owned subsidiary operating as Atura Power. The fleet comprises the 900 MW Napanee generating station, the 683 MW Halton Hills generating station, the 550 MW Portlands Energy Centre and the 560 MW Brighton Beach generating station (Brighton Beach GS). OPG acquired the Napanee and Halton Hills generating stations and the remaining 50 percent in the Portlands Energy Centre on April 29, 2020, and the remaining 50 percent interest in the Brighton Beach GS in August 2019. Comparative period information related to OPG's interests in the Portlands Energy Centre and the Brighton Beach GS, previously reported in the Contracted Hydroelectric and Other Generation segment, has been restated in line with the new segment presentation.

Electricity generation from the Contracted Gas Generation segment increased by 0.4 TWh and 0.2 TWh during the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. The increase was primarily due to generation from the portfolio of natural gas-fired plants acquired on April 29, 2020.

Total Generating Cost

The Enterprise Total Generating Cost per megawatt hour (MWh) for the second quarter of 2020 was \$43.81, compared to \$44.78 for the same quarter in 2019. The Enterprise Total Generating Cost per MWh for the six months ended June 30, 2020 was \$44.72, compared to \$48.18 for the same period in 2019. The decrease in Enterprise TGC per MWh in the second quarter of 2020 was primarily due to higher electricity generation from Ontario-based generating stations. For the six months ended June 30, 2020, the decrease in Enterprise TGC was due to higher electricity generation from Ontario-based generating stations and lower OM&A expenses for the nuclear facilities.

Generation Development

OPG is pursuing a number of generation development and other major projects in support of Ontario's electricity system. In line with the public health safety measures implemented beginning in the second half of March 2020 in response to the COVID-19 pandemic, a number of project activities were temporarily suspended or deferred prior to being safely resumed beginning in June 2020, with enhanced safety measures. OPG continues to monitor the status of the pandemic and is implementing strategies to minimize the impact of the temporary interruption on project milestones.

Significant developments during the second quarter of 2020 included the following:

Darlington Refurbishment

The Darlington Refurbishment project is expected to extend the operating life of the four-unit Darlington GS by at least 30 years.

On June 4, 2020, following successful completion of start-up activities, Unit 2 was returned to service in line with the Company's high quality and safety standards. This represents a significant milestone in OPG's path toward ensuring that the Darlington GS can continue to provide cost effective, reliable and clean energy for Ontario into the 2050s. The final steps of construction and return to service for Unit 2 were performed amid the COVID-19 pandemic, with additional measures implemented to help safeguard the health and safety of employees and contractors. Unit 2 provides 878 MW toward baseload electricity generation in Ontario.

In response to the COVID-19 pandemic, in March 2020, OPG announced its decision to postpone the start of the Unit 3 refurbishment. In the second half of May 2020, OPG resumed training and on-boarding activities for construction trades in support of the Unit 3 refurbishment, and, in June 2020, resumed pre-requisite fieldwork activities.

During the period of June 4, 2020 to July 30, 2020, all four Darlington GS units were generating electricity to the grid for the first time since 2016. On July 30, 2020, Unit 3 was taken offline for a planned outage. Execution of Unit 3 refurbishment activities will begin with defueling of the unit immediately following the outage, by September 2020. The revised schedule is expected to maintain the project's overall timeline to refurbish all four Darlington GS units by the end of 2026. As of June 30, 2020, \$718 million has been invested in planning and pre-requisite activities related to the Unit 3 refurbishment.

OPG continues to assess and seek ways to manage the impact of the COVID-19 pandemic on the total cost of the project, which is otherwise continuing to track to the \$12.8 billion budget.

Ranney Falls Hydroelectric GS

OPG continued commissioning activities on the new 10 MW single-unit powerhouse on the existing Ranney Falls GS site during the second quarter of 2020. The new unit will replace an existing unit that reached its end of life, doubling the total station generating capacity. Due to equipment component issues previously identified during commissioning, and the impact of the COVID-19 pandemic, the new expected in-service date for the project is during the third quarter of 2020. The project continues to track to

its \$77 million budget. The Ranney Falls GS is included in the Regulated – Hydroelectric Generation segment.

Little Long Dam Safety Project

In January 2019, OPG initiated a plan to improve dam safety along the Lower Mattagami River in Ontario, primarily through the Little Long Dam Safety project. The project will increase the discharge capacity and make other reliability and operational improvements at the Little Long Main Dam, helping the Company to comply with updated dam safety requirements established by the Province of Ontario. During the second quarter of 2020, OPG continued the procurement of critical materials and advanced detailed engineering, construction design and permitting activities. Project site work resumed in June 2020 after a temporary suspension in response to the COVID-19 pandemic. The project is expected to be placed in-service in 2023 and continues to track within its \$650 million budget. The Little Long Dam supports OPG's hydroelectric generating stations on the Lower Mattagami River, which are reported in the Contracted Hydroelectric and Other Generation segment.

Sir Adam Beck I Hydroelectric GS Units G1 and G2 Replacement

OPG has initiated a project to replace two older generating units at the Sir Adam Beck I GS that used outdated line frequency technology of 25 Hz prior to being decommissioned in 2009. The conversion of these units to standard generator technology of 60 Hz is expected to add approximately 125 MW of incremental generating capacity, providing many more decades of cost effective, clean power from one of OPG's flagship stations in the hydroelectric fleet. During the second quarter of 2020, OPG continued front-end engineering design activities and procurement of long lead materials. After a temporary suspension in response to the COVID-19 pandemic, project site work resumed in June 2020 and is focused on removing the 100-year-old embedded scroll cases for replacement. The project is expected to be placed in-service in 2022 and is tracking within its \$128 million budget. The Sir Adam Beck I GS is reported in the Regulated – Hydroelectric Generation segment.

Redevelopment of Calabogie Hydroelectric GS

In April 2020, OPG initiated the execution phase of a project to redevelop the Calabogie GS, located along the Madawaska River in eastern Ontario. The original generating station was nearing the end of its operational life when it was extensively damaged by a storm in 2018. The new facility will replace the original powerhouse with a higher capacity powerhouse that will double the station's original capacity to approximately 11 MW. Excavation work for the new powerhouse commenced in June 2020. The expected in-service date is in 2022 and the project is tracking to its \$137 million budget. The Calabogie GS is reported in the Regulated – Hydroelectric Generation segment.

New Nuclear Development

OPG continues to support the development of nuclear small modular reactors (SMRs). In June 2020, Global First Power Ltd. (GFP), Ultra Safe Nuclear Corporation (USNC) and OPG formed a joint venture, Global First Power LP, with the goal of advancing the development of a proposed Micro Modular Reactor (MMR™) at the Chalk River Laboratories site, northwest of Ottawa, Ontario. The joint venture is the first commercial partnership on the development of an SMR in Canada.

FINANCIAL AND OPERATIONAL HIGHLIGHTS

		nths Ended e 30	Six Months Ended June 30	
(millions of dollars – except where noted)	2020	2019	2020	2019
Revenue	1,849	1,566	3,569	2,992
Fuel expense	199	175	352	323
Operations, maintenance and administration expenses	684	681	1,392	1,430
Depreciation and amortization expenses	334	264	648	530
Accretion on fixed asset removal and nuclear waste management liabilities	264	255	528	510
Earnings on nuclear fixed asset removal and nuclear waste management	(288)	(223)	(459)	(443)
funds	(===)	(===)	(100)	(110)
Other net expenses (gains)	5	(19)	5	(34)
Earnings before interest and income taxes	651	433	1,103	676
Net interest expense	77	12	129	30
Income tax expense	112	65	199	73
Net income	462	356	775	573
	-			
Net income attributable to the Shareholder	458	351	767	564
Net income attributable to non-controlling interest ¹	4	5	8	9
Earnings (loss) before interest and income taxes		-		
Electricity generating business segments	607	444	1,148	715
Regulated – Nuclear Waste Management	27	(29)	(63)	(61)
Other	17	18	18	22
Earnings before interest and income taxes	651	433	1,103	676
Cash flow provided by operating activities	823	610	1,540	1,185
Capital expenditures ²	385	510	834	984
Electricity generation (TWh)				
Regulated – Nuclear Generation	11.6	11.3	22.7	21.1
Regulated – Hydroelectric Generation	7.5	8.1	15.7	16.3
Contracted Hydroelectric and Other Generation ³	1.4	0.8	2.7	1.6
Contracted Gas Generation ³	0.4	-	0.5	0.3
Total OPG electricity generation	20.9	20.2	41.6	39.3
Nuclear unit capability factor (per cent) 4		-	_	
Darlington Nuclear GS	93.8	95.7	96.3	84.2
Pickering Nuclear GS	80.0	86.4	79.9	86.5
Availability (per cent)				
Regulated – Hydroelectric Generation	91.9	91.4	90.9	90.7
Contracted Hydroelectric and Other Generation – hydroelectric stations ⁵	83.8	78.3	86.7	82.4
Equivalent forced outage rate				
Contracted Hydroelectric and Other Generation – thermal stations	4.8	18.1	4.6	9.2
Contracted Gas Generation ⁶	0.2	n/a	0.2	n/a
Enterprise Total Generating Cost (TGC) per MWh (\$/MWh) for the three and	43.81	44.78	44.72	44.18
six months ended June 30, 2020 and June 30, 2019 (\$/MWh) ⁷		•	-	
Return on Equity Excluding Accumulated Other Comprehensive Income				
(ROE Excluding AOCI) for the twelve months ended June 30, 2020				
and December 31, 2019 (%) 7			9.2	8.2

Relates to the following: the 25 per cent interest of Amisk-oo-Skow Finance Corporation, a corporation wholly-owned by the Moose Cree First Nation in Lower Mattagami Limited Partnership; the 33 per cent interest of Coral Rapids Power Corporation, a corporation wholly-owned by the Taykwa Tagamou Nation, in PSS Generating Station Limited Partnership; the 15 per cent and 5 per cent interests 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 stations in the United States.

Includes net changes in accruals; excludes the acquisition of a portfolio of natural gas-fired assets on April 29, 2020.

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

⁴ Excludes nuclear unit(s) during the period in which they are undergoing refurbishment.

⁵ Reflects the availability of contracted hydroelectric generating stations in Ontario.

⁶ Reflects the reliability of combined-cycle natural gas-fired plants for the periods they were wholly owned by OPG. Thermal EFOR is not applicable for periods with no wholly-owned combined-cycle natural gas-fired plants, denoted by n/a.

Enterprise TGC per MWh and ROE Excluding AOCI are non-GAAP financial measures and do not have any standardized meaning prescribed by US GAAP. Additional information about the non-GAAP measures is provided in OPG's Management's Discussion and Analysis for the six months ended June 30, 2020, in the section, Key Operating Performance Indicators and Non-GAAP Financial Measures.

OPG is the largest electricity generator in the province, providing almost half of the power Ontarians rely on every day. It is also one of the most diverse generators in North America, with expertise in nuclear, hydroelectric, biomass, solar and natural gas technologies.

Ontario Power Generation Inc.'s unaudited interim consolidated financial statements and Management's Discussion and Analysis as at and for the three and six month periods ended June 30, 2020 can be accessed on OPG's web site (www.opg.com), the Canadian Securities Administrators' web site (www.sedar.com), or can be requested from the Company.

For further information, please contact:

Investor & Media Relations

416-592-4008 1-877-592-4008 media@opg.com

ONTARIO POWER GENERATION INC. MANAGEMENT'S DISCUSSION AND ANALYSIS

2020 SECOND QUARTER REPORT

TABLE OF CONTENTS

Forward-Looking Statements	2
The Company	4
Highlights	7
Recent Developments	14
Corporate Strategy, Core Business and Outlook	17
Environmental, Social, Governance and Sustainability	26
Discussion of Operating Results by Business Segment	31
Regulated – Nuclear Generation Segment	31
Regulated – Nuclear Waste Management Segment	33
Regulated – Hydroelectric Generation Segment	34
Contracted Hydroelectric and Other Generation Segment	35
Contracted Gas Generation Segment	36
Liquidity and Capital Resources	37
Balance Sheet Highlights	39
Changes in Accounting Policies and Estimates	40
Risk Management	40
Related Party Transactions	42
Internal Control over Financial Reporting and Disclosure Controls	44
Quarterly Financial Highlights	45
Key Operating Performance Indicators and Non-GAAP Financial Measures	46



ONTARIO POWER GENERATION INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis (MD&A) should be read in conjunction with the unaudited interim consolidated financial statements and accompanying notes of Ontario Power Generation Inc. (OPG or Company) as at and for the three and six month periods ended June 30, 2020. OPG's unaudited interim consolidated financial statements are prepared in accordance with United States generally accepted accounting principles (US GAAP) and are presented in Canadian dollars.

For a complete description of OPG's corporate strategies, risk management, corporate governance, and the effect of critical accounting policies and estimates on OPG's results of operations and financial condition, this MD&A should also be read in conjunction with OPG's audited consolidated financial statements, Annual Information Form, and MD&A as at and for the year ended December 31, 2019.

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. The current exemption allows the Company to continue to apply US GAAP up to January 1, 2024. The term of the exemption is subject to certain conditions, which may result in the expiry of the exemption prior to January 1, 2024. For details, refer to the section, *Critical Accounting Policies and Estimates* under the heading, *Exemptive Relief for Reporting under US GAAP* in OPG's 2019 annual MD&A. This MD&A is dated August 11, 2020.

Additional information about OPG, including the Company's Annual Information Form, is available on SEDAR at www.sedar.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, *Corporate Strategy, 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), cost of fixed asset removal and nuclear waste management and associated funding requirements, performance and earnings of investment funds, refurbishment of existing facilities, development and construction of new facilities, acquisition transactions, performance of acquired businesses, defined benefit pension and other post-employment benefit (OPEB) obligations and funds, income taxes, proposed new legislation, the ongoing evolution of electricity industries and markets in Ontario and the United States (US), the continued application and renewal of energy supply agreements and other contracts for non-regulated facilities, foreign currency exchange rates, commodity prices, wholesale spot electricity market prices, environmental and other regulatory requirements, operating licence applications to the Canadian Nuclear Safety Commission (CNSC) and the Federal Energy Regulatory Commission, health, safety and environmental developments, the COVID-19 pandemic,

changes in the Company's workforce, renewal of union collective agreements, business continuity events, the weather, financing requirements and liquidity, funding sources, applications to the Ontario Energy Board (OEB) for regulated prices, the impact of regulatory decisions by the OEB, forecasts of earnings, cash flow, earnings before interest, income taxes, depreciation and amortization, gross margin, Return on Equity Excluding Accumulated Other Comprehensive Income (ROE Excluding AOCI), Total Generating Cost (TGC) per megawatt-hour (MWh), operations, maintenance and administration (OM&A) expenses and project and other expenditures, retention of critical talent, and supplier and third party performance. Accordingly, undue reliance should not be placed on any forward-looking statement. The forwardlooking 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:

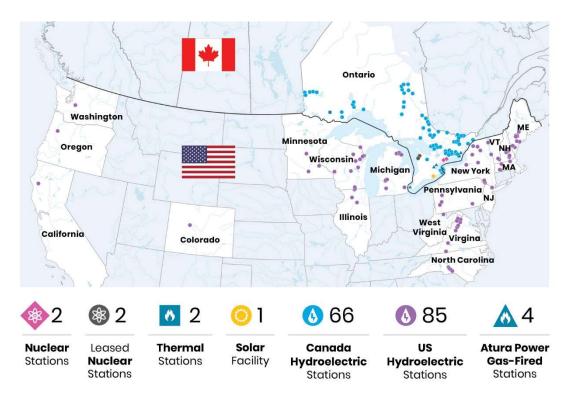
- "Return on Equity Excluding Accumulated Other Comprehensive Income";
- "Enterprise Total Generating Cost per Megawatt-Hour";
- "Earnings before Interest, Income Taxes, Depreciation and Amortization"; and
- "Gross Margin".

For a detailed description of each of the non-GAAP measures used in this MD&A and a detailed reconciliation to the most directly comparable measure under US GAAP, 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 19,754 megawatts (MW) as at June 30, 2020.

As at June 30, 2020, OPG owned and operated two nuclear generating stations, 66 hydroelectric generating stations, two thermal generating stations, one solar facility and four combined-cycle natural gas-fired plants in Ontario, Canada. The combined-cycle natural gas-fired plants are owned and operated by the Company's wholly-owned subsidiary operating as Atura Power. Through its wholly-owned subsidiaries in the US, the Company also wholly or jointly owned and operated 85 hydroelectric generating stations and held minority shareholdings in 13 hydroelectric and two solar facilities in the United States. In addition, OPG owns two nuclear generating stations in Ontario, the Bruce A GS and the Bruce B GS, 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 is included in the Company's generation portfolio statistics set out in this MD&A.

Income from the 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.

Reporting Structure

In the second quarter of 2020, OPG established a new reportable business segment, Contracted Gas Generation, to describe the operating results related to its fleet of combined-cycle natural gas-fired generating stations in Ontario owned and operated by Atura Power. The fleet comprises the 900 MW Napanee GS, the 683 MW Halton Hills GS, the 550 MW Portlands Energy Centre and the 560 MW Brighton Beach GS. The Napanee GS, the Halton Hills GS and the remaining 50 percent interest in the Portlands Energy Centre were acquired on April 29, 2020, and the remaining 50 percent interest in the Brighton Beach GS was acquired in August 2019. These facilities operate under Energy Supply Agreements (ESAs) with the Independent Electricity System Operator (IESO) or other long-term contractual arrangements.

The comparative information for the operating results and statistics related to OPG's interests in the Portlands Energy Centre and the Brighton Beach GS, previously reported in the Contracted and Other Generation business segment, has been reclassified to conform to the new segment presentation.

The Contracted and Other Generation segment has been renamed Contracted Hydroelectric and Other Generation. The segment operates in Ontario and the US, generating electricity from the Company's non-regulated generating stations. The segment primarily includes generating facilities that are under ESAs with the IESO or other long-term contracts. A number of facilities in the US supply energy and capacity into wholesale spot electricity markets.

As at June 30, 2020, OPG's reportable business segments are as follows:

- Regulated Nuclear Generation;
- Regulated Nuclear Waste Management;
- Regulated Hydroelectric Generation;
- Contracted Hydroelectric and Other Generation; and
- Contracted Gas Generation.

In-Service Generating Capacity

OPG's in-service generating capacity by business segment as of June 30, 2020 and December 31, 2019 was as follows:

	As At	
(MW)	June 30 2020	December 31 2019
Regulated – Nuclear Generation	6,606	5,728
Regulated – Hydroelectric Generation	6,420	6,420
Contracted Hydroelectric and Other Generation ¹	4,035	4,034
Contracted Gas Generation ¹	2,693	835
Total	19.754	17.017

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

During the six months ended June 30, 2020, the total in-service generating capacity increased by 2,737 MW. The increase was primarily due to the acquisition of a portfolio of combined-cycle natural gas-fired plants in Ontario on April 29, 2020. In addition, in June 2020, OPG completed the refurbishment of Unit 2 of the Darlington nuclear GS (Darlington GS), returning 878 MW of generating capacity to service. Subsequent to the second quarter of 2020, Unit 3 of the Darlington GS was taken offline on July 30, 2020 for a planned outage, immediately following which the unit will enter refurbishment. Unit 3 of the Darlington GS has a generating capacity of 878 MW. For further details on the acquisition of the portfolio of natural gas-fired plants and the return to service of Unit 2 of the Darlington GS, refer to the section, *Recent Developments* under the headings, *Recent Developments in Project Excellence – Darlington Refurbishment* and *Recent Developments in Financial Strength – Acquisition of Portfolio of Natural Gas-Fired Assets in Ontario*, respectively.

Overview of Results

This section provides an overview of OPG's unaudited interim consolidated operating results for the three and six month periods ended June 30, 2020, compared to the same periods in 2019. A discussion of OPG's performance by business segment can be found in the section, *Discussion of Operating Results by Business Segment*.

	Three Months Ended June 30		Jun	
(millions of dollars – except where noted)	2020	2019	2020	2019
Revenue	1,849	1,566	3,569	2,992
Fuel expense	199	175	352	323
Operations, maintenance and administration expenses	684	681	1,392	1,430
Depreciation and amortization expenses	334	264	648	530
Accretion on fixed asset removal and nuclear waste				
management liabilities	264	255	528	510
Earnings on nuclear fixed asset removal and nuclear waste				
management funds	(288)	(223)	(459)	(443)
Other net expenses (gains)	5	(19)	5	(34)
Earnings before interest and income taxes	651	433	1,103	676
Net interest expense	77	12	129	30
Income tax expense	112	65	199	73
Net income	462	356	775	573
Net income attributable to the Shareholder	458	351	767	564
Net income attributable to the Shareholder Net income attributable to non-controlling interest ¹	430	5	8	9
Net income attributable to non-controlling interest	7	<u> </u>		<u> </u>
Electricity generation (TWh) ²	20.9	20.2	41.6	39.3
Cash flow				
Cash flow provided by operating activities	823	610	1,540	1,185
			·	•
Capital expenditures ³	385	510	834	984
Earnings (loss) before interest and income taxes by segment		400		0.40
Regulated – Nuclear Generation	309	193	573	213
Regulated – Hydroelectric Generation	196	179	393	359
Contracted Hydroelectric and Other Generation	52 50	63 9	116	122
Contracted Gas Generation	607		66	21
Total electricity generating business segments	607	444	1,148	715
Regulated – Nuclear Waste Management	27	(29)	(63)	(61)
Other	17	18	18	22
Earnings before interest and income taxes	651	433	1,103	676
Enterprise TGC per MWh (\$/MWh) ⁴	43.81	44.78	44.72	48.18
ROE Excluding AOCI for the twelve months ended			2.0	0.0
June 30, 2020 and December 31, 2019 (percent) ⁴			9.2	8.2

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; the 33 percent interest of Coral Rapids Power Corporation, a corporation wholly owned by the Taykwa Tagamou Nation, in PSS Generating Station Limited Partnership; the 15 percent interest of a corporation wholly owned by Six Nations of Grand River Development Corporation in Nanticoke Solar LP; the 5 percent interest of a corporation wholly owned by Mississaugas of the Credit First Nation in Nanticoke Solar LP; and non-controlling interests in certain electricity generating facilities in the US.

