RATING AGENCY REPORTS

1.0 PURPOSE

This evidence provides the rating agencies' financial assessments of OPG.

2.0 CREDIT RATING OVERVIEW

OPG is currently rated by three credit rating agencies – S&P Global Ratings ("S&P"), DBRS Morningstar ("DBRS") and, beginning in 2019, Moody's Investors Service ("Moody's"). As of the filing date of this Application, OPG had a long-term credit rating of BBB+ by S&P, A (low) by DBRS and A3 by Moody's, and a short-term Canadian Scale Commercial Paper debt rating of A-1 (low) by S&P and R-1 (low) by DBRS. Other than the addition of the Moody's credit rating, there have been no changes to OPG's credit ratings since the EB-2016-0152 payment amounts application.

Copies of the rating agency reports for each of the historical years and bridge year from DBRS, S&P and Moody's are provided in Attachments 1 to 11.

LIST OF ATTACHMENTS

Rating Report

Ontario Power Generation Inc.

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DBRS

Insight beyond the rating.

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 6, 2017, DBRS Limited (DBRS) confirmed the Issuer Rating and the Unsecured Debt rating of Ontario Power Generation Inc. (OPG or the Company) at A (low) as well as its Commercial Paper (CP) rating at R-1 (low). All trends are Stable. OPG's ratings continue to be supported by (1) the reasonable regulatory regime in place for the Company's generation facilities, (2) continuing financial support from its shareholder, the Province of Ontario (rated AA (low), Stable, by DBRS) and (3) strong cash flow-to-debt and debt-to-capital ratios.

In May 2016, OPG filed its application with the Ontario Energy Board (OEB) for rates effective January 1, 2017. As the OEB had indicated, the Company applied to transition to five-year incentive rate-setting (IR) regimes, proposing Price Cap IR for its hydroelectric facilities and Custom IR for its nuclear facilities. Under Price Cap IR, payment amounts will increase annually under a formula based on inflation less productivity and a utility-specific stretch factor. Under Custom IR, payment amounts will be determined by a five-year forecast cost-of-service (COS) approach, but with IR features. As noted, DBRS believes that, following the transition to IR frameworks, the Company's profitability may continue to be challenged as the introduction of productivity and efficiency targets could further depress earnings. This is partly mitigated by OPG having demonstrated its ability to contain costs through its cost-reduction and efficiency improvement initiative ($1.0 billion in cumulative cost savings since 2011). Additionally, under both Price Cap IR and Custom IR, the Company could initiate a regulatory review of its application if actual return on equity (ROE) falls 300 basis points (bps) below the approved ROE, providing some downside protection. OPG has also requested a mid-term review of its nuclear production forecast which, if approved, could reduce some of the forecasting risk associated with the longer IR term.

Profitability for OPG remained challenged in 2016 as the Company earned a corporate ROE of 4.2%, significantly below the allowed regulatory ROE of 9.19%. DBRS notes that this can be partly attributed to OPG's capitalization at around 35% debt versus the regulatory capital structure of 55% debt. While earnings increased in 2016, net income before non-recurring items remained negative, resulting in a negative EBIT-interest coverage ratio of -0.17 times for the year. While the Company's financial risk profile remains supported by its strong cash flow-to-debt and debt-to-capital ratios (36.4% and 34.4%, respectively, for 2016), OPG will continue to experience higher-than-normal capital expenditures (capex; $1.7 billion in 2016 and $1.8 billion planned for 2017) as it executes on the Darlington Refurbishment project (final budget of $12.8 billion). DBRS expects the Company's debt ratios to weaken during this period of high capex with leverage increasing to approximately 40%.

Continued on P.2

Financial Information

	For the year ended December 31				
	2016	**2015**	**2014**	**2013**	**2012**
Cash flow/total debt 1	36.4%	33.8%	27.0%	22.9%	20.8%
Total debt in capital structure 1, 2	34.4%	35.8%	36.9%	38.9%	36.9%
EBIT gross interest coverage (times) 3	(0.17)	(0.86)	0.24	(1.12)	0.66
EBITDA gross interest coverage (times) 3	4.05	2.89	2.75	2.21	3.15
(Cash flow - n.w.f.)/Total debt 4	29.6%	28.0%	21.3%	16.5%	13.8%

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

Issuer Description

Ontario Power Generation Inc. is an electricity generating company with a diverse portfolio of over 16,000 megawatts (MW) of in-service generating capacity. The Company is wholly owned by the Province of Ontario.

Rating Update (CONTINUED)

This is partly mitigated by the continued financial support provided by the Province through its agent, the Ontario Electricity Financial Corporation (OEFC; rated AA (low), Stable, by DBRS), which provides most of OPG's financing (approximately 60% of total debt). The Company's remaining debt is in the form of non-recourse project finance debt. Additionally, DBRS notes that under the Province's Fair Hydro Plan, OPG will be working with the Independent Electricity System Operator (IESO; rated A (high), Stable, by DBRS) to refinance the Global Adjustment costs to be deferred. DBRS will continue to monitor as more information becomes available.

Rating Considerations

Strengths

1. Support of shareholder (the Province)
The Province indirectly provides OPG with the majority of its long-term funding requirements through the OEFC, a government-financing arm for the provincial power companies; however, this debt is not directly guaranteed by the Province. As at December 31, 2016, OPG had approximately $3.3 billion of notes payable to the OEFC, consisting of 60% of the Company's outstanding debt. DBRS 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.

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 Ontario in 2016.

3. Reasonable regulatory framework
The reasonable regulatory framework has allowed the Company to recover prudently incurred costs; however, DBRS 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 (refer to the Regulation section for details). DBRS also notes that, under an IR framework, OPG's profitability could come under further pressure as a result 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 relating to nuclear waste management liabilities has been capped at $5.94 billion (in 1999 dollar terms) for the initial 2.23 million used fuel bundles produced. The Company is, however, responsible for the incremental costs related to the management of used fuel bundles in excess of 2.23 million bundles (currently 2.5 million). 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

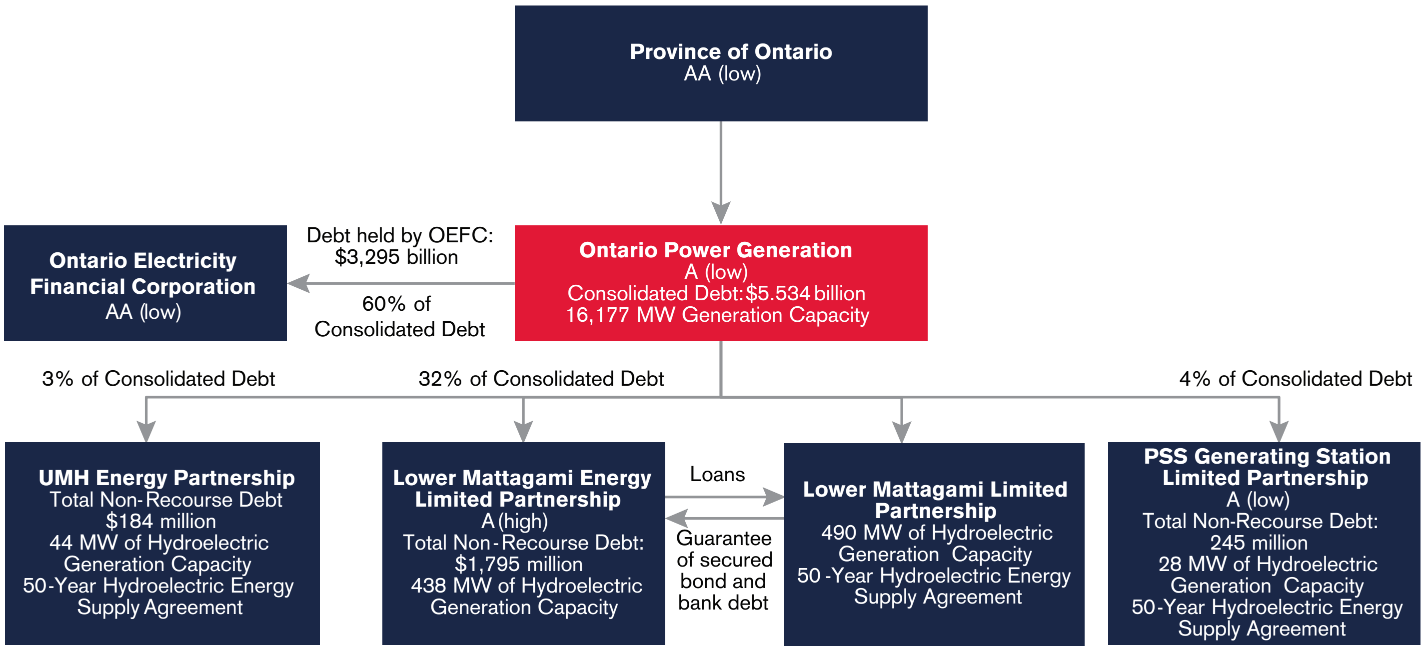
1. Significant capex program
OPG has a significant capex program underway (approximately $1.8 billion planned for 2017). The Company also faces significant execution risk as well as the potential for cost overruns associated with the Darlington Refurbishment because of the project's complexity and scale. It is expected 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 generation because of its complex technology (approximately 58% of OPG's production in 2016). Financial implications of forced outages, especially with older units (e.g., Pickering Nuclear Generating Station (GS)), are greater given the high fixed-cost nature of these plants as well as the fact that 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. In its decision on OPG's application for 2014 and 2015 rates, the OEB disallowed recovery of $100 million of compensation costs for each of 2014 and 2015. Additionally, in September 2015, the Supreme Court of Canada upheld the OEB's 2011 decision to disallow $145 million of forecast nuclear compensation costs for 2011 and 2012. DBRS believes that OPG's inability to fully recover compensation costs in future regulated prices could have a negative impact on earnings, which has affected the Company's ability to achieve its approved ROE. DBRS 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 by over 2,800 since 2011.

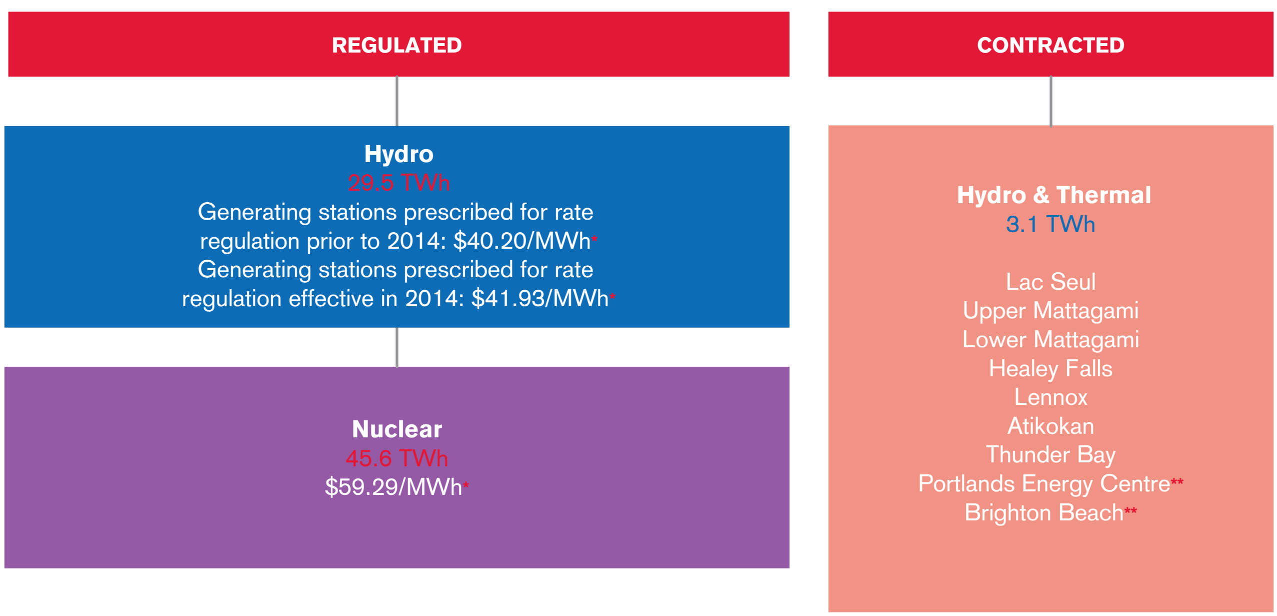
4. Political intervention
OPG is subject to political intervention, largely because of changes in government mandates and policies as well as limits that restrict revenues and earnings should the price of electricity rise quickly. DBRS notes that the Province has committed to having the Company run more autonomously; however, the risk of further government intervention still exists. As part of the Province's Fair Hydro Plan, OPG will be working with the IESO to refinance the Global Adjustments costs to be deferred.

Simplified Organizational Chart



As of December 31, 2016.

OPG's Price Structure



* Rates as of January 1, 2017. Approved on an interim basis.
** 50% ownership interest.

For the year ended December 31, 2016.

- OPG sells electricity to consumers through the IESO.
- Regulated facilities sell at rates set by the OEB, which include rate riders used for the recovery of nuclear deferral and hydroelectric variance account balances.
- The Contracted Generation Portfolio primarily sells electricity at prices set through Energy Supply Agreements (ESAs) or other long-term contracts with the IESO.

Major Projects

Project	Estimated Cost (CAD millions)	Spent as of Dec. 31, 2016 (CAD millions)	In-Service Target Date
Darlington Refurbishment	12,800	3,185	2026*
Peter Sutherland Sr. Hydroelectric GS	300	236	2017**
Sir Adam Beck Pump GS Reservoir Refurbishment	58	46	2017***
Ranney Falls Hydroelectric GS	77	3	2019

* Four units with staged in-service. Last unit scheduled to be completed by 2026.
** PSS GS was put in service at the end of March 2017.
*** Refurbishment completed and reservoir returned to service in February 2017.

- **Darlington Refurbishment:** The Darlington Refurbishment will extend the operating life of the Darlington Nuclear GS by approximately 30 years. The execution of the refurbishment for the first unit began in October 2016 and the last unit is scheduled to be completed by 2026. The project is currently tracking on budget.
- **Peter Sutherland Sr. Generating Station Project (PSS GS):** The PSS GS is a 28-MW hydroelectric station on the Abitibi River. The project has a 50-year hydro ESA with the IESO, which protects it from hydrology and power price risk. Additionally, OPG guarantees PSS GS's debt until the Recourse Release Date (see DBRS's PSS Generating Station LP (New Post Creek) rating report dated October 14, 2016, for more details). The station was put in service at the end of March 2017.
- **Sir Adam Beck Pump Generating Station Reservoir Refurbishment:** This project included a refurbishment of a 300-hectre reservoir to store water that could generate up to 600 MW of electricity. Construction began in April 2016 and was completed in February 2017, ahead of the planned in-service date of April 2017 and below budget.
- **Ranney Falls Hydroelectric Generating Station:** The Ranney Falls Hydroelectric GS project would replace an existing generation unit at Ranney Falls with a 10 MW single-unit powerhouse. Construction is expected to commence in 2017 with an expected in-service date by the end of 2019.
- **Nanticoke Solar Facility:** In March 2016, OPG announced that it has been selected by the IESO to develop a 44-MW solar facility near the Nanticoke GS. Construction is expected to begin in H1 2018 and be completed by Q1 2019.

Regulation

- OPG benefits from a reasonable regulated environment. As of December 31, 2016, 75% 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 (6,421 MW).
- An amendment to Ontario Regulation 53/05 (O. Reg. 53/05) by the Ministry of Energy made all of OPG's previously non-regulated hydroelectric facilities not covered under an ESA with the IESO subject to the OEB's regulation effective July 1, 2014. This amendment provided further stability to the Company's credit profile as a large majority of installed in-service capacity is now regulated.
- In September 2015, the Supreme Court of Canada overturned the Court of Appeal and upheld the OEB's original decision to disallow a portion of OPG's nuclear compensation costs. DBRS believes that the Company's inability to fully recover its nuclear compensation in future regulated prices could have a negative impact on earnings.
- In May 2016, OPG filed its application with the OEB for rates effective January 1, 2017. The application and associated approvals sought were updated on December 20, 2016, February 22, 2017, and March 8, 2017.
  - The Company requested a change to its capital structure to 51% debt (currently 55% debt) and for an allowed ROE of 8.78% for 2017. The allowed ROE for subsequent years will be adjusted to the prevailing ROE as specified by the OEB.
  - For its hydroelectric facilities, OPG requested the use of the Price Cap IR methodology for January 1, 2017, to December 31, 2021. Under Price Cap IR, the Company is 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.
  - Under Price Cap IR, OPG could file an Incremental Capital Module application to potentially recover any material and necessary prudently spent incremental capex during the IR period of five years. Additionally, the Company could initiate a regulatory review of its application if actual ROE falls 300 bps below the approved ROE.
  - In OPG's application, the Company requested an inflation factor of 1.8%, a productivity factor of 0% and a stretch factor of 0.3% for 2017. Additionally, OPG chose not to rebase for 2017 to simplify the evidence.
  - The Company requested a payment amount of $41.71/megawatt hour (MWh) for its hydroelectric facilities effective January 1, 2017.

Regulation (CONTINUED)

- For its nuclear facilities, OPG requested the use of a Custom IR methodology as well as a rate smoothing deferral account for January 1, 2017, to December 31, 2021. Additionally, the Company has requested a mid-term review (prior to July 1, 2019) to update its nuclear production forecast as well as to dispose of deferral and variance account balances.
- Under its Custom IR methodology, nuclear revenue requirements will be determined by a five-year forecast COS approach, but with a stretch factor of 0.3% applied to the Company's operating and maintenance (O&M) expenditures. The reduction to O&M costs as a result of the stretch factor will accumulate for the five-year period.
- The rate smoothing deferral account is, as required under O. Reg. 53/05, to stabilize year-to-year changes to weighted-average payment amounts (WAPA) as the Company continues on the Darlington Refurbishment project. OPG will defer a portion of its approved nuclear revenue requirements into the rate smoothing deferral account and has proposed that WAPA rates increase at a constant 2.5% per year over the 2017–2021 period. The Company will be allowed to recover the deferred amount, and any amount deferred from 2022–2026, over a ten-year period once the Darlington Refurbishment project is completed.
- OPG has requested the following for its nuclear facilities:

Effective Date	January 1, 2017	January 1, 2018	January 1, 2019	January 1, 2020	January 1, 2021
Revenue Requirement, Net of Stretch Factor	$3,161.4 million	$3,185.7 million	$3,273.2 million	$3,783.5 million	$3.397.8 million
Rate Base	$3,627.9 million	$3,606.9 million	$3,476.2 million	$7,453.8 million	$7,887.0 million
Payment Amount	$76.39/MWh	$78.60/MWh	$84.83/MWh	$88.21/MWh	$92.02/MWh

- OPG also requested rate riders for its hydroelectric and nuclear facilities for the recovery of balances as at December 31, 2015, in its deferral and variance accounts, except for the Pension & OPEB Cash Versus Accrual Differential Deferral Account. The Company has requested rate riders effective from January 1, 2017, to December 31, 2018, of $1.44/MWh for its hydroelectric facilities and $2.85/MWh for its nuclear facilities.

- In December 2017, the OEB approved the current base rates ($59.29/MWh for nuclear facilities, $40.20/MWh for baseload hydro facilities and $41.93/MWh for intermediate and peaking hydroelectric facilities) remaining in effect on an interim basis as of January 1, 2017.
- OPG filed a partial settlement agreement with the OEB in January 2017. A decision is expected in H2 2017.

Earnings and Outlook

(CAD millions where applicable)	For the year ended December 31 2016	2015	2014	2013	2012
Revenues	5,653	5,476	4,963	4,863	4,732
EBITDA 1	1,207	848	826	638	841
EBIT 1	(50)	(252)	72	(325)	177
Gross interest expense	298	293	300	289	267
Earning before taxes 1	(116)	(407)	36	(373)	86
Net income before non-recurring items 1	(106)	(271)	88	(261)	115
Reported net income	436	402	804	135	367
Return on equity	-1.0%	-2.8%	1.0%	-3.2%	1.5%
Hydroelectric rate base	7,447	7,490	7,526	4,829	3,744
Nuclear rate base	3,573	3,655	3,714	3,780	4,133
Approved regulated ROE	9.19%	9.30%	9.36%	9.55%	9.55%
Achieved regulated ROE	N/A	2.67%	6.32%	0.46%	4.73%

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

2016 Summary

- EBITDA increased significantly in 2016 as a result of (1) higher nuclear production compared with 2015, which had included a planned four-unit Vacuum Building Outage, (2) higher income from the contracted portfolio and (3) rate riders for the regulated nuclear and hydroelectric segments that were in effect from July 1, 2015, until December 31, 2016.
  - This was partly offset by (1) the removal of Unit 2 of the Darlington GS from service as part of the Darlington Refurbishment and (2) weaker earnings from the hydroelectric segment, partly as a result of higher volume of water spilled at OPG's hydroelectric stations in 2016 caused by a more prevalent surplus baseload generation condition.
- Increased EBIT in 2016 was partly offset by higher depreciation of regulatory assets and liabilities, which largely cancelled out revenues from the approved rate riders. EBIT also remained negative for the year.
- OPG continued to record a negative net income before non-recurring items in 2016. While earnings increased compared with 2015, profitability remained a challenge for the Company, which reported a corporate ROE of 4.2%. DBRS notes that, while this is significantly below the regulatory allowed ROE of 9.19%, the difference can be partly attributed to OPG's capitalization at around 35% versus the regulatory capital structure of 55% debt.

2017 Outlook

- DBRS notes that the OEB has approved, on an interim basis, for OPG's base rates from 2015 to remain in effect beginning January 1, 2017, until the Company's application for new rates are approved.
  - Earnings are expected to weaken until new regulated rates are approved. This is because 2015 rates for the nuclear segment were determined with all units in production, but production in 2017 will very likely be lower because of the Darlington Unit 2 refurbishment.
  - DBRS notes that, should the OEB not approve the new rates to be effective January 1, 2017, this will have a negative impact on the Company's profitability for the year.
- DBRS notes that OPG's application for 2017-2021 rates for the hydroelectric segment will be based on Price Cap IR while the nuclear segment will be based on Custom IR. DBRS believes that OPG's profitability could continue to be challenged following the switch to an IR framework as the introduction of productivity and efficiency targets could further depress earnings.
  - OPG has, however, demonstrated its ability to contain costs through its cost-reduction and efficiency improvement initiative ($1.0 billion in cumulative cost savings since 2011).
- 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

(CAD millions where applicable)	For the year ended December 31 2016	2015	2014	2013	2012
Net income before non-recurring items 3	(106)	(271)	88	(261)	115
Depreciation & amortization	1,257	1,100	754	963	664
Deferred income taxes and other	911	1,126	730	616	305
Cash flow (bef. working cap. changes)	**2,062**	**1,955**	**1,572**	**1,318**	**1,084**
Nuclear waste funding	(425)	(361)	(351)	(383)	(380)
Dividends paid	0	0	0	0	0
Capital expenditures	(1,704)	(1,376)	(1,545)	(1,568)	(1,427)
Free cash flow (bef. working cap. changes)	**(67)**	**218**	**(324)**	**(633)**	**(723)**
Changes in non-cash working cap. items	68	(129)	212	239	172
Net free cash flow	**1**	**89**	**(112)**	**(394)**	**(551)**
Long-term investments	(213)	(180)	0	0	24
Proceeds on asset sales	110	3	0	0	0
Net equity change	0	0	0	0	0
Net debt change	(162)	(33)	165	543	310
Other	(14)	(25)	(5)	0	0
Change in cash	**(278)**	**(146)**	**48**	**149**	**(217)**
Total debt	5,522	5,684	5,730	5,657	5,114
Cash & equivalents	398	464	610	562	413
Cash flow/Total debt 1	36.4%	33.8%	27.0%	22.9%	20.8%
Total debt in capital structure 1, 2	34.4%	35.8%	36.9%	38.9%	36.9%
EBIT gross interest coverage (times) 1, 3	(0.08)	(0.79)	0.29	(1.05)	0.71
(Cash flow - n.w.f.)/Total debt 4	29.6%	28.0%	21.3%	16.5%	13.8%
Dividend payout ratio	0.0%	0.0%	0.0%	0.0%	0.0%

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

2016 Summary

- OPG's cash flow-to-debt and debt-to-capital ratios remained strong for 2016; however, as the Company generated negative income for the year, the EBIT-interest coverage ratio remained negative.
- Cash flow from operations increased because of improved earnings compared with 2015 as well as rate riders for the regulated nuclear and hydroelectric segments that were in effect from July 1, 2015, until December 31, 2016.
- Capex increased significantly in 2016 to $1.7 billion as OPG began the execution phase of the Darlington Refurbishment project.
- No dividend payments were made to the Province during this period of high capex requirements.
- OPG acquired nine million common shares of Hydro One Limited (HOL) in 2016 for approximately $213 million as part of its collective bargaining agreements with the trade unions, allowing employees to receive compensation through HOL shares.
- The Company repaid $270 million in notes to the OEFC by refinancing $100 million of the notes and by using cash on hand. Lower Mattagami Energy Limited Partnership (LMELP) also issued $220 million of notes to repay its CP program.

