MORNINGSTAR | DBRS

Rating Report
Ontario Power Generation Inc.

DBRS Morningstar
April 16, 2020

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Ratings

Debt	Rating	Rating Action	Trend
Issuer Rating	A (low)	Confirmed	Stable
Unsecured Debt	A (low)	Confirmed	Stable
Commercial Paper	R-1 (low)	Confirmed	Stable

Rating Update

On April 7, 2020, DBRS Limited (DBRS Morningstar) confirmed the Issuer Rating and Unsecured Debt rating of Ontario Power Generation Inc. (OPG or the Company) at A (low) as well as OPG's Commercial Paper (CP) rating at R-1 (low), all with Stable trends. The ratings of OPG are based on the Company's stable regulated operations under the Ontario Energy Board (OEB), which contribute stable cash flow. The ratings are also supported by the continued financial support from the shareholder, the Province of Ontario (Ontario or the Province; rated AA (low) with a Stable trend by DBRS Morningstar), which, through its agent, the Ontario Electricity Financial Corporation (OEFC; rated AA (low) with a Stable trend by DBRS Morningstar), provides 37% of the Company's consolidated debt. OPG's remaining debt includes nonrecourse project financing (35%), CP (1%), and the Senior Notes issued under the Medium Term Note (MTN) Program (27%).

In July 2019, the Company announced it had acquired the remaining 50% interest in the Brighton Beach Generating Station (GS) for $200 million and was in the process of acquiring three natural gas-fired assets in Ontario for $2.9 billion. In October 2019, OPG also completed its acquisition of Cube Hydro Partners, LLC and Helix Partners LLC (collectively, Cube Hydro) for USD 845 million. At the time, DBRS Morningstar noted that these acquisitions have a higher business risk than the Company's incumbent regulated assets because (1) the Cube Hydro assets face merchant power risk and thus more volatile cash flows, and (2) the natural gas-fired assets in Ontario are nonregulated, albeit under long-term contracts with strong investment-grade counterparties that should generate relatively stable cash flows. While the acquisitions are expected to be fully debt funded and lead to around a $4 billion increase in debt load, the overall impact on OPG's credit will be minimal because regulated operations and assets under regulatory-style contracts will continue to contribute over 80% of EBITDA, while the cash flow-to-debt and debt-to-capital metrics are forecast to remain strong for the A (low) ratings. DBRS Morningstar notes that the Company has indicated that growth in its nonregulated business will be at a more moderate pace following these acquisitions, with most planned capital expenditures (capex) for its regulated operations. However, should OPG pursue acquisitions that result in a significant shift in the EBITDA mix between regulated and nonregulated operations or lead to credit metrics deteriorating to a

level no longer supportive of the current rating category, DBRS Morningstar may take negative rating action.

In March 2020, OPG announced the completion of construction on Unit 2 of the Darlington Refurbishment project (the Darlington Refurbishment), with Unit 2 scheduled to return to service in Q2 2020. While the $12.8 billion project was on budget and on schedule, the Company announced it would postpone refurbishment on the next unit because of the ongoing Coronavirus Disease (COVID-19) situation. As such, this may lead to a delay in the schedule and a modest increase in costs. DBRS Morningstar does not expect the decision to defer the Unit 3 refurbishment to affect OPG in achieving its operating and financial results in 2020. DBRS Morningstar continues to view a positive rating action as unlikely in the short term because of the ongoing capex program, including that for the Darlington Refurbishment. A downgrade could occur should there be significant cost overruns with the Darlington Refurbishment that result in stranded costs.

Financial Information

	For the year ended December 31				
	2019	**2018**	**2017**	**2016**	**2015**
Cash flow/Total debt (%)[1, 2]	41.4	45.0	40.0	40.6	31.9
Total debt in capital structure (%)[1, 2, 3]	28.8	26.9	26.2	34.3	35.8
EBIT gross interest coverage (times)[1, 2, 4]	0.85	1.00	(0.24)	(0.14)	(0.86)
(Cash flow – n.w.f.)/Total debt (%)[1, 2, 5]	38.6	39.3	33.7	32.9	25.4

1 Including operating leases.
2 Excludes nonrecourse debt.
3 Adjusted for Accumulated Other Comprehensive Income.
4 Excluding earnings from nuclear fixed asset removal and nuclear waste management funds.
5 Includes nuclear waste funding (n.w.f.) payments as they are not discretionary.

Issuer Description

OPG is an electricity generation company with a diverse portfolio of over 17,000 megawatts (MW) of in-service generating capacity. The Company is wholly owned by the Province of Ontario.

Rating Considerations

Strengths

1. Support of shareholder (the Province)

The Province indirectly provides OPG with a large portion of its long-term funding requirements through the OEFC, a government-financing arm for provincial power companies. However, this debt is not directly guaranteed by the Province. As at December 31, 2019, OPG had approximately $3.1 billion of notes payable to the OEFC, comprising 37% of the Company's outstanding debt. DBRS Morningstar believes that the Province will continue to support its investment since OPG is a creation of the Province and is integral to fulfilling Ontario's energy needs. While this financial support does not, in itself, result in any uplift to the Company's ratings, the ratings do incorporate DBRS Morningstar's belief that the Province will, in exceptional circumstances, provide support to OPG.

2. Dominant market position in Ontario

OPG's importance in Ontario is demonstrated by the fact that it is the primary electricity generator in the province, accounting for approximately 52% of electricity produced in 2019.

3. Reasonable regulatory framework

The reasonable regulatory framework has allowed the Company to recover prudently incurred costs; however, DBRS Morningstar notes that the unsuccessful appeal of the OEB's decision to disallow labour compensation costs related to OPG's nuclear operations has increased uncertainty regarding the Company's ability to fully recover its nuclear cost through future regulated prices. DBRS Morningstar also notes that, under an incentive rate (IR) framework, OPG's profitability could come under further pressure because of the need to meet efficiency and productivity benchmarks.