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

Includes net changes in accruals; excludes the acquisition of a portfolio of natural gas-fired assets on April 29, 2020.

Enterprise TGC per MWh and ROE Excluding AOCI are non-GAAP financial measures and do not have any standardized meaning prescribed by US GAAP. Additional information about the non-GAAP measures is provided in the section, *Key Operating Performance Indicators and Non-GAAP Financial Measures*.

Second Quarter

Net income attributable to the Shareholder was \$458 million for the second quarter of 2020, representing an increase of \$107 million compared to the same quarter in 2019.

Earnings before interest and income taxes (EBIT) for the second quarter of 2020 was \$651 million, an increase of \$218 million compared to the same quarter in 2019.

Significant factors that increased EBIT:

- An increase in revenue from the Regulated Nuclear Generation business segment of \$95 million from a higher base regulated price for OPG's nuclear electricity generation and \$73 million from higher amounts deferred in a regulatory variance account for future collection under rate smoothing, which helps to lower electricity prices for customers in the current period. These increases, approved by the OEB in its March 2018 order on OPG's regulated prices for the 2017-2021 period, include an increase in rate base to allow for recovery of OPG's investment in the Darlington Refurbishment project;
- Higher revenue of approximately \$21 million from the Regulated Nuclear Generation segment as a result of higher nuclear electricity generation of 0.3 terawatt hours (TWh), primarily due to the return to service of Unit 2 of the Darlington GS on June 4, 2020 following refurbishment and fewer planned cyclical maintenance outage days at the Darlington GS, partially offset by a higher number of planned outage days at the Pickering nuclear GS (Pickering GS);
- Higher earnings on the nuclear fixed asset removal and nuclear waste management segregated funds (Nuclear Segregated Funds) of \$65 million, primarily due to improved financial market conditions since the first quarter of 2020; and
- Higher EBIT of \$41 million from the Contracted Gas Generation business segment, primarily from the acquisition of a portfolio of natural gas-fired plants in Ontario on April 29, 2020.

Significant factors that decreased EBIT:

 An increase in depreciation and amortization expenses of \$46 million from the Regulated – Nuclear Generation segment, excluding amortization expense related to the recovery of regulatory deferral and variance account (regulatory account) balances, primarily due to depreciation on the capital expenditures placed in service upon completing the refurbishment of the Unit 2 of the Darlington GS and higher amounts of depreciation expense recorded as refundable to customers through regulatory accounts.

Net interest expense increased by \$65 million in the second quarter of 2020, compared to the same quarter in 2019. The increase was largely due to a lower amount of interest costs capitalized related to the Darlington Refurbishment project expenditures as a result of returning to service Unit 2 of the Darlington GS, higher amounts of interest recorded as refundable to customers through regulatory accounts, and net issuance and assumption of debt.

Income tax expense increased by \$47 million for the three months ended June 30, 2020, compared to the same period in 2019. The increase was primarily due to higher earnings before taxes.

Year-To-Date

Net income attributable to the Shareholder was \$767 million for the first six months of 2020, representing an increase of \$203 million compared to the same period in 2019.

EBIT for the first six months of 2020 was \$1,103 million, an increase of \$427 million compared to the same period in 2019.

Significant factors that increased EBIT:

- An increase in revenue from the Regulated Nuclear Generation segment of \$185 million from a higher base regulated price for OPG's nuclear electricity generation and \$145 million from higher amounts deferred in a regulatory account for future collection under rate smoothing;
- Higher revenue of approximately \$115 million from the Regulated Nuclear Generation segment as a result of higher nuclear electricity generation of 1.6 TWh, primarily due to fewer planned cyclical maintenance outage days at the Darlington GS and the return to service of Unit 2 of the Darlington GS on June 4, 2020, partially offset by a higher number of planned outage days at the Pickering GS; and
- Higher EBIT of \$45 million from the Contracted Gas Generation segment, primarily from the acquisition of a portfolio of natural gas-fired plants in Ontario on April 29, 2020.

Significant factors that decreased EBIT:

 An increase in depreciation and amortization expenses of \$91 million from the Regulated – Nuclear Generation segment, excluding amortization expense related to the recovery of regulatory account balances, primarily due to higher amounts of depreciation expense recorded as refundable to customers through regulatory accounts and depreciation on the capital expenditures placed in service upon completing the refurbishment of the Unit 2 of the Darlington GS.

Net interest expense increased by \$99 million for the six month period ended June 30, 2020, compared to the same period in 2019. The increase was largely due to higher amounts of interest recorded as refundable to customers through regulatory accounts, a lower amount of interest costs capitalized related to the Darlington Refurbishment project expenditures as a result of returning to service Unit 2 of the Darlington GS, and net issuance and assumption of debt.

Income tax expense increased by \$126 million for the six months ended June 30, 2020, compared to the same period in 2019. The increase was primarily due to the impact of higher earnings before taxes and a lower amount of income tax expense deferred as regulatory assets.

Trends

OPG's quarterly electricity generation from the Regulated - Hydroelectric Generation, Contracted Hydroelectric and Other Generation, and Contracted Gas Generation 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.

In April 2020, the IESO reported a reduction in grid-supplied electricity demand in Ontario coincident with the implementation of policy actions in response to the COVID-19 pandemic beginning in the second half of March 2020. Subsequently, in June 2020, the IESO noted a gradual recovery of electricity use related to staged economic reopening in the province; however, the longer term effects of the pandemic and associated response measures on electricity demand remain inherently uncertain, and are expected to depend on the length and extent of the current economic slowdown.

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 guarter 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 segment is mitigated by OEB-authorized regulatory accounts.

The financial impact of variability in electricity generation from the Contracted Hydroelectric and Other Generation segment and the Contracted Gas Generation segment is mitigated by the terms of the applicable ESAs with the IESO and other long-term contracts for the contracted generating facilities in Ontario.

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 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. OPG continues to monitor the planned outage schedule for the nuclear generating stations in response to the COVID-19 pandemic.

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

Electricity Generation

Electricity generation for the three and six month periods ended June 30, 2020 and 2019 was as follows:

	Three Months Ended June 30		Six Months Ended June 30	
(TWh)	2020	2019	2020	2019
Regulated – Nuclear Generation	11.6	11.3	22.7	21.1
Regulated – Hydroelectric Generation	7.5	8.1	15.7	16.3
Contracted Hydroelectric and Other Generation ¹	1.4	8.0	2.7	1.6
Contracted Gas Generation ¹	0.4	-	0.5	0.3
Total OPG electricity generation	20.9	20.2	41.6	39.3

¹ Includes OPG's proportionate share of electricity generation from co-owned and minority-held facilities.

Total OPG electricity generation increased by 0.7 TWh and 2.3 TWh for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. The increase for the three months ended June 30, 2020 was mainly due to higher electricity generation from the Contracted Hydroelectric and Other Generation, Contracted Gas Generation, and Regulated – Nuclear Generation business segments, partially offset by lower electricity generation from the Regulated – Hydroelectric Generation business segment. The increase in electricity generation for the six months ended June 30, 2020 was primarily due to higher electricity generation from the Regulated – Nuclear Generation and Contracted Hydroelectric and Other Generation segments, partially offset by lower electricity generation from the Regulated – Hydroelectric Generation segment.

The increases in electricity generation of 0.3 TWh and 1.6 TWh from the Regulated – Nuclear Generation segment for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019, were primarily due to electricity generation from the return to service of Unit 2 of the Darlington GS on June 4, 2020 and fewer planned cyclical maintenance outage days at the Darlington GS, partially offset by a higher number of planned outage days at the Pickering GS. All four units of the Darlington GS were generating electricity during the period from June 4, 2020 to July 30, 2020 as a result of the temporary deferral to the start of refurbishment execution activities and immediately preceding planned outage on Unit 3 in response to COVID-19. Unit 3 was taken offline for the planned outage on July 30, 2020.

The decrease in electricity generation of 0.6 TWh from the Regulated – Hydroelectric Generation segment for the three months ended June 30, 2020, compared to the same period in 2019, was due to lower electricity demand in Ontario and forgone electricity generation at the stations in the eastern Ontario region as a result of the Company's modified approach to water management during the height of the COVID-19 pandemic's onset, and lower water flows in some parts of the province. The decrease in electricity generation of 0.6 TWh from the Regulated – Hydroelectric Generation segment for the six months ended June 30, 2020, compared to the same period in 2019, was due to higher forgone electricity generation as a result of lower electricity demand in Ontario and the Company's modified approach to water management in the eastern Ontario region during the height of the COVID-19 pandemic's onset, partially offset by higher water flows in some parts of the province.

The electricity generation from the Contracted Hydroelectric and Other Generation segment for the three and six month periods ended June 30, 2020 increased by 0.6 TWh and 1.1 TWh, respectively, compared to the same periods in 2019, primarily due to electricity generation from hydroelectric facilities in the US that were acquired in October 2019.

The electricity generation from the Contracted Gas Generation segment for the three and six month periods ended June 30, 2020 increased by 0.4 TWh and 0.2 TWh, respectively, compared to the same periods in 2019, primarily due to electricity generation from the portfolio of natural gas-fired plants acquired on April 29, 2020.

For the three and six month periods ended June 30, 2020, Ontario's electricity demand as reported by the IESO was 29.7 TWh and 64.1 TWh, respectively, compared to 30.9 TWh and 66.6 TWh for the same periods in 2019, 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 stations, and other grid-connected renewable resources. Baseload generation surplus in Ontario was higher in the three and six month periods ended June 30, 2020, compared to the same periods in 2019. Production forgone at OPG's regulated hydroelectric stations due to SBG conditions was 1.8 TWh and 2.5 TWh during the three and six month periods ended June 30, 2020, compared to 1.6 TWh and 1.9 TWh, respectively, in the same periods in 2019. 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 for the three months ended June 30, 2020 was \$823 million, compared to \$610 million for the same period in 2019, and \$1,540 million for the six months ended June 30, 2020, compared to \$1,185 million for the same period in 2019. The increase was primarily due to higher revenue receipts from the Regulated - Nuclear Generation business segment reflecting a higher OEB-approved base regulated price for OPG's nuclear electricity generation and increased electricity production from the segment, higher revenue receipts from the Contracted Gas Generation business segment, and lower cash payments for income taxes.

Capital Expenditures

Capital expenditures for the three and six month periods ended June 30, 2020 and 2019 were as follows:

	Three Months Ended June 30		Six Months Ended June 30	
(millions of dollars)	2020	2019	2020	2019
Regulated – Nuclear Generation – Excluding Darlington				
Refurbishment Project	69	101	150	176
Regulated – Nuclear Generation – Darlington Refurbishment				
Project	179	319	448	613
Regulated – Hydroelectric Generation	62	48	120	85
Contracted Hydroelectric and Other Generation	27	23	52	73
Contracted Gas Generation	4	-	4	-
Other	44	19	60	37
Total capital expenditures ¹	385	510	834	984

¹ Includes net changes in accruals; excludes the acquisition of a portfolio of natural gas-fired assets on April 29, 2020.

Total capital expenditures decreased by \$125 million and \$150 million for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019, primarily due to lower expenditures on the Darlington Refurbishment project and other projects of the Regulated – Nuclear Generation business segment, partially offset by higher expenditures for the Regulated - Hydroelectric Generation business segment and Other category. Lower expenditures on projects of the Contracted Hydroelectric and Other Generation business segment also contributed to the decrease in capital expenditures for the six months ended June 30, 2020.

Excluding the Darlington Refurbishment project, capital expenditures for the Regulated - Nuclear Generation segment were \$32 million and \$26 million lower for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. The decreases were primarily due to higher expenditures on critical spare parts at the nuclear generating stations during the second quarter of 2019 and the temporary suspension of certain on-site project activities in response to the COVID-19 pandemic during the second quarter of 2020.

The decreases in capital expenditures on the Darlington Refurbishment project of \$140 million and \$165 million for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019, were primarily due to completion of refurbishment activities for Unit 2 of the Darlington GS in the second quarter of 2020. The decreases were partially offset by increased pre-execution phase activities for the refurbishment of Unit 3 of the Darlington GS.

The increase in capital expenditures for the Regulated – Hydroelectric Generation segment of \$14 million and \$35 million for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019, mainly reflected investments in the Sir Adam Beck I GS Unit G1 and G2 Replacement and other projects at the Sir Adam Beck generating complex, the redevelopment of the Calabogie GS and sustaining capital investments at the stations in the northwestern Ontario region, partially offset by lower expenditures on the Ranney Falls GS project and the temporary suspension of certain on-site project activities in response to COVID-19 during the second quarter of 2020.

The decrease in the capital expenditures for the Contracted Hydroelectric and Other Generation segment of \$21 million for the six months ended June 30, 2020, compared to the same period in 2019, primarily reflected lower expenditures as a result of the acquisition of the Little Quinnesec hydroelectric GS in the US in March 2019 and completion of work on the Nanticoke solar facility, which was placed in-service in the first quarter of 2019, partially offset by higher expenditures on the Little Long Dam Safety project. Segment capital expenditures for the three months ended June 30, 2020 were comparable to the same period in 2019.

The increase in capital expenditures within the Other category of \$25 million and \$23 million for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019, mainly reflected planned investments in information technology systems.

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

Return on Equity Excluding Accumulated Other Comprehensive Income

ROE Excluding AOCI is an indicator of OPG's performance consistent with the Company's strategy to provide value to the Shareholder. ROE Excluding AOCI is measured over a 12-month period. ROE Excluding AOCI for the twelve months ended June 30, 2020 was 9.2 percent, compared to 8.2 percent for the twelve months ended December 31, 2019. The increase in ROE Excluding AOCI was primarily due to higher revenue reflecting a higher OEB-approved base regulated price for OPG's nuclear electricity generation and increased electricity generation from the Regulated – Nuclear Generation business segment during the six months ended June 30, 2020, and higher earnings from the Contracted Gas Generation business segment during the six months ended June 30, 2020, primarily due to the acquisition of a portfolio of natural gas-fired plants on April 29, 2020.

Enterprise Total Generating Cost per Megawatt-Hour

The Enterprise TGC per MWh was \$43.81 and \$44.72 for the three and six month periods ended June 30, 2020, respectively, compared to \$44.78 and \$48.18 for the same periods in 2019. For the three and six month periods ended June 30, 2020, the decrease in Enterprise TGC per MWh was primarily due to higher electricity generation from Ontario-based generating stations. For the six months ended June 30, 2020, the decrease in Enterprise TGC per MWh was also due to lower OM&A expenses for the nuclear facilities before the impact of regulatory accounts.

RECENT DEVELOPMENTS

Response to COVID-19

OPG continues to monitor and respond to the global outbreak of COVID-19, a novel strain of coronavirus, and to take action to protect the health and safety of the Company's employees, partners and communities against its spread. Although OPG's core business has not been fundamentally affected by the pandemic, the Company remains focused on mitigating ongoing risks to its workers and essential operations posed by COVID-19 in order to ensure a continued safe and reliable supply of electricity from its generating facilities and effective execution of projects. OPG's preparedness plans and response actions have been effective in managing the risks associated with COVID-19 to date. With enhanced safety measures based on guidance from health and other authorities. OPG continues to operate its generating fleet, advance key infrastructure projects and execute on corporate strategic priorities, which will support Ontario's economic recovery.

Beginning in the second half of March 2020 and through the height of the pandemic's onset during the second quarter of 2020, OPG took a number of additional steps to safeguard the health of its employees and contractors. These included a temporary postponement of refurbishment execution activities and immediately preceding planned outage on Unit 3 of the Darlington GS, temporary deferral or suspension of on-site activities for a number of projects, and a work from home strategy for employees not directly involved in operating generating facilities.

As Ontario and the main US jurisdictions in which the Company operates began to progress through staged economic reopening from public health restrictions during June 2020, OPG safely relaunched suspended on-site activities, including pre-requisite fieldwork activities for the refurbishment of Unit 3 of the Darlington GS. In resuming the work, OPG continues to place an emphasis on enhanced safety measures, including physical distancing requirements, vendor onboarding protocols, use of personal protective equipment when distancing is not possible and maintaining reduced maximum occupancy at certain worksites. OPG's prompt remobilization of project activities and ongoing communication with vendors, suppliers and contractors has helped to minimize disruption to project milestones. The Company continues to review operating strategies and contingency plans to ensure it remains well positioned for ongoing safe and effective execution of work during the pandemic.

OPG recognizes that the effects of the pandemic continue to impact many across Ontario and beyond, and remains committed to supporting those in need. In addition to personal protective equipment donated to frontline healthcare workers since the onset of the pandemic, OPG has provided emergency funding of approximately \$1.7 million to several organizations, including Feed Ontario, Regional Food Distribution Association of Northwestern Ontario, Feed the Need and Jack.org, as well as several Indigenous communities.

During the second quarter of 2020, the Company's COVID-19 response measures have resulted in lower than planned capital expenditures and, due to the temporary delay of refurbishment execution activities on Unit 3 of the Darlington GS, higher than planned electricity generation. The ultimate impact of COVID-19 on the Company remains inherently uncertain and is dependent on the course of the pandemic and any future actions required by OPG. OPG continues to monitor the current public health and economic situation, including effects on electricity demand, critical vendors and supply chains, the Company's workforce and financial market conditions, as well as government policy and regulatory actions. Further details on the Company's outlook in the context of the COVID-19 pandemic can be found in the section, Corporate Strategy, Core Business and Outlook under the heading, Outlook.

Recent Developments in Project Excellence

Darlington Refurbishment

On June 4, 2020, following successful completion of start-up activities, Unit 2 of the Darlington GS was returned to service from refurbishment, in line with the Company's high quality and safety standards. This represents a significant milestone in OPG's path toward ensuring that the Darlington GS can continue to provide at least another 30 years of cost effective, reliable and clean energy for Ontario. Unit 2 was the first Darlington GS unit to undergo refurbishment and was taken offline on October 15, 2016. The final steps of construction and return to service for Unit 2 were performed amid the COVID-19 pandemic, with additional measures implemented to help safeguard the health and safety of employees and contractors. Unit 2 provides 878 MW of baseload electricity generating capacity in Ontario.

Redevelopment of the Calabogie Hydroelectric GS

In April 2020, OPG initiated the execution phase of a project to redevelop the Calabogie GS, located along the Madawaska River in eastern Ontario. The original generating station was nearing the end of its operational life when it was extensively damaged by a storm in 2018. The new facility will replace the original powerhouse with a higher capacity powerhouse, doubling the site's generating capacity to approximately 11 MW. The project's expected in-service date is in 2022, with a budget of \$137 million. The Calabogie GS is reported in the Regulated – Hydroelectric Generation business segment.

Recent Developments in Financial Strength

Acquisition of Portfolio of Natural Gas-Fired Assets in Ontario

On April 29, 2020, OPG, under a new wholly-owned subsidiary operating as Atura Power, closed the previously announced acquisition of a portfolio of combined-cycle natural gas-fired plants in Ontario from TC Energy Corporation (TC Energy) for approximately \$2.8 billion, subject to customary closing adjustments. The portfolio includes the 900 MW Napanee GS, the 683 MW Halton Hills GS, and the remaining 50 percent interest in the 550 MW the Portlands Energy Centre. The acquisition closed following receipt of various regulatory approvals and the commencement of commercial operations at the Napanee GS. In connection with the closing of the acquisition, certain post-closing activities were identified at the Napanee GS that, upon occurrence, would be reimbursed by TC Energy.

All of the assets acquired from TC Energy operate under ESAs with the IESO, with expiry dates ranging from 2029 to 2040. The electricity generation from these assets is an important component of maintaining the current and future reliability of Ontario's electricity system and enabling variable sources of renewable generation in the province. Atura Power participates in the Ontario electricity market separately from OPG's existing operations.

Since entering into the purchase agreement in July 2019, OPG had been developing and executing on detailed integration readiness plans to prepare for effective and timely transition of the acquired facilities to Atura Power. The post-closing integration activities are tracking in accordance with these plans.