2017 Outlook

- OPG has planned capex of $1.8 billion for 2017, including approximately $1.2 billion for the Darlington Refurbishment project.
- As the Company continues to execute its large capex program with weaker cash flow expected as a result of the delay in implementing 2017 rates, DBRS expects OPG to generate a free cash flow deficit for the year. This deficit is expected to be financed with debt and cash on hand.
  - OPG plans to issue approximately $1.8 billion of long-term debt in 2017, including $900 million for refinancing debt maturities. As a result, leverage is expected to increase to nearly 40% over the next few years. DBRS expects the Company to maintain its strong debt-to-capital and cash flow-to-debt ratios to offset the weaker EBIT-interest coverage ratio.
- DBRS expects the Province to continue to forego dividends during the Company's large capex program.

Long-Term Debt Maturities and Credit Facilities

Long-Term Debt

As at December 31, 2016

(CAD millions)	2017	2018	2019	2020	2021	Thereafter	Total
Long-term debt	1,103	398	368	663	413	2,589	**5,534**
	20%	7%	7%	12%	7%	47%	**100%**

Maturity Profile

- The majority of the long-term debt issued at the parent level (approximately $3.295 billion) is held by the OEFC, which is wholly owned by the Province. As a result, DBRS does not expect any material refinancing risk.
- DBRS notes that there is a slight concentration of debt maturing in 2017, including $900 million in notes issued by OPG and $200 million of senior notes issued by LMELP. DBRS expects this refinancing risk to be manageable as (1) the $900 million in notes payable is owed to the OEFC and (2) the Company has sufficient liquidity, through cash on hand and credit facilities, to fully repay these notes.
  - OPG's maturity profile is otherwise fairly spread out after 2018.
- In October 2016, LMELP issued senior notes totalling $220 million with a maturity date of 2026 and an effective interest rate of 2.40%.
- In February 2017, OPG issued senior notes payable totalling $200 million with a maturity date of 2047 and an effective interest rate of 4.12% to the OEFC.

Credit Facilities as at December 31, 2016 (CAD millions)

Bank Facilities	Maturity	Amount	Outstanding	Available
Committed credit facility - Tranche 1	20-May-21	500	0	500
Committed credit facility - Tranche 2	20-May-21	500	0	500
Short-term uncommitted credit facilities	Demand	460	386	74
Short-term uncommitted overdraft facilities	Demand	25	0	25
OEFC general corporate credit facility	31-Dec-17	700	0	700
Lower Mattagami River Project - Tranche 1	17-Aug-21	300	0	300
Lower Mattagami River Project - Tranche 2	17-Aug-17	200	0	200
UMH Energy Partnership credit facilities	15-Oct-17	16	14	2
UMH Energy Partnership overdraft facilities	15-Oct-17	8	0	8
Total		**2,709**	**400**	**2,309**

Liquidity

- OPG has a reasonable liquidity profile.
- The Company has a $1.0 billion CP program backed by two tranches of bank facilities (extended due dates of May 20, 2021). All committed bank facilities were unused as at December 31, 2016.
- As at December 31, 2016, OPG had issued $386 million of letters of credit, about $349 million of which was attributed to its supplementary pension plan.
- The Company has separate credit facilities provided by the OEFC, which DBRS views as adequate for working capital purposes

Company Profile

Generation Portfolio

As at December 31, 2016

		Percent (%)	Capacity (MW)
Nuclear			
	Darlington	16%	2,634
	Pickering A	6%	1,030
	Pickering B	13%	2,064
		35%	**5,728**
Thermal			
	Atikokan (Biomass)	1%	205
	Thunder Bay (Biomass)	1%	153
	Portlands Energy Centre 1	2%	275
	Brighton Beach 1	2%	280
	Lennox (Dual oil & gas)	13%	2,100
		19%	**3,013**
Hydroelectric			
Contracted 2		6%	1,014
Regulated		40%	6,421
		46%	**7,435**
Other (Wind) 3		0%	1
Total Capacity		**100%**	**16,177**

1 Represents OPG's share of in-service generation. 2 Includes plants under an ESA or a long-term contract with the IESO. 3 One wind-power turbine.

- OPG is the largest generator of electricity in Ontario.
- In 2016, OPG generated 78.2 terawatt hours of electricity with total in-service capacity of 16,177 MW on December 31, 2016.
  - The reduction in generating capacity is largely attributed to Unit 2 of Darlington GS being taken offline in October 2016 as part of the Darlington Refurbishment project.
- OPG partnerships consist of the following:
  - OPG and ATCO Power Canada Ltd. co-own the Brighton Beach GS, a 580-MW natural gas-fired generating station.
  - OPG and TransCanada Energy Ltd. jointly own the Portlands Energy Centre, a 550-MW natural gas-fired generating station.
  - OPG owns the Bruce A and Bruce B nuclear GS, which are leased on a long-term basis to Bruce Power Limited Partnership.
  - 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.

Ontario Power Generation Inc.

Balance Sheet (CAD millions)	Dec. 31 2016	2015	2014
Assets			
Cash & equivalents	398	464	610
Accounts receivable	429	545	482
Inventories	410	440	428
Regulatory assets	0	628	167
Prepaid expenses & other	510	313	161
Total Current Assets	**1,747**	**2,390**	**1,848**
Net fixed assets	19,998	20,595	17,593
Intangibles	99	98	76
Nuclear removal/waste mgmt. funds	15,960	15,121	14,354
Regulatory assets	5,855	5,240	7,024
Investments, materials & other	713	806	750
Total Assets	**44,372**	**44,250**	**41,645**

	Dec. 31 2016	2015	2014
Liabilities & Equity			
S.T. borrowings	2	225	0
Accounts payable	1,164	1,199	1,151
Current portion L.T.D.	1,103	273	503
Regulatory liabilities	0	26	5
Deferred revenue & other	135	78	36
Total Current Liab.	**2,404**	**1,801**	**1,695**
Long-term debt	4,417	5,186	5,227
Deferred income taxes	829	880	828
Pension & post-retirement benefits	5,909	5,682	6,620
Nuclear removal/waste mgmt. funds	19,484	20,169	17,028
Regulatory liabilities	0	0	0
Payables & other L.T. liab.	821	487	780
Shareholders' equity	10,508	10,045	9,467
Total Liab. & SE	**44,372**	**44,250**	**41,645**

Balance Sheet & Liquidity & Capital Ratios (For the year ended Dec. 31)	2016	2015	2014	2013	2012
Current ratio	0.73	1.33	1.09	1.79	1.91
Total debt in capital structure	34.4%	36.1%	37.7%	40.4%	39.3%
Total debt in capital structure 1, 2	34.4%	35.8%	36.9%	38.9%	36.9%
Cash flow/Total debt	37.3%	34.4%	27.4%	23.3%	21.2%
Cash flow/Total debt 1	36.4%	33.8%	27.0%	22.9%	20.8%
(Cash flow - dividends)/Capex (times)	1.21	1.42	1.02	0.84	0.76
(Cash flow - n.w.f.)/Total debt 4	29.6%	28.0%	21.3%	16.5%	13.8%
Dividend payout ratio	0.0%	0.0%	0.0%	0.0%	0.0%
Coverage Ratios (times)					
EBIT gross interest coverage 3	(0.17)	(0.86)	0.24	(1.12)	0.66
EBIT gross interest coverage 1, 3	(0.08)	(0.79)	0.29	(1.05)	0.71
EBITDA gross interest coverage 3	4.05	2.89	2.75	2.21	3.15
Fixed-charges coverage 3	(0.17)	(0.86)	0.24	(1.12)	0.66
Profitability Ratios					
EBITDA margin 3	21.4%	15.5%	16.6%	13.1%	17.8%
EBIT margin 3	-0.9%	-4.6%	1.5%	-6.7%	3.7%
Profit margin 3	-1.9%	-5.0%	1.8%	-5.4%	2.4%
Return on equity 3	-1.0%	-2.8%	1.0%	-3.2%	1.5%
Return on capital 1, 2, 3	0.1%	-0.8%	1.4%	-1.0%	1.6%

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

Rating History

Debt	Current	2016	2015	2014	2013	2012
Issuer Rating	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)
Unsecured rating	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)

Commercial Paper Limit

- $1 billion.

Previous Report

- Ontario Power Generation: Rating Report, April 25, 2016.

Notes:
All figures are in Canadian dollars unless otherwise noted.

For the definition of Issuer Rating, please refer to Rating Definitions under Rating Policy on www.dbrs.com.

Generally, Issuer Ratings apply to all senior unsecured obligations of an applicable issuer, except when an issuer has a significant or unique level of secured debt.

The DBRS group of companies consists of DBRS, Inc. (Delaware, U.S.)(NRSRO, DRO affiliate); DBRS Limited (Ontario, Canada)(DRO, NRSRO affiliate); DBRS Ratings Limited (England and Wales)(CRA, DRO affiliate); and DBRS Ratings México, Institución Calificadora de Valores S.A. de C.V. (Mexico)(CRA, NRSRO affiliate, DRO affiliate). Please note that DBRS Ratings Limited is not an NRSRO and ratings assigned by it are non-NRSRO ratings. For more information on regulatory registrations, recognitions and approvals, please see: http://www.dbrs.com/research/225752/highlights.pdf.

Rating Report

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DBRS
Insight beyond the rating.

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 6, 2018, DBRS Limited (DBRS) confirmed the Issuer Rating and the Unsecured Debt rating of Ontario Power Generation Inc. (OPG or the Company) at A (low) and its Commercial Paper (CP) rating at R-1 (low). All trends are Stable. The ratings of OPG continue to be supported by (1) the reasonable regulatory regime in place for the Company's regulated generation facilities, (2) strong cash flow-to-debt and debt-to-capital ratios and (3) continuing financial support from its shareholder, the Province of Ontario (the Province; rated AA (low) with a Stable trend by DBRS). The Province, through its agent, the Ontario Electricity Financial Corporation (OEFC; rated AA (low) with a Stable trend by DBRS), provides most of OPG's financing (approximately 48% of consolidated debt). The Company's remaining debt includes project financing (33%), non-recourse debt issued by the Fair Hydro Trust (9%), CP (2%) and Senior Notes issued under the Medium Term Note Program (8%).

In March 2017, the Province announced its Fair Hydro Plan to reduce customer bills by 17% (plus an 8% HST rebate for a total reduction of 25%), with the Independent Electricity System Operator (IESO; rated A (high) with a Stable trend by DBRS) recording the monthly shortfall (as a result of the rate reduction) in a regulatory variance account. Under Bill 132, *Fair Hydro Act, 2017*, OPG was appointed as the Financial Services Manager and created a financing entity (Fair Hydro Trust; Senior Notes rated AAA (sf) by DBRS) that may acquire an investment interest in the regulatory variance account from the IESO. DBRS does not expect the Fair Hydro Plan to negatively impact the Company's credit profile as (1) the Fair Hydro Trust is bankruptcy remote and ring-fenced from OPG (all debt is, and will be, non-recourse to the Company); (2) while OPG is expected to acquire up to 49% of the debt that will be issued by the Fair Hydro Trust, 44% will be funded through equity injections from the Province (with the remaining 5% to be funded by OPG); and (3) the Subordinated Notes and Junior Subordinated Notes to be acquired by the Company are rated AA (sf) and A (sf), respectively, by DBRS.

In December 2017, the Ontario Energy Board (OEB) issued its decision on OPG's application for 2017–2021 rates. OPG had applied to transition to five-year incentive rate-setting (IR) regimes, with the hydroelectric facilities to operate under Price Cap IR and

Continued on P.2

Financial Information

	For the year ended December 31				
	2017	**2016**	**2015**	**2014**	**2013**
Cash flow/Total debt 1, 2	40.6%	40.6%	31.9%	28.7%	26.9%
Total debt in capital structure 1, 2, 3	26.2%	34.3%	35.8%	37.3%	40.8%
EBIT gross interest coverage (times) 2, 4	(0.24)	(0.14)	(0.86)	0.27	(1.05)
EBITDA gross interest coverage (times) 4	2.17	4.05	2.89	2.75	2.21
(Cash flow - n.w.f.)/Total debt 5	22.0%	32.7%	25.1%	22.1%	20.6%

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

Issuer Description

OPG is an electricity generating company with a diverse portfolio of over 16,000 megawatts (MW) of in-service generating capacity. The Company is wholly owned by the Province of Ontario.

Rating Update (CONTINUED)

the nuclear facilities under Custom IR (see the Regulation section for more details). This transition is not expected to materially affect the Company as (1) the hydroelectric segment has relatively stable generation output, (2) the nuclear production forecast takes into account the ongoing Darlington Refurbishment and (3) OPG can initiate a regulatory review if actual return on equity (ROE) falls 300 basis points (bps) below the approved ROE. However, DBRS believes the inclusion of stretch factors (0.3% for hydroelectric and 0.6% for nuclear) and the disallowance of $100 million per year from the nuclear operations, maintenance and administration (OM&A) budget will likely result in continuing weakness in OPG's profitability. In 2017, excluding a one-time gain on the sale of its head office, the Company recorded a corporate ROE of 5.1%, significantly below the allowed regulatory ROE of 8.78%. DBRS notes that this can be partly attributed to OPG's capitalization above the deemed equity component of 45%, and because new rates were approved to be effective June 1, 2017, instead of January 1, 2017, as applied. DBRS views a rating upgrade in the short term to be unlikely because of the Company's current large capital expenditures (capex) program. A downgrade could occur should there be significant cost overruns with the Darlington Refurbishment that result in stranded costs.

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, 2017, OPG had approximately $3.2 billion of notes payable to the OEFC, comprising 48% of the Company's outstanding debt. Additionally, as part of the Fair Hydro Plan, the Province will provide most of the funding for OPG's share of investment in the Fair Hydro Trust's debt. DBRS 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.

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 51% of electricity produced in Ontario in 2017.

3. Reasonable regulatory framework

The reasonable regulatory framework has allowed the Company to recover prudently incurred costs; however, DBRS 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 (refer to the Regulation section for details). DBRS also notes that, under an 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 relating to nuclear waste management liabilities has been capped at $5.94 billion (in 1999 dollar terms) for the initial 2.23 million used fuel bundles produced. The Company is, however, responsible for the incremental costs related to the management of used fuel bundles in excess of 2.23 million bundles (currently 2.5 million). 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 $2.1 billion planned for 2018). 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. It is expected 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 generation because of its complex technology (approximately 55% of OPG's production in 2017). Financial implications of forced outages, especially with older units (e.g., the Pickering Nuclear Generating Station (GS)), are greater given the high fixed-cost nature of these plants as well as the fact that 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. In its decision on OPG's application for 2014 and 2015 rates, the OEB disallowed recovery of $100 million of compensation costs for each of 2014 and 2015. Additionally, in September 2015, the Supreme Court of Canada upheld the OEB's 2011 decision to disallow $145 million of forecast nuclear compensation costs for 2011 and 2012. For the most recent 2017–2021 rates decision, the OEB disallowed recovery of $100 million in the OM&A budget

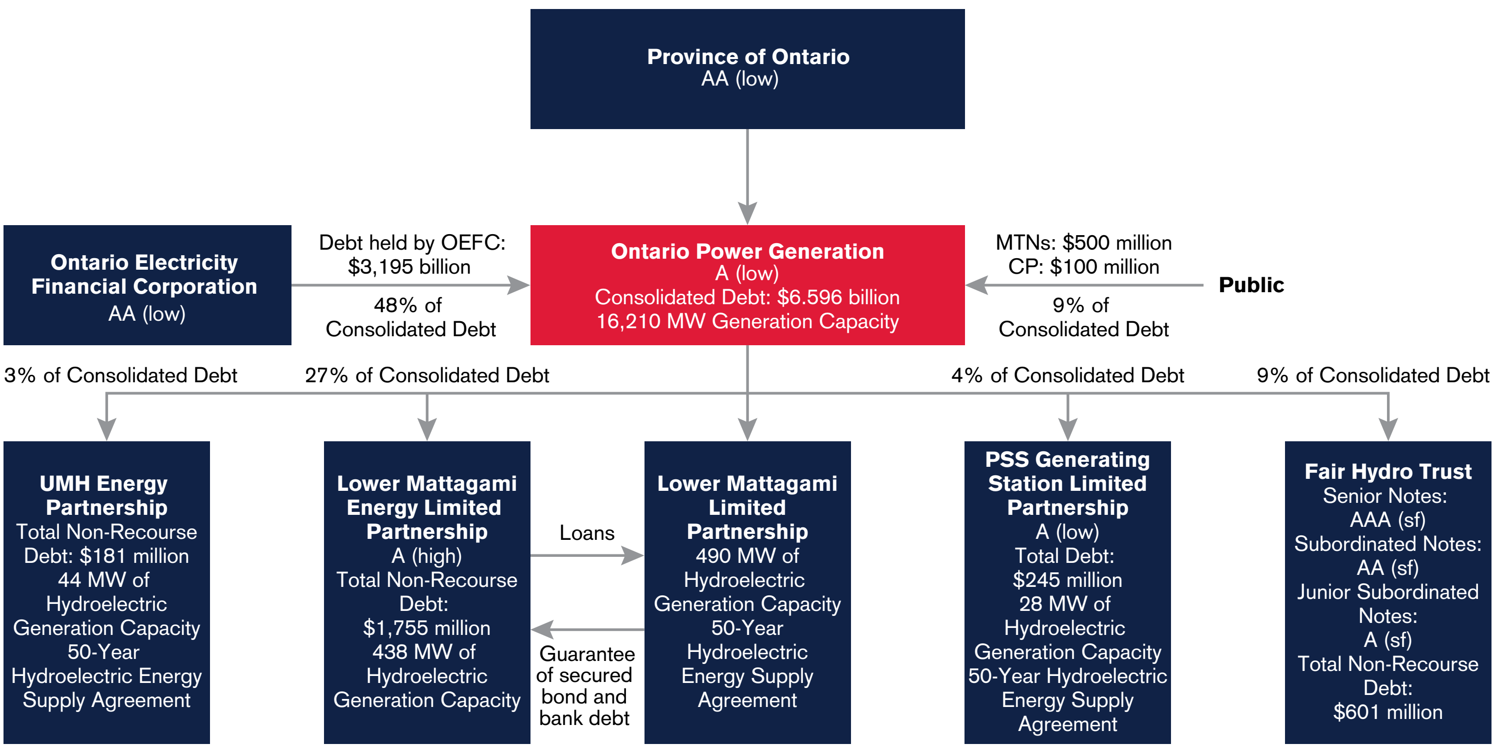
Rating Considerations (CONTINUED)

annually. DBRS 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 ROE. DBRS 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 by over 2,800 since 2011.

4. Political intervention

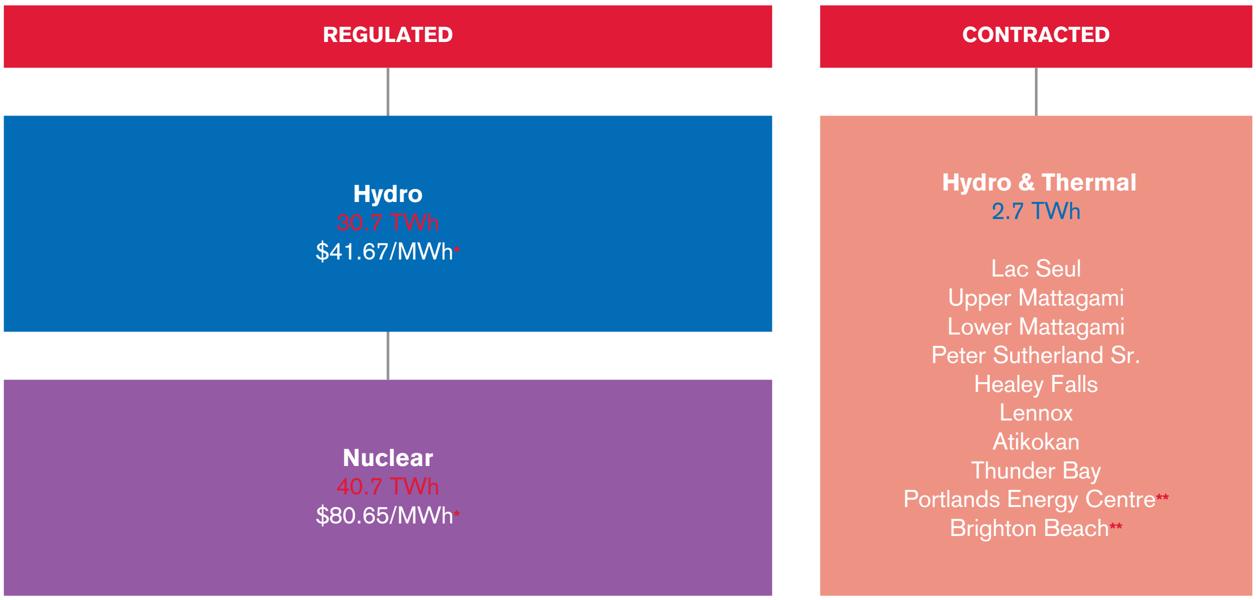
OPG is subject to political intervention, largely because of its ownership by the Province and changes in government mandates and policies. DBRS notes that the Province has committed to having the Company run more autonomously; however, the risk of further government intervention still exists.

Simplified Organizational Chart



As of December 31, 2017.

OPG's Price Structure



* Rates as of July 1, 2017 to December 31, 2017 calculated and submitted to the OEB.
** 50% ownership interest.

For the year ended December 31, 2017.

- 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 Generation Portfolio primarily sells electricity at prices set through Energy Supply Agreements (ESAs) or other long-term contracts with the IESO.

Major Projects

Project	Estimated Cost (CAD millions)	Spent as of Dec. 31, 2017 (CAD millions)	In-Service Target Date
Darlington Refurbishment	12,800	4,434	2026*
Peter Sutherland Sr. Hydroelectric GS	300	277	2017**
Sir Adam Beck Pump GS Reservoir Refurbishment	58	49	2017***
Ranney Falls Hydroelectric GS	77	28	2019
Nanticoke Solar Facility	107	3	2019

* Four units with staged in-service. Last unit scheduled to be completed by 2026. ** PSS GS was placed in-service on March 31, 2017. *** Refurbishment completed and reservoir returned to service in February 2017.

- **Darlington Refurbishment:** The Darlington Refurbishment will extend the operating life of the Darlington Nuclear GS by approximately 30 years. The execution of the refurbishment for the first unit began in October 2016 and the last unit is scheduled to be completed by 2026. The project is currently tracking on schedule and on budget.
- **Peter Sutherland Sr. (PSS) GS Project:** The PSS GS (PSS Generating Station LP (New Post Creek), rated A (low) with a Stable trend by DBRS) is a 28-MW hydroelectric station on the Abitibi River. The project has a 50-year hydro ESA with the IESO, which protects it from hydrology and power price risk. Additionally, OPG guarantees the PSS GS's debt until the

Major Projects (CONTINUED)

Recourse Release Date (see DBRS's PSS Generating Station LP (New Post Creek) rating report dated October 16, 2017, for more details). The station was put in service on March 31, 2017.

- **Sir Adam Beck Pump GS Reservoir Refurbishment:** This project included the refurbishment of a 300-hectare reservoir to store water that can generate up to 600 MW of electricity. Construction began in April 2016 and was completed in February 2017, below budget and ahead of the planned in-service date of April 2017.
- **Ranney Falls Hydroelectric GS:** The Ranney Falls Hydroelectric GS project will replace an existing generation unit at Ranney Falls with a 10-MW single-unit powerhouse. Construction commenced in 2017 and is currently tracking on schedule and on budget.
- **Nanticoke Solar Facility:** In March 2016, OPG announced that it had been selected by the IESO to develop a 44-MW solar facility near the Nanticoke GS. Site preparation commenced in March 2018 with the project expected to be completed by Q1 2019.

Regulation

- OPG benefits from a reasonable regulated environment. As at December 31, 2017, 75% 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 (6,426 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 for 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%, and inflation of 1.7% for 2017 and 1.2% for 2018).
  - Under Price Cap IR, OPG could file an Incremental Capital Module application to potentially recover any material and necessary prudently spent incremental capex during the IR period of five years. Additionally, the Company could initiate a regulatory review of its application if actual ROE falls 300 bps 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 approach, but with a stretch factor of 0.6% applied to the Company's OM&A expenditures. The reduction to 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 Company continues on the Darlington Refurbishment. 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 2022–2026, over a ten-year period once the Darlington Refurbishment is 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 for a mid-term review (prior to July 1, 2019) to update the nuclear production forecast.
  - The OEB approved for the inclusion of $5.5 billion into 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 for the recovery of balances as at December 31, 2015, in OPG's deferral and variance accounts.
- OPG submitted a motion to review and vary the decision to the OEB in January 2018. The Company is seeking to revise the effective date of rates to January 1, 2017 (as originally applied for), rather than June 1, 2017.