4. Limited nuclear waste management liabilities

As a result of the Ontario Nuclear Funds Agreement with the Province, OPG's exposure to the costs to dispose of the initial 2.23 million used fuel bundles produced has been capped at $5.94 billion (in 1999 dollar terms). The used fuel obligation is funded by the used fuel fund, which was fully funded as at December 31, 2019. The Province provides a guarantee for any shortfall between the value of the nuclear fund and the Canadian Nuclear Safety Commission consolidated financial guarantee requirement.

Challenges

1. Significant capex program

OPG has a significant capex program underway (approximately $2.2 billion planned for 2020). The Company also faces significant execution risk as well as the potential for cost overruns associated with the Darlington Refurbishment because of the project's complexity and scale. DBRS Morningstar expects that OPG will not undertake any major capex without having financing and a cost-recovery mechanism in place, thus minimizing financial risks.

2. Nuclear generation risks

Nuclear generation faces higher operating risks than other types of power generation because of its complex technology (approximately 56% of OPG's production in 2019). Financial implications of forced outages, especially with older units (e.g., the Pickering Nuclear GS), are greater given the high fixed-cost nature of these plants and since lost revenues resulting from outages are not recoverable through rates.

3. High cost base

OPG's high cost base has resulted in several disallowances by the OEB. For the most recent 2017–21 rates decision, the OEB disallowed recovery of $100 million in the operations, maintenance, and administration (OM&A) budget annually. DBRS Morningstar believes that OPG's inability to fully recover compensation costs in future regulated prices could have a negative impact on earnings and affect the Company's ability to achieve its approved return on equity (ROE). DBRS Morningstar notes that OPG has been combatting this issue through its cost-reduction and efficiency-improvement initiative, which has saved $1.0 billion through a reduction in headcount of over 2,800 since 2011.

4. Political intervention

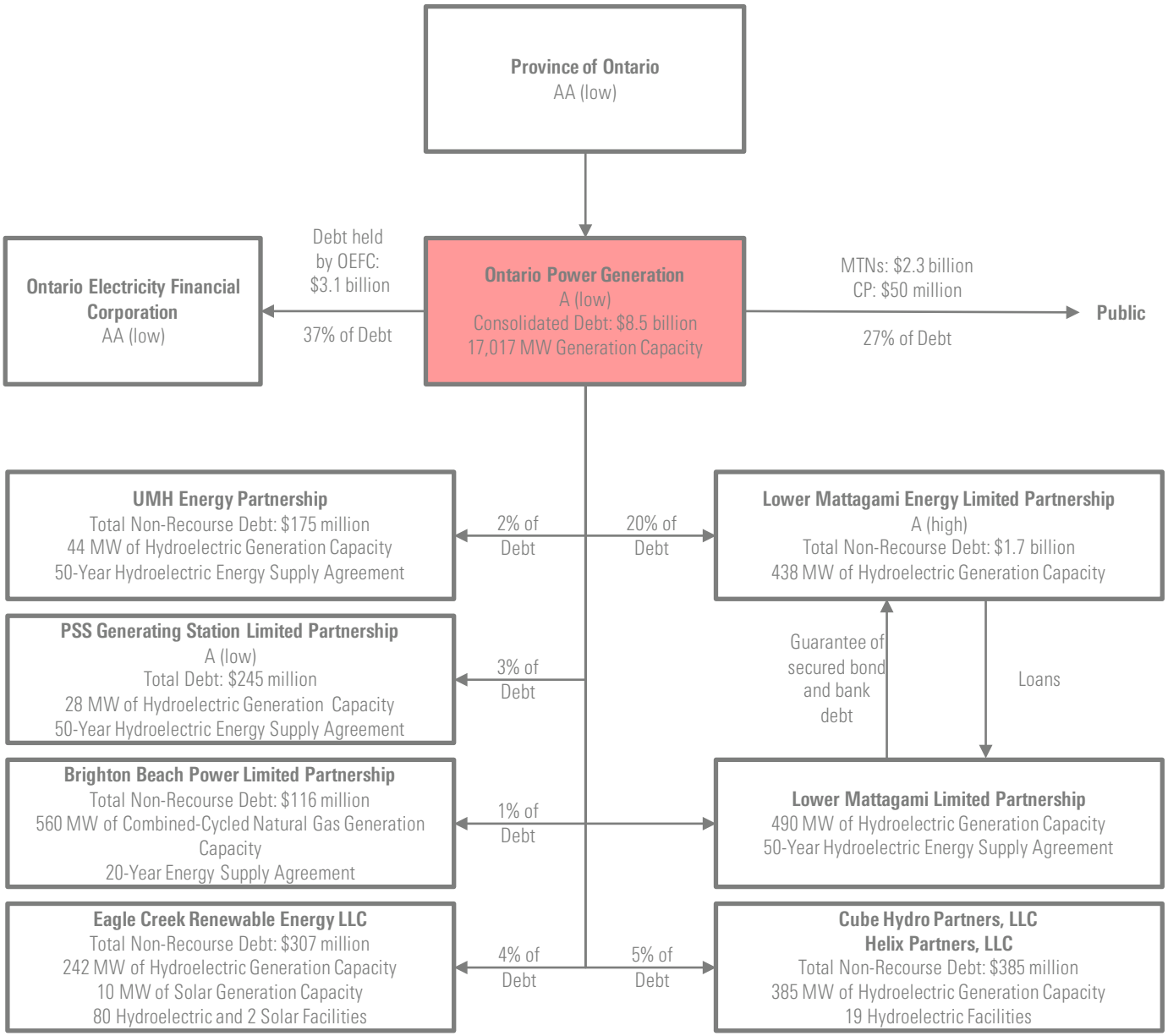
OPG is subject to political intervention, largely because of its ownership by the Province and changes in government mandates and policies. DBRS Morningstar notes that though the Province has committed to having the Company run more autonomously, the risk of further government intervention still exists. In March 2020, the Province proposed to freeze OPG's hydroelectric rates at the 2021 level for the next regulatory period of 2022 to 2026. If passed, DBRS Morningstar expects the Company's earnings to be moderately pressured as OPG will have to find efficiencies to offset inflationary cost increases.