In addition to the assets acquired as part of this transaction, the 560 MW combined-cycle natural gas-fired Brighton Beach GS acquired in August 2019 is also operated under the Atura Power brand.

The operating results for Atura Power's combined-cycle natural gas-fired fleet are reported in the Contracted Gas Generation business segment and are discussed in the section, *Discussion of Operating Results by Business Segment* under the heading, *Contracted Gas Generation Segment*.

Green Bond Offering

On April 8, 2020, OPG issued a third and fourth green bond offering under its Medium Term Note Program. The issuance, totalling \$1.2 billion, consisted of \$400 million of senior notes maturing in April 2025 with a coupon interest rate of 2.89 percent and \$800 million of senior notes maturing in April 2030 with a coupon interest rate of 3.22 percent. The net proceeds from the issuance will be used to finance or re-finance eligible projects as defined under OPG's Green Bond Framework, primarily the October 2019 acquisition of Cube Hydro Partners, LLC and affiliate Helix Partners, LLC (collectively, Cube Hydro). OPG's Green Bond Framework encompasses projects that offer tangible environmental benefits.

COPORATE STRATEGY, CORE BUSINESS AND OUTLOOK

The discussion in this section is qualified in its entirety by the cautionary statements included in the section, *Forward-Looking Statements* at the beginning of the MD&A.

OPG's mission is to provide low cost power in a safe, clean, reliable and sustainable manner for the benefit of the customers and Shareholder.

The following sections provide an update to OPG's disclosures in the 2019 annual MD&A related to its four business imperatives – operational excellence, project excellence, financial strength, and social licence. A detailed discussion of these imperatives as part of OPG's corporate strategy is included in the 2019 annual MD&A in the sections, *Corporate Strategy and Core Business* and *Outlook*.



Operational Excellence

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

Electricity Generation Production and Reliability

- Unit 1 of the Darlington GS is setting a new record for continuous operation for nuclear plants in Canada and North America. The unit has been online since January 26, 2018 without being taken out of service for maintenance or repairs, continuously supplying clean and reliable energy to Ontario's electricity grid.
 The previous record was held by Unit 7 of the Pickering GS, which operated for 894 consecutive days.
- In June 2020, OPG's Pickering Radiation Protection team was presented with the 2020 John S. Hewitt Team Achievement Award from the Canadian Nuclear Society and the Canadian Nuclear Association. The award recognized the team's creation, implementation and industry sharing of a new indicator that measures radiation protection human performance.
- In the first quarter of 2020, OPG activated its Crisis Management Communications Centre (CMCC) and Infectious Disease Incident Response Team (IDIRT) in response to the COVID-19 pandemic. The primary function of the CMCC is to develop and oversee an enterprise-wide strategic response to the emergency situation and to coordinate related corporate communications. The IDIRT's role is to support risk assessments and recommend mitigating actions and corporate level response in an event of an incident involving an infectious disease such as COVID-19. Through the CMCC and the IDIRT, OPG has implemented emergency response procedures that have helped to ensure that the Company continues to maintain a safe and reliable supply of electricity from its generating facilities while protecting the safety of its workers during the pandemic. This includes overseeing the development and implementation of the Company's project remobilization plans and safe return to workplace strategy for office personnel, who have now returned to the workplace on alternating schedules in order to maintain physical distancing requirements.
- During the second quarter of 2020, OPG safely and effectively managed spring freshet conditions, within its control, while prioritizing employee safety during the COVID-19 pandemic. This included modifying the Company's approach to water management in the eastern Ontario region by using remote sluicegates along the Ottawa and Madawaska rivers to balance water flows, which reduced the need for field activities and provided increased flexibility to the electricity grid. Throughout the period, OPG collaborated with the Ministry of Natural Resources and Forestry, Parks Canada, the IESO and other agencies to support safe and effective management of Ontario's rivers and help to ensure electricity grid reliability under a new set of constraints caused by the pandemic.



Project Excellence

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

The status of OPG's generation development and other major projects is outlined below. In line with the public health safety measures implemented beginning in the second half of March 2020 in response to the COVID-19 pandemic, a number of project activities were temporarily suspended or deferred prior to being safely resumed beginning in June 2020, with enhanced safety measures. OPG continues to monitor the status of the pandemic and is implementing strategies to minimize the impact of the temporary interruption on project milestones.

Project (millions of dollars)	Capital expenditures Year-to-date Life-to-date	Approved budget	Expected in-service date	Current status
Darlington Refurbishment	448 7,112	12,800 ¹		Unit 2 was returned to service on June 4, 2020 following successful completion of start-up activities. As a result of the COVID-19 pandemic, the planned start of the Unit 3 refurbishment activities was postponed, with defueling set to begin by September 2020. Pre-requisite fieldwork activities on Unit 3 resumed in June 2020. The revised schedule is expected to maintain the project's overall timeline to refurbish all four of the station's units by the end of 2026. For further details, see below.
Little Long Dam Safety Project	19 27	650	2023	OPG continued the procurement of critical materials and advanced detailed engineering, construction design and permitting activities during the second quarter of 2020. After a temporary suspension in response to the COVID-19 pandemic, project site work resumed in June 2020. The project is expected to be placed in-service in 2023 and continues to track within budget.
Ranney Falls Hydroelectric GS	2 72	77	2020	OPG continued commissioning activities on the new 10 MW single-unit powerhouse during the second quarter of 2020. Due to equipment component issues previously identified during commissioning, and the impact of the COVID-19 pandemic, the new expected in-service date for the project is during the third quarter of 2020. The project continues to track on budget.

Project	Capital expenditures	Approved budget	Expected in-service	Current status
(millions of dollars)	Year-to-date Life-to-date		date	
Sir Adam Beck I GS G1 and G2 Replacement	18 35	128	2022	During the second quarter of 2020, OPG continued front-end engineering design activities and procurement of long lead materials. After a temporary suspension in response to the COVID-19 pandemic, project site work resumed in June 2020 and is focused on removing the 100-year-old embedded scroll cases for replacement. The project is expected to be placed in-service in 2022 and is tracking within budget.
Calabogie Hydroelectric GS	10 17	137	2022	The project to redevelop the Calabogie GS entered the execution phase in April 2020, having completed the frontend engineering and design phase. Excavation work for the new powerhouse commenced in June 2020. The project is tracking on schedule and on budget.

The total project budget of \$12.8 billion is for the refurbishment of all four units at the Darlington GS.

Darlington Refurbishment

The Darlington GS units are 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. OPG commenced the refurbishment of the first unit, Unit 2, in 2016. The last unit to undergo refurbishment is scheduled to be completed in 2026.

On June 4, 2020, following successful completion of start-up activities and receipt of all appropriate regulatory approvals from the CNSC, Unit 2 was returned to service in line with the Company's high quality and safety standards. The final steps of construction and return to service for the unit were performed amid the COVID-19 pandemic, with additional measures implemented to help safeguard the safety of employees and contractors. Unit 2 provides 878 MW of baseload electricity generating capacity to Ontario. The completion of the Unit 2 refurbishment represents a significant milestone in the Company's path toward ensuring that the Darlington GS can continue to provide cost effective, reliable and clean energy for Ontario into the 2050s. Upon returning the unit service, capital expenditures totaling \$4.8 billion were placed in service.

On March 26, 2020, OPG announced that it had decided to postpone the planned start of Unit 3 refurbishment execution activities from May 2020 in response to the COVID-19 pandemic. This allowed the Company to limit the number of people at the Darlington GS, while completing construction work on Unit 2 and optimizing the station's operational and health protocols in response to the pandemic. In the second half of May 2020, OPG resumed training and on-boarding activities for construction trades in support of the Unit 3 refurbishment. In June 2020, OPG resumed pre-requisite fieldwork activities, including the overhaul of the station's turbine hall crane, which was completed in August 2020. The turbine hall crane is a crucial piece of equipment that will service both refurbishment-related activities and post-refurbishment station operations.

On July 30, 2020, Unit 3 of the Darlington GS was taken offline for the single-fuel channel replacement planned outage. Execution of refurbishment activities will begin with defueling of the unit immediately following the outage, by September 2020. The revised schedule is expected to maintain the project's overall timeline to refurbish all four Darlington GS units by the end of 2026. As of June 30, 2020, \$718 million has been invested in planning and pre-requisite activities related to the Unit 3 refurbishment.

OPG continues to assess and seek ways to manage the ultimate impact of the COVID-19 pandemic on the total cost of the project, which is otherwise continuing to track to the \$12.8 billion budget.



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.

Increasing Revenue, Reducing Costs and Achieving Appropriate Return

In line with its commercial mandate, OPG's financial focus is to increase revenue and net income and achieve 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, and supporting communities.

For regulated operations, achievement of the above objectives is largely dependent on outcomes of applications for regulated prices to the OEB and prudent growth of rate base earning a return. 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. OPG has been 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 and being prudently incurred and should be fully recovered, and that the Shareholder's investment in these assets should earn an appropriate return. For further information on OEB-approved rate base levels, refer to OPG's 2019 annual MD&A in the section, Revenue Mechanisms for Regulated and Non-Regulated Generation.

The following table presents the OEB-authorized regulated prices for electricity generated from OPG's regulated facilities for the period from January 1, 2019 to December 31, 2021 in effect as of the date of this MD&A:

(\$/MWh)	2019	2020	2021
Regulated – Nuclear Generation			
Base regulated price ¹	77.00	85.00	89.70
Interim period shortfall rider ²	7.71	5.64	-
Deferral and variance account rate riders ³	4.99	4.32	6.13
Total regulated price	89.70	94.96	95.83
Regulated – Hydroelectric Generation			
Base regulated price ⁴	42.51	43.15	n/a
Interim period shortfall rider ²	0.35	0.24	-
Deferral and variance account rate riders 3	2.60	2.26	2.05
Total regulated price	45.46	45.65	n/a

Base regulated prices for the nuclear facilities were established using a rate smoothing approach that may defer a portion of each year's approved nuclear revenue requirement 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 In its payment amounts order issued in March 2018, the OEB authorized separate rate riders on OPG's regulated electricity generation to allow for the recovery of the revenue shortfall between the base regulated prices approved with an effective date of June 1, 2017 and the previously approved base regulated prices that OPG continued to receive during the interim period between June 1, 2017 and February 28, 2018. The interim period revenue shortfall amount approved for recovery was recognized as an increase to revenue and a regulatory asset and is being collected through rate riders over the March 1, 2018 to December 31, 2020 period. The OEB determined that there will be no true up mechanism for differences in recovery of the approved interim period revenue shortfall due to differences between forecasted electricity generation used to set the rate riders and actual electricity generation upon which the rate riders are collected.

Differences in recovery of the approved regulatory account balances due to differences between forecasted electricity generation used to set the rate riders and actual electricity generation upon which the rate riders are collected are trued-up with customers through OEB-authorized variance accounts.

Base regulated prices for regulated hydroelectric facilities for 2021 will be determined through a formulaic adjustment using the OEB-approved incentive regulation formula and OEB-published inflation indices, denoted as n/a.

Pursuant to the OEB's March 2018 payment amounts order, \$102 million of approved nuclear revenue requirement was deferred in the Rate Smoothing Deferral Account for future collection in 2019 and \$391 million is to be deferred in 2020. The OEB determined that no portion of the nuclear revenue requirement would be deferred for 2021. During the three and six month periods ended June 30, 2020, \$98 million and \$196 million, respectively, was deferred for future collection in the Rate Smoothing Deferral Account and recorded as revenue in the Regulated - Nuclear Generation business segment, compared to \$25 million and \$51 million, respectively, during the same periods in 2019.

On March 23, 2020, the Ministry of Energy, Northern Development and Mines proposed two amendments to Ontario Regulation 53/05 under the Ontario Energy Board Act, 1998. The regulation sets out certain requirements the OEB must follow in setting regulated prices for OPG's prescribed facilities. The first proposed amendment would set OPG's hydroelectric regulated price for the period from January 1, 2022 to December 31, 2026 at the 2021 regulated price anticipated to be established by the OEB later in 2020. The second proposed amendment would require OPG to establish a deferral account to track incurred costs associated with the shutdown of the Pickering GS. OPG would be required to seek OEB's approval to recover those costs from electricity rates in a rate-setting period after the 2022-2026 period. OPG would only be able to collect incurred costs that are approved by the OEB through a prudence review. The public comment period for the proposed regulation amendments ended on June 22, 2020.

On March 25, 2020, the OEB issued an order that established a deferral account for Ontario's electricity and natural gas distributors to record lost revenues and incremental costs related to the COVID-19 pandemic, effective March 24, 2020. On April 29, 2020, the OEB confirmed the applicability of the deferral account to OPG and electricity transmitters. The OEB stated that it has not yet made a determination on the nature of revenue or costs that will be recoverable through the deferral account and will assess any amounts recorded in the account at the time they are requested for disposition. On May 14, 2020, the OEB commenced an industry-wide consultation process with the objective of assisting in the development of guidance related to the deferral account. OPG is participating in the consultation. The impact of currently identified lost revenues and incremental operating costs related to the COVID-19 pandemic to date is not material to the Company's consolidated financial statements.

For generation assets that do not form part of the rate-regulated operations, OPG 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, including the portfolio of natural gas-fired plants acquired in April 2020, are subject to ESAs with the IESO or other long-term contracts.

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; securitization of assets; letters of credit; credit facilities; long-term debt sourced from the Ontario Electricity Financial Corporation (OEFC); public debt offerings; and private placement project financing.

The Company's financing strategy leverages the strength of its balance sheet to obtain cost effective long-term corporate debt. OPG also accesses the capital markets for private placement project financing, secured by the assets of the project, where the characteristics of the project support such financing.

Credit Ratings

Maintaining an investment grade credit rating supports OPG's ability to access cost effective financing. As at June 30, 2020, the Company's credit ratings were as follows:

Type of Rating	DBRS Limited (DBRS)	S&P Global Ratings (S&P)	Moody's Investor Service (Moody's)
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 ¹
Commercial paper program – US	NR ¹	A-2	P-2

¹ NR indicates no rating assigned.

In April 2020, DBRS confirmed OPG's issuer rating at A (low), senior unsecured debt rating at A (low) and commercial paper rating at R-1 (low), all with Stable trends. In July 2020, S&P confirmed OPG's ratings including BBB+ issuer's rating, BBB+ senior unsecured debt rating, A-2 US commercial paper rating and A-1 (low) Canada commercial paper rating. S&P also revised OPG's outlook from Negative to Stable.

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



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 safety and corporate citizenship, including environmental stewardship, transparency, community engagement and Indigenous relations, and strives to be a leader in climate change mitigation.

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

Outlook

Operating Performance

OPG's financial results are driven, in large part, by the OEB's decisions related to OPG's regulated prices and the generation performance of the nuclear and hydroelectric fleet.

Net income for the 2020 year is expected to continue to reflect an increase in revenue from the combination of a higher OEB-approved nuclear base regulated price and higher OEB-approved amounts deferred to the Rate Smoothing Deferral Account, compared to 2019. The Company also anticipates continued higher than planned electricity generation from the Regulated – Nuclear Generation business segment, and in particular the Darlington GS, in the second half of 2020, as a result of the temporary deferral in the commencement of Unit 3 refurbishment execution activities and immediately preceding planned outage in response to the COVID-19 pandemic and the associated planned deferral of a planned outage for Unit 1 of the Darlington GS from the fall of 2020 to the following year. OPG continues to expect a higher number of planned outage days at the Pickering GS during the 2020 year, compared to 2019, based on the station's cyclical maintenance schedule. However, due to the ongoing pandemic, the Company's overall electricity generation and revenue for the 2020 year cannot be forecasted with reasonable certainty at this time.

Several 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. OPG also continues to participate in the OEB's consultation process to determine the regulatory treatment of COVID-19 impacts through the use of a deferral account established to record lost revenues and incremental costs related to the pandemic. Additionally, the ratemaking framework used in setting OPG's regulated prices for the current rate term to the end of 2021 includes an expected range of return on equity performance for the regulated business, calculated on the deemed capital structure used to set the prices.

The ESAs and other contracts in place for the non-regulated assets reported in the Contracted Hydroelectric and Other Generation business segment and the Contracted Gas Generation business segment are expected to contribute a generally stable level of earnings. Earnings from the US hydroelectric facilities not subject to contracts are expected to be lower than originally forecasted for the 2020 year, due to lower wholesale spot electricity prices currently being experienced in the US markets. OPG continues to monitor the effects of lower electricity market prices on its US operations.

The acquisition of a portfolio of natural gas-fired plants in April 2020 will continue to result in additional earnings during the second half of 2020, relative to 2019.

Enterprise Total Generating Cost

As outlined in the 2019 annual MD&A, OPG originally forecasted the Enterprise TGC per MWh to be higher in 2020, compared to 2019, due to lower electricity generation from the Regulated – Nuclear Generation segment and an increase in OM&A expenses associated with increased planned outage activity at the Pickering GS. Although currently anticipated higher than planned nuclear electricity generation from the Darlington GS, lower than planned OM&A expenses due to the planned deferral of the Unit 1 outage at the Darlington GS and lower than planned capital expenditures discussed below will act to decrease Enterprise TGC per MWh, the ultimate impact on Enterprise TGC per MWh for the 2020 year cannot be forecasted with reasonable certainty at this time.

Consistent with prior periods, lower nuclear electricity generation due to Darlington GS refurbishment outages will continue to negatively impact the Enterprise TGC per MWh for the duration of the project. The measure can also be negatively affected by lower hydroelectric generation due to outages for various major rehabilitation and operational projects. Variability in the sustaining capital expenditure program, planned nuclear outages and water flows also

contributes to period-over-period fluctuations in the Enterprise TGC per MWh results. The portfolio of natural gas-fired assets acquired in April 2020 is not expected to have a significant impact on Enterprise TGC per MWh.

Nuclear Segregated Funds

OPG's operating results are affected by earnings on the Nuclear Segregated Funds established under the Ontario Nuclear Funds Agreement (ONFA) between OPG and the Province, as part of the Regulated – Nuclear Waste Management 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 ONFA, rates of return earned in a given period are subject to volatility due to financial market conditions as well as changes in the Ontario consumer price index (CPI), which affects earnings on the portion of the Used Fuel Segregated Fund guaranteed by the Province. This volatility can cause fluctuations in the Company's income in the short term. The volatility is reduced by the impact of an OEB-authorized regulatory account and during periods when the funds are in a fully funded or overfunded position.

As at June 30, 2020, the Decommissioning Segregated Fund was overfunded by approximately 27 percent and the Used Fuel Segregated Fund was underfunded by less than 1 percent, compared to being overfunded by approximately 30 percent and approximately 1 percent as at December 31, 2019. Variability in asset performance due to volatility in financial markets and changes in Ontario CPI, as a result of changes in economic conditions through the COVID-19 pandemic as experienced in March 2020 or otherwise, or changes in funding liability estimates when the ONFA reference plan is updated, may reduce the funded status of either or both funds in the future. No overall contributions to the Nuclear Segregated Funds are expected until the end of 2021, when the ONFA reference plan is currently scheduled to be updated.

Capital Expenditures

As outlined in the 2019 annual MD&A, OPG originally forecasted total capital expenditures of approximately \$2.2 billion for the 2020 year, excluding the acquisition of a portfolio of natural-gas fired plants completed in April 2020. As discussed in the sections, *Recent Developments* under the heading, *Response to COVID-19* and *Corporate Strategy, Core Business and Outlook* under the heading, *Project Excellence*, OPG temporarily suspended or deferred on-site activities for a number of projects, including postponing the commencement of the Unit 3 refurbishment at the Darlington GS, in response to the COVID-19 pandemic. While on-site activities have resumed beginning in June 2020, and OPG continues to mitigate the effects of the interruption, total capital expenditures for the year excluding the acquisition of a portfolio of natural gas-fired plants are expected to be lower than the original forecast of \$2.2 billion, mainly due to the deferral of certain project activities to the following year. Due to the ongoing pandemic, total expenditures for the year 2020 cannot be forecasted with reasonable certainty at this time.

Financing and Liquidity

Cash flow from operating activities for the 2020 year is expected to continue to reflect an increase in revenue receipts from the higher OEB-approved nuclear base regulated price as well as higher than planned electricity generation from the Darlington GS, partially offset by a year-over-year decrease in electricity generation from the Pickering GS. The acquisition of a portfolio of natural gas-fired plants in April 2020 will continue to result in additional cash flow from operating activities during the second half of 2020, relative to 2019.

OPG has secured a number of additional liquidity sources since announcing an agreement to acquire the portfolio of natural gas-fired plants in July 2019. OPG has secured a number of additional liquidity sources since announcing an agreement to acquire the portfolio of natural gas-fired plants in July 2019. Taking into account the closing of the acquisition on April 29, 2020 and the originally planned capital expenditure program for the 2020 year, OPG expects existing funding sources to continue to be sufficient to meet financing requirements and support ongoing liquidity. Further details on 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 sustainable, safe and inclusive manner is directly connected to business success and is expected by the Company's Shareholder and stakeholders. As Ontario's largest clean energy provider, the Company strives to be a leader in sustainability and climate change mitigation through the implementation of operational and growth strategies that minimize the Company's environmental footprint, foster biodiversity, support reductions in greenhouse gas emissions and increase resilience to climate change impacts.