Earnings and Outlook

	For the year ended December 31				
(CAD millions where applicable)	**2017**	**2016**	**2015**	**2014**	**2013**
Revenues	5,158	5,653	5,476	4,963	4,863
EBITDA 1	642	1,207	848	826	638
EBIT 1	(37)	(50)	(252)	72	(325)
Gross interest expense	296	298	293	300	289
Earning before taxes 1	(92)	(116)	(407)	36	(373)
Net income before non-recurring items 1	(14)	(106)	(271)	88	(261)
Reported net income	860	436	402	804	135
Return on equity	-0.1%	-1.0%	-2.8%	1.0%	-3.2%
Hydroelectric rate base	N/A	7,447	7,490	7,526	4,829
Nuclear rate base	3,628	3,573	3,655	3,714	3,780
Approved regulated ROE	8.78%	9.19%	9.30%	9.36%	9.55%
Achieved regulated ROE	N/A	3.80%	2.67%	6.32%	0.46%

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

2017 Summary

- EBITDA decreased significantly because of (1) lower revenues following the expiry of OEB-authorized rate riders on December 31, 2016, for the regulated hydroelectric and nuclear segments; (2) lower nuclear generation because of the Darlington Refurbishment; and (3) higher maintenance expense for the year.
  - This was partly offset by (1) the rate decision, approved by the OEB in December 2017, which increased revenues, and (2) higher revenues with the in-service of PSS GS in Q1 2017.
  - Earnings were also lower than forecasted as the OEB decision was for rates effective June 1, 2017, rather than the applied-for date of January 1, 2017.
- EBIT increased as the lower amortization of regulatory assets and liabilities largely cancelled out revenues from the expired rate riders. However, EBIT remained negative for the year.
- While net income before non-recurring items improved significantly in 2017, it remained negative. Additionally, although OPG reported a corporate ROE of 7.6%, this included a non-recurring gain on the sale of the head office premises and associated parking facility ($283 million, net of tax effects of $95 million). Excluding this gain, corporate ROE would have been 5.1%, significantly below the regulatory allowed ROE of 8.78%. DBRS notes the difference can be partly attributed to OPG's capitalization at around 35% versus the regulatory capital structure of 55% debt.

2018 Outlook

- OPG's earnings are expected to see improvement in 2018 following the OEB's decision on the Company's 2017–2021 rate application.
  - 2018 rates for the hydroelectric generation segment are expected to increase by 0.9%, while rates for the nuclear generation segment will increase as per the Custom IR decision.
  - DBRS notes, however, earnings may see pressure from the stretch factors embedded in the decisions (0.3% for hydroelectric and 0.6% for nuclear). Earnings from the nuclear generation segment may also be pressured as the OEB decreased the approved OM&A budget by $100 million.
- Earnings should also benefit from (1) a full year's operation of the PSS GS and (2) interest income from the Fair Hydro Trust segment.
- 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

(CAD millions where applicable)	For the year ended December 31 2017	2016	2015	2014	2013
Net income before non-recurring items 4	(14)	(106)	(271)	88	(261)
Depreciation & amortization	679	1,257	1,100	754	963
Deferred income taxes and other	1,096	1,081	956	775	848
Cash Flow (Bef. Working Cap. Changes)	**1,761**	**2,232**	**1,785**	**1,617**	**1,550**
Nuclear waste funding	(313)	(425)	(361)	(351)	(383)
Dividends paid	0	0	0	0	0
Capital expenditures	(1,853)	(1,816)	(1,376)	(1,545)	(1,568)
Free Cash Flow (Bef. Working Cap. Changes)	**(405)**	**(9)**	**48**	**(279)**	**(401)**
Changes in non-cash working cap. items	54	180	(129)	212	239
Change in regulatory assets/liabilities	(558)	(170)	170	(45)	(232)
Net Free Cash Flow	**(909)**	**1**	**89**	**(112)**	**(394)**
Long-term investments	0	(213)	(180)	0	0
Proceeds on asset sales	554	110	3	0	0
Acquisition of Fair Hydro Trust receivables	(1,179)	0	0	0	0
Issuance of Fair Hydro Trust debt	601	0	0	0	0
Net equity change	519	0	0	0	0
Net debt change	458	(162)	(33)	165	543
Other	4	(14)	(25)	(5)	0
Change in Cash	**48**	**(278)**	**(146)**	**48**	**149**
Total debt	6,579	5,522	5,684	5,730	5,657
Cash & equivalents	422	398	464	610	562
Cash flow/Total debt 1, 2	40.6%	40.6%	31.9%	28.7%	26.9%
Total debt in capital structure 1, 2, 3	26.2%	34.3%	35.8%	37.3%	40.8%
EBIT gross interest coverage (times) 2, 4	(0.24)	(0.14)	(0.86)	0.27	(1.05)
(Cash flow - n.w.f.)/Total debt 5	22.0%	32.7%	25.1%	22.1%	20.6%
Dividend payout ratio	0.0%	0.0%	0.0%	0.0%	0.0%

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

2017 Summary

- OPG's key credit metrics exclude non-recourse debt from UMH Energy Partnership (UMH; recourse released in 2014), Lower Mattagami Energy Limited Partnership (LMELP; rated A (high) with a Stable trend by DBRS; recourse released in 2017) and the Fair Hydro Trust.
- The Company's cash flow-to-debt and debt-to-capital ratios remained strong in 2017. DBRS notes the decrease in the debt-to-capital ratio was largely due to (1) LMELP reaching its recourse release date during the year (non-recourse debt of approximately $1,755 million) and (2) an equity injection from the Province to partially fund the Fair Hydro Trust.
  - OPG's EBIT-interest coverage ratio remained negative, however, reflecting the weak profitability of the Company.
- Cash flow from operations decreased as (1) 2016 included rate riders for regulated nuclear and hydroelectric generation and (2) the Darlington Refurbishment resulted in lower cash receipts from nuclear generation.
- Capex remained elevated at $1.8 billion as OPG continued work on the Darlington Refurbishment.
- No dividend payments were made to the Province during this period of high capex requirements.
- Changes in regulatory assets/liabilities largely represent OPG's estimate of $544 million of interim period revenue shortfall to be collected from customers as a result of the OEB's decision in December 2017 for rates effective June 1, 2017.
- OPG sold its head office for $378 million. The Company distributed the after-tax gain ($283 million) to the Province in 2018.

Financial Profile (CONTINUED)

- The Fair Hydro Trust acquired $1.2 billion of financing receivable assets from the IESO in December 2017. This was funded with $601 million through a revolving warehouse facility (non-recourse to the Company), $519 million of equity injection from the Province and $60 million from OPG.
- The Company issued $800 million of debt to the OEFC and $500 million of Senior Notes under a Medium Term Note Program. The proceeds were partly used to refinance $900 million of debt owed to the OEFC and to fund OPG's portion of the Fair Hydro Trust financing receivable assets.

2018 Outlook

- OPG has planned capex of $2.1 billion for 2018, including approximately $1.2 billion for the Darlington Refurbishment.
- Cash flow from operations should see an improvement once 2018 rates are finalized. However, given the large capex program in place, DBRS expects a free cash flow deficit to persist for the year. The deficit is expected to be financed through cash on hand and through debt.
  - DBRS expects the Company's key credit metrics to remain stable in 2018, with the stronger earnings and cash flow to offset the higher debt load. The debt-to-capital ratio should also benefit from any equity injections from the Province to facilitate the Fair Hydro Plan.
- OPG sold its Lakeview GS facility in March 2018 for $275 million. The Company will make a one-time special distribution of the after-tax gain on the sale to the Province later in the year.

Long-Term Debt and Credit Facilities

(CAD millions)	Maturity	Dec. 31, 2017	Dec. 31, 2016
Notes payable to the OEFC	2018-2047	3,195	3,295
Medium Term Note Program	2027	500	0
UMH Energy Partnership 1	2041	181	184
PSS Generating Station Limited Partnership 2	2067	245	245
Lower Mattagami Energy Limited Partnership 1	2021-2052	1,595	1,795
Fair Hydro Trust 1	2019	601	0
Other		19	15
Subtotal		**6,336**	**5,534**
Less: Bond issuance fees		(17)	(14)
Less: Current portion		(398)	(1,103)
Total Long-Term Debt		**5,921**	**4,417**

1 Non-recourse 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.

- Most of the long-term debt issued at the parent level (approximately $3.195 billion) is held by the OEFC, which is wholly owned by the Province. As a result, DBRS does not expect any material refinancing risk.
- In 2017, OPG issued the following notes to the OEFC:
  - In February, $200 million was issued with a maturity date of 2047 and an effective interest rate of 4.12%.
  - In June, $100 million was issued with a maturity date of 2047 and an effective interest rate of 3.65%.
  - In August, $100 million was issued with a maturity date of 2047 and an effective interest rate of 3.86%.
  - In September, $400 million was issued with a maturity date of 2047 and an effective interest rate of 4.07%.
  - Proceeds were largely used to refinance $900 million of notes to the OEFC that matured throughout the year.
- In September 2017, OPG filed a $2 billion short form base shelf prospectus for a Medium Term Note Program.
  - In October 2017, the Company issued $500 million of senior notes with a maturity date of 2027 and an effective interest rate of 3.43%.
- 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 non-recourse 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 2018).
- LMELP repaid $200 million of notes in 2017 largely through its commercial paper program. The notes are secured by the assets of the project and are non-recourse to OPG.

Long-Term Debt and Credit Facilities (CONTINUED)

- The Fair Hydro Trust senior notes were issued under an $800 million two-year revolving warehouse facility. The notes are secured by the assets of the Fair Hydro Trust and are non-recourse to OPG.
  - In February 2018, the Fair Hydro Trust issued $500 million of senior notes, maturing in 2033, to repay the majority of the balance under the revolving warehouse facility. In April 2018, an additional $400 million of senior notes, maturing in 2038, was issued.

Maturity profile

As at December 31, 2017

(CAD millions)	2018	2019	2020	2021	2022	Thereafter	Total
Long-term debt	398	969	663	413	172	3,721	6,336
	6%	15%	10%	7%	3%	59%	100%

- DBRS notes that there is a slight concentration of debt maturing in 2019. However, this included $601 million drawn under a non-recourse facility for the Fair Hydro Trust, which was largely repaid in February 2018 through a note issuance.
  - OPG's maturity profile is otherwise fairly spread out.

Liquidity

Credit Facilities as at December 31, 2017

(CAD millions)	Maturity	Amount	Outstanding	Available
Committed credit facility - Tranche 1	20-May-22	500	100	400
Committed credit facility - Tranche 2	20-May-22	500	0	500
Short-term uncommitted credit facilities	Demand	468	390	78
Short-term uncommitted overdraft facilities	Demand	25	0	25
OEFC general corporate credit facility	31-Dec-18	2,350	800	1,550
Lower Mattagami River Project - Tranche 1 [1]	17-Aug-22	300	215	85
Lower Mattagami River Project - Tranche 2 [1]	17-Aug-18	100	0	100
UMH Energy Partnership credit facilities [1]	15-Oct-18	16	15	1
UMH Energy Partnership overdraft facilities [1]	15-Oct-18	8	0	8
Total		**4,267**	**1,520**	**2,747**

1 Non-recourse 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 CP program backed by two tranches of bank facilities (extended due dates of May 20, 2022). OPG had $100 million of CP outstanding as at December 31, 2017.
- As at December 31, 2017, OPG had issued $390 million of letters of credit, about $353 million of which was attributed to its supplementary pension plan.
- The Company has a separate credit facility provided by the OEFC, which DBRS views as adequate for working capital purposes. The facility was increased to $2,350 million from $700 million in 2017. $800 million was outstanding as at December 31, 2017.
- The LMELP and UMH facilities are used to support the respective projects and are non-recourse to OPG.

Company Profile

As at December 31, 2017

Generation Portfolio

	Percent (%)	Capacity (MW)
Nuclear		
Darlington	*16%*	2,634
Pickering A	*6%*	1,030
Pickering B	*13%*	2,064
	35%	**5,728**
Thermal		
Atikokan (Biomass)	*1%*	205
Thunder Bay (Biomass)	*1%*	153
Portlands Energy Centre 1	*2%*	275
Brighton Beach 1	*2%*	280
Lennox (Dual oil & gas)	*13%*	2,100
	19%	**3,013**
Hydroelectric		
Contracted 2	*6%*	1,042
Regulated	*40%*	6,426
	46%	**7,468**
Other (Wind) 3	*0%*	1
Total Capacity	***100%***	**16,210**

1 Represents OPG's share of in-service generation. 2 Includes plants under an ESA or a long-term contract with the IESO. 3 One wind-power turbine.

- OPG is the largest generator of electricity in Ontario.
- In 2017, OPG generated 74.1 terawatt hours of electricity with total in-service capacity of 16,210 MW as at December 31, 2017.
  - The reduction in generating capacity is largely attributed to Unit 2 of Darlington GS being taken offline in October 2016 as part of the Darlington Refurbishment.
- OPG partnerships consist of the following:
  - OPG and ATCO Power Canada Ltd. co-own the Brighton Beach GS, a 560-MW natural gas-fired generating station.
  - OPG and TransCanada Energy Ltd. jointly own the Portlands Energy Centre, a 550-MW natural gas-fired generating station.
  - 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).
  - 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.

Ontario Power Generation Inc.

(CAD millions)	December 31		
Assets	**2017**	**2016**	**2015**
Cash & equivalents	422	398	464
Accounts receivable	369	429	545
Inventories	412	410	440
Regulatory assets	0	0	628
Prepaid expenses & other	361	520	313
Total Current Assets	**1,564**	**1,757**	**2,390**
Net fixed assets	21,322	19,998	20,595
Intangibles	133	99	98
Financing receivables	1,179	0	0
Nuclear removal/waste mgmt. funds	16,701	15,960	15,121
Regulatory assets	7,231	5,855	5,240
Investments, materials & other	692	703	806
Total Assets	**48,822**	**44,372**	**44,250**

	December 31		
Liabilities & Equity	**2017**	**2016**	**2015**
S.T. borrowings	260	2	225
Accounts payable	1,228	1,164	1,199
Current portion L.T.D.	398	1,103	273
Regulatory liabilities	0	0	26
Deferred revenue & other	92	135	78
Total Current Liab.	**1,978**	**2,404**	**1,801**
Long-term debt	5,921	4,417	5,186
Deferred income taxes	879	829	880
Pension & post-retirement benefits	6,515	5,909	5,682
Nuclear removal/waste mgmt. funds	20,421	19,484	20,169
Regulatory liabilities	594	310	34
Payables & other L.T. liab.	603	511	453
Shareholders' equity	11,911	10,508	10,045
Total Liab. & SE	**48,822**	**44,372**	**44,250**

	For the year ended December 31				
Balance Sheet & Liquidity & Capital Ratios	**2017**	**2016**	**2015**	**2014**	**2013**
Current ratio	0.79	0.73	1.33	1.09	1.79
Total debt in capital structure	35.6%	34.4%	36.1%	37.7%	40.4%
Total debt in capital structure 1, 2, 3	26.2%	34.3%	35.8%	37.3%	40.8%
Cash flow/Total debt	26.8%	40.4%	31.4%	28.2%	27.4%
Cash flow/Total debt 1, 2	40.6%	40.6%	31.9%	28.7%	26.9%
(Cash flow - dividends)/Capex (times)	0.95	1.23	1.30	1.05	0.99
(Cash flow - n.w.f.)/Total debt 5	22.0%	32.7%	25.1%	22.1%	20.6%
Dividend payout ratio	0.0%	0.0%	0.0%	0.0%	0.0%
Coverage Ratios (times)					
EBIT gross interest coverage 4	(0.13)	(0.17)	(0.86)	0.24	(1.12)
EBIT gross interest coverage 2, 4	(0.24)	(0.14)	(0.86)	0.27	(1.05)
EBITDA gross interest coverage 4	2.17	4.05	2.89	2.75	2.21
Fixed-charges coverage 4	(0.13)	(0.17)	(0.86)	0.24	(1.12)
Profitability Ratios					
EBITDA margin 4	12.4%	21.4%	15.5%	16.6%	13.1%
EBIT margin 4	-0.7%	-0.9%	-4.6%	1.5%	-6.7%
Profit margin 4	-0.3%	-1.9%	-5.0%	1.8%	-5.4%
Return on equity 4	-0.1%	-1.0%	-2.8%	1.0%	-3.2%
Return on capital 1, 3, 4	0.5%	0.1%	-0.8%	1.4%	-1.0%

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

Rating History

Debt	Current	2017	2016	2015	2014	2013
Issuer Rating	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)
Unsecured rating	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)

Commercial Paper Limit

- $1.0 billion.

Previous Report

- Ontario Power Generation: Rating Report, May 5, 2017.

Notes:
All figures are in Canadian dollars unless otherwise noted.

For the definition of Issuer Rating, please refer to Rating Definitions under Rating Policy on www.dbrs.com.

Generally, Issuer Ratings apply to all senior unsecured obligations of an applicable issuer, except when an issuer has a significant or unique level of secured debt.

The DBRS group of companies consists of DBRS, Inc. (Delaware, U.S.)(NRSRO, DRO affiliate); DBRS Limited (Ontario, Canada)(DRO, NRSRO affiliate); DBRS Ratings Limited (England and Wales)(CRA, NRSRO affiliate, DRO affiliate); and DBRS Ratings México, Institución Calificadora de Valores S.A. de C.V. (Mexico)(CRA, NRSRO affiliate, DRO affiliate). Please note that DBRS Ratings Limited was registered as an NRSRO affiliate on July 14, 2017. For more information on regulatory registrations, recognitions and approvals, please see: http://www.dbrs.com/research/225752/highlights.pdf.

Rating Report

Ontario Power Generation Inc.

DBRS

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Insight beyond the rating.

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 5, 2019, DBRS Limited (DBRS) confirmed the Issuer Rating and the Unsecured Debt rating of Ontario Power Generation Inc. (OPG or the Company) at A (low) and the rating of the Company's Commercial Paper (CP) at R-1 (low). All trends are Stable. The ratings of OPG continue to be supported by (1) the reasonable regulatory regime in place for the Company's regulated generation facilities, (2) strong cash flow-to-debt and debt-to-capital ratios and (3) continuing financial support from its shareholder, the Province of Ontario (the Province; rated AA (low) with a Stable trend by DBRS). The Province, through its agent, the Ontario Electricity Financial Corporation (OEFC; rated AA (low) with a Stable trend by DBRS), provides most of OPG's financing (approximately 43% of consolidated debt). The Company's remaining debt includes project financing (31%), non-recourse debt issued by Fair Hydro Trust (Senior Notes rated AAA (sf), Under Review with Negative Implications by DBRS; 11%), CP (2%) and Senior Notes issued under the Medium Term Note Program (12%).

In March 2019, the Province introduced Bill 87, *Fixing the Hydro Mess Act, 2019*, which includes winding down the Fair Hydro Plan. OPG will remain the Financial Services Manager for the outstanding Fair Hydro Trust debt, which will become obligations of the Province. DBRS does not expect this development to have a material impact on the Company as (1) the Fair Hydro Trust debt will continue to be bankruptcy remote and ring-fenced from OPG (all debt is non-recourse to the Company) and (2) the credit rating on the Company's investment in the Subordinated Notes (rated AA (sf), Under Review with Negative Implications by DBRS) will likely remain investment grade while the Junior Subordinated Notes (rated A (sf), Under Review with Developing Implications by DBRS) will not necessarily be negatively affected by this change (see the DBRS press release dated March 26, 2019, titled "DBRS Maintains Fair Hydro Trust, Series 2018-1 and Series 2018-2 Notes Under Review" for more details).

OPG's key credit metrics improved in 2018, following the approval of its 2017–2021 rates application by the Ontario Energy Board (OEB) in December 2017. The Company's profitability strengthened significantly, with corporate return on equity (ROE) of 7.8% (adjusted for a $205 million gain on sale of property; 5.1% in 2017) closer to the regulatory allowed ROE of 8.78%. However, DBRS continues to view a positive rating action as unlikely in the short term because of the ongoing capex program, including the $12.8 billion Darlington Refurbishment project (the Darlington Refurbishment). A downgrade could occur should there be significant cost overruns with the Darlington Refurbishment that then result in stranded costs. DBRS notes that the Darlington Refurbishment is currently on budget and on schedule.

Financial Information

	For the year ended December 31				
	2018	**2017**	**2016**	**2015**	**2014**
Cash flow/Total debt 1, 2	45.0%	40.0%	40.6%	31.9%	28.7%
Total debt in capital structure 1, 2, 3	26.9%	26.2%	34.3%	35.8%	37.3%
EBIT gross interest coverage (times) 1, 2, 4	1.00	(0.24)	(0.14)	(0.86)	0.27
(Cash flow - n.w.f.)/Total debt 1, 2, 5	39.3%	33.7%	32.9%	25.4%	22.5%

1 Including operating leases. 2 Excludes non-recourse 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

Ontario Power Generation is an electricity-generating company with a diverse portfolio of over 16,000 megawatts 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, 2018, OPG had approximately $3.4 billion of notes payable to the OEFC, comprising 43% of the Company's outstanding debt. DBRS 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. DBRS additionally believes 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 50% of electricity produced in Ontario in 2018.

3. Reasonable regulatory framework

The reasonable regulatory framework has allowed the Company to recover prudently incurred costs; however, DBRS 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 (refer to the Regulation section for details). DBRS 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 relating to nuclear waste management liabilities has been capped at $5.94 billion (in 1999 dollar terms) for the initial 2.23 million used fuel bundles produced. The Company is, however, responsible for the incremental costs related to the management of used fuel bundles in excess of 2.23 million bundles (currently 2.68 million). The used fuel obligation is funded by the used fuel fund, which is substantially fully funded. 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 $2.1 billion planned for 2019). 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 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 generation because of its complex technology (approximately 55% of OPG's production in 2018). Financial implications of forced outages, especially with older units (e.g., the Pickering Nuclear Generating Station (GS)), are greater given the high fixed-cost nature of these plants as well as the fact that lost revenues resulting from outages are not recoverable through rates.

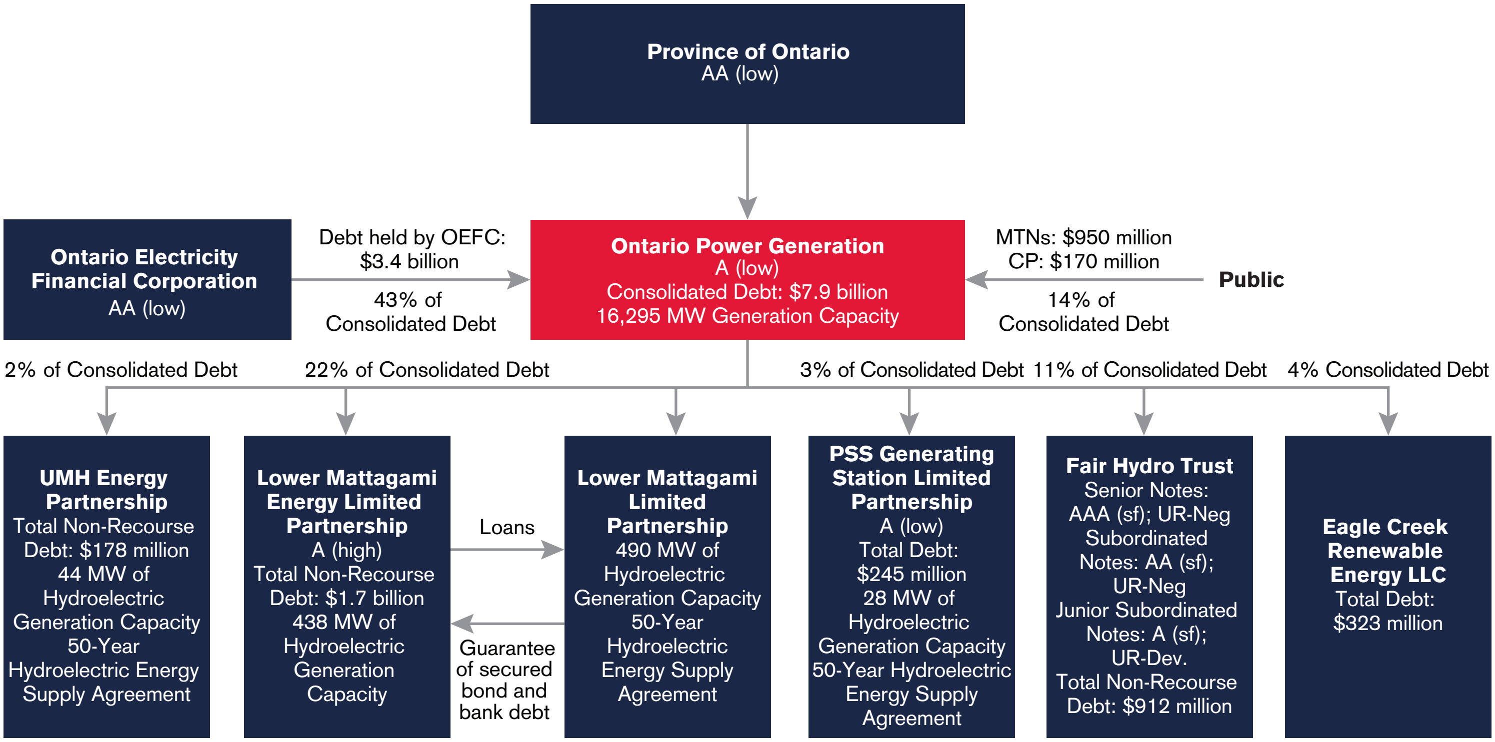
3. High cost base

OPG's high cost base has resulted in several disallowances by the OEB. For the most recent 2017–2021 rates decision, the OEB disallowed recovery of $100 million in the operations, maintenance and administration (OM&A) budget annually. DBRS 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 ROE. DBRS 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

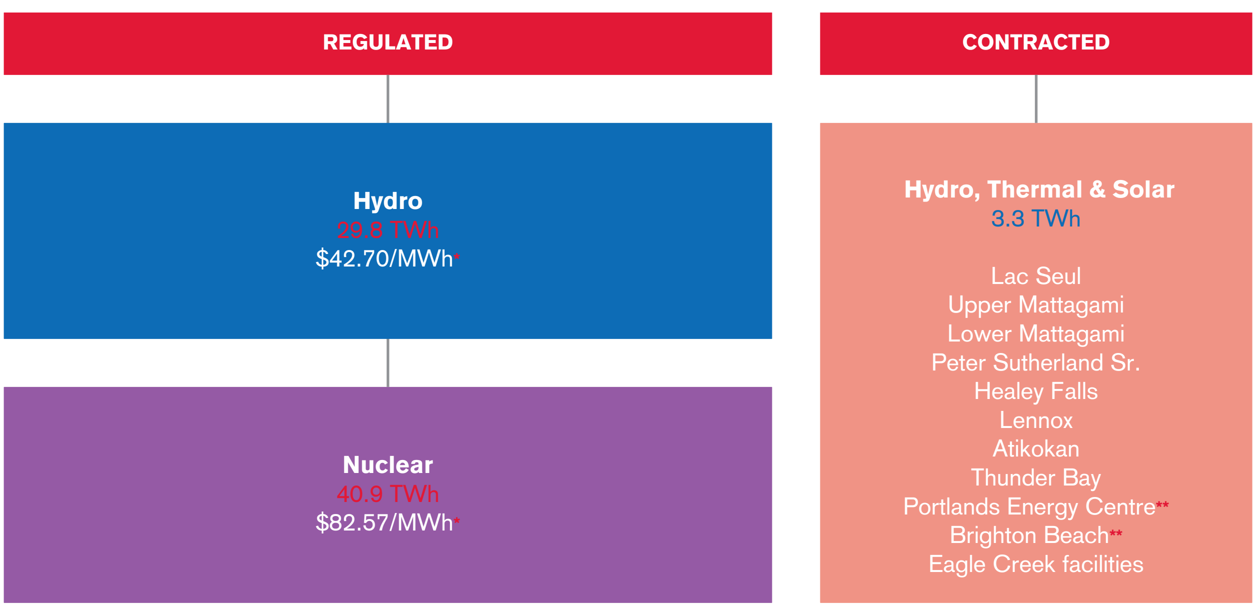
OPG is subject to political intervention, largely because of its ownership by the Province and changes in government mandates and policies. DBRS notes that though the Province has committed to having the Company run more autonomously, the risk of further government intervention still exists.

