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December 20, 2016

RESS & OVERNIGHT COURIER

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: Application by Ontario Power Generation Inc. for 2017-2021 Payment Amounts (EB-2016-0152) – Confidential Treatment re Exhibit N1-1-1 Impact Statement

In accordance with Rule 10 of the Ontario Energy Board's (the "**OEB**" or the "**Board**") Rules of Practice and Procedure and section 5.1 of the *OEB's Practice Direction on Confidential Filings* (the "**Practice Directions**"), Ontario Power Generation ("OPG") requests confidential treatment for OPG's 2017-2019 Business Plan (the "**Business Plan**") which is included as attachment 1 to an Impact Statement found at Exhibit N1-1-1.

The redacted portions of the 2017-2019 Business Plan relate to information reflecting the combined regulated and unregulated assets and business of OPG. This information should be protected as confidential as disclosure of this aggregated information (combined with information regarding the regulated business already disclosed) would allow for the disclosure of information related to the unregulated business and facilities. OPG consistently treats information relating to its unregulated business as confidential financial information and confidential commercially sensitive information. Similar requests for confidential treatment of such combined information were accepted by the OEB in Procedural Order No. 3 in this proceeding and in OPG's previous payment amounts applications.

OPG is also proposing to permanently redact certain information in the Business Plan without any disclosure except to the OEB. Permanently redacted information would be disclosed to the OEB, but would be redacted on the public record and would continue to be redacted in confidential documents provided to those intervenors, or their representatives, who have signed a Declaration and Undertaking in the prescribed form in the proceeding. The requested permanent redactions relate to confidential information concerning only OPG's unregulated businesses and facilities. This information is similar in nature to that which was the subject to permanent redactions accepted by the OEB in Procedural Order No. 3 in this proceeding, and in OPG's previous payment amounts applications. OPG has written to the OEB and provided it alone with the information for which OPG seeks permanent protection.

With the hard copy of this letter, OPG has included a non-confidential, redacted version of the 2017-2019 Business Plan in **Attachment 'A'** and a confidential unredacted version in

Attachment 'B'. For the electronic copy of this letter, filed through the RESS, only this letter and the non-confidential attachments are included.

As requested by the OEB in Procedural Order No. 3, OPG has included the specific locations of the proposed redactions and the reasons for each request in a table below.

Location of Confidential Information	Reason(s) for Confidentiality Request
p. 1-13, 17-23, 27-28, 31-32	Commercially Sensitive Information – This aggregated information (combined with information regarding the regulated business already disclosed) would allow for the disclosure of information related to the unregulated business and facilities.
p. 2, information in row "Headcount from Ongoing Operations" p. 5-6, all confidential information proposed under the section "Headcount" p. 21, all redactions (Labour Relations Confidential)	Information relating to OPG's collective bargaining strategies – If disclosed, this information has the potential to interfere with future collective bargaining negotiations between OPG and the unions that represent its employees.
p. 2, 4-8, 11, 15, 18, 20-23, 27-28, 30 (Permanent Redactions)	Commercially Sensitive Information – Information solely related to OPG's unregulated business and facilities.

OPG will provide each intervenor that signs or has already signed a Declaration and Undertaking in the prescribed form and files or has filed it with the Board a copy of the confidential materials that are included in Attachment B. OPG requests that information related to collective bargaining strategies be granted the treatment set out in Procedural Order No. 4.

On a final determination, should the OEB grant OPG's request for confidentiality, OPG proposes that the OEB order the confidential information to be disclosed, subject to any conditions the OEB may find appropriate, to only those persons that by then have signed, or that subsequently sign, a Declaration and Undertaking in the prescribed form in this proceeding.

In addition, consistent with section 6.2 of the Practice Direction, OPG requests that during oral proceedings any reference to information, which the Board has determined to be confidential, be conducted *in camera* so as to preserve its confidential nature.

In the event that the confidentiality request is refused, in whole or in part, and OPG in turn requests that some or all of the information that is the subject of this request be withdrawn in accordance with section 5.1.12 of the Practice Direction, all persons in possession of the said information will be required to promptly destroy or return the information to the OEB Secretary for destruction.

All of which is respectfully submitted.

[Original signed by]

Barbara Reuber
Regulatory Affairs
Ontario Power Generation

Cc:	Carlton Mathias (OPG)	via email
	Charles Keizer (Torys LLP)	via email
	Crawford Smith (Torys LLP)	via email

<u>ATTACHMENT 'A'</u>

Non-Confidential, Redacted Documents

ONTARIO POWER GENERATION

FOR APPROVAL by the Board of Directors

November 10, 2016

OPG's 2017-2019 BUSINESS PLAN

DECISION REQUIRED

The purpose of this submission is to seek the Board's approval of OPG's 2017-2019 Business Plan, including a financial projection for the 2020-2021 period. Upon Board approval, the business plan will be submitted to the Shareholder for review and concurrence in accordance with the Memorandum of Agreement between the Shareholder and OPG.

ISSUE

OPG's 2017-2019 Business Plan implements the Company's strategic objectives by setting out performance targets and resource levels associated with meeting key business outcomes over the next several years. The business plan includes the budget for the 2017 year, which establishes the operational and financial control base against which actual results will be measured.

The business plan supports OPG's 5-year hydroelectric and nuclear rate application to the Ontario Energy Board (OEB) filed in May 2016. The rate application covers the 2017-2021 period and, for the nuclear operations, was based on the forecast of costs and production from the 2016-2018 Business Plan. The 2016-2018 Business Plan was approved by the Board in May 2016 and included a financial projection for 2019-2021. The 2017-2019 Business Plan will be used to update the rate application for material plan-over-plan changes and therefore includes a financial projection for 2020-2021. The OEB's decision on OPG's rate application is expected during the third quarter of 2017. The 2017-2019 Business Plan assumes that new regulated rates are made effective January 1, 2017.