Climate Change

The Company continues to seek opportunities to invest in the generation of clean and sustainable energy. The following is a summary of recent actions taken to advance this strategy.

Acquisition

On April 29, 2020, OPG closed the acquisition of a portfolio of combined-cycle natural gasfired plants in Ontario. The natural gas electricity generation from these assets is an important component of maintaining the reliability of Ontario's electricity system, complementing the growth of variable sources of electricity generation in the province, such as wind and solar.

Generation Development

On June 4, 2020, Unit 2 of the Darlington GS was reconnected to Ontario's electricity grid following refurbishment and will provide at least another 30 more years of reliable, clean, power to Ontario. The Darlington Refurbishment project is one of the largest clean energy infrastructure projects in Canada.

Financing

On April 8, 2020, OPG issued a third and fourth green bond offering under its Medium Term Note Program to finance or re-finance eligible projects as defined under OPG's Green Bond Framework. The green bond proceeds have been primarily allocated toward the October 2019 acquisition of Cube Hydro.

New Nuclear Development

- In June 2020, Global First Power Ltd. (GFP), Ultra Safe Nuclear Corporation (USNC) and OPG formed a joint venture, the Global First Power Limited Partnership, with the goal of advancing the development of a proposed Micro Modular Reactor (MMR™) at the Chalk River Laboratories site, northwest of Ottawa, Ontario. The joint venture is the first commercial partnership on the development of a nuclear small modular reactor (SMR) in Canada. On July 16, 2020, the CNSC provided its decision on the scope of GFP's environmental assessment for the proposed project. The decision indicates that the scope of the environmental assessment shall be those factors covered by the Canadian Environmental Assessment Act, 2012, with no additional factors.
- In August 2020, the province of Alberta announced its intent to enter into a memorandum of understanding (MOU) with the provinces of Ontario, Saskatchewan and New Brunswick to support the development of versatile and scalable SMRs, highlighting the opportunity for this technology to supply non-emitting, low-cost nuclear energy for on-grid and off-grid communities.
- In June 2020, OPG submitted its site preparation licence renewal application to the CNSC in relation to the potential construction of new nuclear reactors at the Darlington site. No decision on technology has been made and no project has commenced.

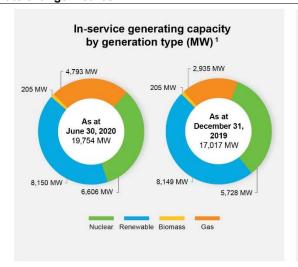
Nuclear Collaboration

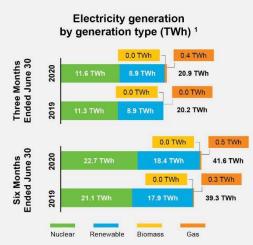
On July 22, 2020, OPG announced the launch of its Centre for Canadian Nuclear Sustainability in Pickering, Ontario. This world-class facility will integrate research, collaboration and innovation within the nuclear sector to build leading expertise in nuclear decommissioning, and advance innovative and sustainable solutions for nuclear materials with a continuing emphasis on minimizing environmental footprint. The hub will also support the work underway to prepare for the future decommissioning of the Pickering GS.

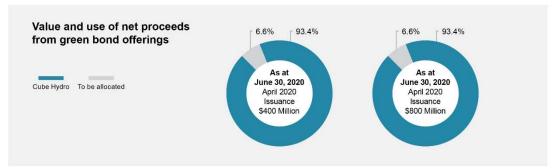
Climate-Related Performance and Key Metrics

OPG continues to determine the most relevant climate-related impacts for the business in the context of its Environmental, Social, Governance and Sustainability framework and is engaged in the development of consistent industry metrics to quantify the level of achieved climate change resilience, including through industry-wide collaborative forums such as the Canadian Electricity Association. OPG is in the process of developing such longer-term quantitative metrics and targets for climate change adaptation. In the meantime, OPG has identified certain initial current metrics that it considers relevant to stakeholders. These are outlined below.

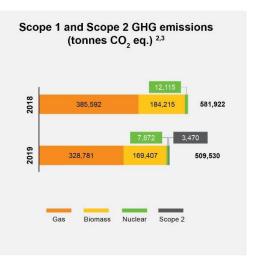
Climate change metrics











- 1 Includes OPG's proportionate share of in-service generating capacity and electricity generation from co-owned and minority-held facilities, as applicable. Gas category includes the oil/natural gas dual-fuelled Lennox GS and the Company's combined-cycle natural gas-fired plants.
- Scope 1 emissions include OPG's proportionate share from co-owned facilities. Scope 2 emissions represent purchases of electricity for facilities OPG owns and operates.
- ³ Data is not available for the 2018 Scope 2 Greenhouse Gas (GHG) emissions.

Climate change metrics	
In-service generating capacity by generation type	Total in-service generating capacity from low-carbon emitting sources increased by 879 MW during the six months ended June 30, 2020, primarily due to the completion of the refurbishment of Unit 2 at the Darlington GS on June 4, 2020. The in-service generating capacity for gas-fired assets increased by over 1,850 MW during the six months ended June 30, 2020, due to the acquisition of a portfolio of natural gas-fired plants in April 2020.
Electricity generation by generation type	During the three and six month periods ended June 30, 2020, approximately 98 percent and 99 percent of OPG's total electricity generation, respectively, was supplied by low-carbon sources, which are comprised of Nuclear, Renewable and Biomass generation.
Revenue by facility category	Over 90 percent of OPG's total electricity generation revenue continues to be derived from low-carbon sources. Revenue from low-carbon generation sources increased for the three and six month periods ended June 30, 2020, compared to the same periods in 2019, primarily due to higher revenue from the Regulated – Nuclear Generation business segment and revenue from the Cube Hydro hydroelectric facilities in the US acquired in October 2019.
Value and use of net proceeds from green bond offerings	In April 2020, OPG issued additional green bonds under its Medium Term Note Program, totalling \$1.2 billion, to finance or re-finance eligible projects as defined under OPG's Green Bond Framework. The proceeds were primarily allocated to the October 2019 acquisition of Cube Hydro.
	During the second quarter of 2020, the Company issued its second annual Green Bond Impact Report. The report outlines OPG's Green Bond Framework and provides detail regarding the use of proceeds from the June 2018 and January 2019 green bond issuances. The report is available on the Company's website at www.opg.com .
Scope 1 GHG emissions	The Scope 1 GHG emissions metric identifies direct carbon dioxide equivalent (CO ₂ eq.) emissions from OPG's thermal and nuclear operations in Ontario, including the Company's proportionate share from co-owned natural gas-fired facilities prior to their acquisition. For the year ended December 31, 2019, 498,188 tonnes of CO ₂ eq. (2018 – 569,807 tonnes of CO ₂ eq.) were emitted by thermal operations, representing approximately 98 percent of OPG's total CO ₂ eq. emissions, with the remainder emitted by nuclear operations. The decrease in CO ₂ eq. emissions in 2019 was primarily due to lower electricity generation from the Brighton Beach GS and the Portlands Energy Centre. As virtually all of OPG's electricity was generated from low-carbon sources in 2019, the Company's CO ₂ Atmospheric Emission Rate remains comparatively low. For the year ended December 31, 2019, OPG emitted CO ₂ at an average rate of 6.5 tonnes per gigawatt hour (GWh) of its total electricity generation (2018 – 7.9 tonnes per GWh), including the Company's proportionate share from co-owned natural gas-fired facilities. Updated Scope 1 GHG emissions and Atmospheric Emission Rate information is published annually and data for 2020 will be available in June 2021.
Scope 2 GHG emissions	The Scope 2 GHG emissions metric identifies indirect CO ₂ eq. emissions from the purchase of energy from utility providers. For the year ended December 31, 2019, an estimated 3,470 tonnes of CO ₂ eq. were emitted based on purchases of electricity for facilities OPG owns and operates. OPG's Scope 2 GHG emissions are less than 1 percent of its Scope 1 GHG emissions. Updated Scope 2 GHG emissions information is published annually and data for 2020 will be available in June 2021.

Indigenous Relations

The Company believes in building long-term, mutually beneficial working relationships with Indigenous communities, businesses and organizations across Ontario and continues to support procurement, employment and educational opportunities with Indigenous communities. 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.

The health and safety of Indigenous communities continues to be a priority for OPG. During the second quarter of 2020, OPG donated 10,000 of its 3D printed face shields to the Ontario Ministry of Health and Long-Term Care for distribution to Indigenous communities and organizations throughout the province during the COVID-19 pandemic. Additionally, as part of emergency funding provided since the onset of the pandemic, OPG has donated \$250,000 to the Thunder Baybased Regional Food Distribution Association of Northwestern Ontario to purchase and distribute emergency food supplies to Northwestern First Nations in Ontario and provided a total of \$180,000 to several Indigenous communities.

OPG continues to engage and consult with Indigenous communities on its projects. Throughout the planning and execution phases of the project to redevelop the Calabogie GS, OPG has consulted with Indigenous communities including the Algonquins of Ontario, Algonquins of Pikwakanagan First Nation, and four Williams Treaties First Nations - Alderville First Nation, Curve Lake First Nation, Hiawatha First Nation and Scugog Island First Nation. The Algonquins of Ontario and the Algonquins of Pikwakanagan First Nation have both signed construction agreements with OPG that outline mutually agreed upon processes for continued engagement. The four Williams Treaties First Nation communities continue to engage on the redevelopment of the Calabogie GS.

Equity, Diversity and Inclusion

OPG is committed to workplace equity, diversity and inclusion (ED&I) as part of a culture in which all employees, contractors and business partners are treated fairly and respectfully and each individual is able to reach their full potential. OPG believes that ED&I is integral to fostering an innovative, healthy and engaged workforce, and therefore is fundamental to the achievement of the Company's strategic goals.

ED&I is endorsed by the Company as a corporate commitment, which is supported by a set of enterprise-wide ED&I programs and reinforced through the Company's Code of Business Conduct. With the support of its employees. communities and partners, OPG continues to build ED&I priorities into the business with a view to increase representation of equity-seeking groups, celebrate diversity and promote a culture of inclusion.

OPG recognizes the importance of social movements for change to its ED&I commitment, including the movement against anti-Black racism. Beginning in the second quarter of 2020, OPG has taken steps to renew its commitment in this area by establishing a scholarship with the Black Business and Professional Association, signing the BlackNorth Initiative's CEO pledge providing employees with anti-racism resources, and launching a resource group to support racialized employees. OPG's anti-racism plan includes an evaluation of its practices to identify and address systemic barriers to the retention, advancement and success of historically disadvantaged groups.

DISCUSSION OF OPERATING RESULTS BY BUSINESS SEGMENT

Regulated - Nuclear Generation Segment

		Three Months Ended June 30		ns Ended e 30
(millions of dollars – except where noted)	2020	2019	2020	2019
Electricity Generation (TWh)	11.6	11.3	22.7	21.1
Revenue	1,155	983	2,282	1,868
Fuel expense	76	73	152	143
Gross margin	1,079	910	2,130	1,725
Operations, maintenance and administration expenses	559	542	1,135	1,164
Property taxes	6	7	13	13
Earnings before interest, income taxes, depreciation and amortization	514	361	982	548
Depreciation and amortization expenses	205	168	409	335
Earnings before interest and income taxes	309	193	573	213

Earnings before interest and income taxes from the segment increased by \$116 million and \$360 million for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019.

The increase in earnings was primarily due to a higher base regulated price in 2020 compared to 2019, increasing revenue by \$95 million and \$185 million for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. Higher amounts of \$73 million and \$145 million deferred in the Rate Smoothing Deferral Account for future collection during the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019, also contributed to the increase in earnings. The increase in the base regulated price and rate smoothing deferrals, approved by the OEB in its March 2018 order on OPG's regulated prices for the 2017-2021 period, includes an increase in rate base to allow for recovery of OPG's investment in the Darlington Refurbishment project.

Higher electricity generation increased segment revenue by \$21 million and \$115 million in the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. The higher electricity generation was primarily due to the return to service of Unit 2 of the Darlington GS on June 4, 2020 and fewer planned cyclical maintenance outage days at the Darlington GS, partially offset by a higher number of planned outage days at the Pickering GS. As a result of the temporary deferral to the start of refurbishment execution activities and immediately preceding planned outage on Unit 3 of the Darlington GS in response to the COVID-19 pandemic, during the period of June 4, 2020 to July 30, 2020, all four Darlington GS units were generating electricity to the grid for the first time since 2016. On July 30, 2020, Unit 3 was taken offline for the planned outage.

Higher depreciation and amortization expenses for the three and six month periods ended June 30, 2020, compared to the same periods in 2019, relate mainly to higher amounts recorded as refundable to customers through regulatory accounts and depreciation on capital expenditures placed in service upon completion of refurbishment on Unit 2 of the Darlington GS. The higher depreciation amounts recorded as refundable to customers, as well as higher amounts refundable to customers recorded as net interest expense and income tax expense during the same periods, represent amounts recovered through the nuclear base regulated price for OPG's investment in the refurbishment of Unit 2 based on an earlier return to service date than June 4, 2020. These amounts partially return to customers the above increases in revenue from the higher base regulated price and rate smoothing deferrals in 2020.

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

		Three Months Ended June 30		hs Ended e 30
	2020	2019	2020	2019
Planned Outage Days Darlington GS ¹ Pickering GS	2.1 99.5	11.4 59.4	2.2 205.1	85.4 122.7
Unplanned Outage Days Darlington GS ¹ Pickering GS	1.9 10.9	0.3 15.1	4.1 15.2	0.3 24.0

The planned and unplanned outage days exclude unit(s) during the period in which they are undergoing refurbishment. Accordingly, Unit 2 of the Darlington GS was excluded from the reported planned and unplanned outage days during its refurbishment period of October 15, 2016 to June 4, 2020.

The decrease in planned outage days at the Darlington GS during the three and six month periods ended June 30, 2020, compared to the same periods in 2019, was primarily driven by the station's cyclical maintenance schedule, whereby no major planned outages were scheduled during the periods in 2020. The increase in planned outage days at the Pickering GS during the three and six month periods ended June 30, 2020 was driven by the station's cyclical maintenance schedule and other planned maintenance and repair work executed at the station in the second quarter of 2020.

Unplanned outage days at the Darlington GS during the three and six month periods ended June 30, 2020 were comparable to the same periods in 2019. The decrease in unplanned outage days at the Pickering GS during the three and six month periods ended June 30, 2020, compared to the same periods in 2019, reflected continuous improvement in the station's reliability performance.

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

		Three Months Ended June 30		hs Ended e 30
	2020	2019	2020	2019
Unit Capability Factor (%) 1				
Darlington GS	93.8	95.7	96.3	84.2
Pickering GS	80.0	86.4	79.9	86.5

The nuclear Unit Capability Factor excludes unit(s) during the period in which they are undergoing refurbishment. Accordingly, Unit 2 of the Darlington GS was excluded from the measure during its refurbishment period of October 15, 2016 to June 4, 2020.

The Unit Capability Factor at the Darlington GS during the second quarter of 2020 was comparable to the same quarter in 2019. The Unit Capability Factor at the Darlington GS increased during the six months ended June 30, 2020, compared to the same period in 2019, primarily due to fewer planned outage days in the first quarter of 2020.

The Unit Capability Factor at the Pickering GS decreased during the three and six month periods ended June 30, 2020, compared to the same periods in 2019, due to a higher number of planned outage days, partially offset by fewer unplanned outage days.

Regulated - Nuclear Waste Management Segment

	Three Months Ended June 30		Six Months Ended June 30	
(millions of dollars – except where noted)	2020	2019	2020	2019
Revenue Operations, maintenance and administration expenses Accretion on nuclear fixed asset removal and nuclear waste management liabilities Earnings on nuclear fixed asset removal and nuclear waste	32 32 261 (288)	32 32 252 (223)	69 69 522 (459)	63 63 504 (443)
management funds	(200)	(220)	(100)	(110)
Earnings (loss) before interest and income taxes	27	(29)	(63)	(61)

Earnings before interest and income taxes from the segment improved by \$56 million for the three months ended June 30, 2020, primarily due to higher earnings from the Used Fuel Segregated Fund and the Decommissioning Segregated Fund, net of regulatory account impact, partially offset by an increase in accretion expense on the nuclear fixed asset removal and nuclear waste management liabilities (Nuclear Liabilities). Segment earnings for the six months ended June 30, 2020 were comparable to the same period in 2019.

As the Used Fuel Segregated Fund was in an underfunded position during the second quarter of 2020, earnings on the fund recognized in the period reflected the rate of return guarantee from the Province and, for the portion of the fund not subject to the rate of return guarantee, an increase in the market value of investments due to improved market conditions since the first quarter of 2020. As the Used Fuel Segregated Fund was in an overfunded position during the second quarter of 2019, earnings on the fund in the period reflected the growth rate in the present value of the underlying funding liabilities and were not impacted by the rate of return guarantee and market returns. The combined effect of the rate of return guarantee and market returns in the second quarter of 2020 was higher than the funding liabilities' growth rate in the second quarter of 2019, resulting in a period-over-period increase in fund earnings recognized in net income.

The market value of investments in the Decommissioning Segregated Fund also increased during the second quarter of 2020. As the fund remained in an overfunded position during the period, earnings on the fund were not impacted by market returns, other than to recognize in income 50 percent of the excess funding above 120 percent up to the amount by which the Used Fuel Segregated Fund was underfunded, in accordance with the terms of the ONFA. The recognition of the excess funding resulted in higher earnings from the Decommissioning Segregated Fund compared to the second quarter of 2019, when the Used Fuel Segregated Fund was overfunded and none of the excess funding in the Decommissioning Segregated Fund was recognized in income. The Decommissioning Segregated Fund returned to being over 120 percent funded during the second quarter of 2020, following a decline to below 120 percent as at March 31, 2020. Further details on the accounting policy for the Nuclear Segregated Funds can be found in the section, *Critical Accounting Policies and Estimates* in OPG's 2019 annual MD&A.

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.

Regulated - Hydroelectric Generation Segment

		Three Months Ended June 30		ns Ended e 30
(millions of dollars – except where noted)	2020	2019	2020	2019
Electricity generation (TWh)	7.5	8.1	15.7	16.3
Revenue ¹	416	411	808	792
Fuel expense	94	92	161	158
Gross margin	322	319	647	634
Operations, maintenance and administration expenses	72	85	146	162
Property tax	1	-	1	_
Other losses	-	-	-	1
Earnings before interest, income taxes, depreciation and amortization	249	234	500	471
Depreciation and amortization expenses	53	55	107	112
Earnings before interest and income taxes	196	179	393	359

During the three and six month periods ended June 30, 2020, the Regulated – Hydroelectric Generation segment revenue included incentive payments of nil and \$2 million, respectively, related to the OEB-approved hydroelectric incentive mechanism (three and six month periods ended June 30, 2019 – incentive payment reductions of \$3 million and incentive payments of \$2 million, respectively). 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 \$17 million and \$34 million for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. The increases were primarily due to lower OM&A expenses from the temporary deferral of certain planned maintenance and project activities during the height of the COVID-19 pandemic's onset in the second quarter of 2020 and higher revenue reflecting an increase in the base regulated price approved by the OEB in December 2019 pursuant to an annual formulaic adjustment effective January 1, 2020.

Lower rate riders for the recovery of regulatory account balance in effect during the six month period ended June 30, 2020 partially offset the increase in segment revenue compared to the same period in 2019. This decrease in revenue was largely offset by a corresponding decrease in the amortization expense related to these balances.

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

		Three Months Ended June 30		ns Ended e 30
	2020	2019	2020	2019
Hydroelectric Availability (%) 1	91.9	91.4	90.9	90.7

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

The Hydroelectric Availability increased for the three and six month periods ended June 30, 2020, compared to the same periods in 2019, primarily due to fewer planned outages at regulated hydroelectric facilities across the province as the Company deferred certain planned maintenance activities during the height of the COVID-19 pandemic's onset in the second quarter of 2020, partially offset by higher unplanned outages at the regulated hydroelectric facilities in the south-central Ontario region.

Contracted Hydroelectric and Other Generation Segment

		Three Months Ended June 30		ns Ended e 30
(millions of dollars – except where noted)	2020	2019	2020	2019
Electricity Generation (TWh)	1.4	0.8	2.7	1.6
Revenue	164	155	338	310
Fuel expense	10	10	20	22
Gross margin	154	145	318	288
Operations, maintenance and administration expenses	56	49	110	99
Accretion on fixed asset removal liabilities	1	2	3	4
Property taxes	4	3	9	6
Income from investments subject to significant influence	-	(1)	(1)	(2)
Other gains	(2)	(1)	(3)	(1)
Earnings before interest, income taxes, depreciation and amortization	95	93	200	182
Depreciation and amortization expenses	43	30	84	60
Earnings before interest and income taxes	52	63	116	122

Earnings before interest and income taxes from the segment decreased by \$11 million and \$6 million for the three and six month periods ended June 30, 2020, respectively, compared to the same periods in 2019. The decreases were mainly due to lower earnings from the US hydroelectric facilities, which were negatively impacted by lower than expected wholesale spot electricity market prices during these periods, partially offset by lower OM&A expenses at the Lower Mattagami hydroelectric and Lennox thermal generating stations in Ontario.