Simplified Organizational Chart



As of December 31, 2018.

OPG's Price Structure



* Rates as of December 31, 2018.
** 50% ownership interest.

For the year ended December 31, 2018.

OPG's Price Structure (CONTINUED)

- 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 Generation Portfolio includes (1) assets in Ontario that sell electricity at prices set through Energy Supply Agreements or other long-term contracts with the Independent Electricity System Operator (IESO); and (2) Eagle Creek Renewable Energy LLC (Eagle Creek), which holds interest in 76 hydroelectric GS and two solar facilities throughout the United States.
  - The Eagle Creek 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, 2018 (CAD millions)	In-Service Target Date
Darlington Refurbishment	12,800	5,513	2026*
Ranney Falls Hydroelectric GS	77	57	2019
Nanticoke Solar Facility	107	89	2019**

* Four units with staged in-service. Last unit scheduled to be completed by 2026. ** Completed in March 2019.

- **Darlington Refurbishment:** The Darlington Refurbishment will extend the operating life of the Darlington Nuclear GS by approximately 30 years. The execution of the refurbishment for the first unit began in October 2016 and the last unit is scheduled to be completed by 2026. The project is currently on schedule and on budget.
- **Ranney Falls Hydroelectric GS:** The Ranney Falls Hydroelectric GS project will replace an existing generation unit at Ranney Falls with a ten megawatt (MW) single-unit powerhouse. Construction commenced in 2017 and is currently on schedule and on budget.
- **Nanticoke Solar Facility:** The Nanticoke Solar Facility is a 44 MW solar facility near the Nanticoke GS. Site preparation commenced in March 2018, with the project completed on schedule and on budget in March 2019.
- OPG additionally acquired Eagle Creek in November 2018 for USD 298 million. DBRS views the business risk profile of Eagle Creek to be weaker than OPG as it is not regulated and not all of its facilities operate under long-term contracts, resulting in higher volume and price risk. However, DBRS does not expect the acquisition to have a material impact on the Company's overall business and financial risk assessment as its 226 MW capacity represents only around 1% of OPG's total generating capacity.

Regulation

- OPG benefits from a reasonable regulated environment. As at December 31, 2018, approximately 75% 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 (6,426 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 for 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 application to potentially recover any material and

Regulation (CONTINUED)

necessary prudently spent incremental capex during the IR period of five years. Additionally, the Company could 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 approach, but with a stretch factor of 0.6% applied to the Company's OM&A expenditures. The reduction to 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 2022–2026, over a ten-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 for a mid-term review (prior to July 1, 2019) to update the nuclear production forecast.
- The OEB approved for the inclusion of $5.5 billion into 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 for the recovery of balances as at December 31, 2017, in OPG's deferral and variance accounts.

Earnings and Outlook

(CAD millions where applicable)	2018	2017	2016	2015	2014
	For the year ended December 31				
Revenues	5,537	5,158	5,653	5,476	4,963
EBITDA 1	1,017	642	1,207	848	826
EBIT 1	233	(37)	(50)	(252)	72
Gross interest expense	301	296	298	293	300
Earning before taxes 1	225	(92)	(116)	(407)	36
Net income before non-recurring items 1	361	(14)	(106)	(271)	88
Reported net income	1,195	860	436	402	804
Return on equity	2.9%	-0.1%	-1.0%	-2.8%	1.0%
Hydroelectric rate base	N/A	N/A	7,447	7,490	7,526
Nuclear rate base	3,607	3,628	3,573	3,655	3,714
Approved regulated ROE	8.78%	8.78%	9.19%	9.30%	9.36%
Achieved regulated ROE	N/A	N/A	3.80%	2.67%	6.32%

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

2018 Summary

- EBITDA and EBIT increased significantly in 2018 largely because of the December 2017 approval of new rates by the OEB in a payment order dated March 2018 and effective June 1, 2017. EBITDA also benefitted from a full year's earnings from the Peter Sutherland Sr. GS, which was placed in service March 2017, and contributions from Eagle Creek, which was acquired in November 2018.
  - This was partly offset by (1) higher depreciation from the growing asset base and (2) higher hydroelectric foregone generation and outages compared with 2017.
- Tracking the stronger EBIT for the year, net income before non-recurring items also increased significantly in 2018. OPG also reported a corporate ROE of 9.5%. Excluding an after-tax $205 million gain on sale of the Lakeview GS site, this corporate ROE would still be at 7.8%, a large improvement from the adjusted 5.1% corporate ROE in 2017.
  - ROE of 7.8% would also be more in line with the allowed regulated ROE of 8.78%. DBRS notes the difference can be partly attributed to OPG's capitalization at around 35% versus the regulatory capital structure of 55% debt.

2019 Outlook

- Earnings for OPG are expected to remain relatively stable in 2019.
  - Effective January 1, 2019, base rates for the hydroelectric generation segment increased by 1.1%. Rates for the nuclear generation segment will increase as per the Custom IR decision.
- DBRS does not expect legislative changes to the Fair Hydro Plan by the Province to have a material financial impact on OPG. The Company is expected to continue to collect interest from its investment in the Fair Hydro Trust. DBRS notes that earnings from Fair Hydro Trust in 2018 were $27 million, increasing to $30 million in 2019 until the notes mature.
- 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

(CAD millions where applicable)	For the year ended December 31 2018	2017	2016	2015	2014
Net income before non-recurring items 4	361	(14)	(106)	(271)	88
Depreciation & amortization	784	679	1,257	1,100	754
Deferred income taxes and other	1,060	1,070	1,081	956	775
Cash flow (bef. working cap. changes)	**2,205**	**1,735**	**2,232**	**1,785**	**1,617**
Nuclear waste funding	(307)	(313)	(425)	(361)	(351)
Dividends paid	(283)	0	0	0	0
Capital expenditures	(1,826)	(1,853)	(1,816)	(1,376)	(1,545)
Free cash flow (bef. working cap. changes)	**(211)**	**(431)**	**(9)**	**48**	**(279)**
Changes in non-cash working cap. items	(160)	80	180	(129)	212
Change in regulatory assets/liabilities	(51)	(558)	(170)	170	(45)
Net free cash flow	**(422)**	**(909)**	**1**	**89**	**(112)**
Long-term investments	(358)	0	(213)	(180)	0
Proceeds on asset sales	289	554	110	3	0
Acquisition of Fair Hydro Trust receivables	(609)	(1,179)	0	0	0
Change in Fair Hydro Trust debt	306	601	0	0	0
Net equity change	268	519	0	0	0
Net debt change	622	458	(162)	(33)	165
Other	(17)	4	(14)	(25)	(5)
Change in cash	**79**	**48**	**(278)**	**(146)**	**48**
Total debt	7,878	6,579	5,522	5,684	5,730
Total debt 2	4,730	4,053	5,340	5,499	5,543
Cash & equivalents	349	418	398	464	610
Cash flow/Total debt 1, 2	45.0%	40.0%	40.6%	31.9%	28.7%
Total debt in capital structure 1, 2, 3	26.9%	26.2%	34.3%	35.8%	37.3%
EBIT gross interest coverage (times) 1, 2, 4	1.00	(0.24)	(0.14)	(0.86)	0.27
(Cash flow - n.w.f.)/Total debt 1, 2, 5	39.3%	33.7%	32.9%	25.4%	22.5%
Dividend payout ratio	78.4%	0.0%	0.0%	0.0%	0.0%

1 Including operating leases. 2 Excludes non-recourse 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 (NWF) payments as they are not discretionary.

2018 Summary

- OPG's key credit metrics exclude non-recourse debt from UMH Energy Partnership (UMH; recourse released in 2014), Lower Mattagami Energy Limited Partnership (LMELP; rated A (high) with a Stable trend by DBRS; recourse released in 2017), Fair Hydro Trust and Eagle Creek.
  - The Company's cash flow-to-debt and debt-to-capital ratios remained strong in 2018, tracking the increase in earnings and cash flows. Additionally, the EBIT-interest coverage ratio improved significantly because of the stronger results for the year.
- Cash flow from operations increased largely because of the new regulated prices in place beginning March 2018.
- Capex remained elevated at $1.8 billion as OPG continued work on the Darlington Refurbishment.
- While the Company is not expected to make dividend payments to the Province during this period of high capex requirements, a special dividend was declared to transfer proceeds from the sale of the head office premises and associated parking facility to the Province.
- Long-term investments of $358 million represent the acquisition of Eagle Creek, which was completed in November 2018.
- Proceeds on asset sales largely represent the sale of the Lakeview GS site.
- The Fair Hydro Trust acquired $609 million of financing receivable assets from the IESO in 2018. This was funded with $306 million through a revolving warehouse facility (non-recourse to the Company), $268 million of equity injection from the Province and $35 million from OPG.

Financial Profile (CONTINUED)

- Fair Hydro Trust issued $900 million of debt in 2018 to repay the revolving warehouse facility.

- The Company issued $600 million of debt to the OEFC and $450 million of Senior Notes under a Medium Term Note Program. The proceeds were partly used to refinance $395 million of debt owed to the OEFC and to fund OPG's portion of the Fair Hydro Trust financing receivable assets.

2019 Outlook

- OPG has planned capex of $2.1 billion for 2019, including approximately $1.3 billion for the Darlington Refurbishment.
- Cash flow from operations is expected to see a modest increase for the year, tracking the overall expected higher regulated rates.
  - With no distributions expected in 2019, the Company should see a positive net free cash flow. As such, DBRS expects the Company's key credit metrics to strengthen modestly for the year.
- In February 2019, OPG issued $500 million of Senior Notes under its Medium Term Note Program. Proceeds from the offering were used partly to fund the Eagle Creek acquisition.

Long-Term Debt and Credit Facilities

(CAD millions)	Maturity	Dec. 31, 2018	Dec. 31, 2017
Notes payable to the OEFC	2019–2048	3,400	3,195
Medium Term Note Program	2027–2048	950	500
UMH Energy Partnership 1	2041	178	181
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	900	601
Eagle Creek 1	2025–2030	323	0
Other		21	19
Subtotal		**7,612**	**6,336**
Less: Fair value discount		(31)	0
Less: Bond issuance fees		(25)	(17)
Less: Current portion		(368)	(398)
Total long-term debt		**7,188**	**5,921**

1 Non-recourse 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.

- 78% of the long-term debt issued at the parent level ($3.4 billion of $4.35 billion) is held by the OEFC, which is wholly owned by the Province. As a result, DBRS does not expect any material refinancing risk.
- In 2019, OPG issued $600 million of senior notes to the OEFC with a maturity date of 2048 and effective interest rates ranging from 3.87% to 4.00%.
  - Proceeds were partly used to repay $395 million of notes to the OEFC that matured or will mature throughout the year.
- In June 2018, OPG issued $450 million of senior notes with a maturity date of 2048 and an effective interest rate of 3.84% under its Medium Term Note Program.
  - In February 2019, the Company issued $500 million of senior notes with a maturity date of 2049 and an effective interest rate of 4.25%.
- 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 non-recourse 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 non-recourse to OPG.

Long-Term Debt and Credit Facilities (CONTINUED)

- Fair Hydro Trust senior notes are secured by the assets of the Fair Hydro Trust and are non-recourse to OPG.
  - In February 2018, Fair Hydro Trust issued $500 million of senior notes, maturing in 2033, to repay the majority of the balance under the revolving warehouse facility. In April 2018, an additional $400 million of senior notes, maturing in 2038, was issued.
- OPG assumed $323 million of long-term debt upon acquiring Eagle Creek. The notes are secured by assets of Eagle Creek and are non-recourse to the Company.

Maturity Profile
As at December 31, 2018

(CAD millions)	2019	2020	2021	2022	2023	Thereafter	Total
Long-term Debt	690	663	416	177	46	5,942	**7,934**
	9%	8%	5%	2%	1%	75%	**100%**

- OPG's maturity profile is fairly spread out.

Liquidity

Credit Facilities as at December 31, 2018

(CAD millions)	Maturity	Amount	Outstanding	Available
Committed credit facility - Tranche 1	20-May-23	500	170	330
Committed credit facility - Tranche 2	20-May-23	500	0	500
Short-term uncommitted credit facilities	Demand	476	404	72
Short-term uncommitted overdraft facilities	Demand	25	0	25
Lower Mattagami River Project - Tranche 1 1	17-Aug-23	300	195	105
Lower Mattagami River Project - Tranche 2 1	17-Aug-19	100	0	100
UMH Energy Partnership credit facilities 1	15-Oct-19	16	15	1
UMH Energy Partnership overdraft facilities 1	15-Oct-19	8	0	8
Total		**1,925**	**784**	**1,141**

1 Non-recourse 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 CP program backed by two tranches of bank facilities (extended due dates of May 20, 2023). OPG had $170 million of CP outstanding as at December 31, 2018.
- As at December 31, 2017, OPG had issued $404 million of letters of credit, about $364 million of which was attributed to its supplementary pension plan.
- The Company's $2,350 million credit facility provided by the OEFC matured at December 31, 2018. The Company is currently working with the OEFC for a new facility.
- The LMELP and UMH facilities are used to support the respective projects and are non-recourse to OPG.

Company Profile

As at December 31, 2018

Generation Portfolio

	Percent (%)	Capacity (MW)
Nuclear		
Darlington	*16%*	2,634
Pickering A	*6%*	1,030
Pickering B	*13%*	2,064
	35%	**5,728**
Thermal		
Atikokan (Biomass)	*1%*	205
Portlands Energy Centre 1	*2%*	275
Brighton Beach 1	*2%*	280
Lennox (Dual oil & gas)	*13%*	2,100
	18%	**2,860**
Hydroelectric		
Contracted 2	*8%*	1,280
Regulated	*39%*	6,426
	47%	**7,706**
Other (Wind) 3	*0%*	1
Total Capacity	**100%**	**16,295**

1 Represents OPG's share of in-service generation. 2 Includes plants under an ESA or a long-term contract. 3 One wind-power turbine.

- OPG is the largest generator of electricity in Ontario.
- In 2018, OPG generated 74.0 terawatt hours of electricity with total in-service capacity of 16,295 MW as at December 31, 2018.
  - The increase in generating capacity is largely attributed Eagle Creek, offset by the closure of the Thunder Bay biomass GS.
- OPG partnerships consist of the following:
  - OPG and ATCO Power Canada Ltd. co-own the Brighton Beach GS, a 560 MW natural gas-fired generating station.
  - OPG and TransCanada Energy Ltd. jointly own the Portlands Energy Centre, a 550 MW natural gas-fired generating station.
  - 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).
  - 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 (in service March 2019), with OPG owning 80% of the facility.

Ontario Power Generation Inc.

(CAD millions)	December 31				December 31		
Assets	**2018**	**2017**	**2016**	**Liabilities & Equity**	**2018**	**2017**	**2016**
Cash & equivalents	349	418	398	S.T. borrowings	322	260	2
Accounts receivable	483	369	429	Accounts payable	1,161	1,228	1,164
Inventories	397	412	410	Current portion L.T.D.	368	398	1,103
Regulatory assets	490	0	0	Regulatory liabilities	36	0	0
Prepaid expenses & other	419	365	520	Deferred revenue & other	46	92	135
Total Current Assets	**2,138**	**1,564**	**1,757**	**Total Current Liab.**	**1,933**	**1,978**	**2,404**
Net fixed assets	22,987	21,322	19,998	Long-term debt	7,188	5,921	4,417
Intangibles	363	133	99	Deferred income taxes	1,018	879	829
Financing receivables	1,788	1,179	0	Pension & post-retirement benefits	6,339	6,515	5,909
Nuclear removal/waste mgmt. funds	17,464	16,701	15,960	Nuclear removal/waste mgmt. funds	21,225	20,421	19,484
Regulatory assets	6,769	7,231	5,855	Regulatory liabilities	762	594	310
Investments, materials & other	743	692	703	Payables & other L.T. liab.	660	603	511
				Shareholders' equity	13,127	11,911	10,508
Total Assets	**52,252**	**48,822**	**44,372**	**Total Liab. & SE**	**52,252**	**48,822**	**44,372**

Balance Sheet & Liquidity & Capital Ratios	For the year ended December 31				
	2018	**2017**	**2016**	**2015**	**2014**
Current ratio	1.11	0.79	0.73	1.33	1.09
Total debt in capital structure	37.5%	35.6%	34.4%	36.1%	37.7%
Total debt in capital structure 1, 2, 3	26.9%	26.2%	34.3%	35.8%	37.3%
Cash flow/Total debt	28.0%	26.4%	40.4%	31.4%	28.2%
Cash flow/Total debt 1, 2	45.0%	40.0%	40.6%	31.9%	28.7%
(Cash flow - dividends)/Capex (times)	1.05	0.94	1.23	1.30	1.05
(Cash flow - n.w.f.)/Total debt 1, 2, 5	39.3%	33.7%	32.9%	25.4%	22.5%
Dividend payout ratio	78.4%	0.0%	0.0%	0.0%	0.0%
Coverage Ratios (times)					
EBIT gross interest coverage 4	0.77	(0.13)	(0.17)	(0.86)	0.24
EBIT gross interest coverage 1, 2, 4	1.00	(0.24)	(0.14)	(0.86)	0.27
EBITDA gross interest coverage 4	3.38	2.17	4.05	2.89	2.75
Fixed-charges coverage 4	0.77	(0.13)	(0.17)	(0.86)	0.24
Profitability Ratios					
EBITDA margin 4	18.4%	12.4%	21.4%	15.5%	16.6%
EBIT margin 4	4.2%	-0.7%	-0.9%	-4.6%	1.5%
Profit margin 4	6.5%	-0.3%	-1.9%	-5.0%	1.8%
Return on equity 4	2.9%	-0.1%	-1.0%	-2.8%	1.0%
Return on capital 1, 3, 4	2.2%	0.5%	0.1%	-0.8%	1.4%

1 Including operating leases. 2 Excludes non-recourse debt. 3 Adjusted for accumulated other comprehensive income. 4 Excluding earnings from nuclear fixed-asset removal and nuclear waste management funds. 5 Includes NWF payments as they are not discretionary.

Rating History

Debt	Current	2018	2017	2016	2015	2014
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)

Commercial Paper Limit

- $1.0 billion.

Previous Report

- Ontario Power Generation: Rating Report, April 26, 2018.

Notes:
All figures are in Canadian dollars unless otherwise noted.

For the definition of Issuer Rating, please refer to Rating Definitions under Rating Policy on www.dbrs.com.

Generally, Issuer Ratings apply to all senior unsecured obligations of an applicable issuer, except when an issuer has a significant or unique level of secured debt.

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MORNINGSTAR | DBRS

Rating Report
Ontario Power Generation Inc.

DBRS Morningstar
April 16, 2020

Contents

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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

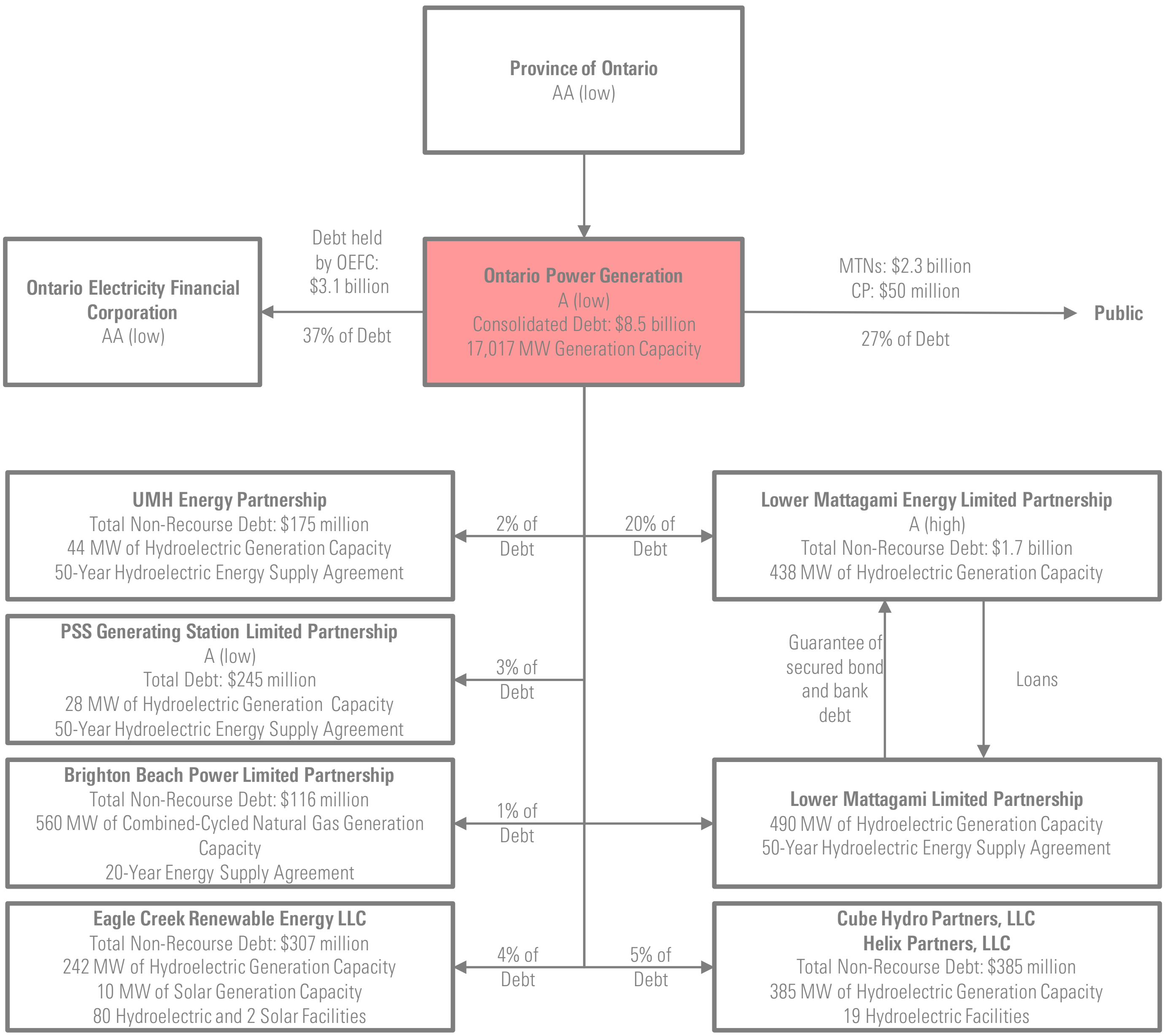
OPG is subject to political intervention, largely because of its ownership by the Province and changes in government mandates and policies. DBRS Morningstar notes that though the Province has committed to having the Company run more autonomously, the risk of further government intervention still exists. 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



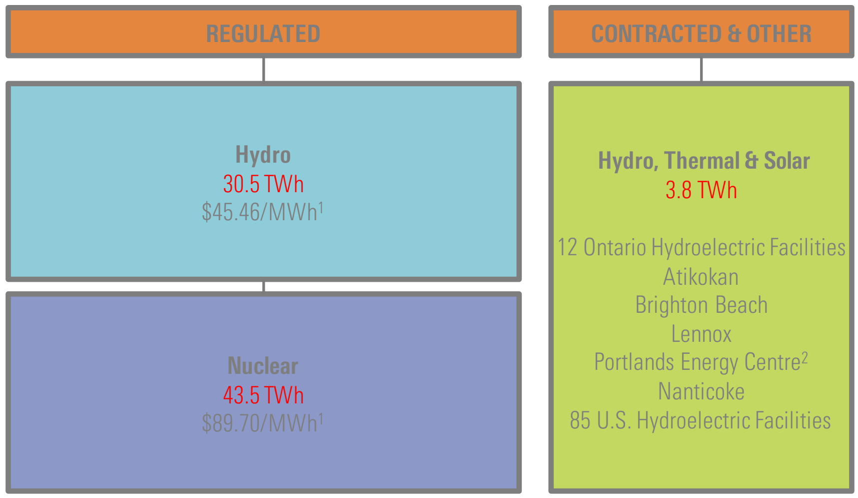
As of December 31, 2019.