5. Increased exposure to nonregulated operations

OPG has in recent years acquired multiple nonregulated generation assets, including gas-fired plants in Ontario and two renewable facility operators in the United States (Eagle Creek Renewable Energy LLC (Eagle Creek) and Cube Hydro). The Company also owns nonregulated natural gas, oil, solar, wind, and biomass generation assets in the province. While the Ontario assets are largely under long-term contracts with strong investment-grade counterparties (such as the Independent Electricity System Operator (IESO; rated A (high) with a Stable trend by DBRS Morningstar)) and contribute relatively stable earnings and cash flow, DBRS Morningstar does view nonregulated assets as generally having higher business risks than the incumbent regulated operations because there is less cost recovery certainty and potentially more volatile cash flow. DBRS Morningstar notes that, following the acquisition of the three Ontario natural gas-fired assets (expected in Q2 2020), earnings contributed by nonregulated operations will remain moderate at below 20% and are expected to decrease as most future capex is for regulated operations. DBRS Morningstar also considers assets under regulatory-styled contracts (such as Lower Mattagami Energy Limited Partnership (LMELP; rated A (high) with a Stable trend by DBRS Morningstar), PSS Generating Station Limited Partnership (PSS; rated A (low) with a Stable trend by DBRS Morningstar) and UMH Energy Partnership (UMH; not rated by DBRS Morningstar)) to have similar credit risks as regulated operations because those contracts mimic the current regulatory construct under the OEB.

Organizational Chart

Simplified Organizational Chart



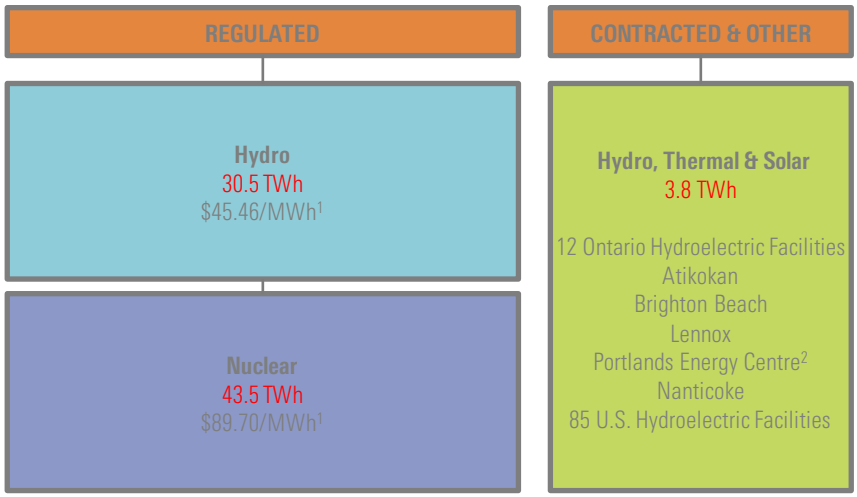
As of December 31, 2019.

Source: OPG.

- As at December 31, 2019, debt at the OPG corporate level consists of $3.1 billion held by the OEFC, $2.3 billion of MTNs, and $50 million of CP outstanding.
  - Debt at UMH, LMELP, Brighton Beach GS, Eagle Creek, and Cube Hydro are secured by the assets at each corresponding subsidiary and are nonrecourse to OPG.

- Debt at PSS GS is recourse to OPG until the recourse release date.

Price Structure



1 Rates as of December 31, 2019.
2 50% ownership interest.
For the year ended December 31, 2019.

Source: OPG.

- OPG sells electricity to consumers through the IESO.
- Regulated facilities sell at rates set by the OEB, which could include rate riders used for the recovery of nuclear deferral and hydroelectric variance account balances.
- The Contracted and Other Portfolio includes (1) assets in Ontario that sell electricity at prices set through Energy Supply Agreements (ESA) or other long-term contracts with the IESO; (2) Eagle Creek, which holds interest in 76 hydroelectric GS and two solar facilities throughout the United States; and (3) Cube Hydro, which holds interest in 19 hydroelectric GS in the United States.
  - OPG plans to merge Eagle Creek and Cube Hydro to operate under the Eagle Creek name.
  - The Eagle Creek and Cube Hydro facilities either sell into the merchant market or operate under long-term energy or capacity supply contracts.

Major Projects

Project	Estimated Cost (CAD millions)	Spent as of Dec. 31, 2019 (CAD millions)	In-Service Target Date
Darlington Refurbishment	12,800	6,664	2026[1]
Little Long Dam Safety Project	650	8	2023
Ranney Falls Hydroelectric GS	77	70	2020