The Hydroelectric Availability and the Thermal Equivalent Forced Outage Rate (EFOR) for the assets within the Contracted Hydroelectric and Other Generation segment located in Ontario were as follows:

	Three Mon Jun		Six Months Ended June 30	
	2020	2019	2020	2019
Hydroelectric Availability (%) 1.2	83.8	78.3	86.7	82.4
Thermal EFOR (%) ²	4.8	18.1	4.6	9.2

The Hydroelectric Availability reflects hydroelectric generating stations in Ontario. US hydroelectric generating operations are not reflected in these results.

The Hydroelectric Availability increased for the three and six month periods ended June 30, 2020, compared to the same periods in 2019, primarily due to fewer planned outages at the Lower Mattagami generating stations in the northeastern Ontario region, with certain planned maintenance activities temporarily deferred during the height of the COVID-19 pandemic's onset in the second quarter of 2020.

The Thermal EFOR decreased for the three and six month periods ended June 30, 2020, compared to the same periods in 2019, primarily due to fewer unplanned outage days at the Lennox GS for maintenance and repair activities.

Hydroelectric Availability and Thermal EFOR are defined in the section, Key Operating Performance Indicators and Non-GAAP Financial Measures.

Contracted Gas Generation Segment

		Three Months Ended June 30		ns Ended e 30
(millions of dollars – except where noted)	2020	2019	2020	2019
Electricity Generation (TWh)	0.4	-	0.5	0.3
Revenue	101	-	117	-
Fuel expense	19	-	19	-
Gross margin	82	-	98	-
Operations, maintenance and administration expenses	13	-	16	-
Income from investments subject to significant influence	(3)	(9)	(10)	(21)
Property taxes	1	-	1	` _
Earnings before interest, income taxes, depreciation and amortization	71	9	91	21
Depreciation and amortization expenses	21	-	25	
Earnings before interest and income taxes	50	9	66	21

The Contracted Gas Generation business segment was established in the second quarter of 2020 to describe the operating results related to the Company's fleet of combined-cycle natural gas-fired generating stations located in Ontario, comprising the Napanee GS, the Halton Hills GS, the Portlands Energy Centre and the Brighton Beach GS. OPG co-owned the Portlands Energy Centre and the Brighton Beach GS prior to April 29, 2020 and August 30, 2019, respectively, and reported its share of income from these facilities as income from investments subject to significant influence. The comparative amounts for the Portlands Energy Centre and Brighton Beach GS previously reported in the Contracted Hydroelectric and Other Generation business segment have been reclassified to conform to the new segment presentation.

Earnings before interest and income taxes from the segment increased by \$41 million and \$45 million for the three and six month periods ended June 30, 2020, respectively. The increase was mainly due to the acquisition of the Napanee GS, the Halton Hills GS and the remaining 50 percent in the Portlands Energy Centre on April 29, 2020. For further detail on the acquisition, see the section, Recent Developments under the heading, Recent Developments in Financial Strength – Acquisition of Portfolio of Natural Gas-Fired Assets in Ontario.

The Thermal EFOR for the assets in the Contracted Gas Generation segment is reported for the periods that the assets were wholly-owned by the Company and was as follows:

		nths Ended e 30		
	2020	2019	2020	2019
Thermal FFOR (%) 1	0.2	n/a	0.2	n/a

The Thermal EFOR reflects the reliability of a generating unit at OPG's combined-cycle natural gas-fired plants for the periods they were wholly-owned by the Company. Thermal EFOR is defined in the section, Key Operating Performance Indicators and Non-GAAP Financial Measures. Thermal EFOR is not applicable for periods with no wholly-owned combined-cycle natural gas-fired plants, denoted by n/a.

LIQUIDITY AND CAPITAL RESOURCES

OPG maintains a range of funding sources to ensure sufficient liquidity and meet financing requirements, as discussed in the section, *Corporate Strategy, Core Business and Outlook* under the heading, *Financial Strength – Ensuring Availability of Cost Effective Funding.* 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 and the Nuclear Segregated Funds, 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 the three and six month periods ended June 30, 2020 and 2019 were as follows:

	Three Months Ended June 30		Six Months Ended June 30	
(millions of dollars)	2020	2019	2020	2019
Cash, cash equivalents and restricted cash, beginning of period	1,128	511	498	313
Cash flow provided by operating activities Cash flow used in investing activities Cash flow provided by (used in) financing activities	823 (3,173) 2,200	610 (476) (82)	1,540 (3,632) 2,568	1,185 (1,029) 95
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(7)	-	(3)	(1)
Net (decrease) increase in cash, cash equivalents and restricted cash	(157)	52	473	250
Cash, cash equivalents and restricted cash, end of period	971	563	971	563

For a discussion of cash flow provided by operating activities, refer to the details in the section, *Highlights* under the heading, *Cash Flow from Operations*.

Investing Activities

Cash flow used in investing activities during the three and six month periods ended June 30, 2020 increased by \$2,697 million and \$2,603 million, respectively, compared to the same periods in 2019, primarily due to the acquisition of a portfolio of natural gas-fired plants in April 2020.

Financing Activities

Cash flow provided by financing activities for the three and six month periods ended June 30, 2020 increased by \$2,282 million and \$2,473 million, respectively, compared to the same periods in 2019. The increase was primarily due to net issuances of short-term debt during the second quarter of 2020, including commercial paper and \$400 million under the Company's \$1 billion one-year term loan agreement with a syndicate of banks executed in March 2020, and the issuance of \$1.2 billion of green bonds under the Company's Medium Term Note Program in April 2020.

As at June 30, 2020, the Company had the following committed credit facilities:

(millions of dollars)		Amount
Bank facilities: Corporate Corporate Term loan ¹ Lower Mattagami Energy Limited Partnership ² Cube Hydro	USD	1,000 750 600 400 23
OEFC facility ¹ Securitization facility ³		300 150

Represents amounts available under the facility, net of debt issuances.

The following are OPG's short-term debt, letters of credit and guarantees:

	As At		
(millions of dollars)	June 30 2020	December 31 2019	
Lower Mattagami Energy Limited Partnership Term Ioan	102 400	114	
Commercial paper	1,003	50	
Total short-term debt	1,505	164	
Letters of credit	535	519	
Guarantees	4	80	

As of June 30, 2020, a total of \$535 million of Letters of Credit had been issued. This included \$392 million for the supplementary pension plans, \$55 million for Lower Mattagami Energy Limited Partnership, \$32 million for general corporate purposes, \$18 million for the Portlands Energy Centre Limited Partnership, a subsidiary of Atura Power, \$21 million for OPG Eagle Creek Holdings, LLC and its subsidiaries, \$16 million for UMH Energy Partnership and \$1 million for PSS Generating Station Limited Partnership.

The following are OPG's long-term debt balances: 1

	A	s At
(millions of dollars)	June 30 2020	December 31 2019
Notes payable to the OEFC	3,190	3,135
Medium Term Notes payable	3,450	2,250
Project financing	2,838 25	2,823
Other	25	25
	9,503	8,233

¹ Excludes the impact of fair value premium or discount and unamortized bond issuance fees.

A letter of credit of \$55 million was outstanding under this facility as at June 30, 2020.

Represents an agreement to sell an undivided co-ownership interest in the Company's current and future accounts receivable from the IESO to an independent trust. As of June 30, 2020, \$150 million of letters of credit were issued under the securitization facility.

Share Capital

As at June 30, 2020 and December 31, 2019, 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 June 30, 2020 and December 31, 2019, OPG had 18,343,815 Class A shares issued and outstanding at a stated value of \$787 million.

BALANCE SHEET HIGHLIGHTS

Highlights of OPG's interim consolidated financial position are noted below:

	As	s At
	June 30	December 31
(millions of dollars)	2020	2019
Property, plant and equipment – net	29,416	26,047
The increase was primarily due to the acquisition of a portfolio of natural gas-fired combine cycle plants in April 2020, and capital expenditures on the Darlington Refurbishment project and other capital projects. This increase was partially offset by depreciation expense and the translation of the US subsidiaries.		
Nuclear fixed asset removal and nuclear waste management funds (current and non-current portions)	18,688	18,292
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.		
Long-term debt (current and non-current portions)	9,488	8,226
The increase was mainly due to the issuance of \$1,200 million in green bonds under the Medium Term Note program and \$400 million in senior notes payable to the OEFC and the translation of the US subsidiaries, partially offset by the repayment of \$345 million of long-term debt to the OEFC.		
Fixed asset removal and nuclear waste management liabilities	22,500	22,081
The increase was primarily a result of accretion expense, representing the increase in the present value of the obligation to reflect the passage of time, partially offset by expenditures on fixed asset removal and nuclear waste management activities.		

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 long-term contracts and guarantees.

CHANGES IN ACCOUNTING POLICIES AND ESTIMATES

OPG's significant accounting policies are outlined in Note 3 to OPG's audited consolidated financial statements as at and for the year ended December 31, 2019. A discussion of recent accounting pronouncements and changes in accounting estimate is included in Note 2 to OPG's unaudited interim consolidated financial statements as at and for the three and six month periods ended June 30, 2020. OPG's critical accounting policies are consistent with those noted in OPG's 2019 annual MD&A.

RISK MANAGEMENT

The following provides an update to the discussion of the Company's risks and risk management activities included in OPG's 2019 annual MD&A.

Risks to Achieving Operational Excellence

OPG is exposed to variable output from its existing generating stations that could adversely impact its financial performance. The operational risks of a station are generally a function of its age, human performance, regulatory requirements and the technology used.

COVID-19 Pandemic

As Ontario and the main US jurisdictions in which the Company operates experience a gradual recovery from the first wave of COVID-19 and move forward with economic reopening, the Company continues to closely monitor developments relating to the pandemic and has taken actions to mitigate ongoing risks to the health and safety of its workers and essential operations, including the risk of a second wave. This includes implementing physical distancing requirements, enhanced sanitization protocols and other operational changes.

The risks related to COVID-19 are wide-ranging, including: the health and safety of employees; disruption to the supply chain; impact of economic downturn on viability of contractors, vendors and project partners; and delayed recovery of weakened wholesale spot electricity prices in US markets. OPG continues to take measures to mitigate risks to the health and safety of its workers and essential operations in order to ensure a continued safe and stable supply of electricity from its generating facilities and effective execution of projects. Additionally, OPG is taking a risk-informed approach to commencing refurbishment execution activities on Unit 3 of the Darlington GS and resuming other projects that were temporarily deferred through the height of the pandemic's onset during the second quarter of 2020. Where possible, the Company is implementing strategies to minimize the impact of the temporary interruption on its projects.

Further details on OPG's response to the COVID-19 pandemic can be found in the section, Recent Developments under the heading, Response to COVID-19.

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 capital costs and earn an appropriate return on project investments. The projects may also impact OPG's borrowing capacity and credit rating. OPG mitigates risks associated with project execution through a scalable project management methodology that applies to projects across the Company. Risks associated with certain current major projects are described below.

Darlington Refurbishment

During the second quarter of 2020, OPG completed the refurbishment of Unit 2 at the Darlington GS and returned the 878 MW unit to service. This milestone demonstrates the ability of OPG and its vendor partners to successfully complete the scope of work required. OPG has implemented a lessons learned program to leverage experience from Unit 2 to benefit the performance on the remaining units. Additionally, OPG continues to monitor and address risks associated with the refurbishment of the remaining three units, including those related to the ongoing COVID-19 pandemic. OPG has resumed on-boarding and other pre-requisite activities for the refurbishment of Unit 3, with the refurbishment of the unit begin by September 2020, immediately following a planned outage that commenced on July 30, 2020.

Risks to Maintaining Financial Strength

Risks related to rate regulation, financial markets and long-term obligations could significantly impact OPG's financial performance. The Company is also exposed to risks such as weak electricity demand, changes in market prices of electricity, displacement of electricity generation by competitors and financial risk associated with energy trading.

Commodity Markets Changes in the market prices of fuels used to produce electricity can adversely impact OPG's earnings and cash flow from operations.

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.

	2020 ¹	2021	2022
Estimated fuel requirements hedged ²	76 %	78 %	72 %

¹ Based on actual fuel requirements hedged for the six months ended June 30, 2020 and forecast for the remainder of the year.

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 energy market transactions as at June 30, 2020 was \$624 million, including \$603 million with the IESO. OPG continues to consider overall credit risk exposure relating to electricity sales to be low, as the majority of sales are through the IESO-administered market in Ontario.

Represents the approximate portion of 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 the fuel cost. In the case of regulated and contracted hydroelectric electricity generation in Ontario, the fuel price 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.

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 Limited (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.

Related party transactions are summarized below:

		Three Months Ended June 30				
	20	20	20	19		
(millions of dollars)	Income	Expense	Income	Expense		
Hydro One						
Electricity sales	1	-	2	_		
Services	_	2	_	4		
Dividends	1	-	1	-		
Province of Ontario						
Change in Decommissioning Segregated Fund amount due to Province ¹	-	644	-	138		
Change in Used Fuel Segregated Fund amount due to Province ¹	-	786	-	163		
Hydroelectric gross revenue charge	-	27	-	29		
OEFC						
Hydroelectric gross revenue charge	-	53	_	54		
Interest expense on long-term notes	-	31	-	34		
Income taxes	-	153	-	108		
Property taxes	-	3	-	3		
IESO						
Electricity-related revenue	1,586	-	1,437	-		
Earnings from Fair Hydro Trust ²	-	-	7	-		
Fair Hydro Trust						
Interest income ²	8	-	4	-		
	1,596	1,699	1,451	533		

The Nuclear Segregated Funds are reported on OPG's 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 June 30, 2020 and December 31, 2019, the Nuclear Segregated Funds were reported net of amounts due to the Province of \$4,897 million and \$5,451 million, respectively.

The Fair Hydro Trust (the Trust) was deconsolidated from OPG's consolidated financial results effective May 9, 2019. As a result, certain transactions that were previously eliminated on consolidation, including interest income earned by OPG from its investment in the Trust's subordinated debt, are treated as transactions with entities outside of OPG, and are disclosed as related party transactions. Earnings from the Trust were for the period prior to the deconsolidation of the Trust and primarily comprised net interest income earned by the Trust from the IESO on financing receivables, which were consolidated within OPG's financial results up to May 9, 2019.

		Six Month June			
	20)20	2019		
(millions of dollars)	Income	Expense	Income	Expense	
Hydro One			_		
Electricity sales	3	-	5	-	
Services	•	4	-	6	
Dividends	3	-	3	-	
Province of Ontario					
Change in Decommissioning Segregated	253		_	668	
Fund amount due to Province ¹				000	
Change in Used Fuel Segregated Fund	301	-	-	820	
amount due to Province 1					
Hydroelectric gross revenue charge	-	55	-	58	
OEFC					
Hydroelectric gross revenue charge	_	91	_	92	
Interest expense on long-term notes	_	63	_	70	
Income taxes	_	253	_	165	
Property taxes	_	6	_	6	
IESO					
Electricity-related revenue	3,091	-	2,760	-	
Earnings from Fair Hydro Trust ²	-	-	24	-	
Fair Hydro Trust					
Interest income ²	16	_	4	_	
THE COLUMN TO TH			_		
	3,667	472	2,796	1,885	

The Nuclear Segregated Funds are reported on OPG's 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 June 30, 2020 and December 31, 2019, the Nuclear Segregated Funds were reported net of amounts due to the Province of \$4,897 million and \$5,451 million, respectively.

The Trust was deconsolidated from OPG's consolidated financial results effective May 9, 2019. As a result, certain transactions that were previously eliminated on consolidation, including interest income earned by OPG from its investment in the Trust's subordinated debt, are treated as transactions with entities outside of OPG, and are disclosed as related party transactions. Earnings from the Trust were for the period prior to the deconsolidation of the Trust and primarily comprised net interest income earned by the Trust from the IESO on financing receivables, which were consolidated within OPG's financial results up to May 9, 2019.

Balances between OPG and its related parties are summarized below:

(millions of dollars)	June 30 2020	December 31 2019
Receivables from related parties		
Hydro One		1
IESO - Electricity-related receivables	603	462
Fair Hydro Trust	4	402
OEFC	8	4
Portlands Energy Centre ¹	0	1
Province of Ontario	5	'
Province of Official	3	-
Loan receivables		
Fair Hydro Trust	917	917
Equity securities		
Hydro One shares	153	169
Tryulo Offe Silales	100	109
Accounts payable and accrued charges		
Hydro One	3	2
Portlands Energy Centre ¹	-	1
OEFC	68	65
Province of Ontario	4	9
IESO - Electricity-related payables	10	5
Long-term debt (including current portion)		
Notes payable to OEFC	3,190	3,135

Intercompany balances related to the Portlands Energy Centre are eliminated on consolidation following the acquisition of the remaining 50 percent interest in the Portlands Energy Centre on April 29, 2020 and are no longer reported as related party transactions. For additional discussion on the acquisition, refer to the details in the section, Recent Developments under the heading, Recent Developments in Financial Strength - Acquisition of Portfolio of Natural Gas-Fired Assets in Ontario.

OPG may hold Province of Ontario bonds and treasury bills in the Nuclear Segregated Funds and the OPG registered pension fund. As at June 30, 2020, the Nuclear Segregated Funds held \$1,560 million of Province of Ontario bonds (December 31, 2019 - \$1,426 million) and \$15 million of Province of Ontario treasury bills (December 31, 2019 -\$11 million). As of June 30, 2020, the registered pension fund held \$46 million of Province of Ontario bonds (December 31, 2019 - \$67 million) and \$10 million of Province of Ontario treasury bills (December 31, 2019 -\$7 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

The Company maintains a comprehensive system of policies, procedures, and processes that represents its framework for Internal Control over Financial Reporting (ICOFR) and for its Disclosure Controls and Procedures (DC&P). There were no changes in the Company's internal control system during the current interim period that has or is reasonably likely to have a material impact to the financial statements.

The Company has limited the scope of its design of DC&P and ICOFR to exclude the controls, policies and procedures of Cube Hydro, which were acquired on October 7, 2019, as permitted by 3.3(1)(b) of National Instrument 52-109 -Certification of Disclosure in Issuers' Annual and Interim Filings for businesses acquired by an issuer not more than 365 days before the end of a certification period. Cube Hydro represented less than 1 percent of consolidated net income for the three and six month periods ended June 30, 2020, and approximately 2.7 percent and approximately 1.0 percent of total consolidated assets and total consolidated liabilities, respectively, as at June 30, 2020. The scope

exemption was also applied to the portfolio of natural gas-fired plants acquired under Atura Power on April 29, 2020. Atura Power represented approximately 9.9 percent and approximately 7.0 percent of consolidated net income for the three and six month periods ended June 30, 2020, respectively, and approximately 6.0 percent and less than 1 percent of total consolidated assets and total consolidated liabilities, respectively, as at June 30, 2020.

QUARTERLY 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.

(millions of dollars – except where noted) (unaudited)	June 30 2020	March 31 2020	December 31 2019	September 30 2019
Electricity generation (TWh)	20.9	20.7	19.4	19.1
Revenue	1,849	1,720	1,522	1,508
Net income	462	313	247	323
Less: Net income attributable to non-controlling interest	4	4	4	4
Net income attributable to the Shareholder	458	309	243	319
Earnings per share, attributable to the Shareholder <i>(dollars)</i>	\$1.67	\$1.13	\$0.88	\$1.16
(millions of dollars – except where noted) (unaudited)	June 30 2019	March 31 2019	December 31 2018	September 30 2018
Electricity generation (TWh)	20.2	19.1	19.7	18.3
Revenue	1,566	1,426	1,475	1,373
Net income	356	217	265	283
Less: Net income attribute to the non-controlling interest	5	4	5	4
Net income attributable to the Shareholder	351	213	260	279
Earnings per share, attributable to the Shareholder (dollars)	\$1.28	\$0.78	\$0.95	\$1.02

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 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

OPG's nuclear stations are baseload facilities that are not designed for fluctuating production levels to meet peaking demand. 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. As at June 30, 2020, the Darlington GS had four units in service and the Pickering GS had six units in service.

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

EFOR 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.

Other Key Indicators

In addition to production reliability, cost effectiveness and financial performance indicators, OPG has identified certain environmental and safety performance measures. As applicable, these measures are discussed in the section, Environmental, Social, Governance and Sustainability.

Non-GAAP Financial Performance Measures

In addition to providing net income and other financial information in accordance with US GAAP, certain non-GAAP financial measures are also presented in OPG's 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) ROE Excluding AOCI is an indicator of OPG's financial performance consistent with its objective to deliver value to the Shareholder. It is defined as net income attributable to the Shareholder divided by average equity attributable to the Shareholder excluding AOCI, for the period.