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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MOODY'S
INVESTORS SERVICE

CREDIT OPINION
4 December 2019

Update

Rate this Research

RATINGS

Ontario Power Generation Inc.

Domicile	Ontario, Canada
Long Term Rating	A3
Type	Senior Unsecured - Dom Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Ontario Power Generation Inc.

First-time rating on Ontario based generation company

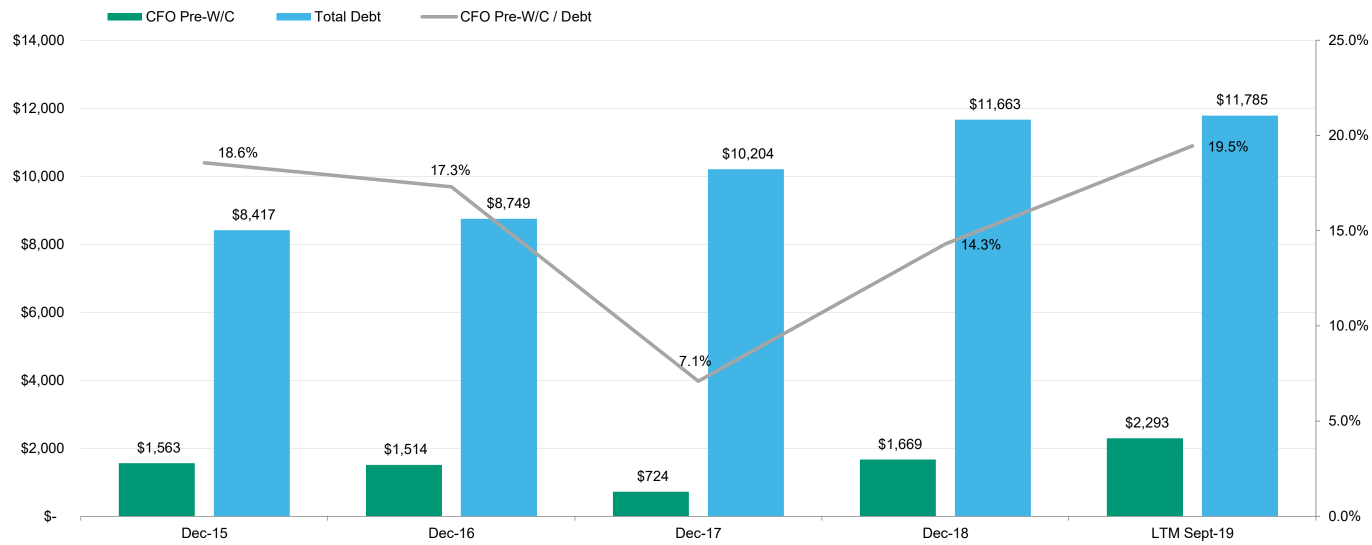
Summary

OPG's A3 rating reflects a baseline credit assessment (BCA) of baa3 with a 3 notch uplift based on high dependence and a high probability of extraordinary support from the Province of Ontario (Aa3 stable).

OPG's baa3 BCA benefits from its substantial regulated nuclear and hydroelectric operations that are expected to generate the vast majority of its relatively stable cash flow. OPG's contracted assets generally benefit from long contract tenors and a strong counterparty in the Ontario Independent Electricity System Operator (IESO, Aa3 stable) to which the majority of assets are contracted and pass through most of their costs. The company also has diversification benefits across its extensive fleet. Offsetting these strengths, the company is exposed to availability risk across its fleet of generation assets, and some hydrology risk. While small, its merchant generation segment is growing as a result of several 100% debt financed acquisitions and the potential remains for further debt financed M&A activity. Nonetheless, we expect the company's CFO Pre-W/C to debt metric to be sustained in the 13-17% range. The company is also pursuing a CAD12.8 billion nuclear refurbishment project across 4 units at its Darlington nuclear generation station that carries a very high level of execution risk.

OPG is 100% owned by the Province and is considered a government related issuer (GRI) under our GRI methodology. The three notch uplift attributed to OPG as a GRI incorporates our expectation of an enduring link between OPG and the Province. Our high support assumption considers that OPG produces more than half of the power generated in the Province at a comparatively low cost, making its infrastructure essential to the Ontario economy. OPG also implements government policy, its board is appointed by the Province and through the Ontario Electricity Financial Corporation (OEFC, Aa3 stable), it is a source of debt financing. Our assessment of high default dependence reflects that both OPG and the Province largely rely on the same revenue base and share some political risks.

Exhibit 1
Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt ($ MM)



Source: Moody's Financial Metrics

Credit strengths

» Primarily regulated generation facilities support stable cash flow generation

» Non-regulated segment dominated by long term contracts

» Our expectation of support from the Province of Ontario given its 100% ownership

» Diversification benefits by both generating station and fuel source

Credit challenges

» Financial metrics pressured by 3 debt financed acquisitions with the potential for further debt financed M&A

» CAD12.8 billion nuclear refurbishment project is underway that has a very high level of execution risk

» Growing unregulated segment that has more risk

» Availability risk across the fleet, low levels of hydrology and related risks

Rating outlook

The stable outlook incorporates the following expectations:

» The company continues to execute the Darlington nuclear refurbishment on time and budget

» CFO pre-WC/debt remains in the 13-17% range

» The relationship with the Province remains stable and supportive

Factors that could lead to an upgrade

» A material improvement in financial metrics such that CFO pre-WC/debt is sustained above 20%

» An improvement in regulatory outcomes or business risk profile

Factors that could lead to a downgrade

» Challenges executing the Darlington nuclear refurbishment

» A weakening of the business risk profile by for example by further growing the merchant segment

» A reduction in the probability of support from the Province

» A deterioration in financial metrics such that CFO pre-WC/debt is forecast to decline below 12% on a sustained basis

Key indicators

Exhibit 2

Rating Factors

Ontario Power Generation Inc.

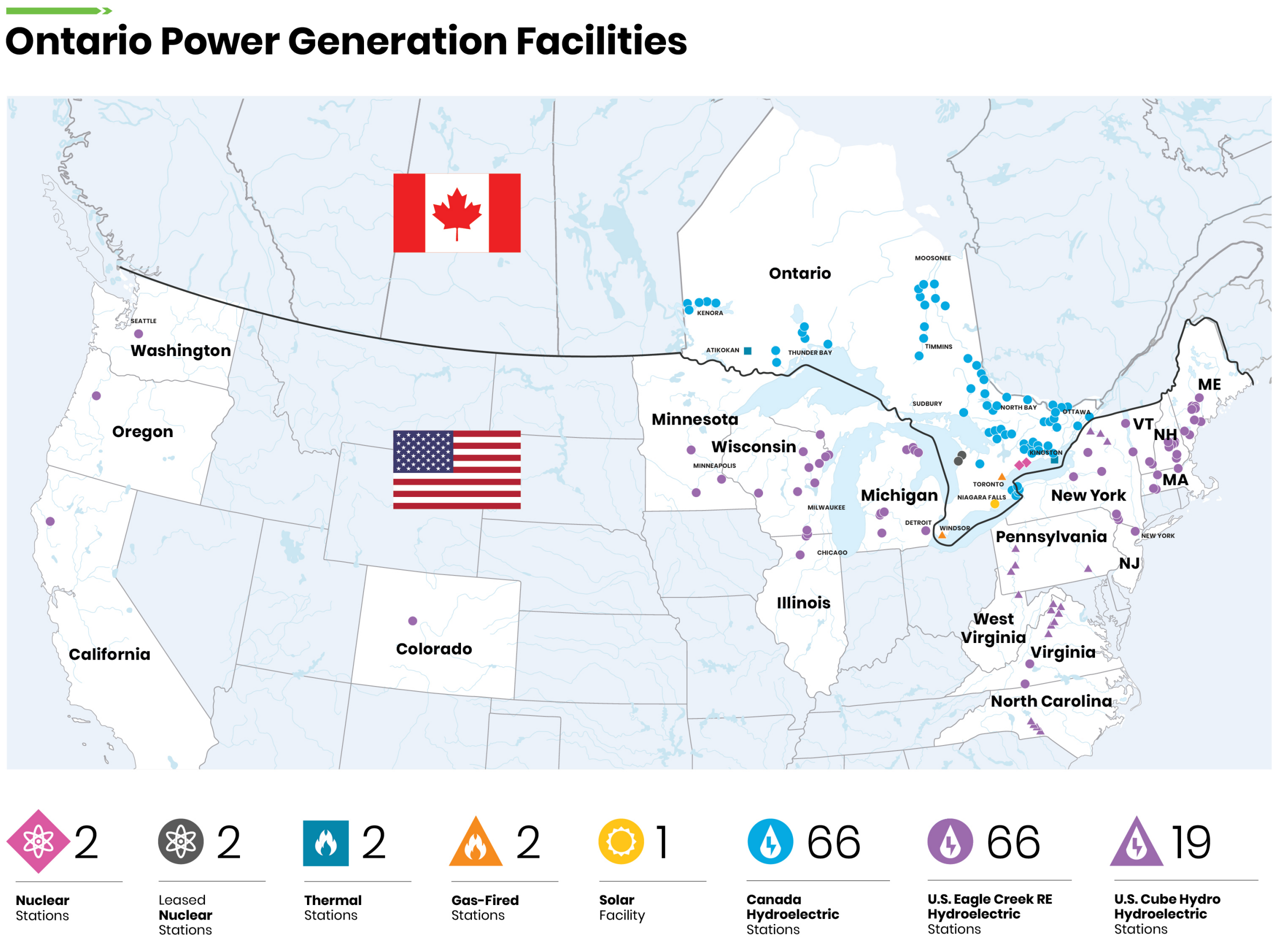
	Dec-15	Dec-16	Dec-17	Dec-18	LTM Sept-19
CFO Pre-W/C + Interest / Interest	4.8x	4.9x	2.8x	4.7x	6.4x
CFO Pre-W/C / Debt	18.6%	17.3%	7.1%	14.3%	19.5%
CFO Pre-W/C – Dividends / Debt	18.4%	17.1%	7.0%	11.7%	19.3%
Debt / Capitalization	43.8%	43.9%	44.7%	45.6%	44.1%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 9/30/2019 (L)
[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics

Profile

Headquartered in Toronto, Ontario, OPG is an electricity generation company wholly owned by the Province with an in-service generating capacity of 16,629MW at Sept 30, 2019 . At that time OPG owned and operated 72 generating stations, 2 of which are nuclear, 66 hydroelectric, 3 thermal and 1 solar facility in Ontario, Canada. In the US, OPG also owns and operates 65 hydroelectric stations and has interests in 14 other hydroelectric and 2 solar facilities through Eagle Creek Renewable Energy, LLC (Eagle Creek, not rated) acquired in November 2018 with approximately 226 MW of in-service capacity at December 31, 2018. OPG's nuclear and most of its hydroelectric facilities are regulated by the Ontario Energy Board (OEB). On October 7 the company acquired Cube Hydro with 385MW of capacity.

Exhibit 3
OPG's service territory



Source: OPG

Detailed credit considerations

Primarily regulated and contracted assets generate predictable cash flow

OPG's strong business risk profile is driven by its high proportion of regulated and contracted cash flow. Regulated earnings from OEB rate regulated assets will decline from FYE 2018 reported levels of about 80% of EBITDA towards 70% in 2020. Contracted assets will increase from about 19% to the low 20% range while higher risk US assets that are primarily merchant plants will increase from a negligible amount in 2018 to about 5%. Changes in the EBITDA mix are primarily driven by recent M&A activity. The company has extensive diversity by business line and within each segment that reduces volatility. It also has some hydrology risk, albeit low, and negligible levels of commodity price risk, a key credit positive. Unlike most other regulated utilities, OPG owns generating assets only and does not have any lower risk transmission and distribution assets. As a result, as a higher risk generation company, OPG is exposed to availability risks on all of its assets.

The company's regulated assets should provide reasonably stable cash flow going forward. A multi-year rate decision from 2017-2021 establishes prices for the regulated nuclear and hydroelectric assets.

The nuclear generation facilities are regulated by a custom incentive regulation decision that was issued in December 2017. It establishes prices for generation and incorporates a step up in rate base, that is reflected in higher rates, with the completion of the first unit refurbishment at the Darlington nuclear generation station. Rates in the first half of 2017 of $59.29 MWh grew to $77.96 in the second half of the year and will reach $95.83 (inclusive of rate riders and variance accounts) in 2021 which should drive growth in earnings. Nuclear rate base is allowed an ROE of 8.8% and hydroelectric 9.3% and both have equity capital of 45%. However, achieving the allowed ROE in the nuclear segment could be challenging given an OM&A cost disallowance of about CAD100 million primarily for performance and compensation when benchmarked to comparators. The segment also benefits from diversification across 2 nuclear generating stations with 4 and 6 operating reactors respectively that enable the company to maintain high levels of generation and cash flow while undertaking the nuclear refurbishment. The shutdown of the Pickering nuclear generating station in 2024 will reduce diversity and, with fewer operating nuclear units, heighten the impact of any unplanned outages.

The regulated hydroelectric facilities includes 54 generating stations in Ontario across a number of river systems with prices established by incentive rate mechanism. Regulated prices for the period beginning after June 1, 2017 are calculated annually and use a base regulated price escalated with an OEB approved formula for inflation less a 0% productivity factor adjustment and a -0.3% stretch factor adjustment.

The regulated segments are challenged by rate case and cash flow lag. The last rate decision was published in December 2017 with a payments amount order issued on March 29, 2018, well after the 2017-2021 period had begun. Regulated prices prior to June 1, 2017 were established in the fourth quarter of 2014. The company frequently has regulatory assets and liabilities which may take several years to be recovered, leading to some cash flow variability.

The contracted and other generating segment consists of lower risk contracted assets in Ontario and higher risk, primarily merchant US based assets that the company has been acquiring. Acquisitions may double the EBITDA of the segment in 2020.

Ontario based assets are all under contract on generally favorable terms and almost all of the contracts are with the IESO. The largest of these is the project financed Lower Mattagami Energy Limited Partnership (A2 stable) which contributes almost two thirds of the segment's EBITDA. It, and other contracted hydro facilities like it, including UMH Energy Partnership (A2 stable), have strong contract terms which include limited hydrology risk and contract expiries over the period 2059-2067. The Ontario thermal plants in this segment have substantial capacity, but are largely peaking facilities and have very low levels of generation. They are primarily compensated based on their availability and have cost pass through provisions, however they have much shorter contract tenors.

The Ontario CCGT plants being acquired have a similar risk profile as the existing thermal fleet in Ontario. A key hurdle to closing the transaction is the successful completion of the Napanee 900MW CCGT which has a 20 year contract from the IESO. TC Energy has experienced difficulties completing the project on time and budget as the cost estimate is now CAD1.8 billion, up from CAD1.1 billion, and the in-service date has slipped from 2018 to commercial in service late in the first quarter of 2020. Key closing terms of the transaction relate to commercial in-service and associated performance testing of this asset. The US assets, which consist of Eagle Creek and the acquisition of Cube Hydro that closed Oct 2019, have some contracts, but are primarily merchant assets with substantially more risk than the rest of the portfolio.

Exhibit 4

Asset acquired	Capacity (MW)	Fuel feedstock	Announcement date	Closing date	Enterprise value (CAD billion)	Acquisition Price (CAD billion)	Assumed debt (CAD billion)
Ontario CCGT	1858	Natural Gas	30-Jul-19	Q1 2020	2.9	2.9	0
Cube Hydro	385	Hydro	25-Jun-19	Oct-19	1.5	0.0	ND [2]
Eagle Creek	226 [1]	76 hydro 2 solar plants	9-Aug-18	Nov-18	0.7	0.4	0.3

[1] 226MW at FYE 2018.
[2] The amount of assumed debt has not been publicly disclosed.
Source: Company filings

Darlington refurbishment carries a very high level of execution risk

Also weighing on the company's' business risk profile is the undergoing nuclear refurbishment at the Darlington Generation Station, which is forecast to cost CAD12.8 billion and take about a decade to refurbish all 4 units. The first refurbished unit is expected to return to service in the second quarter of 2020. While the refurbishment of the first unit is about a quarter behind schedule, management believes that the overall cost and schedule to complete all 4 units remains on target. The next unit refurbishment will be slightly delayed so that overall nuclear generation levels will not be significantly affected, limiting the impact on cash flow. The last regulatory decision incorporated the forecasted Unit 2 spending into rate base, so it will already be reflected in both rate base and revenues without the need to file a rate case in 2020.

Exhibit 5

Darlington	Capacity	Refurbishment start date	Refurbishment completion date
Unit 2	878	Oct-16	Q2 2020
Unit 3	878	2020	2023
Unit 1	878	2021	2024
Unit 4	878	2023	2026

Source: Company filings

Financial metrics pressured by 3 debt financed acquisitions

We expect CFO pre-WC/Debt to be in the range of 13-17% over the next few years while the company moves forward with the debt financed acquisition of Cube Hydro (unrated), which closed on October 7, 2019, and the thermal assets from TC Energy Inc. Collectively, these transactions reflect an enterprise value of CAD5 billion that we expect to be debt financed, placing pressure on financial metrics. The company closed the smallest acquisition, Eagle Creek, in November of 2018. Further debt financed M&A remains a risk, although management has indicated that they plan to focus on their existing assets.

We expect internally generated cash flow to fund the capital program, which is primarily centered on the Darlington refurbishment. The company seldom pays dividends with the only dividends paid connected to asset sales (property sales, not generation facilities) that it was directed to make by the government. We expect any excess cash flow to be used to repay debt.

There is some structural subordination stemming from project finance debt at Canadian contracted assets totaling about CAD2 billion at FYE 2018 and a small amount of debt on US assets. However, unlike the vast majority of regulated utilities, there is no debt outstanding at the regulated businesses that post acquisitions will generate about 70% of EBITDA. That, in conjunction with primarily centralized funding for OPG, results in no notching for structural subordination. As of Q2 2019, OPG will no longer consolidate Fair Hydro Trust, leading to a reduction in consolidated debt of CAD900 million.

High support from the Province provides an uplift to OPG's credit profile

Given the 100% ownership interest held by the Province, OPG is considered a government related issuer (GRI) under our GRI methodology. Based on our estimate of high support in case of financial distress, the A3 credit profile incorporates 3 notches of uplift from OPG's BCA of baa3.

The company's ratings incorporate our expectation that extraordinary financial support to OPG would be forthcoming from the Province if needed. Our high support assumption considers that OPG produces more than half of the power in the Province at a comparatively low cost, making its infrastructure essential to the Ontario economy. OPG also implements government policy. The most recent example was OPG's role in Fair Hydro Trust, which was created by an act of Provincial legislation and designed to a play a significant role in reducing residential electricity rates by about 25%. Following a change in Provincial government and further legislative changes, as of Q2 2019, OPG will no longer consolidate the Trust, resulting in a decline in OPG's consolidated debt of CAD900 million. The Province also appoints OPG's board, agrees its business plans and through the OEFC is a source of debt financing. We do not believe there are any barriers that would prevent the Province from providing timely support.

Our assessment of high default dependence reflects that both OPG and the Province largely rely on the same revenue base and they share some political risks. While the OEFC is a source of financing, OPG has been increasing the level of its borrowing from public debt capital markets.

Environmental, social and governance considerations

OPG has a low carbon transition risk given that the vast majority of generation comes hydro and nuclear facilities. Its hydro facilities face some hydrology risk while a long-term nuclear refurbishment program entails high execution risk. Although two of OPG's three most recent acquisitions have been hydro facilities, it recently announced the acquisition of 1,858 MW of natural gas assets in Ontario, exposing it so some incremental carbon transition risk. Social risks are primarily related to demographic and societal trends and customer relations in Ontario, as its infrastructure is critical to the economy of the Province. OPG has developed programs and key success measures in order to continue to maintain its social license. OPG's governance benefits from 7 of its 8 directors being independent and by benchmarking itself to various governance guidelines.

Liquidity analysis

OPG has an adequate liquidity profile, despite material adverse change clauses in its bank credit facilities, and has significantly increased its sources of capital. As of 30 September 2019, the company had cash and cash equivalents of CAD1.5 billion (of which CAD20 million was restricted) and we forecast operating cash flow of about CAD2 billion over the next year. The company has a CAD1 billion committed credit facility of which CAD950 million matures May of 2024 and CAD50 million matures in May of 2023. In the third quarter of 2019, the company announced it had secured a CAD800 million committed credit facility with the OEFC that matures December 31, 2021 of which CAD100 million is drawn. After the close of the third quarter, the company announced it had binding commitments for a CAD1 billion 1 year term loan and a USD750 million 364 day revolving committed facility with a one year term out provision at the company's option. Its committed facilities backstop a CAD1 billion and USD750 million commercial paper programs respectively. Moody's expects the company to manage its program maturities, cash on hand and its swinglines in a prudent fashion. There are material adverse change clauses in its credit facilities that could prevent borrowings under certain circumstances. In addition, the company has a CAD400 million committed facility at the Lower Mattagami Energy Limited Partnership.

The company has significant uses of capital over the twelve months beginning at the start of Q4 2019. The company closed the acquisition of Cube Hydro for CAD1.5 billion on October 7, 2019 and expects to close the acquisition of assets from TC Energy Limited for CAD2.9 billion in Q1 2020. The company also has debt maturities of about CAD800 million and capex of about CAD2 billion over the next twelve months. The company's liquidity position benefits from the lack of steady dividends payable to the Province.

Rating methodology and scorecard factors

Exhibit 6
Rating Factors
Ontario Power Generation Inc.

Regulated Electric and Gas Utilities Industry Scorecard [1][2]	Current LTM 9/30/2019		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	Baa	Baa	Baa	Baa
b) Consistency and Predictability of Regulation	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	Baa	Baa	Baa	Baa
b) Sufficiency of Rates and Returns	Ba	Ba	Ba	Ba
Factor 3 : Diversification (10%)				
a) Market Position	A	A	A	A
b) Generation and Fuel Diversity	A	A	A	A
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	4.5x	A	4.5x - 5.5x	A
b) CFO pre-WC / Debt (3 Year Avg)	14.3%	Baa	13% - 17%	Baa
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	13.2%	Baa	13% - 17%	Baa
d) Debt / Capitalization (3 Year Avg)	43.9%	A	45% - 49%	Baa
Rating:				
Scorecard-Indicated Outcome Before Notching Adjustment		Baa2		Baa2
HoldCo Structural Subordination Notching		0		0
a) Indicated Outcome from Scorecard		Baa2		Baa2
b) Actual Rating Assigned		A3		A3

Government-Related Issuer	**Factor**
a) Baseline Credit Assessment	baa3
b) Government Local Currency Rating	Aa3
c) Default Dependence	High
d) Support	High
e) Final Rating Outcome	A3

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 9/30/2019(L);
[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics™

Appendix

Exhibit 7

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-15	Dec-16	Dec-17	Dec-18	LTM Sept-19
As Adjusted					
FFO	1,337	1,563	1,044	1,482	1,785
+/- Other	226	(49)	(320)	187	508
CFO Pre-WC	1,563	1,514	724	1,669	2,293
+/- ΔWC	(129)	180	80	(160)	(17)
CFO	1,434	1,694	804	1,509	2,276
- Div	16	14	15	301	18
- Capex	1,286	1,693	1,713	1,648	1,901
FCF	132	(13)	(924)	(440)	357
(CFO Pre-W/C) / Debt	18.6%	17.3%	7.1%	14.3%	19.5%
(CFO Pre-W/C - Dividends) / Debt	18.4%	17.1%	7.0%	11.7%	19.3%
FFO / Debt	15.9%	17.9%	10.2%	12.7%	15.1%
RCF / Debt	15.7%	17.7%	10.1%	10.1%	15.0%
Revenue	5,476	5,653	5,158	5,537	5,975
Cost of Good Sold	643	701	684	668	667
Interest Expense	412	390	404	446	424
Net Income	408	349	403	270	380
Total Assets	44,254	44,415	48,831	52,134	54,007
Total Liabilities	34,446	34,167	37,233	39,399	40,321
Total Equity	9,808	10,248	11,598	12,735	13,686

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months
Source: Moody's Financial Metrics

Exhibit 8

Ontario Power Generation Inc. Moody's - Adjusted Debt Breakdown

(In CN $ Millions)	FYE Dec-13	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17	LTM Ending Sept-19
As Reported Debt	**5,657.0**	**5,730.0**	**5,684.0**	**5,522.0**	**6,579.0**	**8,031.0**
Pensions	2,750.0	3,579.0	2,614.0	3,029.0	3,437.0	3,656.0
Operating Leases	108.5	114.3	106.3	184.4	171.3	64.0
Non-Standard Adjustments	0.0	0.0	13.0	14.0	17.0	34.0
Moody's - Adjusted Debt	**8,515.5**	**9,423.3**	**8,417.3**	**8,749.4**	**10,204.3**	**11,785.0**

Based on consolidated financial data of Ontario Power Generation Inc. All figures are calculated using Moody's estimates and standard adjustments
Source: Moody's Financial Metrics

Exhibit 9

Peer Comparison Table [1]

	Ontario Power Generation Inc. A3 Stable (in CAD millions)			Public Service Enterprise Group Incorporated Baa1 Stable (in USD millions)			NextEra Energy, Inc. (P)Baa1 Stable (in USD millions)			Exelon Corporation Baa2 Stable (in USD millions)		
(in CAD millions)	FYE Dec-17	FYE Dec-18	LTM Sept-19	FYE Dec-17	FYE Dec-18	LTM Sept-19	FYE Dec-17	FYE Dec-18	LTM Sept-19	FYE Dec-17	FYE Dec-18	LTM Sept-19
Revenue	5,158	5,537	5,975	9,094	9,696	10,066	17,173	16,727	19,008	33,565	35,985	34,908
CFO Pre-W/C	724	1,669	2,293	3,209	3,075	2,901	7,480	7,257	7,530	8,436	8,412	7,755
Total Debt	10,204	11,663	11,785	14,537	16,509	16,899	34,691	37,302	41,080	39,688	40,803	42,246
CFO Pre-W/C / Debt	7.1%	14.3%	19.5%	22.1%	18.6%	17.2%	21.6%	19.5%	18.3%	21.3%	20.6%	18.4%
CFO Pre-W/C – Dividends / Debt	7.0%	11.7%	19.3%	16.1%	13.1%	11.6%	15.9%	13.5%	12.3%	18.1%	17.3%	15.0%
Debt / Capitalization	44.7%	45.6%	44.1%	43.5%	45.3%	44.7%	49.3%	45.0%	45.6%	47.8%	47.9%	47.5%

[1] All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade
Source: Moody's Financial Metrics

Ratings

Exhibit 10

Category	Moody's Rating
ONTARIO POWER GENERATION INC.	
Outlook	Stable
Senior Unsecured -Dom Curr	A3
Commercial Paper	P-2

Source: Moody's Investors Service

REPORT NUMBER 1204842

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CREDIT OPINION
21 December 2020

Update

Rate this Research

RATINGS

Ontario Power Generation Inc.