1 Four units with staged in-service. Last unit scheduled to be completed by 2026.

- **Darlington Refurbishment**: The Darlington Refurbishment will extend the operating life of the Darlington Nuclear GS by approximately 30 years. The execution of the refurbishment of the first unit began in October 2016 and the last unit is scheduled to be completed by 2026. Construction on the first unit was completed in March 2020 and it is targeted to be in service in Q2 2020. While the project was on schedule and on budget, OPG decided to postpone the refurbishment of the second unit because of the COVID-19 situation, which may lead to a delay in schedule and a modest increase in costs.
- **Little Long Dam Safety Project**: This project is intended to make reliability and operational improvements and increase the discharge capacity at the Little Long Dam. The Little Long Dam supports hydroelectric GSs on the Lower Mattagami River.
- **Ranney Falls Hydroelectric GS**: This project will replace an existing generation unit at Ranney Falls with a 10 MW single-unit powerhouse. Construction was completed in 2019 and the unit is expected to be commissioned in 2020. The project is currently on schedule and on budget.
- In July 2019, OPG announced its acquisition of the Napanee and Halton Hills GSs and the remaining 50% interest in the Portlands Energy Centre from affiliates of TC Energy Corporation (rated Pfd-2 (low) with a Stable trend by DBRS Morningstar) for approximately $2.9 billion. These assets are combined-cycle natural gas-fired plants located in Ontario and will add 1,858 MW of generating capacity to the Company. DBRS Morningstar notes that, although these assets have a higher business risk than OPG's incumbent regulated operations, earnings and cash flows from these assets are expected to be relatively stable as they are supported by long-term contracts with an investment-grade counterparty (IESO).
- In August 2019, OPG acquired the remaining 50% interest in the Brighton Beach GS for $200 million. The Brighton Beach GS is a 560 MW combined-cycle natural gas-fired facility and operates under an ESA with the IESO expiring in 2024.
- In October 2019, OPG acquired Cube Hydro for USD 845 million. DBRS Morningstar views the business risk of Cube Hydro to be weaker as its facilities are not regulated and face merchant power risk, resulting in potentially more volatile earnings and cash flow. However, DBRS Morningstar does not expect this to have a material impact on the Company's overall business and financial risk assessment as its 385 MW capacity represents only around 2% of OPG's total generating capacity.

Regulation

- OPG benefits from a reasonable regulated environment. As at December 31, 2019, approximately 71% of its installed in-service capacity is regulated.
- OPG, regulated by the OEB under the *Electricity Restructuring Act, 2004 (Ontario)*, is allowed to receive regulated prices for all electricity generated from its nuclear facilities (5,728 MW) as well as most of its hydroelectric power facilities (6,420 MW).
- In May 2016, OPG filed its application with the OEB for rates effective January 1, 2017. The OEB issued its decision in December 2017.
  - The OEB approved rates to be effective June 1, 2017, rather than the applied-for effective date of January 1, 2017.
  - Capital structure will remain at 55% debt (the Company had requested a change to 51% debt) and an allowed ROE of 8.78%. The ROE will not be updated throughout the five-year term.
  - For hydroelectric facilities, the Price Cap IR methodology is used. Under Price Cap IR, rates for the hydroelectric facilities are subject to a formula price cap that allows for an annual increase in the payment amount based on inflation less productivity and a utility-specific stretch factor, which can be reset annually (productivity factor of 0%, stretch factor of 0.3%).
  - Under Price Cap IR, OPG could file an Incremental Capital Module (ICM) application to potentially recover any material and necessary prudently spent incremental capex during the IR period of five years. Additionally, the Company could ask to initiate a regulatory review of its application if actual ROE falls 300 basis points below the approved ROE.
  - For nuclear facilities, OPG requested the use of a Custom IR methodology and a rate-smoothing deferral account. Under its Custom IR methodology, nuclear revenue requirements were determined by a five-year forecast cost-of-service (COS) approach, but with a stretch factor of 0.6% applied to the Company's OM&A expenditures. The reduction in OM&A costs as a result of the stretch factor will accumulate for the five-year period. The rate-smoothing deferral account (as required under Ontario Regulation 53/05) will stabilize year-to-year changes to weighted-average payment amounts as the Darlington Refurbishment continues. OPG will defer a portion of its approved nuclear revenue requirements into the rate-smoothing deferral account and will be allowed to recover the deferred amount, and any amount to be deferred from 2022–26, over a 10-year period once the Darlington Refurbishment has been completed.
  - The OEB reduced the nuclear OM&A budget by $100 million per year for a total of $500 million over five years. Additionally, the OEB did not approve a mid-term review (prior to July 1, 2019) to update the nuclear production forecast.
  - The OEB approved the inclusion of $5.5 billion to the rate base over the five-year period of the Custom IR for the Darlington Refurbishment. Any cost overruns will be subject to a prudence review before being added to the rate base.
  - The OEB also approved the recovery of balances as at December 31, 2015, in OPG's deferral and variance accounts.
- In December 2018 and February 2019, the OEB approved the Company's Application for 2019 Hydroelectric Payment Amount Adjustment and Recovery of Deferral and Variance Account Balances effective January 1, 2019.
  - The OEB approved a 1.1% base rate increase based on an inflation factor of 1.4%.

  - The OEB also approved the recovery of balances as at December 31, 2017, in OPG's deferral and variance accounts.
- In December 2019, the OEB approved the Company's Application for 2020 Hydroelectric Payment Amount Adjustment to be effective January 1, 2020.
  - The OEB approved a 1.5% base rate increase based on an inflation factor of 1.8%.
- In March 2020, the Province proposed to freeze hydroelectric rates for OPG at the 2021 level for the next regulatory period of 2022 to 2026.
  - Rates for nuclear facilities will not be frozen and will continue to be set by the OEB.
  - DBRS Morningstar notes that, if passed, a hydroelectric rate freeze will moderately pressure the Company's earnings as OPG will have to find efficiencies in its regulated hydroelectric operations to offset inflationary cost increases.