ROE Excluding AOCI is measured over a 12-month period and is calculated as follows:

	Twelve M	onths Ended
(millions of dollars – except where noted)	June 30 2020	December 31 2019
ROE Excluding AOCI Net income attributable to the Shareholder Divided by: Average equity attributable to the Shareholder, excluding AOCI	1,329 14,473	1,126 13,788
ROE Excluding AOCI (percent)	9.2	8.2

(2) Enterprise Total Generating Cost per MWh is used to measure the overall cost performance of OPG's generating operations in Ontario. Enterprise TGC per MWh is defined as OM&A expenses (excluding the Darlington Refurbishment project, generation development and other major projects and business development transactions and initiatives, US operations, the impact of regulatory accounts, and expenses ancillary to OPG's electricity generation business), fuel expense for OPG-operated stations including hydroelectric gross revenue charge and water rental payments (excluding the impact of regulatory accounts) and capital expenditures (excluding the Darlington Refurbishment project, generation development and other major projects and US operations) incurred during the period, divided by total electricity generation from OPG-operated generating stations in Ontario plus electricity generation forgone due to SBG conditions in Ontario during the period.

Enterprise TGC per MWh is calculated as follows for the three and six month periods ended June 30, 2020 and June 30, 2019:

	Three Months Ended June 30		Six Montl June	
(millions of dollars – except where noted)	2020	2019	2020	2019
Fortamenta TOO				
Enterprise TGC	004	004	4 000	4 400
Total OM&A expenses	684	681	1,392	1,430
Total fuel expense	199	175	352	323
Total capital expenditures	385	510	834	984
Less: Darlington Refurbishment capital and OM&A costs	(185)	(318)	(456)	(613)
Less: Capital and OM&A costs for generation development and	(25)	(22)	(52)	(47)
other major projects and business development				
Less: OM&A and fuel expenses refundable through regulatory accounts	(46)	(24)	(74)	(39)
Less: Nuclear fuel expense for non OPG-operated stations	(15)	(14)	(30)	(29)
Add: Hydroelectric gross revenue charge and water rental	`20	`18́	`26	`21
payments for electricity generation forgone due to SBG conditions				
Less: OM&A expenses ancillary to electricity generation business	(5)	(7)	(9)	(12)
Less: OM&A expenses and capital expenditures related to US	(26)	(14)	(55)	(46)
operations	、 - ,	()	(,	(- /
Other adjustments	(6)	(6)	(11)	(11)
	980	979	1,917	1,961
Adjusted electricity generation (TWh)				
Total OPG electricity generation	20.9	20.2	41.6	39.3
Adjust for electricity generation forgone due to SBG conditions,	1.4	1.7	1.2	1.4
OPG's share of electricity generation from co-owned facilities and US operations				
	22.3	21.9	42.8	40.7
Enterprise TGC per MWh (\$/MWh) 1	43.81	44.78	44.72	48.18

¹ Amounts may not calculate due to rounding.

⁽³⁾ 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.

⁽⁴⁾ Gross margin is defined as revenue less fuel expense.

For further information, please contact:

Investor & Media Relations

416-592-4008

1-877-592-4008

media@opg.com

www.opg.com

www.sedar.com

ONTARIO POWER GENERATION INC. INTERIM CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

JUNE 30, 2020



INTERIM CONSOLIDATED STATEMENTS OF INCOME (UNAUDITED)

		nths Ended e 30	Six Months Ended June 30	
(millions of dollars except where noted)	2020	2019	2020	2019
Revenue	1,849	1.566	3,569	2.992
Fuel expense	199	175	352	323
Gross margin	1,650	1,391	3,217	2,669
	00.4	004	4 000	4 400
Operations, maintenance and administration expenses	684	681	1,392	1,430
Depreciation and amortization expenses	334	264	648	530
Accretion on fixed asset removal and nuclear waste management liabilities	264	255	528	510
Earnings on nuclear fixed asset removal and nuclear waste management funds	(288)	(223)	(459)	(443)
Property taxes	13	11	25	21
Income from investments subject to significant influence	(3)	(10)	(11)	(23)
, ,	1,004	978	2,123	2,025
Income before other gains, interest and income taxes	646	413	1,094	644
Other gains	(5)	(20)	(9)	(32)
Income before interest and income taxes	651	433	1,103	676
Net interest expense (Note 7)	77	12	129	30
Income before income taxes	574	421	974	646
Income tax expense	112	65	199	73
Net income	462	356	775	573
Net income attributable to the Shareholder	458	351	767	564
Net income attributable to the Shareholder Net income attributable to non-controlling interest	450 4	5	8	9
Net moone attributable to non-controlling interest	7		U	9
Basic and diluted earnings per share (dollars) (Note 15)	1.67	1.28	2.79	2.05

INTERIM CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

	Three Mon Jun		Six Months Ended June 30		
(millions of dollars)	2020	2019	2020	2019	
Net income	462	356	775	573	
Other comprehensive (loss) income, net of income taxes (Note 10)					
Reclassification to income of amounts related to pension and other post-employment benefits ¹	2	2	5	5	
Reclassification to income of losses on derivatives designated as cash flow hedges ²	4	3	7	7	
Net gain on derivatives designated as cash flow hedges ³	2	-	2	-	
Currency translation adjustment	(68)	(10)	75	(20)	
Other comprehensive (loss) income for the period	(60)	(5)	89	(8)	
Comprehensive income	402	351	864	565	
Comprehensive income attributable to the Shareholder Comprehensive income attributable to non-controlling	398 4	346 5	856 8	556 9	
interest		· ·			

Net of income tax expense of \$1 million for the three months ended June 30, 2020 and 2019. Net of income tax expense of \$2 million for the six months ended June 30, 2020 and 2019.

Net of income tax expense of nil for the three months ended June 30, 2020 and 2019. Net of income tax expense of \$1 million for the six months ended June 30, 2020 and 2019.

³ Net of income tax expense of \$1 million for the three and six months ended June 30, 2020.

INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

Six Months Ended June 30		
(millions of dollars)	2020	2019
Operating activities		
Net income	775	573
Adjust for non-cash items:		
Depreciation and amortization expenses	648	530
Accretion on fixed asset removal and nuclear waste management liabilities	528	510
Earnings on nuclear fixed asset removal and nuclear waste management funds	(459)	(443)
Pension and other post-employment benefit costs (Note 11)	222	219
Deferred income taxes	32	(63)
Regulatory assets and regulatory liabilities	18	163
Other gains	(6)	(19)
Other	(12)	(14)
Expenditures on fixed asset removal and nuclear waste management	(215)	(158)
Reimbursement of eligible expenditures on nuclear fixed asset removal and nuclear waste management	69	40
Contributions to pension funds and expenditures on other post-employment	(144)	(160)
benefits and supplementary pension plans	` ,	,
Distributions received from investments subject to significant influence	14	30
Net changes to other long-term assets and long-term liabilities	28	24
Net changes to non-cash working capital balances (Note 18)	42	(47)
Cash flow provided by operating activities	1,540	1,185
Investing activities	(0.40)	(4.000)
Investment in property, plant and equipment and intangible assets	(818)	(1,029)
Acquisition of natural gas-fired assets, net of cash acquired (Note 3)	(2,814)	- (4.000)
Cash flow used in investing activities	(3,632)	(1,029)
Financing activities		
Net Issuance (repayment) of short-term debt	1,346	(182)
Net proceeds from issuance of long-term debt (Note 7)	1,595	497
Repayment of long-term debt	(364)	(216)
Distribution to non-controlling interest	(9)	(9)
Contribution from non-controlling interest	-	`5 [°]
Cash flow provided by financing activities	2,568	95
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(3)	(1)
Net increase in cash, cash equivalents and restricted cash	473	250
Cash, cash equivalents and restricted cash, beginning of period	498	313
Cash, cash equivalents and restricted cash, end of period	971	563

INTERIM CONSOLIDATED BALANCE SHEETS (UNAUDITED)

As at (millions of dollars)	June 30 2020	December 31 2019
Assets		
Current assets		
Cash, cash equivalents and restricted cash (Note 4)	971	498
Equity securities	153	169
Receivables from related parties	620	468
Nuclear fixed asset removal and nuclear waste management funds	45	40
Fuel inventory	272	233
Materials and supplies	88	92
Regulatory assets (Note 6)	449	486
Prepaid expenses	120	136
Other current assets	97	125
	2,815	2,247
Property, plant and equipment	39,682	35,909
Less: accumulated depreciation	10,266	9,862
	29,416	26,047
Intangible assets	748	566
Less: accumulated amortization	285	258
Less. accumulated amortization	463	308
	403	300
Goodwill	173	163
Other non-current assets		
Nuclear fixed asset removal and nuclear waste management funds	18,643	18,252
Loan receivable	917	917
Long-term materials and supplies	410	392
Regulatory assets (Note 6)	6,863	6,770
Investments subject to significant influence	39	250
Other long-term assets	77	58
Carlot long Corn Goods	26,949	26,639
	20,040	20,000
	59,816	55,404

INTERIM CONSOLIDATED BALANCE SHEETS (UNAUDITED)

As at (millions of dollars)	June 30 2020	December 31 2019
Liabilities		
Current liabilities		
Accounts payable, accrued charges and other payables	1,250	1,109
Short-term debt (Note 8)	1,505	164
Long-term debt due within one year (Note 7)	642	693
Regulatory liabilities (Note 6)	175	103
	3,572	2,069
Long-term debt (Note 7)	8,846	7,533
Other non-current liabilities	22 500	22.004
Fixed asset removal and nuclear waste management liabilities (Note 9) Pension liabilities	22,500	22,081
	3,472	3,568
Other post-employment benefit liabilities Long-term accounts payable and accrued charges	3,162 267	3,099 276
Deferred revenue	396	400
Deferred income taxes	1,255	1,154
	1,216	949
Regulatory liabilities (Note 6)	32,268	31.527
	32,200	31,321
Equity		
Common shares (Note 14)	5,126	5,126
Class A shares (Note 14)	787	787
Contributed surplus	39	39
Retained earnings	9,185	8,418
Accumulated other comprehensive loss (Note 10)	(188)	(277)
Equity attributable to the Shareholder	14,949	14,093
Equity attributable to non-controlling interest	181	182
Total equity	15,130	14,275
	59,816	55,404

Commitments and Contingencies (Notes 7 and 16)

INTERIM CONSOLIDATED STATEMENTS OF SHAREHOLDER'S EQUITY (UNAUDITED)

Six Months Ended June 30		
(millions of dollars)	2020	2019
Common shares (Note 14)	5,126	5,126
Class A shares (Note 14)	787	787
Contributed surplus	39	39
Retained earnings		
Balance at beginning of period	8,418	7,292
Net income attributable to the Shareholder	767	564
Balance at end of period	9,185	7,856
Accumulated other comprehensive loss, net of income taxes (Note 10)		
Balance at beginning of period	(277)	(243)
Other comprehensive income (loss)	89	(8)
Balance at end of period	(188)	(251)
Equity attributable to the Shareholder	14,949	13,557
Equity attributable to non-controlling interest		
Balance at beginning of period	182	165
Income attributable to non-controlling interest	8	9
Distribution to non-controlling interest	(9)	(9)
Equity contribution from non-controlling interest	-	5
Balance at end of period	181	170
Total equity	15,130	13,727

NOTES TO THE INTERIM CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

For the three and six months ended June 30, 2020 and 2019

1. BASIS OF PRESENTATION

These interim consolidated financial statements for the three and six months ended June 30, 2020 and 2019 include the accounts of Ontario Power Generation Inc. (OPG or the Company) and its subsidiaries. The Company consolidates its interest in entities over which it is able to exercise control and attributes the results to its sole shareholder, the Province of Ontario (the Province or the Shareholder). These interim consolidated financial statements have been prepared and presented in accordance with United States generally accepted accounting principles (US GAAP). These interim consolidated financial statements do not contain all of the disclosures required by US GAAP for annual financial statements. Accordingly, they should be read in conjunction with the annual consolidated financial statements of the Company as at and for the year ended December 31, 2019.

As required by *Ontario Regulation 395/11*, as amended, 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 also has received exemptive relief from the Ontario Securities Commission (OSC) from the 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 International Financial Reporting Standards (IFRS), without becoming a US Securities and Exchange Commission registrant.

In April 2018, OPG received an extension to its previous exemptive relief from the OSC. The exemptive relief will terminate on the earliest of the following:

- January 1, 2024;
- The financial year that commences after OPG ceases to have activities subject to rate regulation; or
- The effective date prescribed by the International Accounting Standards Board for the mandatory application of a standard within IFRS specific to entities with rate-regulated activities.

All dollar amounts are presented in Canadian dollars, unless otherwise noted. Certain 2019 comparative amounts have been reclassified from consolidated financial statements previously presented to conform to the 2020 interim consolidated financial statement presentation.

Seasonal Variations

OPG's quarterly electricity generation from the Regulated – Hydroelectric Generation, Contracted Hydroelectric and Other Generation, and Contracted Gas Generation 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.

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 segment is mitigated by regulatory variance and deferral accounts (regulatory accounts) authorized by the Ontario Energy Board (OEB).

The financial impact of variability in electricity generation from the Contracted Hydroelectric and Other Generation segment and the Contracted Gas Generation segment is mitigated by the terms of the applicable Energy Supply Agreements with the Independent Electricity System Operator (IESO) and other long-term contracts for the contracted generating facilities in Ontario.

2. SIGNIFICANT ACCOUNTING POLICIES AND ESTIMATES

The accounting policies followed in the presentation of these interim consolidated financial statements are consistent with those of the previous financial year, with the exception of the adoption of the new fair value measurement standard noted below:

a) New Accounting Standards Effective in 2020

Changes to Disclosure Requirements for Fair Value Measurement

In August 2018, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework – Changes to Disclosure Requirements for Fair Value Measurement to continue to improve the effectiveness of disclosures in financial statements for users. The update is effective for OPG's 2020 fiscal year. Under the new guidance prescribed in this update, entities must disclose additional information regarding Level 3 fair value measurements held at the end of the reporting period. This amendment also clarified existing guidance around measurement uncertainty and investments in entities that calculate net asset value (NAV). The changes in disclosures required under this update are reflected in Note 13.

b) Recent Accounting Pronouncements Not Yet Adopted

i) Changes to Disclosure Requirements for Defined Benefit Plans

In August 2018, the FASB issued ASU No. 2018-14, *Compensation – Retirement Benefits – Defined Benefit Plans – General* (Subtopic 715-20): *Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans* as part of its ongoing efforts to improve the effectiveness of disclosures in notes to financial statements for stakeholders. As part of this update, entities will be required to include additional disclosures such as narrative descriptions of the reasons for significant gains and losses related to changes in the benefit obligations for the period. The update also removed guidance that currently requires disclosures on the amounts in accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost over the next fiscal year, and for public entities, the effects of a one percent change in assumed health care trend rates on the net periodic benefit costs and benefit obligation for Other post-employment benefits (OPEB). Changes instituted by this update are effective retrospectively for all periods presented for fiscal years ending after December 15, 2020, with early adoption permitted. OPG continues to evaluate the impact of this update to disclosures of its post-employment benefit programs in the consolidated financial statements.

ii) Changes to Credit Losses on Financial Instruments

In June 2016, the FASB issued ASU 2016-13, *Measurement of Credit Losses on Financial Instruments* (ASU 2016-13), an update to Topic 326, *Financial Instruments – Credit Losses*. ASU 2016-13 requires financial assets measured at amortized cost to be presented at the net amount expected to be collected, through an allowance for credit losses to be deducted from the amortized cost basis of the asset. Available-for-sale debt securities will also require the use of an allowance to record estimated credit losses. In November 2019, the FASB issued ASU 2019-11, *Codification Improvements to Topic 326, Financial Instruments – Credit Losses*, which clarified that ASU 2016-13 is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, with early adoption permitted. The revised guidance will be applied through a cumulative catch-up adjustment to retained earnings in the period of adoption. OPG continues to assess the impact of this update to its consolidated financial statements.

iii) Changes to Income Tax Requirements

In December 2019, the FASB issued ASU 2019-12, *Simplifying the Accounting for Income Taxes* (ASU 2019-12), which affects general principles within Topic 740, *Income Taxes*. The FASB has stated that the ASU is being issued as part of its Simplification Initiative, which is meant to reduce complexity in accounting standards by improving certain areas of US GAAP. The new guidance eliminates certain exceptions related to the approach for intra-period tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. It also clarifies and simplifies other aspects of the accounting for income taxes. ASU 2019-12 is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years, with early adoption permitted. OPG is assessing the impact of this update to its consolidated financial statements.

3. ACQUISITIONS

Acquisition of Portfolio of Natural Gas-Fired Assets in Ontario

On April 29, 2020, OPG, under a new wholly-owned subsidiary operating as Atura Power, closed the previously announced acquisition of a portfolio of combined-cycle natural gas-fired plants in Ontario for approximately \$2.8 billion, subject to customary closing adjustments. The portfolio includes the 900 megawatt-hour (MW) Napanee generating station (GS), the 683 MW Halton Hills GS, and the remaining 50 percent interest in the 550 MW Portlands Energy Centre. The transaction has been treated as an asset acquisition, as substantially all of the fair value of the assets acquired is concentrated within the plant assets.

The 50 percent interest in the Portlands Energy Centre previously held by OPG and reported as an investment subject to significant influence was derecognized upon the acquisition, forming a component of the cost of the asset acquisition when recognizing the 100 percent ownership of the facility. No gain or loss was recognized upon derecognition of the investment subject to significant influence. The assets acquired and liabilities assumed were recognized at the following values within OPG's consolidated balance sheet on the date of acquisition:

(millions of dollars)	
Current assets	48
Property, plant and equipment	2,920
Intangible assets	122
Other long-term assets	9
Total assets	3,099
Current liabilities	11
Fixed asset removal liabilities	33
Other long-term liabilities	9
Total liabilities	53
Net assets	3,046
Derecognition of carrying value of previously held interest as an	
investment subject to significant influence	(219)
Cash acquired	(13)
Total purchase price, net of cash acquired	2,814

Acquisition of Cube Hydro Partners, LLC and affiliate Helix Partners, LLC

On October 7, 2019, OPG acquired 100 percent of the equity in Cube Hydro Partners, LLC and affiliate Helix Partners, LLC (collectively, Cube Hydro) at a purchase price of US\$1.12 billion, inclusive of assumed debt and subject to customary working capital adjustments. Total consideration paid, net of assumed debt, was approximately US\$845 million (C\$1.12 billion), subject to the finalization of the closing adjustments. Cube Hydro is a hydropower platform with 385 MW of in-service generating capacity across 19 hydroelectric facilities located throughout the northeastern and southeastern United States.

The Cube Hydro acquisition was accounted for as a business combination. The preliminary purchase price allocation of the acquisition is estimated as follows, using the exchange rate on the acquisition date of US\$1.00 = C\$1.3306:

(millions of Canadian dollars)	
Current assets	25
Property, plant and equipment	1,427
Intangible assets	52
Goodwill	64
Other long-term assets	7
Total assets	1,575
Current liabilities	14
Long-term debt	422
Other long-term liabilities	3
Total liabilities	439
Non-controlling interest	12
Total purchase price	1,124
Cash acquired with Cube Hydro	(23)
Total purchase price, net of cash acquired	1,101

The determination of the fair value of assets acquired and liabilities assumed is based upon management's preliminary estimates and assumptions and reflects the fair value of consideration paid, subject to the closing adjustments. The Company continues to review information and perform further analysis prior to finalizing the fair value of the assets acquired and the liabilities assumed within the permitted period of 12 months from the date of acquisition in accordance with US GAAP, including finalizing the componentization of fair value measurements to the individual assets acquired within property, plant and equipment.

Goodwill represents the excess of the purchase price over the aggregate fair value of net assets acquired. Contributing factors to the amount recorded as goodwill include planned optimization initiatives, operational synergies with the Company's existing US hydroelectric operations, and improved competitive position for further growth opportunities. Goodwill recognized as a result of the acquisition is reported within the Contracted Hydroelectric and Other Generation business segment.

4. CASH, CASH EQUIVALENTS AND RESTRICTED CASH

Cash, cash equivalents and restricted cash consist of the following:

As at (millions of dollars)	June 30 2020	December 31 2019
Cash and cash equivalents Restricted cash	868 103	479 19
Total cash, cash equivalents and restricted cash	971	498

Restricted cash is held primarily for prescribed purposes, including debt service, insurance, general collateral purposes and other contractual arrangements, or represents proceeds from green bond issuances held in segregated accounts to finance or re-finance eligible investments as defined under OPG's Green Bond Framework. As at June 30, 2020, OPG had \$79 million of restricted cash related to green bond issuances (December 31, 2019 – nil).

5. RIGHT-OF-USE ASSETS AND LEASE LIABILITIES

The Company has entered into operating lease arrangements for office space to house key operational activities and personnel. OPG is also party to water power leases and Parks Canada licences that provide the Company with a right-of-use to the underlying lands on which most of its hydroelectric generating stations in Ontario are constructed. In addition, the Company leases vehicles and rail cars for use at its electricity generating stations. OPG does not have any sales-type or direct financing lease arrangements.