Domicile	Ontario, Canada
Long Term Rating	A3
Type	Senior Unsecured - Dom Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Americas	1-212-553-1653
Asia Pacific	852-3551-3077
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Ontario Power Generation Inc.

Update to credit analysis

Summary

Ontario Power Generation's (OPG) A3 rating reflects a Baseline Credit Assessment (BCA) of baa3 with a 3 notch uplift based on high dependence on and a high probability of extraordinary support from the Province of Ontario (Aa3 stable).

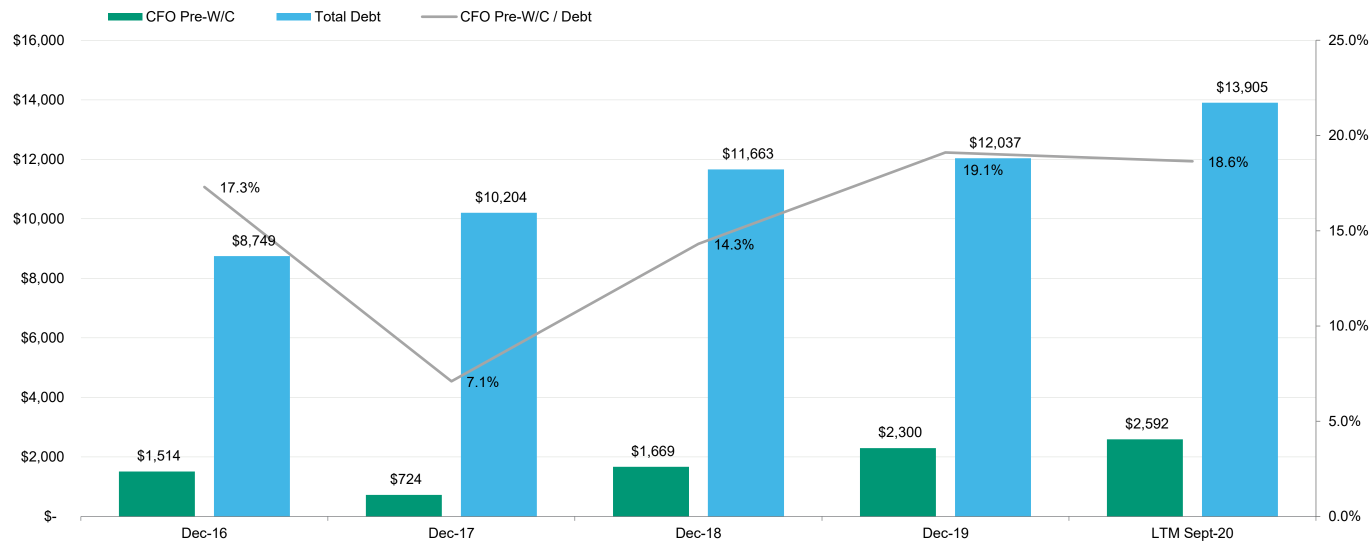
OPG's credit profile benefits from its substantial regulated nuclear and hydroelectric operations that are expected to generate the vast majority of its relatively stable cash flow. OPG's contracted assets generally benefit from long contract tenors and a strong counterparty in the Ontario Independent Electricity System Operator (IESO, Aa3 stable) to which the majority of assets are contracted and to which they pass through most of their costs. The company also has diversification benefits across its extensive fleet. Offsetting these strengths, OPG is exposed to availability risk across its fleet of generation assets, and some hydrology risk. While small, its merchant generation segment has grown as a result of several 100% debt financed acquisitions and the potential remains for further debt financed M&A. Nonetheless, we expect the company's CFO pre-W/C to debt ratio to be sustained in the 12-16% range. The company is also pursuing a CAD12.8 billion nuclear refurbishment project across 4 units at its Darlington nuclear generation station that carries a very high level of execution risk.

OPG is 100% owned by the Province of Ontario and is considered a government related issuer (GRI) under our GRI methodology. The three notch uplift attributed to OPG as a GRI incorporates our expectation of an enduring link between OPG and the Province. Our high support assumption considers that OPG produces more than half of the power generated in the Province at a comparatively low cost, making its infrastructure essential to the Ontario economy. OPG also implements government policy, its board is appointed by the Province and the Ontario Electricity Financial Corporation (OEFC, Aa3 stable), a crown corporation, is a source of debt capital for OPG. Our assessment of high default dependence reflects that both OPG and the Province largely rely on the same revenue base and share some political risks.

COVID-19 developments

The rapid spread of the coronavirus outbreak, severe global economic shock, low oil prices, and asset price volatility are creating a severe and extensive credit shock across many sectors, regions and markets. The combined credit effects of these developments are unprecedented. We regard the coronavirus outbreak as a social risk under our ESG framework given the substantial implications for public health and safety. However, we expect OPG will be relatively resilient to recessionary pressures because of its rate regulated business model and supportive regulatory mechanisms.

Exhibit 1
Historical CFO Pre-WC, Total Debt and CFO Pre-WC to Debt (CAD MM)



Source: Moody's Financial Metrics

Credit strengths

» Primarily regulated generation facilities support stable cash flow generation

» Non-regulated generation segment dominated by long term contracts

» Our expectation of support from the Province of Ontario given its 100% ownership

» Diversification benefits by both generating station and fuel source

Credit challenges

» CAD12.8 billion nuclear refurbishment project underway has a very high level of execution risk

» Financial metrics pressured by three debt financed acquisitions with the potential for further debt financed M&A

» Small but growing merchant cash flow has more risk

» Availability risk across the fleet, including low levels of hydrology risk

Rating outlook

The stable outlook incorporates the following expectations:

» The company continues to execute the Darlington nuclear refurbishment on time and budget

» CFO pre-WC/debt remains in the 12-16% range

» The relationship with the Province remains stable and supportive

Factors that could lead to an upgrade

» A material increase in financial metrics such that CFO pre-WC/debt is sustained above 20%

» An improvement in regulatory outcomes or business risk profile

Factors that could lead to a downgrade

» Challenges or delays executing the Darlington nuclear refurbishment

» A weakening of the business risk profile by, for example, further growing the merchant segment

» A reduction in the probability of support from the Province

» A deterioration in financial metrics such that CFO pre-WC/debt is forecast to fall below 12% on a sustained basis

Key indicators

Exhibit 2
Ontario Power Generation Inc. [1]

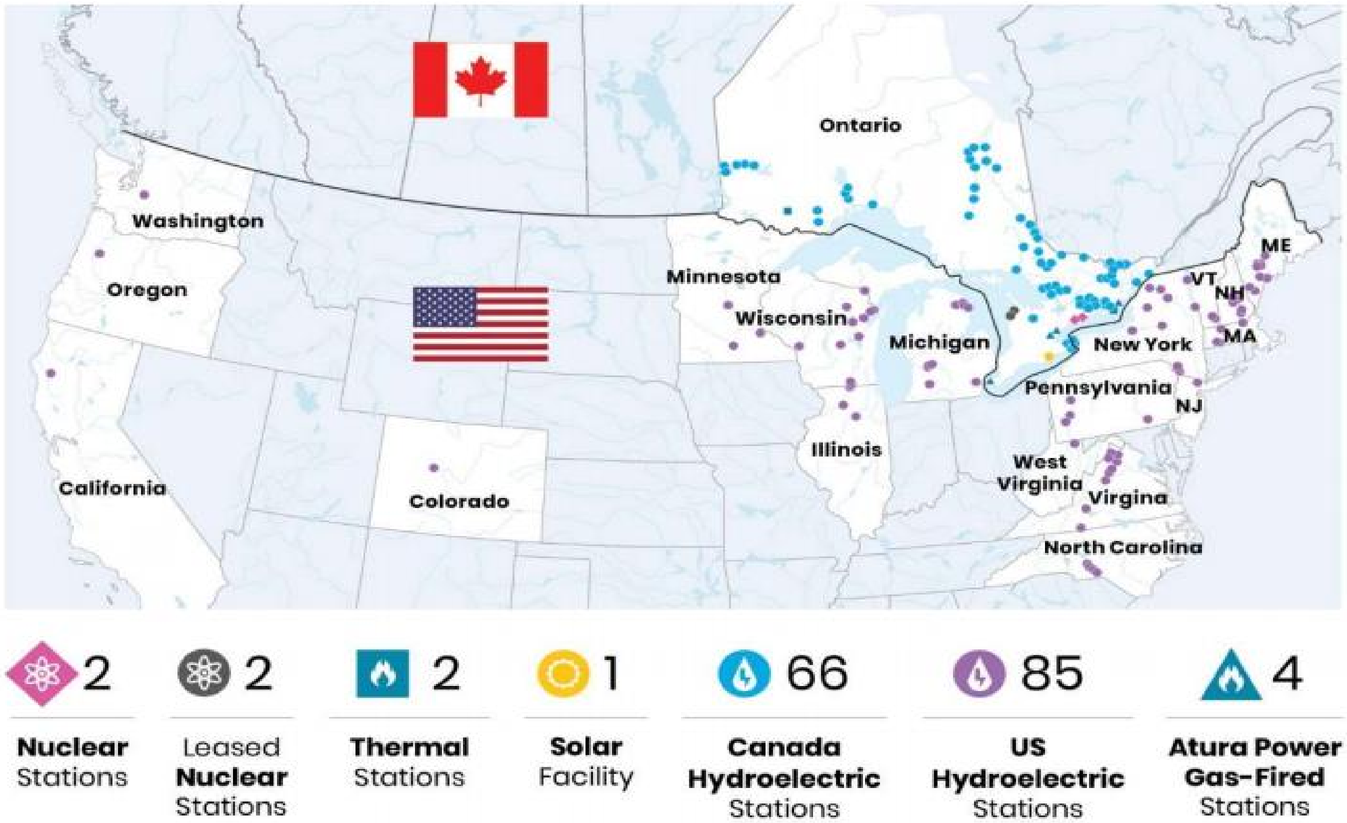
	Dec-16	Dec-17	Dec-18	Dec-19	LTM Sept-20
CFO Pre-W/C + Interest / Interest	4.9x	2.8x	4.7x	6.0x	5.6x
CFO Pre-W/C / Debt	17.3%	7.1%	14.3%	19.1%	18.6%
CFO Pre-W/C – Dividends / Debt	17.1%	7.0%	11.7%	19.0%	18.5%
Debt / Capitalization	43.9%	44.7%	45.6%	44.2%	45.6%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics

Profile

Headquartered in Toronto, Ontario, OPG is an electricity generation company wholly owned by the Province with an in-service generating capacity of 18,876 MW at Sept 30, 2020. At that time OPG owned and operated 75 generating stations, 2 of which are nuclear, 66 hydroelectric, 2 thermal, 1 solar and 4 combined-cycle natural gas-fired plants in Ontario, Canada. In the US, OPG also wholly or jointly owns and operates 85 hydroelectric stations and has interests in 14 other hydroelectric and 2 solar facilities. OPG's nuclear and most of its hydroelectric facilities are regulated by the Ontario Energy Board (OEB).

Exhibit 3
OPG's service territory



Source: OPG Sept 30 2020

Detailed credit considerations

Primarily regulated and contracted assets generate predictable cash flow

OPG's strong business risk profile is driven by its high proportion of regulated and contracted cash flow. Regulated earnings from OEB rate regulated assets will decline from FYE 2019 reported levels of about 80% of EBITDA towards 70% in 2021. Contracted assets will increase from about 19% to the low 20% range while higher risk US assets that are primarily merchant plants will increase from a negligible amount in 2018 to the low single digits. Changes in the EBITDA mix are primarily driven by recent M&A activity. The company has extensive diversity by business line and within each segment that reduces volatility. It also has some hydrology risk, albeit low, and negligible levels of commodity price risk, a key credit positive. Unlike most other regulated utilities, OPG owns generating assets only and does not have any lower risk transmission and distribution assets. As a result, as a higher risk generation company, OPG is exposed to availability risks on all of its assets.

The company's regulated assets should provide reasonably stable cash flow going forward. A multi-year rate decision currently in place from 2017-2021 established prices for the regulated nuclear and hydroelectric assets over this period.

The nuclear generation facilities are regulated by a custom incentive regulation decision that was issued in December 2017. It established prices for generation and incorporates a step up in rate base, reflected in higher rates, as work progressed on the first Darlington nuclear unit refurbishment. Rates in the first half of 2017 of $59.29 MWh grew to $77.96 in the second half of that year and will reach $95.83 (inclusive of rate riders and variance accounts) in 2021, which has supported growth in earnings. Nuclear rate base is allowed an ROE of 8.8% and hydroelectric 9.3% and both have equity capital of 45%.

Achieving the allowed ROE in the nuclear segment may be challenging given an OM&A cost disallowance of about CAD100 million primarily for performance and compensation when benchmarked to comparators. However, this has been offset by improvements throughout the business, in particular higher generation levels than previously anticipated in recent years. The segment also benefits from diversification across 2 nuclear generating stations, with 6 and 4 operating reactors respectively, that enable the company to maintain high levels of generation and cash flow while undertaking the nuclear refurbishment. The shutdown of the Pickering nuclear generating station in 2024 will reduce diversity and, with fewer operating nuclear units, heighten the impact of any unplanned outages.

The regulated hydroelectric facilities includes 54 generating stations in Ontario across a number of river systems with prices established by incentive rate mechanism. Regulated prices for the period beginning after June 1, 2017 are calculated annually and use a base regulated price escalated with an OEB approved formula for inflation less a 0% productivity factor adjustment and a -0.3% stretch factor adjustment. On November 10, 2020, the Province took steps to establish the hydroelectric base regulated price for the period 2021-2026 at the 2021 based regulated price. While this provides price certainty for the period, it may be challenging for OPG to earn its allowed returns over the period given ongoing investments in rate base assets during the period that exceed depreciation.

The regulated segments have been challenged by rate case and cash flow lag. The last rate decision was published in December 2017 with a payment amount order issued on March 29, 2018, well after the 2017-2021 period had begun. Regulated prices prior to June 1, 2017 had been established in the fourth quarter of 2014. The company frequently has regulatory assets and liabilities which may take several years to be recovered, leading to cash flow variability, a credit negative. We expect the company to file its next regulated nuclear rate case in the near term. We anticipate that the company will continue to receive rates that support the company's ongoing investments in their Darlington nuclear refurbishment project.

The contracted and other generating segment consists of lower risk contracted assets in Ontario and higher risk, primarily merchant US based assets. The company has completed both contracted and merchant acquisitions in the past few years driving growth in earnings and cash flow.

Ontario based assets are all under contract on generally favorable terms and almost all of the contracts are with the IESO. The largest of these is the project financed Lower Mattagami Energy Limited Partnership (A1 stable). It, and other contracted hydro facilities like it, including UMH Energy Partnership (A2 stable), have strong contract terms which include limited hydrology risk and contract expiries over the period 2059-2067. We expect these assets to contribute about 40% of the segment's EBITDA in 2021. The Ontario thermal plants in this segment have substantial capacity, but are largely peaking facilities and have low levels of generation. They are primarily compensated based on their availability and have cost pass through provisions, however they have shorter contract tenors compared to the contracted hydro facilities.

The Ontario CCGT plants that were acquired on April 29, 2020 for $2.8 billion have a similar risk profile as the existing thermal fleet in Ontario. A key hurdle to closing the transaction that led to some delays was the successful completion of the Napanee 900MW CCGT which has a 20 year contract from the IESO. The US assets, which consist of Eagle Creek and the acquisition of Cube Hydro that closed October 2019, have some contracts, but are primarily merchant assets with substantially more risk than the rest of the portfolio.

Exhibit 4
OPG acquired assets

Asset acquired	Capacity (MW)	Fuel feedstock	Announcement date	Closing date	Enterprise value (CAD billion)	Acquisition Price (CAD billion)	Assumed debt (CAD billion)
Ontario CCGT	1858	Natural Gas	30-Jul-19	29-Apr-20	2.8	2.8	0
Cube Hydro	385	Hydro	25-Jun-19	7-Oct-19	1.5	1.1	0.4
Eagle Creek	226(1)	76 hydro 2 solar plants	9-Aug-18	27-Nov-18	0.7	0.4	0.3

[1] 226MW at FYE 2018.
Source: Company filings

Darlington nuclear refurbishment carries a very high level of execution risk

Also weighing on the company's' business risk profile is the ongoing nuclear refurbishment at the Darlington Generation Station, which is forecast to cost CAD12.8 billion and take about a decade to refurbish all 4 units. The first refurbished unit returned to service in June of 2020. While the refurbishment of the first unit was a few months behind schedule, management believes that the overall cost and schedule to complete all 4 units remains on target with a modest Covid pandemic driven delay. The start of the unit 3 refurbishment was pushed back 3-4 months as a result of Covid and all subsequent refurbishments will likely be similarly delayed. The delay in the start to the refurbishment of Unit 3 led to higher generation levels than previously anticipated in 2020, driving increased cash flow. The last regulatory decision incorporated the forecasted capex to bring Unit 2 in service, so it is already reflected in both rate base and revenues without the need for OPG to file a rate case.

Exhibit 5
Darlington refurbishment timeline

Darlington	Capacity	Refurbishment start date	Refurbishment completion date
Unit2	878	Oct-16	Jun-20
Unit 3	878	Sep-20	Q1 2024
Unit 1	878	Q1 2022	Q2 2025
Unit 4	878	Q3 2023	Q4 2026

Source: Company filings

Financial metrics pressured by three debt financed acquisitions

We expect CFO pre-WC/Debt to be in the range of 12-16% over the next few years. Financial metrics will decline as the company digests recent debt financed acquisitions and the nuclear business, which has benefited from higher than anticipated generation levels, sees a reduction in generation levels. Collectively, the acquisitions reflect an enterprise value of CAD5 billion that has contributed to the increase in debt financing on the company's balance sheet. Despite the increase in debt, CFO Pre-W/C to debt remained resilient at 18.6% over the last twelve months ending September 30, 2020, only slightly down from 19.1% at FYE 2019. The company's CFO Pre-W/C has increased so far in 2020 as a result of several factors including 1) higher generation from the nuclear fleet owing to delays in the start of refurbishment at Unit 3, 2) some deferrals of planned maintenance into 2021 and 3) contributions from recently acquired assets. We expect cash flow and financial metrics to decline in 2021, primarily as a result of lower generation in the nuclear segment. Further debt financed M&A remains a risk, although management has indicated that they plan to focus on their existing assets. We believe any further acquisitions or investments will likely remain small.

We expect internally generated cash flow and debt issuances to fund the capital program, of which half is focussed on the Darlington refurbishment. The company seldom pays dividends with the only dividends paid connected to asset sales (property sales, not generation facilities) that it was directed to make by the Ontario government.

There is some structural subordination stemming from project finance debt at Canadian contracted assets totaling about CAD2 billion at FYE 2019 and about CAD700 million of debt on US assets. However, unlike the vast majority of regulated utilities, there is no debt outstanding at the regulated businesses that post acquisitions will generate about 70% of EBITDA. That, in conjunction with primarily centralized funding for OPG, results in no notching for structural subordination. As of Q2 2019, OPG no longer consolidates Fair Hydro Trust, leading to a reduction in consolidated debt of CAD900 million.

High support from the Province of Ontario provides an uplift to OPG's credit profile

Given the 100% ownership interest held by the Province, OPG is considered a government related issuer (GRI) under our GRI methodology. Based on our estimate of high support in case of financial distress, the A3 credit profile incorporates 3 notches of uplift from OPG's BCA of baa3.

The company's ratings incorporate our expectation that extraordinary financial support to OPG would be forthcoming from the Province if needed. Our high support assumption considers that OPG produces more than half of the power in the Province at a comparatively low cost, making its infrastructure essential to the Ontario economy. OPG also implements government policy that can have mixed credit implications. The most recent example was OPG's role in Fair Hydro Trust, which was created by an act of Provincial legislation and designed to a play a significant role in reducing residential electricity rates by about 25%. Following a change in Provincial government and further legislative changes, as of Q2 2019, OPG no longer consolidates the Trust, resulting in a decline in OPG's consolidated debt of CAD900 million. The Province also appoints OPG's board, agrees to its business plans and is a source of debt financing through the OEFC. We do not believe there are any barriers that would prevent the Province from providing timely support.

Our assessment of high default dependence reflects that both OPG and the Province largely rely on the same revenue base and they share some political risks. While the OEFC is a source of financing, OPG has been increasing the level of its borrowing from public debt capital markets.

ESG considerations

OPG has a low carbon transition risk given that the vast majority of generation comes from hydro and nuclear facilities. Its hydro facilities face some hydrology risk while a long-term nuclear refurbishment program entails high execution risk. Although two of OPG's three most recent acquisitions have been hydro facilities, it recently announced the acquisition of 1,858 MW of natural gas assets in Ontario, exposing it so some modest incremental carbon transition risk. In November 2020, OPG committed to achieve net zero carbon emission by 2040. Social risks are primarily related to demographic and societal trends and customer relations in Ontario, as its infrastructure is critical to the economy of the Province. OPG has developed programs and key success measures in order to continue to maintain its social license. OPG's governance benefits from 9 of its 10 directors being independent and by benchmarking itself to various governance guidelines.

Liquidity analysis

OPG has an adequate liquidity profile driven by its CAD3.2 billion (around CAD1.6 billion available as of September 2020) of credit facilities and expected cash flow that together are sufficient to cover its uses for the next 12 months.

As of September 2020, OPG has a CAD1 billion committed credit facility of which around CAD950 million matures in May of 2024 and CAD50 million matures in May of 2023. OPG also has a USD750 million 364 day revolving committed facility that expires in November of 2021 with a one year term out provision at the company's option. Both of these facilities backstop CAD1 billion and USD750 million commercial paper programs that had CAD658 million outstanding as of September 2020. The company also has a CAD800 million committed credit facility with the OEFC that matures in December 2021 of which CAD300 million is available that we expect to be extended in the near term, an important consideration in our liquidity analysis. In addition, the company has CAD400 million committed facility at Lower Mattagami Energy Limited Partnership. In March 2020, the company executed a CAD1 billion term loan facility (CAD 400 million outstanding as of September 2020) with expiry in March 2021, however because the expiry of this facility is less than a year we do not include it in our liquidity calculations.

Moody's forecasts cash flow from operations of around CAD1.8-1.9 billion in the next twelve months in addition to the available credit facilities and cash and cash equivalents of CAD828 million as of September 2020 to be sufficient to cover the uses comprising around CAD2.6 billion of expected capital expenditure and around CAD1.5 billion of debt maturities in the next 12 months. We expect OPG will rely in part on debt to finance its ongoing capex and refinance its upcoming debt maturities. The company's liquidity position benefits from the lack of regular dividends payable to the Province.

There are material adverse change clauses in its credit facilities that could prevent borrowings under certain circumstances. Moody's expects the company to manage its program maturities, cash on hand and its swinglines in a prudent fashion.

Rating methodology and scorecard factors

Rating Factors
Ontario Power Generation Inc.