Assessment of Regulatory Framework

Criteria	Score	Analysis
1. Deemed Equity	Excellent **Good** Satisfactory Below Average Poor	The OEB allows OPG to have a deemed equity of 45%.
2. Allowed ROE	Excellent Good **Satisfactory** Below Average Poor	OPG has an allowed ROE of 8.78% for 2017 to 2021, which is in line with the other regulated utilities in Ontario. Any difference in ROE between the Company and other regulated utilities in the province is mainly because of the timing of the regulatory filings and the interest environment prevalent at that time.
3. Energy Cost Recovery	Excellent Good Satisfactory Below Average Poor	N/A; energy costs are recovered through rates for OPG.
4. Capital and Operating Cost Recovery	Excellent **Good** Satisfactory Below Average Poor	Under Price-Cap IR for the hydroelectric facilities, major capital costs are pre-approved at the time of the COS application. If incremental costs are significant and prudent, OPG can file under ICM to request recovery of the costs. Under Custom IR for the nuclear facilities, the capex program for OPG is pre-approved for a five-year period by the OEB and recovered through base rates. Future test years are utilized for both hydroelectric and nuclear rates applications. Some volume risk exists but this is partly mitigated by (a) historically stable throughputs for the hydroelectric facilities, (b) use of deferral accounts for volumetric differences, and (c) for nuclear facilities, rates are based on forecasts which include scheduled outages. However, lost revenues resulting from forced outages are not recoverable through rates.
5. COS versus IRM	Excellent Good **Satisfactory** Below Average Poor	The hydroelectric facilities are regulated under the Price Cap IR framework, with four years between the COS rebasing years. The nuclear facilities operate under Custom IR, which is a hybrid of COS and the IR framework, for a five-year term. DBRS Morningstar considers the inflation, productivity (0%), and stretch (0.3% for hydroelectric and 0.6% for nuclear) factors as reasonable.
6. Political Interference	Excellent Good Satisfactory **Below Average** Poor	The Government of Ontario plays a significant role in the electricity sector in Ontario, given that most of the utilities are government owned (OPG is owned by the Province). Furthermore, stakeholders, such as the IESO, are also government owned. As a result, the government has direct and indirect influence on Ontario's electricity industry.
7. Stranded Cost Recovery	Excellent Good **Satisfactory** Below Average Poor	Regulated utilities in Ontario have a limited history of stranded costs. Most prudently incurred or budgeted capex are approved by the OEB. While OPG has seen some write-downs, these have been because the OEB had deemed the costs overruns to have been imprudent.
8. Rate Freeze	Excellent **Good** Satisfactory Below Average Poor	OPG's rates have never been frozen. However, DBRS Morningstar notes that in March 2020, the Province proposed an amendment to Ontario Regulation 53/05 to freeze hydroelectric rates for the Company at the 2021 level for the next regulatory period from 2022 to 2026. Rates for nuclear facilities will not be frozen and will continue to be set by the OEB. DBRS Morningstar notes that, if passed, a hydroelectric rate freeze will moderately pressure OPG's earnings as the Company will have to find efficiencies to offset inflation.

Earnings and Outlook

	For the year ended December 31				
(CAD millions where applicable)	**2019**	**2018**	**2017**	**2016**	**2015**
Revenues	6,019	5,535	5,158	5,653	5,476
EBITDA[1]	1,493	1,017	642	1,207	848
EBIT[1]	420	233	(37)	(50)	(252)
Gross interest expense	345	301	296	298	293
Earning before taxes[1]	436	225	(92)	(116)	(407)
Net income before nonrecurring items[1]	467	274	(14)	(106)	(271)
Reported net income	1,126	1,195	860	436	402
Return on equity (%)	3.4	2.2	-0.1	-1.0	-2.8
Hydroelectric rate base	N/A	N/A	N/A	7,447	7,490
Nuclear rate base	3,374	3,446	3,628	3,573	3,655
Approved regulated ROE (%)	8.78	8.78	8.78	9.19	9.30
Achieved regulated ROE (%)	N/A	10.69	5.88	3.80	2.67

1 Excluding earnings from nuclear fixed asset removal and nuclear waste management funds.

2019 Summary

- EBITDA and EBIT for OPG increased in 2019 largely because of (1) higher electricity generation and lower outage-related activities for the nuclear generation segment, (2) higher base rates for the hydroelectric segment effective January 1, 2019, and (3) contributions from newly acquired assets.
  - This was partly offset by (1) lower heavy water sales and (2) higher depreciation from the growing rate base and from the acquired hydroelectric facilities in the United States.
- Net income before nonrecurring items also increased, tracking the higher EBITDA and EBIT.
  - OPG reported a corporate ROE of 8.2% for the year, an increase from the 7.8% (excluding an after-tax $205 million gain on sale of the Lakeview GS site) in 2018.
  - ROE of 8.2% is more in line with the allowed regulated ROE of 8.78%. DBRS Morningstar notes that the difference can be partly attributed to the Company's capitalization at around 35% versus the regulatory capital structure of 55% debt.

2020 Outlook

- OPG had forecast net income in 2020 to be lower than in 2019 because of the cyclical outage schedule for the Pickering GS and the Darlington Refurbishment, and higher interest expense.
  - As a result of the ongoing COVID-19 situation, the Company has delayed starting the next unit of the Darlington Refurbishment in order to maintain maximum generation availability in the province in case of an emergency. Thus, generation output for 2020 may be higher than originally forecast.
  - Effective January 1, 2020, base rates for the hydroelectric segment increased by 1.5%. Rates for the nuclear generation segment increased per the Custom IR decision.
  - Earnings should also benefit from a full-year's contribution from acquisitions made in 2019 and the acquisition of contracted natural-gas fired assets expected to close in Q2 2020.

  - These will be more than offset by higher interest expense from debt to be issued during the year to fund the acquisitions.
- DBRS Morningstar does not expect the ongoing COVID-19 situation to have a material impact on OPG's earnings as even with potentially lower electricity demand in the province, volume risk for hydroelectric generation is limited though deferral accounts which allow the Company to recover any foregone production because of surplus baseload generation conditions.
- Earnings volatility going forward will come from (1) forecast risk as part of the IR process and (2) macro factors such as weather, unexpected outages, and Ontario's economic conditions.