While the Company's office leases are subject to fixed base rental charges, the arrangements also contain variable payments to reimburse lessors for provision of common area maintenance services during each year of the lease term. Payments in connection with OPG's water power leases and Parks Canada licences are entirely variable, based on the amount of electricity produced by the hydroelectric generating stations during each year of the lease term. These variable amounts are not included in the measurement of OPG's lease liabilities, but are recognized as a variable lease expense when incurred. Lease payments related to the Company's leased vehicles qualify for the short-term lease recognition exemption given the nature of the arrangement and therefore no right-of-use asset or lease liability has been recognized.

In leasing arrangements where OPG has the option to extend the lease term, payments associated with renewing the leases are not included in the measurement of the associated lease liabilities or right-of-use assets as they are not reasonably certain of being exercised. Similarly, in leasing arrangements where OPG has the option to terminate the lease prior to the end of the term, payments associated with terminating these leases are not included in the measurement of the lease liabilities or right-of-use assets as they are not reasonably certain of being exercised. OPG has not provided residual value guarantees within its leases, nor is the Company subject to any restrictions or covenants as a result of entering into these leasing arrangements.

For the three and six months ended June 30, the Company incurred the following:

	Three Mor Jun	Six Months Ended June 30		
(millions of dollars)	2020	2019	2020	2019
Variable lease costs	17	20	37	40
Fixed lease costs	3	5	6	9
Short-term lease costs	1	1	2	3
Total operating lease expenses	21	26	45	52
Cash outflows related to operating lease liabilities	4	4	8	8

During the six months ended June 30, 2020, OPG did not enter into any new operating lease arrangements. During the same period in 2019, OPG had entered into new operating lease arrangements which resulted in the recognition of \$5 million of right-of-use assets and related operating lease liabilities. As at June 30, 2020, the Company had a weighted-average remaining lease term of 7.8 years (June 30, 2019 – 6.9 years) and a weighted-average discount rate in its leasing arrangements of 3.26 percent (June 30, 2019 – 3.06 percent).

A maturity analysis of the leasing arrangements in which the Company is the lessee has been summarized below, along with a reconciliation to OPG's operating lease liabilities:

(millions of dollars)	1 Year	2 Years	3 Years	4 Years	5 Years	Thereafter	Total
Operating lease payments	12	11	9	7	5	19	63
Impact of discounting							(11)
Total operating lease liabilities	3						52

The following are the current and long-term operating lease liabilities:

As at (millions of dollars)	June 30 2020	December 31 2019
Current operating lease liabilities	12	14
Long-term operating lease liabilities	40	41
	52	55

The following are the current and long-term right-of-use assets under operating lease arrangements:

As at (millions of dollars)	June 30 2020	December 31 2019
Current right-of-use asset	12	12
Long-term right-of-use asset	36	38
	48	50

In addition to its lease arrangement with Bruce Power L.P. (Bruce Power) related to the Bruce nuclear generating stations, OPG leases various real estate assets to third-party customers under operating lease arrangements in which the Company is the lessor, providing customers with the right-of-use to assets including land and office space. The Company receives mostly fixed rental payments in connection with these agreements. However, some arrangements contain variable lease payments that are indexed to the applicable consumer price index, with rents being subject to changes in the index over the course of the lease term. The arrangements do not contain any options to purchase the underlying asset from the Company that the lessee is reasonably certain to exercise. As the underlying asset in many of these arrangements is land, the Company expects to derive, at a minimum, the current fair value from these assets at the end of the lease term. Where applicable, OPG undertakes preventative and ongoing maintenance programs, combined with periodic major upgrades, to maintain the residual values of the underlying assets at the end of the lease term. Given the durability of such assets and their ability to hold or appreciate in value, OPG considers the residual value risk from these leasing arrangements to be nominal.

An analysis of the leasing arrangements in which the Company is the lessor is summarized below:

(millions of dollars)	1 Year	2 Years	3 Years	4 Years	5 Years	Thereafter	Total
Undiscounted operating	9	39	5	35	2	654	744
lease receipts							

6. REGULATORY ASSETS AND REGULATORY LIABILITIES

The regulatory assets and regulatory liabilities are as follows:

As at (millions of dollars)	June 30 2020	December 31 2019
Regulatory assets		
Variance and deferral accounts authorized by the OEB		
Pension & OPEB Cash Versus Accrual Differential Deferral Account	897	885
Pension and OPEB Cost Variance Account	420	490
Hydroelectric Surplus Baseload Generation Variance Account	483	448
Bruce Lease Net Revenue Variance Account	163	165
Rate Smoothing Deferral Account	304	104
Other variance and deferral accounts 1	39	62
	2,306	2,154
Interim Period Revenue Shortfall	32	167
Pension and OPEB Regulatory Asset (Note 11)	3,590	3,667
Deferred Income Taxes	1,384	1,268
Total regulatory assets	7,312	7,256
Less: current portion	449	486
Non-current regulatory assets	6,863	6,770
Regulatory liabilities		
Variance and deferral accounts authorized by the OEB		
Pension & OPEB Cash Payment Variance Account	419	348
Hydroelectric Water Conditions Variance Account	230	216
Impact Resulting from Changes to Pickering Station End-of-Life Dates	333	251
(December 31, 2017) Deferral Account		
Capacity Refurbishment Variance Account	196	41
Other variance and deferral accounts 2	213	196
Total regulatory liabilities	1,391	1.052
Less: current portion	1,391	1,032
Non-current regulatory liabilities	1,216	949
1. Depresents are suits for the Niveley Liebility Deferred Associate the University Defe	1,210	949 // Indon Decovers

Represents amounts for the Nuclear Liability Deferral Account, the Hydroelectric Deferral and Variance Over/Under Recovery Variance Account, the Nuclear Development Variance Account, the Fitness for Duty Deferral Account and the Niagara Tunnel Project Pre-December 2008 Disallowance Variance Account.

Represents amounts for the Ancillary Services Net Revenue Variance Account, the Nuclear Deferral and Variance Over/Under Recovery Variance Account, the Income and Other Taxes Variance Account, the Hydroelectric Incentive Mechanism Variance Account, the SR&ED ITC Variance Account, the Pension & OPEB Forecast Accrual Versus Actual Cash Differential Carrying Charges Variance Account and the Impact Resulting from Changes in Station End-of-Life Dates (December 31, 2015) Deferral Account.

On March 25, 2020, the OEB issued an order that established a deferral account for Ontario's electricity and natural gas distributors to record lost revenues and incremental costs related to the COVID-19 pandemic, effective March 24, 2020. On April 29, 2020, the OEB confirmed the applicability of the deferral account to OPG and electricity transmitters. The OEB stated that it has not yet made a determination on the nature of revenue or costs that will be recoverable through the deferral account and will assess any amounts recorded in the account at the time they are requested for disposition. On May 14, 2020, the OEB commenced an industry-wide consultation process with the objective of assisting in the development of guidance related to the deferral account. OPG is participating in the consultation process. Pending further guidance from the OEB, the Company has not recognized a regulatory asset related to the deferral account.

7. LONG-TERM DEBT AND NET INTEREST EXPENSE

Long-term debt consists of the following:

As at	June 30	December 31
(millions of dollars)	2020	2019
Senior notes payable to Ontario Electricity Financial Corporation	3,190	3,135
Medium Term Notes Program senior notes	3,450	2,250
UMH Energy Partnership senior notes	174	175
PSS Generating Station Limited Partnership senior notes	245	245
Lower Mattagami Energy Limited Partnership senior notes	1,595	1,595
Brighton Beach Power Limited Partnership senior notes	98	116
Eagle Creek Renewable Energy senior notes	322	307
Cube Hydro senior notes	404	385
Other	25	25
	9,503	8,233
Plus: net fair value discount	17	20
Less: unamortized bond issuance fees	(32)	(27)
Less: amounts due within one year	(642)	(693)
Long-term debt	8,846	7,533

In March 2020, OPG issued senior notes payable to the Ontario Electricity Financial Corporation (OEFC) totalling \$400 million, maturing in March 2024 with a coupon rate of 1.75 percent. OPG repaid long-term debt of \$345 million to the OEFC during the six months ended June 30, 2020.

In April 2020, OPG issued \$1,200 million of green bonds under its Medium Term Note Program. The issuance consisted of \$400 million of senior notes maturing in April 2025, with a coupon interest rate of 2.89 percent and \$800 million of senior notes maturing in April 2030, with a coupon rate of 3.22 percent.

The following table summarizes the net interest expense:

	Three Months Ended June 30		Six Months Ended June 30	
(millions of dollars)	2020	2019	2020	2019
Interest on long-term debt Interest on short-term debt Interest income Interest capitalized to property, plant and equipment and intangible assets Interest related to regulatory assets and regulatory liabilities ¹	95 5 (12) (24) 13	79 2 (7) (57)	184 9 (24) (85)	159 4 (10) (112) (11)
				, ,
Net interest expense	77	12	129	30

Includes interest to recognize the cost of financing related to regulatory accounts, as authorized by the OEB, and interest costs deferred in certain variance and deferral accounts.

8. SHORT-TERM DEBT

As at June 30, 2020, the Company had the following committed credit facilities and maturity dates:

(millions of dollars)		Amount	Maturity
Bank facilities:			
Corporate		1,000	May 2023 and May 2024 1
Corporate	US Dollars	750	November 2020 ²
Term loan ³		600	March 2021
Lower Mattagami Energy Limited Partnership		400	August 2020 and August 2024 4
Cube Hydro	US Dollars	20	October 2028
Cube Hydro	US Dollars	3	August 2021
OEFC facility ³		300	December 2021
Securitization ⁵		150	November 2020

^{1 \$50} million of the total credit facility matures in May 2023 and \$950 million matures in May 2024.

² Credit facility has a one-year extension option beyond the maturity date of November 2020.

³ Represents amounts available under the facility net of debt issuances.

^{4 \$100} million of the total credit facility matures in August 2020 and \$300 million matures in August 2024. A letter of credit of \$55 million was outstanding under this facility as at June 30, 2020 (December 31, 2019 - \$55 million).

Represents an agreement to sell an undivided co-ownership interest in the Company's current and future accounts receivable from the IESO to an independent trust. As of June 30, 2020, \$150 million of letters of credit were issued under the securitization facility to support the Company's supplementary pension plans (December 31, 2019 - \$150 million).

The Company's short-term debt balances are comprised of the following:

As at (millions of dollars)	June 30 2020	December 31 2019
Lower Mattagami Energy Limited Partnership	102	114
Term loan	400	-
Commercial paper	1,003	50
Total short-term debt	1,505	164

The weighted average interest rate on the short-term debt as of June 30, 2020 is 0.72 percent (December 31, 2019 – 1.88 percent).

As of June 30, 2020, a total of \$535 million of Letters of Credit had been issued (December 31, 2019 – \$519 million). This included \$392 million for the supplementary pension plans, \$55 million for Lower Mattagami Energy Limited Partnership, \$32 million for general corporate purposes, \$18 million for the Portlands Energy Centre Limited Partnership, a subsidiary of Atura Power, \$21 million for OPG Eagle Creek Holdings, LLC and its subsidiaries, \$16 million for UMH Energy Partnership and \$1 million for PSS Generating Station Limited Partnership.

In March 2020, the Company executed a \$1 billion one-year term loan agreement with a syndicate of banks and drew down \$400 million against the loan in April 2020. The Company obtained an advance of US\$300 million from its US corporate credit facility in April 2020 and repaid the full amount in June 2020.

9. FIXED ASSET REMOVAL AND NUCLEAR WASTE MANAGEMENT LIABILITIES

The liabilities for fixed asset removal and nuclear waste management on a present value basis consist of the following:

2020	December 31 2019
13,285 8,894	13,061 8,726
321	294
	13,285 8,894

10. ACCUMULATED OTHER COMPREHENSIVE LOSS

The changes in the balance of each component of accumulated other comprehensive loss (AOCL), net of income taxes, are as follows:

	Six Months Ended June 30, 2020					
(millions of dollars)	Unrealized Gains and Losses on Cash Flow Hedges	Pension and OPEB	Currency Translation Adjustment	Total		
AOCL, beginning of period	(33)	(213)	(31)	(277)		
Net gain on cash flow hedges	2	-	-	2		
Amounts reclassified from AOCL	7	5	-	12		
Translation of foreign operations Other comprehensive income for the period	9	5	75 75	75 89		
AOCL, end of period	(24)	(208)	44	(188)		

	Six	Months Ended	June 30, 2019	
(millions of dollars)	Unrealized Gains and Losses on Cash Flow Hedges	Pension and OPEB	Currency Translation Adjustment	Total
AOCL, beginning of period	(48)	(208)	13	(243)
Amounts reclassified from AOCL Translation of foreign operations	7	5 -	- (20)	12 (20)
Other comprehensive income (loss) for the period	7	5	(20)	(8)
AOCL, end of period	(41)	(203)	(7)	(251)

The amounts reclassified out of each component of AOCL, net of income taxes, during the three and six months ended June 30, 2020 are as follows:

	Amount Reclass	ified from AOC	CL
	Three Months	Six Months	
	Ended	Ended	
(millions of dollars)	June 30), 2020	Statement of Income Line Item
Amortization of losses from cash flow hedges			
Losses	4	8	Net interest expense
Income tax recovery	-	(1)	Income tax expense
	4	7	
Amortization of amounts related to pension and OPEB			
Actuarial losses and past service credits	3	7	See (1) below
Income tax recovery	(1)	(2)	Income tax expense
	2	5	
Total reclassifications for the period	6	12	

¹ These AOCL components are included in the computation of pension and OPEB costs (see Note 11 for additional details).

The amounts reclassified out of each component of AOCL, net of income taxes, during the three and six months ended June 30, 2019 are as follows:

	Amount Reclass	ified from AO	CL
	Three Months	Six months	
	Ended	Ended	
(millions of dollars)	June 30	, 2019	Statement of Income Line Item
Amortization of losses from cash flow hedges			
Losses	3	8	Net interest expense
Income tax recovery	-	(1)	Income tax expense
•	3	7	·
Amortization of amounts related to pension and OPEB			
Actuarial losses	3	7	See (1) below
Income tax recovery	(1)	(2)	Income tax expense
<u> </u>	2	5	-
Total reclassifications for the period	5	12	

¹ These AOCL components are included in the computation of pension and OPEB costs (see Note 11 for additional details).

Existing pre-tax net losses for derivatives of \$14 million deferred in AOCL as at June 30, 2020 are expected to be reclassified to net income within the next 12 months.

11. PENSION AND OTHER POST-EMPLOYMENT BENEFITS

OPG's pension and OPEB costs for the three months ended June 30, 2020 and 2019 are as follows:

	Registered Pension Plans		Supplementary Pension Plans		Emplo	Post- yment efits
(millions of dollars)	2020	2019	2020	2019	2020	2019
Components of cost recognized for the period						
Current service costs	84	77	2	2	22	17
Interest on projected benefit obligation	132	153	3	3	25	26
Expected return on plan assets, net of expenses	(217)	(206)	-	-	-	-
Amortization of past service credits ¹	-	-	-	-	(1)	-
Amortization of net actuarial loss 1	41	39	2	1	-	-
Costs recognized ²	40	63	7	6	46	43

The amortization of net actuarial loss and the amortization of past service credits are recognized as a net increase (decrease) to other comprehensive income. The net increase for the three months ended June 30, 2020 was partially offset by a net decrease in the Pension and OPEB Regulatory Asset of \$39 million (three months ended June 30, 2019 – \$37 million).

Pension and OPEB costs for the three months ended June 30, 2020 exclude the net addition of costs of \$19 million from the recognition of changes in the regulatory assets for the Pension & OPEB Cash Versus Accrual Differential Deferral Account and the Pension & OPEB Cash Payment Variance Account (three months ended June 30, 2019 – net reduction of costs of \$3 million).

OPG's pension and OPEB costs for the six months ended June 30, 2020 and 2019 are as follows:

	Registered Pension Plans		Supplementary Pension Plans		Emplo	Post- yment efits
(millions of dollars)	2020	2019	2020	2019	2020	2019
Components of cost recognized for the period Current service costs Interest on projected benefit obligation Expected return on plan assets, net of expenses Amortization of past service credits ¹	169 265 (435)	155 305 (412)	4 6 -	4 6 -	44 49 - (1)	35 51 - -
Amortization of net actuarial loss 1	81	78	4	3	-	-
Costs recognized ²	80	126	14	13	92	86

The amortization of net actuarial loss and the amortization of past service credits are recognized as a net increase (decrease) to other comprehensive income. The net increase for the six months ended June 30, 2020 was partially offset by a net decrease in the Pension and OPEB Regulatory Asset of \$77 million (six months ended June 30, 2019 – \$74 million).

12. RISK MANAGEMENT AND DERIVATIVES

OPG is exposed to risks related to changes in market interest rates on debt, movements in foreign currency that affect the Company's assets, liabilities and forecasted transactions, and fluctuations in commodity prices. Select derivative instruments are used to manage such risks. Derivatives are used as hedging instruments, as well as for trading purposes.

Interest Rates

Interest rate risk is the risk that the value of assets and liabilities can change due to movements in 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 corporate risk management policies. OPG periodically uses interest rate swap agreements to mitigate elements of interest rate risk exposure associated with anticipated financing.

Foreign Exchange

OPG's financial results are exposed to volatility in the Canadian/US foreign exchange rate as fuels and certain supplies and services purchased for generating stations and major development projects are denominated in, or tied to, US dollars. To manage this risk, the Company employs various financial instruments such as forwards and other derivative contracts, in accordance with approved corporate risk management policies. Additionally, volatility in the Canadian/US foreign exchange rate also impacts OPG's financial results from certain of its subsidiaries, whose operations are based exclusively in the United States.

Commodity Prices

OPG is exposed to fluctuations in commodity prices. Changes in the market prices of nuclear fuels, oil, gas and biomass used to produce electricity can adversely impact OPG's earnings and cash flow from operations. 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.

A number of OPG's hydroelectric facilities in the US sell energy and capacity into wholesale spot electricity markets and therefore are subject to volatility of wholesale spot electricity market pricing. While revenue from these facilities

Pension and OPEB costs for the six months ended June 30, 2020 exclude the net addition of costs of \$36 million from the recognition of changes in the regulatory assets and regulatory liabilities for the Pension & OPEB Cash Versus Accrual Differential Deferral Account and the Pension & OPEB Cash Payment Variance Account (six months ended June 30, 2019 – net reduction of costs of \$6 million).

represents a small portion of OPG's overall revenue, the Company may enter into derivative instruments from time to time to further mitigate this risk.

Credit

The Company's credit risk exposure is primarily a function of its electricity and other sales. The majority of OPG's revenue is derived from electricity sales through the IESO administered spot market. Market participants in the IESO spot market provide collateral in accordance with the IESO prudential support requirements to cover funds that they might owe to the market. Although the credit exposure to the IESO represents a significant portion of OPG's accounts receivable, the risk is considered acceptable due to the IESO's primary role in the Ontario electricity market. The remaining receivables exposure is to a diverse group of generally high quality counterparties. OPG's allowance for doubtful accounts as at June 30, 2020, was \$1 million (December 31, 2019 – \$1 million).

The fair value of the derivative instruments totalled a net asset of \$2 million as at June 30, 2020 (December 31, 2019 – net liability of \$11 million).

13. FAIR VALUE MEASUREMENTS

OPG is required to classify fair value measurements using a fair value hierarchy. This hierarchy groups financial assets and liabilities into three levels, based on the inputs used in measuring the fair value of the financial assets and liabilities. The fair value hierarchy has the following levels:

- Level 1: Valuation of inputs is based on unadjusted quoted market prices observed in active markets for identical assets or liabilities.
- Level 2: Valuation is based on inputs other than quoted prices under Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: Valuation is based on inputs for the asset or liability that are not based on observable market data.

The fair value of financial instruments traded in active markets is based on quoted market prices as at the interim consolidated balance sheet dates. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's-length basis. The quoted market price used for financial assets held by OPG is the current bid price. These instruments are included in Level 1 and are comprised primarily of equity investments and fund investments.

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 interim 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 would 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 all significant inputs required to fair value an instrument are observable, the instrument is included in Level 2.

If one or more of the significant inputs is not based on observable market data, the instrument is included in Level 3. Specific valuation techniques are used to value these instruments. Significant Level 3 inputs include recent comparable transactions, comparable benchmark information, bid/ask spread of similar transactions and other relevant factors.

The following is a summary of OPG's financial instruments and their fair value as at June 30, 2020 and December 31, 2019:

	Fair Value Carry		Carrying Value ¹		
(millions of dollars)	2020	2019	2020	2019	Balance Sheet Line Item
Nuclear Segregated Funds (includes current portion) ²	18,688	18,292	18,688	18,292	Nuclear fixed asset removal and nuclear waste management funds
Loan receivable - from Fair Hydro Trust	1,023	945	917	917	Loan receivable
Investment in Hydro One Limited shares	153	169	153	169	Equity securities
Payable related to cash flow hedges	(20)	(24)	(20)	(24)	Long-term accounts payable and accrued charges
Long-term debt (includes current portion)	(11,026)	(9,163)	(9,488)	(8,226)	Long-term debt
Other financial instruments	37	22	37	22	Various

The carrying values of other financial instruments included in cash and cash equivalents, receivables from related parties, other current assets, short-term debt, and accounts payable, accrued charges and other payables approximate their fair values due to the immediate or short-term maturity of these financial instruments.