Regulated Electric and Gas Utilities Industry [1][2]	Current LTM 9/30/2020		Moody's 12-18 Month Forward View As of Date Published [3]	
Factor 1 : Regulatory Framework (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Legislative and Judicial Underpinnings of the Regulatory Framework	Baa	Baa	Baa	Baa
b) Consistency and Predictability of Regulation	A	A	A	A
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	Baa	Baa	Baa	Baa
b) Sufficiency of Rates and Returns	Ba	Ba	Ba	Ba
Factor 3 : Diversification (10%)				
a) Market Position	A	A	A	A
b) Generation and Fuel Diversity	A	A	A	A
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	5.2x	A	4.5x - 5.5x	A
b) CFO pre-WC / Debt (3 Year Avg)	16.7%	Baa	12% - 16%	Baa
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	15.7%	Baa	12% - 16%	Baa
d) Debt / Capitalization (3 Year Avg)	44.8%	A	45% - 49%	Baa
Rating:				
Scorecard-Indicated Outcome Before Notching Adjustment		Baa1		Baa1
HoldCo Structural Subordination Notching		0		0
a) Scorecard-Indicated Outcome		Baa1		Baa1
b) Actual Rating Assigned		A3		A3

Government-Related Issuer	**Factor**
a) Baseline Credit Assessment	baa3
b) Government Local Currency Rating	Aa3
c) Default Dependence	High
d) Support	High
e) Actual Rating Assigned	A3

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 9/30/2020(L);
[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics™

Ratings

Exhibit 7

Category	Moody's Rating
ONTARIO POWER GENERATION INC.	
Outlook	Stable
Senior Unsecured -Dom Curr	A3
Commercial Paper	P-2

Source: Moody's Investors Service

Appendix

Exhibit 8

Cash Flow and Credit Metrics [1]

CF Metrics	Dec-16	Dec-17	Dec-18	Dec-19	LTM Sept-20
As Adjusted					
FFO	1,563	1,044	1,482	1,828	2,383
+/- Other	(49)	(320)	187	472	209
CFO Pre-WC	1,514	724	1,669	2,300	2,592
+/- ΔWC	180	80	(160)	99	422
CFO	1,694	804	1,509	2,399	3,014
- Div	14	15	301	17	19
- Capex	1,693	1,713	1,648	1,851	1,539
FCF	(13)	(924)	(440)	531	1,456
(CFO Pre-W/C) / Debt	17.3%	7.1%	14.3%	19.1%	18.6%
(CFO Pre-W/C - Dividends) / Debt	17.1%	7.0%	11.7%	19.0%	18.5%
FFO / Debt	17.9%	10.2%	12.7%	15.2%	17.1%
RCF / Debt	17.7%	10.1%	10.1%	15.0%	17.0%
Revenue	5,653	5,158	5,537	6,022	6,980
Cost of Good Sold	701	684	668	674	757
Interest Expense	390	404	446	462	564
Net Income	349	403	270	758	972
Total Assets	44,415	48,831	52,134	55,183	59,700
Total Liabilities	34,167	37,233	39,399	41,286	44,603
Total Equity	10,248	11,598	12,735	13,897	15,097

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months
Source: Moody's Financial Metrics

Exhibit 9

Ontario Power Generation Inc. Moody's - Adjusted Debt Breakdown

(In CN $ Millions)	FYE Dec-15	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19	LTM Ending Sept-20
As Reported Debt	**5,684.0**	**5,522.0**	**6,579.0**	**7,878.0**	**8,390.0**	**10,251.0**
Pensions	2,614.0	3,029.0	3,437.0	3,656.0	3,585.0	3,585.0
Operating Leases	106.3	184.4	171.3	72.5	55.0	49.0
Non-Standard Adjustments	13.0	14.0	17.0	56.0	7.0	20.0
Moody's - Adjusted Debt	**8,417.3**	**8,749.4**	**10,204.3**	**11,662.5**	**12,037.0**	**13,905.0**

Based on consolidated financial data of Ontario Power Generation Inc. All figures are calculated using Moody's estimates and standard adjustments
Source: Moody's Financial Metrics

Exhibit 10

Peer Comparison Table [1]

	Ontario Power Generation Inc. A3 Stable			Public Service Enterprise Group Incorporated Baa1 Stable			NextEra Energy, Inc. (P)Baa1 Stable			Exelon Corporation Baa2 Stable		
(in US millions)	FYE Dec-18	FYE Dec-19	LTM Sept-20	FYE Dec-18	FYE Dec-19	LTM Sept-20	FYE Dec-18	FYE Dec-19	LTM Sept-20	FYE Dec-18	FYE Dec-19	LTM Sept-20
Revenue	4,274	4,538	5,191	9,696	10,076	9,679	16,727	19,204	18,189	35,978	34,438	33,265
CFO Pre-W/C	1,288	1,733	1,928	3,224	3,111	3,012	7,287	7,938	8,589	8,412	8,176	7,864
Total Debt	8,539	9,282	10,410	16,509	17,416	18,332	37,302	42,303	48,016	40,803	42,843	44,204
CFO Pre-W/C / Debt	14.3%	19.1%	18.6%	19.5%	17.9%	16.4%	19.5%	18.8%	17.9%	20.6%	19.1%	17.8%
CFO Pre-W/C – Dividends / Debt	11.7%	19.0%	18.5%	14.0%	12.4%	11.1%	13.8%	12.9%	12.2%	17.3%	15.8%	14.4%
Debt / Capitalization	45.6%	44.2%	45.6%	45.3%	45.1%	45.4%	44.9%	45.4%	48.4%	47.9%	47.7%	47.9%

[1] All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade
Source: Moody's Financial Metrics

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CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

MOODY'S INVESTORS SERVICE

S&P Global
Ratings

Research

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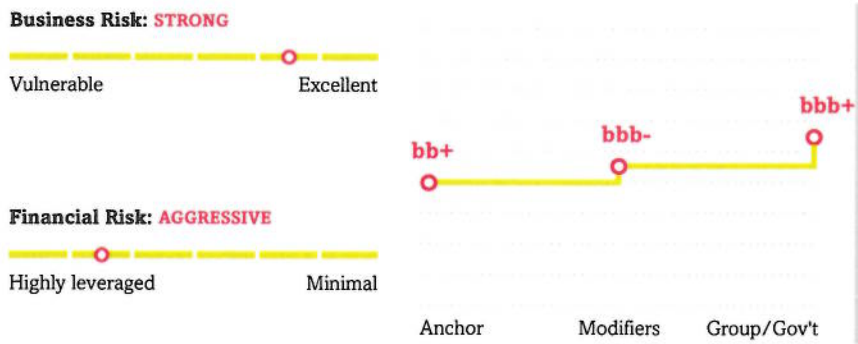
Summary:

Ontario Power Generation Inc.



CORPORATE CREDIT RATING

BBB+/Stable/--

Rationale

Business Risk: Strong	Financial Risk: Aggressive
• Ontario Power Generation Inc.'s (OPG) dominant market position in a strong market with a diversified economy • Regulatory support for the utility's nuclear assets and the bulk of its hydroelectric assets • A diversified portfolio of power-generating assets • Low-cost hydroelectric assets with diversified river systems	• Stable, regulated cash flow • Weak overall cash flow metrics • Large capital programs over the next several years

Outlook: Stable

The stable outlook reflects S&P Global Ratings' expectation that OPG will continue to generate the vast majority of its cash flow from regulated generation, which provides a steady and predictable cash flow. In addition, we do not expect any adverse regulatory decisions, including the pending rate decision in the second half of this year. The outlook also reflects no material delays and cost overruns associated with the Darlington refurbishment plan. Furthermore, the outlook reflects our view of the 'bbb-' stand-alone credit profile (SACP) on OPG and that we do not expect the relationship between the utility and its owner, the Province of Ontario, to change. A one-notch deterioration in either the SACP or our rating on the Province of Ontario would not affect our rating on the utility. During our two-year outlook period, we expect adjusted funds from operations (AFFO)-to-debt to be 7%-8% in 2017 before rising to 10%-12% in 2018-2019.

Downside scenario

We believe a negative rating action on OPG is unlikely during the outlook period, given that both the SACP of OPG and our rating on the province would have to decline one notch. An unexpected change in our view of the relationship between OPG and the province to moderately high or lower could also negatively affect the rating. However, we do not expect this to happen given our view of the relationship between OPG and the province. Alternatively, we could take a negative rating action on OPG if credit metrics deteriorate significantly with AFFO-to debt approaching 7% with no prospects of improvement. This could happen if the company experience significant operational outages with its generation fleet or adverse regulatory decisions. However, we believe this is also unlikely during our outlook period, given that OPG operates under a stable regulatory regime.

Upside scenario

We could take a positive rating action on OPG if the utility's financial position improves with AFFO-to-debt consistently above 13%. A one-notch improvement to OPG's SACP, all else being equal with the province, would result in a one-notch upgrade to the utility. However, we view this as unlikely during our outlook period, given that rates are regulated and the company has a large capital spending program to execute for the next several years, including the multi-billion-dollar Darlington nuclear plant refurbishment.

Our Base-Case Scenario

OPG is an Ontario-based electricity generation company whose principal business is in electricity generation and sale in the Province of Ontario. OPG supplies about half of the electricity in Ontario and is wholly owned by the province.

Assumptions

- OPG will continue to focus on its regulated electricity generation business
- The Ontario Energy Board, the provincial regulator, will continue to operate in a transparent, stable, and predictable manner
- The utility will not experience any adverse regulatory decisions
- OPG will get most of its revenue requirements approved. The utility filed a five-year rate application for 2017-2021 with regulated nuclear rates under the custom incentive regulation, and the regulated hydroelectric rates under the incentive rate making regulation
- Ontario gross domestic growth of about 2.4% in 2017
- The Darlington refurbishment project will incur no material delays and cost overruns

Key Metrics

	2016A	2017E	2018E
AFFO/debt	15.8%	7%-8%	10%-12%

AFFO--Adjusted funds from operations. A--Actual. E--Estimated.

Business Risk: Strong

Our assessment of OPG's business risk profile has not changed. The assessment reflects our view of the utility's strong market position (which accounted for about 50% of Ontario's electricity generation in 2016) and a supportive regulatory framework. We expect OPG will continue to generate about 95% of its EBITDA from regulated sources, recover prudently incurred fixed and variable cost in a timely manner, and earn a moderate return on capital assets.

In addition, OPG has a diverse portfolio of generation assets comprising four nuclear (including Bruce), 66 hydro-electric, two biomass stations, one thermal station, and one wind turbine asset; therefore, OPG does not depend on a single or few generation assets. The hydro-electric assets are subject to hydrology risk; however, the multiple river systems mitigate this.

Further supporting the strong business risk profile is that OPG's service territory, Ontario, has a very strong and diversified economy with modest population growth supporting electricity consumption. However, the ongoing demand conservation programs offset this, resulting in ratepayers being more cautious about conserving energy and reduce electricity consumption.

Due to the nature of the business, OPG does not deal directly with ratepayers and does not have a large and diverse customer base. OPG's main counterparty is the Independent Electricity System Operator (IESO), a crown agent, which remits monthly electricity sales revenue to OPG in the subsequent month.

Financial Risk: Aggressive

Our view of OPG's financial risk is also unchanged. We assess the utility's financial measures against our medial leverage benchmarks to reflect the supportive regulatory framework and that virtually all of OPG's cash flows come from the higher end of the utility risk spectrum in electricity generation compared with that of transmission and distribution.

The company has huge capital programs over the next several years, averaging about C$1.7 billion per year, including the Darlington nuclear refurbishment program. The large capital spending will pressure OPG's credit metrics. Over the next several years we expect the utility to generate negative free operating cash flow (FOCF) and require external financing to fund its capital programs.

We forecast the company's AFFO-to-debt at about 7%-11% during our outlook period. For fiscal 2017, we expect the utility's AFFO-to-debt to be unusually low, at about 7.5%. We attribute this to the following factors:

- We expect a pending decision on OPG's rate application for 2017-2021 in the second half of 2017. The interim rates for fiscal 2017 are based on the regulated rates set in 2014. We expect the difference between the new rates for 2017 and the base rates to be collected in the 2018 period. As a result, 2017 cash flow is lower, but only temporarily.
- As part of the government of Ontario's rate smoothing implementation to avoid rate shocks, the government has amended the legislation that will defer recovery of a portion of the revenue requirement to the post-refurbishment period. Under this plan, we expect about C$1.4 billion of deferred revenue and interest by 2019. The rate smoothing will result in lower cash flow and credit metrics during the outlook period.

The combination of the pending rate decision, rate smoothing and large capital spending result in lower AFFO-to-debt for fiscal 2017, at about 7.5%; however, we do not believe this is a major concern because it is primarily due to the timing difference of cash flow collection. We expect OPG will fully recover its operating and capital costs.

In March 2017, the government announced that the IESO and OPG will work together to refinance the global adjustment (GA) over a longer period to lower electricity cost for rate-payers; details regarding the refinancing plan are unavailable. As such, we have not included the impact, if any, of the financing plan into our forecast. We will continue to monitor this situation.

Liquidity: Adequate

We consider OPG's liquidity adequate. We expect liquidity sources to exceed uses by more than 1.1x over the next twelve months. In the event of a 10% drop in the company's EBITDA, we also expect there are sufficient liquidity sources to cover uses. In our view, the company has sound relationships with banks. In the event of unexpected financial stress, we expect the utility would scale back on its capital expenditures to preserve the credit metrics.

Principal Liquidity Sources	Principal Liquidity Uses
• Cash and liquid investments available of about C$430 million as of March 31, 2017 • Cash FFO of about C$530 million over the next 12 months • Committed credit facilities availability of about C$1.3 billion, maturing between 2021 and 2022	• Debt maturity of about C$1.3 billion over the next 12 months • Maintenance capital expenditures of about C$570 million over the next 12 months • Partnership distributions of about C$16 million over the next 12 months

Other Modifiers

We believe other features of OPG further support the business risk profile assessment. Specifically, unlike many global power generators that have sizable unregulated operations, OPG's operations are virtually all regulated.

In addition, as a generation company, OPG does not have the obligation to ensure adequate supply of electricity, which reduces operational and procurement risks.

Furthermore, the utility has a diverse fleet of generation assets and a dominant market position in Ontario given that it provides about half of the province's power.

As a result, we applied a positive comparable rating analysis modifier to the utility. Other modifiers have no impact on the rating.

Government Influence

Our expectation is that the province (OPG's sole owner) is likely to provide extraordinary support during period of financial distress. In our view, OPG plays an important role to Ontario because it supplies about half of the province's electricity. In addition, the utility provides an essential infrastructure to Ontario and plays an important role in the implementation of the province's energy and environmental policies. Furthermore, Ontario has a track record of providing support both directly and indirectly to the utility.

The high likelihood of extraordinary government support provides two-notch rating enhancement to the 'bbb-' SACP.

Ratings Score Snapshot

Corporate Credit Rating

BBB+/Stable/--

Business risk: Strong

- **Country risk:** Very low
- **Industry risk:** Very low

- **Competitive position:** Satisfactory

Financial risk: Aggressive

- **Cash flow/Leverage:** Aggressive

Anchor: bb+

Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Positive (+1 notch)

Stand-alone credit profile : bbb-

- **Likelihood of government support:** High (+2 notches from SACP)

Related Criteria

- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- General Criteria: National And Regional Scale Credit Ratings, Sept. 22, 2014
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria - Corporates - Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009
- Criteria - Corporates - General: 2008 Corporate Criteria: Rating Each Issue, April 15, 2008

Business And Financial Risk Matrix

	Financial Risk Profile					
Business Risk Profile	Minimal	Modest	Intermediate	Significant	**Aggressive**	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	**bb+**	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

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Summary:
Ontario Power Generation Inc.

Primary Credit Analyst:
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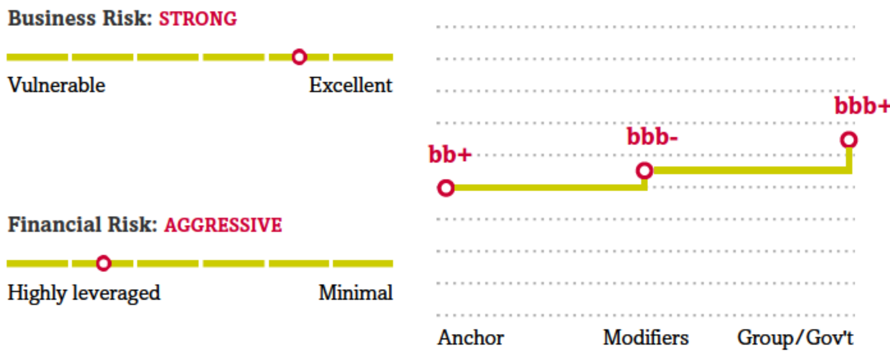
Summary:

Ontario Power Generation Inc.



Issuer Credit Rating

BBB+/Stable/--

Rationale

Business Risk: Strong	Financial Risk: Aggressive
• Ontario Power Generation Inc.'s (OPG) dominant market position in Ontario, which has a well-diversified economy • A strong and diverse service territory with modest population growth • OPG's diverse portfolio of power-generating assets • The company's multiple river systems, which partially mitigate its hydro risk exposure	• S&P Global Ratings assesses OPG's financial measures using moderate financial ratio benchmarks, reflecting the company's low-risk utility operations • We expect adjusted funds from operations (AFFO) to debt of about 13% for the 2019-2020 period • We expect large capital spending over the next several years • We exclude the Fair Hydro Trust (FHT) debt from our financial risk assessment for OPG

Outlook: Stable

The stable outlook reflects S&P Global Ratings' expectation that OPG will continue to generate the vast majority of its revenues from regulated generation, which provides stable and predictable cash flows, and that the company will not experience any adverse regulatory decisions. In addition, our outlook reflects no material delays and cost overruns associated with the Darlington refurbishment plan. Furthermore, our outlook reflects a stable relationship between OPG and the Province of Ontario. A one-notch deterioration in either OPG's stand-alone credit profile (SACP) or our rating on the province would not affect our rating on the utility.

During our two-year outlook period, we expect adjusted funds from operations (AFFO)-to-debt to range from 10%-11% in 2018 before rising to about 13% in 2019 and 2020.

Downside scenario

We could take a negative rating action if both our SACP on OPG and our rating on Ontario fell one notch. An unexpected deterioration in the relationship between OPG and the province could also result in a negative rating action.

Alternatively, we could take a negative rating action if OPG's credit metrics deteriorate significantly, specifically AFFO-to debt approaching 7% with no prospects of improvement. This could happen if the company experiences significant operational outages with its generation fleet, incurs material delays and cost overruns related to the Darlington refurbishment, or receives adverse regulatory decisions.

Upside scenario

We could take a positive rating action on OPG if the utility demonstrates financial improvement, with sustained AFFO-to-debt approaching 13%. A one-notch improvement to our SACP on the company, all else being equal with the province, would result in a one-notch upgrade to the utility. However, we view this as unlikely during our outlook period, given that OPG's rates are regulated and the company has a large capital spending program for the next several years, including the multibillion-dollar Darlington nuclear plant refurbishment project.

Our Base-Case Scenario

Assumptions	Key Metrics
• OPG will continue to focus on its regulated electricity generation business • The Ontario Energy Board, the provincial regulator, will continue to operate in a transparent, stable, and predictable manner • The utility will not experience any adverse regulatory decisions • Capital spending will average about C$1.9 billion per year, including the Darlington refurbishment project, which we expect will not incur material cost overruns and delays • OPG's share of funding Fair Hydro Trust (FHT) will not change, at about 5%	see table below

	2017A	2018E	2019E
AFFO/debt	9.25%	10%-11%	13%-14%

AFFO--Adjusted funds from operations. A--Actual. E--Estimated.

Company Description

OPG is an Ontario-based electricity generation company whose principal business is in the generation and sale of electricity in Ontario. The utility supplies about half of the electricity in the province and is wholly owned by the Province of Ontario, which also holds a majority of the company's long-term debt. The company is the largest clean energy generator in Ontario, with an in-service capacity of about 16,218 megawatts.

Business Risk: Strong

Our business risk assessment on OPG reflects the company's strong market position in electricity generation, which accounted for about 50% of Ontario's total electricity production in 2017, and a generally supportive regulatory framework. We expect the utility will continue to generate about 95% of its EBITDA from regulated sources, to recover prudently incurred fixed and variable costs.

In addition, OPG has a diverse portfolio of generation assets comprising four nuclear (including Bruce) stations, 66 hydroelectric stations, two biomass stations, one thermal station, and one wind turbine asset. Although the company's hydroelectric assets are exposed to hydrology risk, its multiple river systems partially mitigates this.

Further supporting our assessment of OPG's business risk is the utility's service territory, Ontario. The province has a strong and diverse economy with modest population growth, partially offset by ongoing demand conservation programs.

Due to the nature of the electricity framework, OPG does not directly collect from ratepayers and does not have a large and diverse customer base. The utility's main counterparty is the Independent Electricity System Operator, a

Crown agent, which remits monthly electricity sales revenue to OPG in the subsequent month.

Financial Risk: Aggressive

We assess OPG's financial measures using moderate financial ratio benchmarks, reflecting the company's low-risk utility operations. Virtually all of the utility's cash flows come from regulated electricity generation.

Our assessment of OPG's financial measures excludes the senior secured debt issued by FHT as part of the Fair Hydro Plan (FHP), which is consolidated into OPG's balance sheet. This primarily reflects our view that this debt is secured by future cash flow from the Clean Energy Adjustment, is guaranteed by the Ontario government, and is nonrecourse to OPG.

The company has a large capital program over the next several years, primarily related to the Darlington refurbishment program. We expect this capital spending will continue to stress OPG's credit metrics, resulting in negative free operating cash flows. Under our base-case scenario, which includes capital spending of about C$1.9 billion per year, rate adjustments from the most recent rate decision in December 2017, and the financing commitment to the FHP, we expect AFFO-to-debt of 10%-11% in 2018 and about 13% in 2019-2020, reflecting the upper end of OPG's financial risk profile category.

Liquidity: Adequate

We assess OPG's liquidity is adequate. We expect sources will be sufficient to cover uses more than 1.1x over the next 12 months. We further expect that, in the event of a 10% decline in EBITDA, the company's sources of funds would still exceed its uses. In addition, OPG has sound relationships with its banks and generally prudent financial risk management.

Principal Liquidity Sources	Principal Liquidity Uses
• Cash and liquid investments available of about C$315 million as of March 31, 2018 • Cash FFO of about C$ 1.4 billion over the next 12 months • Committed credit facility availability of about C$1.04 billion as of March 31, 2018	• Debt maturities of about C$520 million, including short-term borrowings of C$260 million, as of March 31, 2018 • Sustaining capital expenditures of about C$670 million over the next 12 months • Dividend payments of about C$200 million

Other Modifiers

We include a positive comparable rating analysis modifier in our analysis of OPG, reflecting credit metrics that we expect to reflect the higher end of the company's financial risk profile category during our forecast period.

Government Influence

Our ratings on OPG incorporate a high likelihood that OPG's provincial owner, the Government of Ontario, will provide extraordinary support to the utility during periods of financial distress. OPG plays an important role to Ontario because it supplies about half of the province's electricity. In addition, the utility plays a vital role to Ontario's energy and environmental policies. Furthermore, the province has a track record of providing support, both directly and indirectly, to the utility. For these reasons, we view the likelihood of extraordinary government support for OPG as high, which provides two-notch rating enhancement to the 'bbb-' SACP.

Ratings Score Snapshot

Issuer Credit Rating

BBB+/Stable/--

Business risk: Strong

- **Country risk:** Very low
- **Industry risk:** Very low
- **Competitive position:** Satisfactory

Financial risk: Aggressive

- **Cash flow/Leverage:** Aggressive

Anchor: bb+

Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Positive (+1 notch)

Stand-alone credit profile : bbb-

- **Likelihood of government support:** High (+2 notches from SACP)

Issue Ratings--Subordination Risk Analysis

Capital structure

OPG's capital structure consists of about C$6.3 billion in long- and short-term debt, excluding the senior secured debt at the FHT level, of which about C$2.0 billion is secured with the remaining C$4.3 billion unsecured as of March 31, 2018.

Analytical conclusions

We rate the senior unsecured debt 'BBB+', the same as the issuer credit rating on the utility, because priority debt is less than 50% of total consolidated debt.

Related Criteria

- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- General Criteria: National And Regional Scale Credit Ratings, Sept. 22, 2014
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
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- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
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- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

Business And Financial Risk Matrix

	Financial Risk Profile					
Business Risk Profile	Minimal	Modest	Intermediate	Significant	**Aggressive**	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	**bb+**	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

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Research Update:

Ontario Power Generation Inc. Ratings Affirmed On Acquistion Of Cube Hydro; Taken Off UCO; Outlook Stable

June 25, 2019

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Rating Action Overview

- On June 25, 2019, Ontario Power Generation Inc. (OPG) announced the acquisition of Cube Hydro for about $1.12 billion.
- The acquisition signals the company's strategy to expand into the nonregulated power business, which we view as higher risk relative to its regulated utility operations. As a result, we revised the company's overall business risk to satisfactory from strong reflecting the increased exposure to unregulated business and cash flow.
- At the same time, we reviewed our ratings on OPG that we labeled as "under criteria observation" (UCO) after publishing our revised Ratios and Adjustments criteria on April 1, 2019.
- Following our review, we revised OPG's financial risk profile to significant from aggressive and comparable rating analysis modifier to neutral.
- Furthermore, we revised our financial policy modifier on OPG to negative, reflecting the potential for further debt-funded acquisitions over our outlook period that could materially increase the company's leverage.
- We affirmed our ratings on OPG, including the 'BBB+' issuer credit rating, the 'BBB+' senior unsecured debt rating, and the A-1(Low) Canada National Scale Commercial Paper rating.
- The stable outlook reflects our view of the steady relationship between the utility and the Government of Ontario and that OPG will continue to generate majority of its cash flow from its low-risk regulated generation operations.