Financial Profile

	For the year ended December 31				
(CAD millions where applicable)	**2019**	**2018**	**2017**	**2016**	**2015**
Net income before nonrecurring items[4]	467	274	(14)	(106)	(271)
Depreciation & amortization	1,073	784	679	1,257	1,100
Deferred income taxes and other	1,028	1,147	1,070	1,081	956
Cash flow (bef. working cap. changes)	**2,568**	**2,205**	**1,735**	**2,232**	**1,785**
Nuclear waste funding	(336)	(307)	(313)	(425)	(361)
Dividends paid	0	(283)	0	0	0
Capital expenditures	(2,058)	(1,826)	(1,853)	(1,816)	(1,376)
Free cash flow (bef. working cap. changes)	**174**	**(211)**	**(431)**	**(9)**	**48**
Changes in noncash working cap. items	99	(160)	80	180	(129)
Change in regulatory assets/liabilities	275	(51)	(558)	(170)	170
Net free cash flow	**548**	**(422)**	**(909)**	**1**	**89**
Long-term investments	(1,232)	(358)	0	(213)	(180)
Proceeds on asset sales	11	289	554	110	3
Acquisition of Fair Hydro Trust receivables	0	(609)	(1,179)	0	0
Change in Fair Hydro Trust debt	0	306	601	0	0
Net equity change	0	268	519	0	0
Net debt change	866	622	458	(162)	(33)
Other	(8)	(17)	4	(14)	(25)
Change in cash	**185**	**79**	**48**	**(278)**	**(146)**
Total debt	8,468	7,878	6,579	5,522	5,684
Total debt[2]	5,776	4,730	4,053	5,340	5,499
Cash flow/Total debt (%)[1, 2]	41.4	45.0	40.0	40.6	31.9
Total debt in capital structure (%)[1, 2, 3]	28.8	26.9	26.2	34.3	35.8
EBIT gross interest coverage (times)[1, 2, 4]	0.85	1.00	(0.24)	(0.14)	(0.86)
(Cash flow - n.w.f.)/Total debt (%)[1, 2, 5]	38.6	39.3	33.7	32.9	25.4

1 Including operating leases.
2 Excludes nonrecourse debt.
3 Adjusted for Accumulated Other Comprehensive Income.
4 Excluding earnings from nuclear fixed asset removal and nuclear waste management funds.
5 Includes nuclear waste funding (n.w.f.) payments as they are not discretionary.

2019 Summary

- OPG's key credit metrics exclude nonrecourse debt from UMH (recourse released in 2014), LMELP (recourse released in 2017), Fair Hydro Trust (derecognized in 2019), Eagle Creek, Cube Hydro, and Brighton Beach GS.
  - The cash flow-to-debt and debt-to-capital metrics remained strong, although both ratios weakened modestly because of debt issued to fund acquisitions. The EBIT-to-interest coverage ratio weakened modestly as well because of lower cash distributions received from the nonregulated subsidiaries.
- Cash flow from operations increased, tracking the higher net income.
- Capex remained elevated at $2.1 billion as the Company continued work on the Darlington Refurbishment ($1.2 billion spent in 2019).
- Long-term investments of $1.3 billion included $1.1 billion for the acquisition of Cube Hydro and $200 million for the acquisition of the remaining 50% interest in Brighton Beach GS.
- OPG issued $100 million of debt to the OEFC and $1.3 billion of Senior Notes under the MTN program.
  - Proceeds were used to repay $365 million of OEFC debt and to finance acquisitions, including Eagle Creek (acquired in November 2018).
  - Total recourse and nonrecourse debt increased because of the assumption of $116 million of Senior Notes at Brighton Beach GS and $385 million of Senior Notes at Cube Hydro as at December 31, 2019. This was offset by the derecognition of $912 million of debt at the Fair Hydro Trust following legislative changes in May 2019.

2020 Outlook

- Key credit metrics are expected to weaken in 2020 but remain in line with the current ratings.
  - The weaker credit metrics are largely because of the expected acquisition of three natural gas-fired generation plants in Ontario for $2.8 billion in Q2 2020, which will likely be fully debt funded.
- Cash flow from operations is expected to remain steady because of the regulated nature of the Company's operations.
- OPG had forecast capex of $2.2 billion for 2020 largely because of work on the Little Long Dam Safety Project, offset by lower spending for the Darlington Refurbishment with the completion of construction on Unit 2 in March 2020.
  - As a result of the postponement of the next unit of the Darlington Refurbishment, capex for the year is expected to be lower than forecast.
  - DBRS Morningstar also expects the Company may delay capex on non-essential projects during the COVID-19 situation.
- In April 2020, OPG issued $1.2 billion of debt, with the proceeds used to finance the Cube Hydro acquisition (acquired in October 2019).

Long-term Debt and Credit Facilities

Long-Term Debt

(CAD millions)	Maturity	Dec. 31, 2019	Dec. 31, 2018
Notes payable to the OEFC	2020-2048	3,135	3,400
Medium Term Note Program	2027-2050	2,250	950
UMH Energy Partnership[1]	2041	175	178
PSS Generating Station Limited Partnership[2]	2067	245	245
Lower Mattagami Energy Limited Partnership[1]	2021-2052	1,595	1,595
Fair Hydro Trust[1]	2033-2038	0	900
Brighton Beach Power Limited Partnership[1]	2020-2024	116	0
Eagle Creek[1]	2025-2030	307	323
Cube Hydro[1]	2025-2035	385	0
Other		25	21
Subtotal		**8,233**	**7,612**
Less: Fair value discount		20	(31)
Less: Bond issuance fees		(27)	(25)
Less: Current portion		(693)	(368)
Total long-term debt		**7,533**	**7,188**

1 Nonrecourse to OPG as debt is secured by assets of the associated project.
2 Secured by assets of the project; recourse to OPG until the recourse release date.