The fair value of OPG's long-term debt issued under the Medium Term Note Program is based on indicative pricing from the market. The fair value of these debt instruments is based on Level 2 inputs. The fair value of all other long-term debt instruments is determined based on a conventional pricing model, which is a function of future cash flows, the current market yield curve and term to maturity. These inputs are considered Level 2 inputs.

The Nuclear Segregated Funds are comprised of the Decommissioning Segregated Fund and the Used Fuel Segregated Fund. OPG's fair value of the Nuclear Segregated Funds is set not to exceed an amount equal to the funding liability pursuant to the Ontario Nuclear Funds Agreement when the Nuclear Segregated Funds are in a surplus position.

The following tables present financial assets and financial liabilities measured at fair value in accordance with the fair value hierarchy:

As at	June 30, 2020				
(millions of dollars)	Level 1	Level 2	Level 3	Total	
Accesto					
Assets					
Used Fuel Segregated Fund Investments measured at fair value, excluding	5,705	5,490	_	11,195	
investments measured at NAV	0,700	0,400		11,100	
Investments measured at NAV ¹				2,167	
				13,362	
Due to Province				(2,766)	
Used Fuel Segregated Fund, net				10,596	
Decommissioning Segregated Fund					
Investments measured at fair value, excluding	4,399	4,083	-	8,482	
investments measured at NAV				4 = 44	
Investments measured at NAV ¹				1,741	
				10,223	
Due to Province				(2,131)	
Decommissioning Segregated Fund, net				8,092	
Investment in equity securities	153	<u>_</u>	_	153	
Other financial assets	-	6	38	44	
Other intariolal assets	_	· ·	30		
Liabilities					
Other financial liabilities	(6)	-	(1)	(7)	

As at	December 31, 2019				
(millions of dollars)	Level 1	Level 2	Level 3	Total	
Assets					
Used Fuel Segregated Fund					
Investments measured at fair value, excluding investments measured at NAV	6,021	5,333	-	11,354	
Investments measured at NAV ¹				2,136	
Due to Province				13,490 (3,067)	
Used Fuel Segregated Fund, net				10,423	
Decommissioning Segregated Fund					
Investments measured at fair value, excluding investments measured at NAV	4,575	3,959	-	8,534	
Investments measured at NAV 1				1,719	
				10,253	
Due to Province				(2,384)	
Decommissioning Segregated Fund, net				7,869	
Investment in equity securities	169	-	-	169	
Other financial assets	6	5	35	46	
Liabilities					
Other financial liabilities	(22)	(2)	-	(24)	

Represents investments measured at fair value using NAV as a practical expedient, which have not been classified in the fair value hierarchy. The fair value amounts for these investments presented in this table are intended to permit the reconciliation of the fair value hierarchy to amounts presented on the interim consolidated balance sheets.

During the period ended June 30, 2020, there were no transfers between Level 1 and Level 2 and into or out of Level 3.

The following table presents the changes in OPG's net assets measured at fair value that are classified as Level 3:

	Six Months Ended June 30, 2020 Other financial instruments
Opening balance, beginning of period	35
Unrealized losses included in revenue	(1)
Realized losses included in revenue	(2)
Purchases	5
Closing balance, end of period	37

Investments Measured at Net Asset Value

Nuclear Segregated Funds

Nuclear Segregated Funds' investments classified as Level 3 consist of real estate, infrastructure, and agriculture investments within the alternative investment portfolio. The fair value of these investments is determined using financial information as provided by the general partners of the limited partnership funds in which the Nuclear Segregated Funds are invested. Direct investments are valued using appropriate valuation techniques, such as recent arm's-length market transactions, references to current fair values of other instruments that are substantially the same, discounted cash flow analyses, third-party independent appraisals, valuation multiples, or other valuation methods. Any control, size, liquidity or other discount premiums on the investments are considered in the determination of fair value.

The process of valuing investments for which no published market price exists is based on inherent uncertainties and the resulting values may differ from values that would have been used had a ready market existed for these investments. The values may also differ from the prices at which the investments may be sold.

The following are the classes of investments within the Nuclear Segregated Funds that are reported on the basis of NAV as at June 30, 2020:

(millions of dollars except where noted)	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice
Real Assets				
Infrastructure	2,312	720	n/a	n/a
Real Estate	1,434	758	n/a	n/a
Agriculture	162	22	n/a	n/a
Pooled Funds				
Short-term Investments	24	n/a	Daily	1-5 days
Fixed Income	2,184	n/a	Daily	1-5 days
Equity	886	n/a	Daily	1-5 days
Total	7,002	1,500		

The fair value of the pooled funds is classified as Level 2. Infrastructure, real estate and agriculture investments are measured using NAV as a practical expedient for determining their fair value.

Infrastructure

This class includes investments in funds whose investment objective is to generate a combination of long-term capital appreciation and current income, generally through investments such as energy, transportation and utilities. The fair values of investments in this class have been estimated using NAV of the Nuclear Segregated Funds' ownership interest in these investments. The ownership interest in the respective funds are not redeemable. However, the Nuclear

Segregated Funds may transfer any of their ownership interests to another party, as stipulated in the partnership agreements and/or shareholders' agreements. Cash distributions are received based on the operations of the underlying investments and/or as the underlying investments are liquidated. It is not possible to estimate when the underlying assets of the infrastructure funds in this class will be liquidated.

Real Estate

This class includes investments in institutional-grade real estate property. The investment objective is to provide a stable level of income with an opportunity for long-term capital appreciation. The fair values of the investments in this class have been estimated using NAV of the Nuclear Segregated Funds' ownership interest in these investments. The investments in the respective funds are not redeemable. However, the Nuclear Segregated Funds may transfer any of their ownership interests to another party, as stipulated in the partnership agreements and/or shareholders' agreements. For investments in private real estate corporations, shares may be redeemed through a pre-established redemption process. Cash distributions are received based on the operations of the underlying investments and/or as the underlying investments are liquidated. It is not possible to estimate when the underlying assets in this class will be liquidated.

Agriculture

This class includes a diversified portfolio of global farmland investments. The investment objective is to provide a differentiated return source, income yield and inflation protection. The fair values of the investments in this class have been estimated using NAV of the Nuclear Segregated Funds' ownership interest in these investments. The investments in the respective funds are not redeemable. However, the Nuclear Segregated Funds may transfer any of their ownership interests to another party, as stipulated in the partnership agreements and/or shareholders' agreements. Cash distributions are received based on the operations of the underlying investments and/or as the underlying investments are liquidated. It is not possible to estimate when the underlying assets in this class will be liquidated.

Pooled Funds

This class represents investments in pooled funds, which primarily include a diversified portfolio of fixed income securities, issued mainly by Canadian corporations, and diversified portfolios of Emerging Market listed equity. The investment objective of the pooled funds is to achieve capital appreciation and income through professionally managed portfolios. The fair value of the investments in this class has been estimated using NAV per share of the investments. There are no significant restrictions on the ability to sell the investments in this class.

14. SHARE CAPITAL

Common Shares

As at June 30, 2020 and December 31, 2019, 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.

Class A Shares

The Company's Articles of Amalgamation were amended effective December 1, 2017 to allow for the creation and issuance of non-voting Class A shares to the Province in exchange for equity injections in OPG. All of the outstanding shares are owned directly by the Province and OPG is authorized to issue an unlimited number of Class A shares without nominal or par value. The Class A and common shares rank equally as to entitlement to dividends, and all dividends declared by OPG must be declared in equal amounts per share on all outstanding shares without preference or distinction. Upon the liquidation, dissolution or wind-up of OPG, whether voluntary or involuntary, the holders of Class A shares and common shares are entitled to share equally, on a share for share basis, in all distributions of

property and assets without preference or distinction. Any issue of new class of shares is subject to the consent of the Province. OPG is entitled to redeem outstanding Class A shares as may be approved by OPG's Board of Directors.

As at June 30, 2020 and December 31, 2019, OPG had 18,343,815 Class A shares issued and outstanding at a stated value of \$787 million.

15. EARNINGS PER SHARE

Basic and diluted earnings per share are calculated by dividing net income attributable to the Shareholder by the weighted average number of shares outstanding.

Class A shares are included in the weighted average number of shares outstanding. The weighted average number of shares outstanding as at June 30, 2020 was 274.6 million (December 31, 2019 – 274.6 million). There were no dilutive securities during the three and six months ended June 30, 2020 and for the year ended December 31, 2019.

16. COMMITMENTS AND CONTINGENCIES

Litigation

On August 9, 2006, a Notice of Action and Statement of Claim filed with the Ontario Superior Court of Justice in the amount of \$500 million was served against OPG and Bruce Power by British Energy Limited and British Energy International Holdings Limited (together, British Energy). The action is for contribution and indemnity of any amounts British Energy was liable for in an arbitration against it by some of the owners of Bruce Power regarding an alleged breach of British Energy's representations and warranties to the claimants when they purchased British Energy's interest in Bruce Power (the Arbitration). Both the action and the Arbitration relate to corrosion to a steam generator unit discovered after OPG leased the Bruce nuclear generating stations to Bruce Power.

In 2012, the arbitrator found that British Energy was liable to the claimants for some of the damages they claimed. The final settlement amount was valued by British Energy at \$71 million. In September 2014, British Energy amended its Statement of Claim (Amended Claim) to reduce the claim amount to \$100 million to reflect that the purchasers of British Energy's interest in Bruce Power did not receive the full damages they originally claimed in the Arbitration. British Energy also added an allegation to its Amended Claim that OPG breached a covenant to maintain the steam generator between the time of the initial agreement to lease and the effective date of the lease in accordance with "Good Utility Practices".

In November 2016, British Energy obtained consent from the Ontario Superior Court of Justice to a timetable for the remaining steps in the litigation, pursuant to which the matter was to be set down for trial by December 31, 2018. OPG delivered a statement of defence in accordance with an extension of the original June 30, 2017 delivery deadline set up in the timetable. British Energy served a reply and served its Affidavit of Documents in November 2018. The parties exchanged documentary productions in September 2019. A pre-trial is scheduled for May 31, 2021, and a trial is scheduled to commence on November 8, 2021.

Various other legal proceedings are pending against OPG or its subsidiaries covering a wide range of matters that arise in the ordinary course of business activities.

Each of these matters are subject to various uncertainties. Some of these matters may be resolved unfavourably. While it is not possible to determine the ultimate outcome of the various pending actions, it is the Company's belief that their resolution is not likely to have a material adverse impact on its consolidated financial position.

Guarantees

As at June 30, 2020, the total amount of guarantees provided by OPG was \$4 million (December 31, 2019 – \$80 million). The December 31, 2019 amount mainly comprised guarantees related to the then-jointly owned Portlands Energy Centre. Following OPG's acquisition of the remaining 50 percent interest in the Portlands Energy Centre on April 29, 2020 (refer to Note 3), it is no longer jointly owned and is consolidated within OPG's consolidated financial statements. As at June 30, 2020, the potential impact of the fair value of the outstanding guarantees to income is less than \$1 million and OPG does not expect to make any payments associated with these guarantees.

Contractual Obligations

OPG's contractual obligations as at June 30, 2020 are as follows:

(millions of dollars)	2020 ¹	2021	2022	2023	2024	Thereafter	Total
Fuel supply agreements	77	150	100	92	25	14	458
Contributions to the OPG registered pension plan ²	85	183	-	-	-	-	268
Long-term debt repayment	328	449	207	75	619	7,825	9,503
Interest on long-term debt	185	349	333	326	317	4,801	6,311
Short-term debt repayment	1,505	-	-	_	_	· -	1,505
Commitments related to Darlington Refurbishment project ³	225	-	-	-	-	-	225
Operating licences	24	45	46	47	48	99	309
Operating lease obligations	6	11	10	7	6	23	63
Accounts payable and accrued charges	1.010	13	1	-	_	_	1,024
Other	57	35	14	12	13	141	272
Total	3,502	1,235	711	559	1,028	12,903	19,938

¹ Represents amounts for the remainder of the year.

Contractual and commercial commitments as noted exclude certain purchase orders, as they represent purchase authorizations rather than legally binding contracts, and are subject to change without significant penalties.

The pension contributions include ongoing funding requirements in accordance with the actuarial valuation of the OPG registered pension plan as at January 1, 2019. The next actuarial valuation of the OPG registered pension plan must have an effective date no later than January 1, 2022. The pension contributions are affected by various factors including market performance, changes in actuarial assumptions, plan experience, changes in the pension regulatory environment and the timing of funding valuations. Funding requirements after 2021 are excluded due to significant variability in the assumptions required to project the timing of future cash flows. The amount of OPG's additional, voluntary contribution, if any, is revisited from time to time.

³ Represents estimated currently committed costs to close the project, including accruals for completed work, demobilization of project staff and cancellation of existing contracts and material orders.

17. BUSINESS SEGMENTS

In the second quarter of 2020, OPG established a new reportable business segment, Contracted Gas Generation, to describe the operating results related to its fleet of combined-cycle natural gas-fired generating stations in Ontario. The fleet comprises the Napanee GS, the Halton Hills GS, the Portlands Energy Centre and the Brighton Beach GS. The Napanee GS, the Halton Hills GS and the remaining 50 percent interest in the Portlands Energy Centre were acquired on April 29, 2020, and the remaining 50 percent interest in the Brighton Beach GS was acquired in August 2019. These facilities operate under Energy Supply Agreements (ESAs) with the IESO or other long-term contractual arrangements.

The 2019 comparative amounts related to OPG's interests in the Portlands Energy Centre and the Brighton Beach GS, previously reported in the Contracted and Other Generation business segment, have been reclassified to conform to the new segment presentation.

The Contracted and Other Generation business segment has been renamed Contracted Hydroelectric and Other Generation. The segment operates in Ontario and the US, generating electricity from the Company's non-regulated generating stations. The segment primarily includes generating facilities that are under ESAs with the IESO or other long-term contracts. A number of facilities in the US supply energy and capacity into wholesale spot electricity markets.

As at June 30, 2020, OPG's reportable business segments are as follows:

- Regulated Nuclear Generation;
- Regulated Nuclear Waste Management;
- Regulated Hydroelectric Generation;
- Contracted Hydroelectric and Other Generation; and
- · Contracted Gas Generation.

Segment Income		Regulated		Ur	regulated			
For the Three Months Ended		Nuclear		Contracted	Contracted			
June 30, 2020	Nuclear	Waste	Hydroelectric	Hydroelectric and	Gas			
(millions of dollars)	Generation	Management	Generation	Other Generation	Generation	Other	Elimination	Total
Revenue	1,148		416	164	101	1	-	1,830
Leasing revenue	7	-	-	-	-	3	-	10
Other revenue	-	32	-	-	-	24	(47)	9
Total revenue	1,155	32	416	164	101	28	(47)	1,849
Fuel expense	76	-	94	10	19	-	-	199
Gross margin	1,079	32	322	154	82	28	(47)	1,650
Operations, maintenance and administration expenses	559	32	72	56	13	(1)	(47)	684
Depreciation and amortization expenses	205	-	53	43	21	12	•	334
Accretion on fixed asset removal and nuclear waste management liabilities	-	261	-	1	-	2	-	264
Earnings on nuclear fixed asset removal and nuclear waste management funds	-	(288)	-	-	-	-	-	(288)
Income from investments subject to significant influence	-	-	-	-	(3)	-	-	(3)
Property taxes	6	-	1	4	1	1	-	13
Other gains	-	-	-	(2)	-	(3)	-	(5)
Income before interest and income taxes	309	27	196	52	50	17	-	651
Net interest expense								77
Income before income taxes								574
Income tax expense								112
Net income								462

Segment Income (Loss)		Regulated		U	nregulated			
For the Three Months Ended		Nuclear		Contracted	Contracted			
June 30, 2019	Nuclear	Waste	Hydroelectric	Hydroelectric and	Gas			
(millions of dollars)	Generation	Management	Generation	Other Generation	Generation	Other	Elimination	Total
Revenue	976	_	411	155	-	1	-	1,543
Leasing revenue	7	_	-	-	-	4	-	11
Other revenue	-	32	-	-	-	27	(47)	12
Total revenue	983	32	411	155	-	32	(47)	1,566
Fuel expense	73	-	92	10	-	-	-	175
Gross margin	910	32	319	145	-	32	(47)	1,391
Operations, maintenance and administration expenses	542	32	85	49	-	20	(47)	681
Depreciation and amortization expenses	168	-	55	30	-	11	-	264
Accretion on fixed asset removal and nuclear waste management liabilities	-	252	-	2	-	1	-	255
Earnings on nuclear fixed asset removal and nuclear waste management funds	-	(223)	-	-	-	-	-	(223)
Income from investments subject to significant influence	-	-	-	(1)	(9)	-	-	(10)
Property taxes	7	-	_	3	_	1	-	11
Other gains	-	-	_	(1)	_	(19)	-	(20)
Income (loss) before interest and income taxes	193	(29)	179	63	9	18		433
Net interest expense								12
Income before income taxes								421
Income tax expense								65
Net income								356

Segment Income (Loss)		Regulated		U	Inregulated			
For the Six Months Ended		Nuclear		Contracted	Contracted			
June 30, 2020	Nuclear	Waste	Hydroelectric	Hydroelectric and	Gas			
(millions of dollars)	Generation	Management	Generation	Other Generation	Generation	Other	Elimination	Total
Revenue	2,269	_	808	338	117	2	_	3,534
Leasing revenue	13	-	-	-	-	8	-	21
Other revenue	-	69	-	-	-	41	(96)	14
Total revenue	2,282	69	808	338	117	51	(96)	3,569
Fuel expense	152	-	161	20	19	-	`-	352
Gross margin	2,130	69	647	318	98	51	(96)	3,217
Operations, maintenance and administration expenses	1,135	69	146	110	16	12	(96)	1,392
Depreciation and amortization expenses	409	-	107	84	25	23	-	648
Accretion on fixed asset removal and nuclear waste management liabilities	-	522	-	3	-	3	-	528
Earnings on nuclear fixed asset removal and nuclear waste management funds	-	(459)	-	-	-	-	-	(459)
Income from investments subject to significant influence	-	-	-	(1)	(10)	-	-	(11)
Property taxes	13	_	1	9	1	1	_	25
Other gains	-	-	-	(3)	-	(6)	-	(9)
Income (loss) before interest and income taxes	573	(63)	393	116	66	18	-	1,103
Net interest expense								129
Income before income taxes								074
Income tax expense								974 199
Net income								775

Segment Income (Loss)		Regulated			Jnregulated			
For the Six Months Ended		Nuclear		Contracted	Contracted			
June 30, 2019	Nuclear	Waste	Hydroelectric	Hydroelectric and	Gas			
(millions of dollars)	Generation	Management	Generation	Other Generation	Generation	Other	Elimination	Total
Revenue from contracts with customers	1,855	-	792	310	-	5	-	2,962
Leasing revenue	13	_	-	-	-	7	-	20
Other revenue	-	63	-	-	-	39	(92)	10
Total revenue	1,868	63	792	310	-	51	(92)	2,992
Fuel expense	143	-	158	22	-	-	-	323
Gross margin	1,725	63	634	288	-	51	(92)	2,669
Operations, maintenance and administration expenses	1,164	63	162	99	-	34	(92)	1,430
Depreciation and amortization expenses	335	-	112	60	-	23	-	530
Accretion on fixed asset removal and nuclear waste management liabilities	-	504	-	4	-	2	-	510
Earnings on nuclear fixed asset removal and nuclear waste management funds	-	(443)	-	-	-	-	-	(443)
Income from investments subject to significant influence	-	-	-	(2)	(21)	-	-	(23)
Property taxes	13	_	-	6	-	2	-	21
Other losses (gains)	-	-	1	(1)	-	(32)	-	(32)
Income (loss) before interest and taxes	213	(61)	359	122	21	22	-	676
Net interest expense								30
Income before income taxes								646
Income tax expense								73
Net income								573

18. NET CHANGES IN NON-CASH WORKING CAPITAL BALANCES

	Six Months Ended June 30			
(millions of dollars)	2020	2019		
Receivables from related parties	(111)	(59)		
Fuel inventory	(21)	(23)		
Materials and supplies	14	17		
Prepaid expenses	(6)	4		
Other current assets	(7)	59		
Accounts payable, accrued charges and other payables	173	(45)		
Net changes in non-cash working capital balances	42	(47)		

19. COVID-19

The outbreak of the novel strain of coronavirus, identified as "COVID-19," since the beginning of the 2020 year has resulted in governments worldwide enacting a range of emergency measures to combat the spread of the virus. These measures, which have included the implementation of travel bans, self-imposed quarantine periods and physical distancing requirements, are causing material disruption to businesses globally resulting in an economic slowdown. Global equity, credit and related markets have experienced significant volatility and weakness. Governments and central banks in Canada and the United States have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions and promote economic recovery. The duration and impact of the COVID-19 outbreak is unknown at this time, as is the efficacy of the government and central bank interventions. It is not possible to reliably estimate the length and extent of these developments and the impact, if any, on the financial results and condition of the Company and its operating subsidiaries in future periods.