Rating Action Rationale

The affirmation reflects an improvement to the utility's financial position as a result of our revised Ratios and Adjustments criteria that was published on April 1, 2019. However, this improvement is offset by the company's new growth strategy to pursue higher risk nonregulated power generation businesses through debt-funded acquisitions.

On June 25, 2019, OPG announced the acquisition of Cube Hydro for about $1.12 billion. OPG has steadily increased its cash flow contribution from nonregulated power generation sources over the past years. This is evident with the acquisition of Eagle Creek Renewable Energy LLC in August 2018. While we continue to expect the majority of OPG's cash flow will be backed by its stable regulated generation operations, the utility's nonregulated power operations has become a sizable part of OPG's overall cash flow profile, with about 20% of its EBITDA from nonregulated power generation. As a result, our decision to revise OPG's business risk to satisfactory from strong largely reflects the company's increased exposure and risk to nonregulated power.

Our business risk assessment on OPG continues to reflect the company's stable regulated electricity generation under a generally supportive regulatory framework and effective management of regulatory risk. OPG has a strong market position in Ontario, accounting for about half of the province's total electricity production in 2018. Moreover, Ontario has a strong and diverse economy with modest population growth that provides stable demand to electricity. Further supporting our business risk is OPG's diverse portfolio of generation assets in Ontario comprising two nuclear stations, 66 hydroelectric stations, one biomass station, one solar facility, one oil and gas-fired station, and two co-owned combined cycle gas-fired stations. Although the company's hydroelectric assets are exposed to hydrology risk, its multiple river systems partially mitigate this.

On its nonregulated power operations, the majority of cash flow is backed by long-term contracts with more than five years remaining, favorable rate constructs, investment-grade counterparties, and minimal exposure to electricity commodity risks. Furthermore, OPG's merchant power participates in the NYISO, PJM, and SERC power markets, which are well-established with predictable market rules.

From a financial perspective, we assess OPG's financial risk profile using our medial-volatility financial benchmark table, reflecting the company's lower-risk regulated electric generation operation and effective management of regulatory risk. The company's credit metrics, including funds from operation (FFO) to debt, improve modestly under the revised Ratios and Adjustments criteria. However, this is offset by the company's large capital plan that includes the Darlington refurbishment program and debt-funded acquisition growth strategy. Our base-case assumptions include capital expenditure of about C$2.0 billion per year, acquisition of Cube Hydro, approved rate case for 2017-2021, and recovery of deferral and variance accounts of C$535 million in 2019-2021. We forecast OPG's FFO to debt of about 13%-15% in 2019-2021. As part of our cash flow analysis, we exclude all cash flow and debt related to the Fair Hydro Plan, including about C$900 million of senior debt at Fair Hydro Trust (FHT).

We expect OPG's growth strategy to be primarily debt-funded over our outlook horizon. Due to the timing, quantum, and uncertain nature of acquisitions, leverage could become materially higher than our base-case forecast over time and depresses credit metrics. For this reason, we also revised our financial policy modifier to negative to capture these event risks.

Collectively, these revisions result in a stand-alone credit profile (SACP) of 'bb+' for OPG. In our view, there is a high likelihood that OPG's provincial owner, the Government of Ontario, will provide timely extraordinary support to the utility during periods of financial distress. We base this on our view that OPG plays an important role to Ontario because it supplies about half of the province's electricity. In addition, the utility also plays a vital role to Ontario's energy and environmental policies. Furthermore, the province has a track record of providing support, both directly and indirectly, to the utility. As a result, OPG's relationship with the government provides a three-notch rating enhancement to its SACP.

Outlook

The stable outlook reflects S&P Global Ratings' expectation that OPG will continue to generate the vast majority of its revenues from regulated generation operations, which provides stable and predictable cash flows, and that the company will not experience any adverse regulatory decisions, material delays, or cost overruns associated with the Darlington refurbishment plan. Furthermore, our outlook reflects a stable relationship between OPG and its owner, the Province of Ontario. During our two-year outlook period, we expect FFO to debt to be about 13%-15% in 2019 to 2020.

Downside scenario

We could take a negative rating action on OPG over the next 12 to 18 months if the company's financial measures show material deterioration with FFO to debt consistently below 11%. This could happen if the company experiences material delays and cost overruns in its Darlington refurbishment program, material adverse regulatory decisions, or significant debt-funded acquisitions. Alternatively, any downgrade to Ontario or unexpected deterioration in the relationship between OPG and Ontario could also result in a negative rating action.

Upside scenario

We could take a positive rating action on OPG if the utility's SACP improves by two notches. All else being equal with the relationship with the province, this would result in a one-notch upgrade to the utility. This could happen if the company improves its business risk by not pursuing nonregulated power operation, which has a higher industry risk, and improves its financial position with FFO to debt consistently above 25%. However, we view this as unlikely during our outlook period given OPG has a large capital plan to execute on the Darlington refurbishment project and the company's growth strategy to pursue unregulated power operation.

Company Description

OPG is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario. The utility supplies about half of the electricity in the province and is wholly owned by the Province of Ontario, which also holds a majority of the company's long-term debt. The company is the largest clean energy generator in Ontario, with an in-service capacity of about 16,344 megawatts.

Our Base-Case Scenario

- OPG continues to focus on regulated electricity generation with regulated and nonregulated cash flow mix at about 80% and 20%, respectively.
- The Ontario Energy Board, the provincial regulator, will continue to operate in a transparent, stable, and predictable manner.
- The utility will not experience any adverse regulatory decisions.
- Capital spending will average about C$2.0 billion per year, including the Darlington refurbishment project, which we expect will not incur material cost overruns or delays.

- Acquisition of Cube Hydro for about $1.12 billion.

Liquidity

We assess OPG's liquidity as adequate because we believe its liquidity sources are likely to cover uses by more than 1.1x over the next 12 months and meet cash outflows even with a 10% decline in EBITDA. Moreover, liquidity should benefit from the company's likely ability to absorb high-impact, low-probability events without the need for refinancing, its well-established and solid relationships with banks, and its satisfactory standing in the credit markets. In the event of unexpected financial stress, we expect the utility would scale back on its capital expenditures to preserve the credit metrics.

Principal Liquidity Sources:

- Cash and liquid investments available of about C$511 million as of first quarter of 2019;
- Cash FFO of about C$1.6 billion over the next 12 months; and
- Committed credit facilities availability of about C$1.11 billion.

Principal Liquidity Uses:

- Debt maturities of about C$642 million including short-term borrowings;
- Maintenance capital expenditures of about C$702 million over the next 12 months; and
- Acquisition of Cube Hydro for about $1.12 billion (C$1.5 billion).

Issue Ratings - Subordination Risk Analysis

Capital structure

OPG's capital structure consists of about C$7.2 billion in long- and short-term debt, excluding the FHT senior secured debt, of which about C$2.4 billion is secured project debt with the remaining C$4.8 billion unsecured as of March 31, 2019.

Analytical conclusions

We rate the senior unsecured debt 'BBB+', the same as the issuer credit rating on the utility, because priority debt is less than 50% of total consolidated debt. We also rate OPG's commercial paper at A-1(Low) on the Canadian National Scale.

Ratings Score Snapshot

Issuer Credit Rating: BBB+/Stable/--

Business risk: Satisfactory

- Country risk: Very low
- Industry risk: Low

- Competitive position: Satisfactory

Financial risk: Significant

- Cash flow/Leverage: Significant

Anchor: bbb-

Modifiers

- Diversification/Portfolio effect: Neutral
- Capital structure: Neutral
- Financial policy: Negative (-1 notch)
- Liquidity: Adequate
- Management and governance: Satisfactory
- Comparable rating analysis: Neutral

Stand-alone credit profile: bb+

- Related government rating: A+
- Likelihood of government support: High (+3 notches from SACP)

Related Criteria

- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Key Credit Factors For The Unregulated Power And Gas Industry, March 28, 2014
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

Ratings List

Ratings Affirmed	
Ontario Power Generation Inc.	
Issuer Credit Rating	BBB+/Stable/--
Ontario Power Generation Inc.	
Senior Unsecured	BBB+
Commercial Paper	A-1(LOW)

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

S&P Global
Ratings

Research

Research Update:

Ontario Power Generation Inc. Outlook Revised To Negative From Stable, Ratings Affirmed On Gas Asset Acquisitions

July 30, 2019

PRIMARY CREDIT ANALYST

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Rating Action Overview

- On July 30, 2019, Toronto-based utility company Ontario Power Generation Inc. (OPG) announced the acquisition of several gas-generation assets from affiliates of TC Energy for about C$2.87 billion
- OPG also announced the acquisition of the remaining 50% interest in Brighton Beach, a combined-cycle natural gas-fired generation station, from Canadian Utilities Ltd., an ATCO subsidiary.
- The acquisitions continue OPG's strategy to expand into additional nonregulated power operations, which we view as higher risk than its regulated utility operations. Given our view of OPG's higher business risk, we are revising our ratings downside threshold to 13%, resulting in limited cushion for the current ratings on OPG.
- We are revising our outlook on OPG to negative from stable.
- We are also affirming our ratings on OPG, including the 'BBB+' issuer credit rating, the 'BBB+' senior unsecured debt rating, and the 'A-1(Low)' Canada National Scale commercial paper rating.
- The negative outlook reflects the potential for limited cushion in OPG's credit metrics upon closing of the transaction, additional acquisitions over our outlook horizon that could further stress credit metrics and execution and integration risks associated with recent transactions.

Rating Action Rationale

The negative outlook follows OPG's announced acquisitions of several gas-generation assets from affiliates of TC Energy and Canadian Utilities Ltd. In June 2019, OPG also announced the acquisition of Cube Hydro for about $1.12 billion. We view these as indicative of OPG's strategy to expand its higher risk nonregulated footprint. In addition, the timing of the transactions raises both execution and integration risks. As such, we revised our ratings downside threshold to 13%, potentially resulting in limited cushion for current ratings on OPG.

We expect these transactions could increase OPG's total debt position by up to about C$4.6 billion over the next 12 months, more than half of its current outstanding long- and short-term debt of about C$8 billion as of March 31, 2019. Although this is offset by cash flow generated by the assets, the large quantum of debt increases over a short period will stress credit metrics in the short term and leaves little room for any operational underperformance or integration issues.

Our business risk assessment continues to reflect OPG's stable regulated electricity generation operation under a generally supportive regulatory framework and effective management of regulatory risk. We expect regulated operation will continue to provide about 70% of OPG's cash flow. Although the transaction will increase the utility's unregulated power exposure, contributing about 30% of overall cash flow, this is offset by long-term contracts with more than five years remaining, favorable rate constructs, investment-grade counterparties, and minimal exposure to electricity commodity risks.

From a financial perspective, we continue to assess OPG's financial risk profile using our medial-volatility financial benchmark table, reflecting the company's lower-risk regulated electric generation operation and effective management of regulatory risk. Although our revised Ratios and Adjustments criteria provide some benefits to OPG's credit metrics, including funds from operation (FFO) to debt, this is offset by the company's large capital plan that includes the Darlington refurbishment program and acquisitions. Our base-case assumptions include capital expenditure (capex) of about C$2 billion per year, the acquisition of Cube Hydro and gas-generation assets total about C$4.6 billion, approved rate case for 2017-2021, and recovery of deferral and variance accounts of C$535 million in 2019-2021. We forecast FFO to debt of about 13% in 2019-2021. As part of our cash flow analysis, we continue to exclude all cash flow and debt related to the Fair Hydro Plan, including about C$900 million of senior debt at Fair Hydro Trust (FHT).

In addition, our ratings on OPG also reflect the potential for further acquisitions over our outlook horizon that could pressure credit metrics. Thus, we continue to apply a negative financial policy modifier.

Our view of the relationship between OPG and its provincial owner, the Government of Ontario, is unchanged. We continue to believe there is a high likelihood that the province will provide timely extraordinary support during financial distress. We base this on our view that OPG plays an important role to Ontario by supplying about half of Ontario's electricity. The utility also plays a vital role in Ontario's energy and environmental policies. Furthermore, the province has a track record of providing support, both directly and indirectly, to the utility. As a result, OPG's relationship with the government provides a three-notch rating enhancement to its stand-alone credit profile (SACP).

Outlook

The negative outlook reflects the potential for limited cushion in OPG's credit metrics and weak financial measures as a result of recent acquisitions. Furthermore, the negative outlook also reflects the potential for additional acquisitions during our outlook period that could further stress credit metrics and the execution and integration risks associated with the transaction. During our two-year outlook period, we expect FFO to debt of about 13% from 2019-2020.

Downside scenario

We could downgrade OPG over the next 12-18 months if its financial measures deteriorate, with FFO to debt consistently below 13%. This could happen with material delays and cost overruns in its Darlington refurbishment program, material adverse regulatory decisions, or significant debt-funded acquisitions. Alternatively, any downgrade of Ontario or unexpected deterioration in the relationship between OPG and Ontario could also result in a downgrade.

Upside scenario

We could revise the outlook on OPG to stable if it improves its financial measures upon close of the transaction with FFO to debt consistently above 15%. Alternatively, we could also revise the outlook if OPG shows financial discipline in its acquisition strategy.

Company Description

OPG is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity. The utility supplies about half of the electricity in the province and is wholly owned by the Province of Ontario, which also holds a majority of OPG's long-term debt. OPG is the largest clean energy generator in Ontario, with an in-service capacity of about 16,344 megawatts.

Our Base-Case Scenario

- OPG continues to focus on regulated electricity generation, with regulated cash flow of 70% and nonregulated 30%.
- The Ontario Energy Board, the provincial regulator, continues to operate in a transparent, stable, and predictable manner.
- The utility will not experience any adverse regulatory decisions.
- Capital spending will average about C$2 billion per year, including the Darlington refurbishment project, which we expect will not incur material cost overruns or delays.
- Acquisition of Cube Hydro and gas-generation assets total for about C$4.6 billion.

Liquidity

We assess OPG's liquidity as adequate because we believe its sources are likely to cover uses by more than 1.1x over the next 12 months and meet cash outflows even with a 10% decline in EBITDA. Moreover, liquidity should benefit from the company's likely ability to absorb high-impact, low-probability events without the need for refinancing, well-established and solid relationships with banks, and satisfactory standing in the credit markets. In the event of unexpected financial stress, we expect the utility would scale back capex to preserve credit metrics.

Principal liquidity sources:

- About C$511 million cash and liquid investments available as of the first quarter of 2019;
- Cash FFO of about C$1.7 billion over the next 12 months; and
- Committed credit facilities availability of about C$1.91 billion.

Principal liquidity uses:

- Debt maturities of about C$642 million, including short-term borrowings;
- Maintenance capex of about C$700 million; and
- Acquisition of Cube Hydro and gas-generation assets for about C$1.7 billion, closing in 2019.

Issue Ratings - Subordination Risk Analysis

Capital structure

OPG's capital structure consists of about C$7.2 billion in long- and short-term debt, excluding the FHT senior secured debt, of which about C$2.4 billion is secured project debt and the remaining C$4.8 billion is unsecured as of March 31, 2019.

Analytical conclusions

We rate the senior unsecured debt 'BBB+', the same as the issuer credit rating on the utility, because priority debt is less than 50% of total consolidated debt. We also rate OPG's commercial paper 'A-1 (Low)' on the Canadian National Scale.

Ratings Score Snapshot

Issuer Credit Rating	BBB+/Negative/--
Business risk	Satisfactory
Country risk	Very low
Industry risk	Low
Competitive position	Satisfactory
Financial risk	Significant
Cash flow/Leverage	Significant
Anchor	bbb-
Modifiers	
Diversification/Portfolio effect	Neutral
Capital structure	Neutral
Financial policy	Negative (-1 notch)
Liquidity	Adequate
Management and governance	Satisfactory
Comparable rating analysis	Neutral
Stand-alone credit profile	bb+
Related government rating	A+
Likelihood of government support	High (+3 notches from SACP)

Related Criteria

- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | Industrials: Key Credit Factors For The Unregulated Power And Gas Industry, March 28, 2014
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

Ratings List

Ratings Affirmed; Outlook Action

	To	From
Ontario Power Generation Inc.		
Issuer Credit Rating	BBB+/Negative/--	BBB+/Stable/--
Ratings Affirmed		
Ontario Power Generation Inc.		
Senior Unsecured	BBB+	
Commercial Paper	A-1(LOW)	

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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Ratings

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Research Update:

Ontario Power Generation Inc. Outlook Revised To Stable From Negative; 'BBB+' Rating Affirmed

July 17, 2020

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Rating Action Overview

- Toronto-based utility company Ontario Power Generation Inc. (OPG) recently completed the refurbishment of the Darlington Nuclear Generating Station Unit 2, on time and on budget. Unit 2's refurbishment is the first of four units S&P Global Ratings expects the company will complete by 2026. The company's on-time and on-budget record increases our confidence that the other three units will also be completed without incurring project delays or materially higher costs.
- Earlier this year, OPG completed the acquisition of several contracted gas-generation assets. We believe that the company will pause on its significant acquisition strategy for at least the next one to two years, leading to more certain and less volatile cash flows.
- We are revising our outlook on OPG to stable from negative and affirming our ratings on OPG, including the 'BBB+' issuer credit rating, the 'BBB+' senior unsecured debt rating, commercial paper rating of A-2, and the 'A-1(Low)' Canada National Scale commercial paper rating. We are also revising upwards our business risk profile on OPG to strong from satisfactory.
- The stable outlook incorporates OPG's recently improved operating performance and our view for more stable volatile cash flows, reflecting our expectations that the company will pause on its acquisition strategy, continue to effectively manage regulatory risk, and our increased confidence that future nuclear refurbishments will be completed on time and on budget. We also expect that funds from operations (FFO) to debt will reflect 14%-15%.

Rating Action Rationale

We revised the outlook to stable from negative. The company's recent refurbishment of the Darlington Nuclear Generating Station Unit 2 and our expectations that the company will temporarily pause its significant acquisition strategy increase our confidence that future cash flows will be less volatile. Also, for 2019 the company's financial measures exceeded our expectations, reflecting operational improvements and effective cost management. We expect these improvements will be sustained and lead to consistently improved financial performance. We previously expected FFO to debt of about 13% and our revised base case expects FFO to debt of 14%-15%.

We revised the business risk profile upwards to strong from satisfactory. Our revised business risk profile reflects our expectations for more stable and predictable cash flows. The business risk profile is supported by the company's regulated operation that constitutes about 70% of consolidated EBITDA and is regulated by the Ontario Energy Board (OEB). The company benefits from the generally supportive regulatory environment that includes using an incentive ratemaking methodology for hydroelectric and a custom incentive regulation framework for nuclear. In addition, the company uses various regulatory mechanisms, which smooth cash flow and we view as supportive of credit quality.

The business risk profile is hurt by the company's growing contracted unregulated power exposure, which will contribute about 30% of consolidated EBITDA. The contracted unregulated power business increases the company's volumetric, operational, and commodity risks. These risks are partially offset by the business' long-term contracts with creditworthy counterparties. Because of OPG's unregulated power exposure, we assess the company at the lower end of the range for its business risk profile category, compared to peers. We assess the comparable rating analysis modifier as negative to reflect these higher risks.

The company's financial measures are modestly improving but still at the lower end of the range for the significant financial risk profile category. We revised our financial expectations for the company upwards, reflecting operational improvements, effective cost management, and reduced capital spending. Specifically, we expect FFO to debt of 14%-15% compared to our previous expectations of 13%. The improvement primarily reflects our expectations for increased generation availability and electricity output. We also expect operation and maintenance costs will be generally flat reflecting some cost increases that are offset by enhanced productivity. In addition, we expect 2020 capital spending will be about C$100 million lower.

We continue to assess OPG's financial risk profile using our medial-volatility financial benchmark table, reflecting the company's lower-risk regulated electric generation operation and effective management of regulatory risk. Under our base-case forecast that includes fewer planned outage days for nuclear plants in 2020, average annual capital expenditure of about C$2 billion, approved rate case for 2017-2021, and no significant acquisitions for the next one to two years, we forecast FFO to debt around 14%-15% for 2020-2022, consistent with the lower end of the range for its financial risk profile category. We assess the comparable rating analysis modifier as negative to account for these relatively weak financial measures for its financial risk profile category.

We assess the financial policy modifier and the comparable ratings analysis modifier as negative, lowering the company's standalone credit profile by two notches. We continue to assess the financial policy modifier as negative to account for the company's longer-term strategy of generally growing through acquisitions that can result in significantly weaker financial measures than in our base case. Despite our near-term expectation that the company will pause on acquisitions, we expect that after this pause the company will likely resume with acquisitions. Because the company does not rely on equity contributions from its parent such acquisitions could result in significantly weaker financial measures.

We assess the comparable rating analysis modifier as negative to reflect our expectations that the company's business and financial risk profiles are at the lower-end of the range for their respective categories.

We assess the government of Ontario as highly likely to provide extraordinary support for OPG. Our ratings on OPG incorporates a high likelihood that OPG's provincial owner, the Government of Ontario, will provide extraordinary support to the utility during periods of financial distress. OPG plays an important role to Ontario because it supplies about half of the province's electricity and the utility plays a vital role to Ontario's energy/environmental policies. In addition, the province has a track record of providing support, both directly and indirectly, to the utility. Our assessment of high likelihood of extraordinary government provides three-notch rating enhancement for OPG.

Outlook

The stable outlook incorporates our view for more stable cash flows, reflecting our expectations that the company will pause on its acquisition strategy, continue to effectively manage regulatory risk, and our increased confidence that future nuclear refurbishments will be completed on time and on budget. We also expect funds from operations (FFO) to debt of 14%-15%.

Downside scenario

We could take a negative rating action on OPG over the next 12-18 months if the company's financial measures weaken, reflecting FFO to debt consistently below 13%. This could happen if the company experiences delays and cost overruns at its Darlington refurbishment program, adverse regulatory decisions, or significant debt-funded acquisitions. Alternatively, a downgrade to the Province of Ontario or an unexpected deterioration in the relationship between OPG and Ontario could also result in a negative rating action.

Upside scenario

Although highly unlikely, we could take a positive rating action on OPG over the next 24 months if there is no change to the company's relationship with the Province of Ontario, the company's nonutility businesses do not grow through additional acquisitions, and the company's financial measures materially improve, reflecting FFO to debt consistently greater than 20%.

Company Description

OPG is an Ontario-based electricity generation company whose principal business is the generation and sale of electricity in Ontario. The utility supplies about half of the electricity in the province and is wholly owned by the Province of Ontario, which also holds a significant portion of the company's long-term debt. The company is the largest clean energy generator in Ontario, with an in-service capacity of about 18,000 megawatts.

Our Base-Case Scenario

- OPG continues to focus on regulated electricity generation with regulated and nonregulated cash flow mix at about 70% and 30%, respectively.
- OEB, the provincial regulator, will continue to operate in a transparent, stable, and predictable manner.
- The utility will not experience any adverse regulatory decisions.

- Capital spending will average about C$2 billion per year, including the Darlington refurbishment project, which we expect will not incur material cost overruns or delays.
- No significant acquisitions during our outlook period.

Liquidity

We assess OPG's liquidity as adequate because we believe its liquidity sources are likely to cover uses by more than 1.1x over the next 12 months and meet cash outflows even with a 10% decline in EBITDA. Moreover, liquidity should benefit from the company's likely ability to absorb high-impact, low-probability events without the need for refinancing, its well-established and solid relationships with banks, and its satisfactory standing in the credit markets. In the event of unexpected financial stress, we expect the utility would scale back on its capital expenditures to preserve the credit metrics.

Principal Liquidity Sources:

- Estimated cash and liquid investments available of about C$500 million;
- Forecasted cash FFO of about C$2.36 billion; and
- Available credit facilities of about C$1.7 billion.

Principal Liquidity Uses:

- Debt maturities, including commercial paper outstanding of about C$1.1 billion;
- Capital expenditures of about C$2 billion over the next 12 months;
- Working capital requirements of about C$50 million; and
- Payments of dividends to non-controlling interests of about C$20 million.

Issue Ratings - Subordination Risk Analysis

Capital structure

OPG's capital structure consists of about C$8.8 billion in long- and short-term debt, of which about C$2.87 billion is secured project debt with the remaining C$5.9 billion unsecured as of March 31, 2020.

Analytical conclusions

We rate the senior unsecured debt 'BBB+', the same as the issuer credit rating on the utility, because priority debt is less than 50% of total consolidated debt. We also rate OPG's commercial paper at 'A-1(Low)' on the Canadian National Scale.

Ratings Score Snapshot

Issuer Credit Rating: BBB+/Stable/--

Business risk: Strong

- Country risk: Very low
- Industry risk: Low
- Competitive position: Strong

Financial risk: Significant

- Cash flow/Leverage: Significant

Anchor: bbb

Modifiers

- Diversification/Portfolio effect: Neutral
- Capital structure: Neutral
- Financial policy: Negative (-1 notch)
- Liquidity: Adequate
- Management and governance: Satisfactory
- Comparable rating analysis: Negative (-1 notch)
- Stand-alone credit profile: bb+

Related government rating: A+

Likelihood of government support: High (+3 notches from SACP)

Related Criteria

- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
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Entities, Nov. 13, 2012

- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

Ratings List

Ratings Affirmed; Outlook Action

	To	From
Ontario Power Generation Inc.		
Issuer Credit Rating	BBB+/Stable/--	BBB+/Negative/--
Ratings Affirmed		
Ontario Power Generation Inc.		
Senior Unsecured	BBB+	
Commercial Paper	A-1(LOW)	
Commercial Paper	A-2	

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.