- 57% of the long-term debt issued at the parent level ($3.1 billion of $5.4 billion) is held by the OEFC, which is wholly owned by the Province. As a result, DBRS Morningstar does not expect any material refinancing risk.
- In July 2019, OPG issued $100 million of Senior Notes to the OEFC with a maturity date of 2039 at an effective interest rate of 3.49%.
  - The Company also repaid $365 million of Senior Notes owed to the OEFC during 2019.
- In January 2019, OPG issued $500 million of Senior Notes with a maturity date of 2049 and an effective interest rate of 4.25% under its MTN program. In September 2019, the Company issued an additional $800 million of Senior Notes with $500 million maturing in 2029 with an effective interest rate of 2.98% and $300 million maturing in 2050 with an effective interest rate of 3.65%.
  - In April 2020, the Company issued $1.2 billion of Senior Notes with $400 million maturing in 2025 at an effective interest rate of 2.89% and $800 million maturing in 2030 at an effective interest rate of 3.22%.
- The amortizing UMH notes were issued in 2009 with a maturity date of 2041 and an effective interest rate of 7.86%. The notes are secured by the assets of the Upper Mattagami and Hound Chute project and are nonrecourse to OPG.
- The amortizing PSS GS notes were issued in 2015 with a maturity date of 2067 and an effective interest rate of 4.90%. The notes are secured by the assets of PSS GS and are recourse to OPG until the recourse release date (expected in 2020).
- The LMELP notes are secured by the assets of the project and are nonrecourse to OPG.
- The Fair Hydro Trust Senior Notes were secured by the assets of the Fair Hydro Trust and were nonrecourse to OPG.

  - In May 2019, following legislative changes, the Fair Hydro Trust was derecognized from the Company's financial statements.
- OPG recognized $116 million of Senior Notes at year end 2019 after acquiring the remaining 50% interest in the Brighton Beach GS. The notes are secured by the assets of the Brighton Beach GS and are nonrecourse to the Company.
- OPG assumed $307 million of long-term debt at year end 2019 after acquiring Eagle Creek. The notes are secured by the assets of Eagle Creek and are nonrecourse to the Company.
- OPG assumed $385 million of long-term debt at year end 2019 after acquiring Cube Hydro. The notes are secured by the assets of Cube Hydro and are nonrecourse to the Company.

Maturity Profile

(CAD millions - as at December 31, 2019)	2020	2021	2022	2023	2024	Thereafter	Total
Long-Term Debt	693	448	207	75	215	6,595	**8,233**
	8%	5%	3%	1%	3%	80%	**100%**

- OPG's maturity profile is fairly spread out.

Credit Facilities

(CAD millions - as at December 31, 2019)	Maturity	Amount	Outstanding	Available
Committed credit facility - Tranche 1	20-May-2023	50	0	50
Committed credit facility - Tranche 2	20-May-2024	950	50	900
Committed credit facility - USD 750 million	27-Nov-2020	750	0	750
OEFC general corporate credit facility	31-Dec-2021	800	100	700
Short-term uncommitted credit facilities	Demand	503	447	56
Short-term uncommitted overdraft facilities	Demand	25	0	25
Securitization facility	30-Nov-2020	150	150	0
Lower Mattagami River Project – Tranche 1[1]	17-Aug-2024	300	169	131
Lower Mattagami River Project – Tranche 2[1]	17-Aug-2020	100	0	100
UMH Energy Partnership credit facilities[1]	15-Oct-2019	16	16	0
UMH Energy Partnership overdraft facilities[1]	15-Oct-2019	8	0	8
Cube Hydro credit facility – USD 20 million[1]	23-Oct-2028	20	0	20
Total		**3,672**	**932**	**2,740**

1 Nonrecourse to OPG as debt is secured by assets of the associated project.

- OPG has a reasonable liquidity profile.
- The Company has a $1.0 billion Canadian CP program ($50 million of CP outstanding as at December 31, 2019) and a USD 750 million CP program in the United States (unrated by DBRS Morningstar). These CP programs are supported by the following facilities:
  - Two tranches of bank facilities (with due dates of May 2023, and May 2024) totalling $1 billion;
  - A USD 750 million bank facility (due date of November 2020, with a one year term-out option); and
  - An OEFC facility (due date of December 2021) with available capacity of $700 million as of December 31, 2019.

- As at December 31, 2019, OPG had issued $447 million in letters of credit under its corporate facilities, of which $392 million was attributed to its supplementary pension plan.
- The Company has a $800 million credit facility provided by the OEFC maturing on December 31, 2021. OPG is currently working with the OEFC to expand this facility to $1.3 billion.
  - The Company has $100 million of Senior Notes outstanding under this facility.
- The securitization facility represents an agreement by OPG to sell a co-ownership interest in the Company's current and future accounts receivable from the IESO to an independent trust.
  - There were $150 million in letters of credit issued under this facility as at December 31, 2019.
- The LMELP, UMH, and Cube Hydro facilities are used to support the respective projects and are nonrecourse to OPG.

Company Profile

Generation Profile

As at December 31, 2019	Percent (%)	Capacity (MW)
Nuclear		
Darlington	15	2,634
Pickering A	6	1,030
Pickering B	12	2,064
	34	**5,728**
Thermal		
Atikokan (Biomass)	1	205
Portlands Energy Centre[1]	2	275
Brighton Beach	3	560
Lennox (Dual oil & gas)	12	2,100
	18	**3,140**
Hydroelectric		
Nonregulated	10	1,674
Regulated	38	6,420
	48	**8,104**
Other		
Wind and Solar[2]	0	55
Total Capacity	**100**	**17,017**

1 Represents OPG's share of in-service generation.
2 One wind-power turbine and three solar facilities.

- OPG is the largest generator of electricity in Ontario.
- In 2019, the Company generated 77.8 terawatt hours of electricity with total in-service capacity of 17,017 MW as at December 31, 2019.
  - The increase in generating capacity can be attributed to the acquisition of Cube Hydro and the 50% remaining interest in the Brighton Beach GS.
- OPG partnerships consist of the following:

- OPG and TransCanada Energy Ltd. jointly own the Portlands Energy Centre, a 550 MW natural gas-fired generating station. The Company is currently in the process of acquiring the remaining 50% interest in this asset.
- OPG owns the Bruce A and Bruce B Nuclear GS, which are leased on a long-term basis to Bruce Power L.P. (rated BBB with a Stable trend by DBRS Morningstar).
- OPG and the Lac Seul First Nation (LSFN) jointly own the Lac Seul GS, with LSFN owning 25% of the facility.
- OPG and the Moose Cree First Nation (MCFN), through its wholly owned subsidiary, Amisk-oo-Skow Finance Corporation, jointly own the Little Long, Harmon, Kipling, and Smoky Falls GS, with MCFN owning 25% of the facilities.
- OPG and Coral Rapids Power Corporation (CRP), a wholly owned subsidiary of the Taykwa Tagamou Nation, jointly own PSS GS, with CRP owning 33% of the facility.
- OPG, a subsidiary of the Six Nations of the Grand River Development Corporation, and Mississaugas of the Credit First Nation jointly own the Nanticoke Solar facility, with OPG owning 80% of the facility.

Balance Sheet

(CAD millions)	Dec. 31	Dec. 31	Dec. 31		Dec. 31	Dec. 31	Dec. 31
Assets	**2019**	**2018**	**2017**	**Liabilities & Equity**	**2019**	**2018**	**2017**
Cash & equivalents	648	349	418	Short-term borrowings	179	322	260
Accounts receivable	468	483	369	Accounts payable	1,094	1,170	1,228
Inventories	325	397	412	Current portion L.T.D.	693	368	398
Regulatory assets	486	490	0	Regulatory liabilities	103	36	0
Prepaid expenses & other	320	419	365	Deferred revenue & other	0	37	92
Total Current Assets	**2,247**	**2,138**	**1,564**	**Total Current Liab.**	**2,069**	**1,933**	**1,978**
Net fixed assets	26,047	22,987	21,322	Long-term debt	7,596	7,188	5,921
Intangibles	471	363	133	Deferred income taxes	1,154	1,018	879
Financing receivables	0	1,788	1,179	Pension & post-retirement benefits	6,667	6,339	6,515
Nuclear removal/waste mgmt. funds	18,252	17,464	16,701	Nuclear removal/waste mgmt. funds	22,081	21,225	20,421
Regulatory assets	6,770	6,769	7,231	Regulatory liabilities	949	762	594
Investments & other	1,617	743	692	Payables & other L.T. liab.	613	660	603
				Shareholders' equity	14,275	13,127	11,911
Total Assets	**55,404**	**52,252**	**48,822**	**Total Liab. & SE**	**55,404**	**52,252**	**48,822**

Ratios

	For the year ended December 31				
Balance Sheet & Liquidity & Capital Ratios	**2019**	**2018**	**2017**	**2016**	**2015**
Current ratio	1.09	1.11	0.79	0.73	1.33
Total debt in capital structure (%)	37.2	37.5	35.6	34.4	36.1
Total debt in capital structure (%)[1, 2, 3]	28.8	26.9	26.2	34.3	35.8
Cash flow/Total debt (%)	30.3	28.0	26.4	40.4	31.4
Cash flow/Total debt (%)[1, 2]	41.4	45.0	40.0	40.6	31.9
(Cash flow - dividends)/Capex (times)	1.25	1.05	0.94	1.23	1.30
(Cash flow - n.w.f.)/Total debt (%)[1, 2, 5]	38.6	39.3	33.7	32.9	25.4
Dividend payout ratio (%)	0.0	103.3	0.0	0.0	0.0
Coverage Ratios (times)					
EBIT gross interest coverage[4]	1.22	0.77	(0.13)	(0.17)	(0.86)
EBIT gross interest coverage[1, 2, 4]	0.85	1.00	(0.24)	(0.14)	(0.86)
EBITDA gross interest coverage[4]	4.33	3.38	2.17	4.05	2.89
Fixed-charges coverage[4]	1.22	0.77	(0.13)	(0.17)	(0.86)
Profitability Ratios					
EBITDA margin (%)[4]	24.8	18.4	12.4	21.4	15.5
EBIT margin (%)[4]	7.0	4.2	-0.7	-0.9	-4.6
Profit margin (%)[4]	7.8	4.9	-0.3	-1.9	-5.0
Return on equity (%)[4]	3.4	2.2	-0.1	-1.0	-2.8
Return on capital (%)[1, 3, 4]	2.5	1.8	0.5	0.1	-0.8

1 Including operating leases.
2 Excludes nonrecourse debt.
3 Adjusted for Accumulated Other Comprehensive Income.
4 Excluding earnings from nuclear fixed asset removal and nuclear waste management funds.
5 Includes nuclear waste funding (n.w.f.) payments as they are not discretionary.

Rating History

	Current	2019	2018	2017	2016	2015
Issuer Rating	A (low	A (low	A (low	A (low	A (low	A (low
Unsecured Debt	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)
Commercial Paper	R-1 (low)	R-1 (low)	R-1 (low)	R-1 (low)	R-1 (low)	R-1 (low)

Related Research

- DBRS Comments on Ontario Power Generation's Acquisition of Natural Gas Assets from TC Energy and ATCO, July 30, 2019.
- DBRS Comments on Ontario Power Generation's Acquisition of Cube Hydro, June 25, 2019.

Commercial Paper Limit

- $1.0 billion and USD 750 million.

Previous Actions

- DBRS Assigns Ratings of A (low) with Stable Trends to Ontario Power Generation Inc.'s $500 Million Series 4 and $300 Million Series 5 Medium-Term Notes, September 13, 2019.

Previous Report

- Ontario Power Generation Inc.: Rating Report, April 16, 2019.

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