ANALYSIS

Overview

OPG's business plan is focused on increasing value to the Shareholder, while continuing to act as a mitigator for customer price increases and supporting provincial policy objectives focused on the decarbonisation of the power sector and the broader economy. The plan meets the objectives of Ontario's 2013 Long-Term Energy Plan (LTEP). Future business plans will reflect any changes from the updated LTEP expected to be issued in 2017.

As OPG's operating and regulatory environment has not changed substantially during 2016, the objectives and results of the 2017-2019 Business Plan are consistent with the 2016-2018 Business Plan. In particular, the business plan continues to reflect resource and outage plans in support of achieving safe and reliable operations at Pickering to 2024 and successful execution of the Darlington refurbishment, in line with the approved budget and schedule including the Unit 2 cost estimate approved by the Board in August 2016. The plan also reflects OPG's efforts to close the staffing gap in key areas through resourcing strategies including selective hiring, while continuing to leverage attrition in other areas.

Consistent with the previous plan, the 2017-2019 Business Plan projects net income growing to [redacted] This reflects regulated rate increases consistent with OPG's May 2016 rate application, on the basis of a custom incentive regulation approach with rate smoothing for the nuclear operations and an incentive ratemaking formula for the hydroelectric operations. The rate application results in average increases of ~0.7% or ~$1.05 per month annually on a typical residential customer's monthly bill, with the overall customer cost of OPG's generation continuing to track considerably below that of other generators in Ontario. Management believes that the forecast credit metrics and operating cash flow levels in the plan that result from the proposed rate increases should continue to support OPG's current investment grade credit rating. The execution of the business plan will allow OPG to [redacted] over the 2017-2019 period.

The plan reflects the [redacted] The plan also reflects the estimated impact of the 2017 Ontario Nuclear Funds Agreement (ONFA) Reference Plan update, which is subject to approval by the Minister of Finance. The updated reference plan will reduce customer rate impacts, and improve operating cash flow by reducing segregated fund contributions. In addition, the plan assumes closing of the sale of OPG's head office property in the second quarter of 2017, [redacted], as directed.

Return on equity (ROE) is projected to [redacted] OPG's planned debt ratio [redacted]

The business plan is highly dependent on the outcome of OPG's OEB rate application and OEB decisions related to the recovery of pension and other post-employment benefit (OPEB) costs on an accrual basis. Different regulatory outcomes from those assumed in the plan could significantly lower net income, cash flow, and returns to the Shareholder, leading to higher borrowing requirements and increased risk to OPG's credit rating. This may in turn necessitate curtailment of project or other expenditures. In particular, the plan assumes that new regulated rates pursuant to the rate application are made effective as of January 1, 2017. A delay in this effective date could have significant adverse impacts on 2017 net income and future cash flow, largely due to the nuclear generation shortfall relative to existing rates, as a result of Darlington Unit 2 being offline for refurbishment. The plan also assumes that the OEB provides necessary assurance over future recovery of differences between pension and OPEB accrual and cash amounts, and associated income tax impacts.

Highlights of the 2017-2019 Business Plan, including the financial projection for the 2020-2021 period, are as follows:

	Forecast	**Business Plan**			**Projection**	
	2016	**2017**	**2018**	**2019**	**2020**	**2021**
Net Income Attributable to the Shareholder *($ millions)*	[redacted]					
Return on Equity *(%)*						
Enterprise Total Generating Cost per MWh *($/MWh)*						
Production (net of Surplus Baseload Generation) *(TWh)*	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
OM&A Expenses from Ongoing Operations *($ millions)*	[redacted]					
Capital Expenditures *($ millions)*						
Headcount from Ongoing Operations						
Average Impact of 2017-2021 Rate Application on Residential Customer's Monthly Bill	N/A	Average increase of ~$1.05/month annually for 2017-2021				

[redacted]

Key Assumptions and Risks

- Planned activities carried out over the 2017-2020 period successfully enable Pickering continued operations beyond 2020, with a corresponding operating licence granted by the Canadian Nuclear Safety Commission (CNSC) by August 2018. Inability to extend Pickering operations beyond 2020 would result in a reduction to planned generation revenues and cash flow and the advancement of employee severance and station decommissioning expenditures. Extending Pickering operations has a moderating effect on OPG's nuclear rates.
- The Darlington refurbishment is executed consistent with the approved project budget and schedule. Failure to maintain cost and schedule commitments for the project could potentially result in significant write-offs against net income as well as reputational damage. In addition, inability to carry out the refurbishment of the first unit as planned may result in the Province of Ontario (Province) not proceeding with OPG's refurbishment of the remaining units.
- New regulated rates are effective January 1, 2017. An OEB decision that delays this effective date would result in a ~$50 million to $60 million reduction in net income per month. In addition, new rates established by the OEB that are lower than those requested by OPG may not provide for recovery of all costs of OPG's regulated operations or may not allow for an appropriate rate of return.
- Pension and OPEB costs allowed in the 2017-2021 nuclear rates are limited to cash amounts, with the difference between accrual and cash amounts (for nuclear and hydroelectric) continuing to be recorded in a deferral account. The OEB provides necessary assurance over future recovery of these amounts, including associated taxes, through the ongoing generic proceeding on this issue or otherwise. An OEB decision that leads to a write-off of the deferral account balance would result in material net income reductions of over ~$600 million over the planning period.
- Inability to retain and attract leadership talent and qualified management employees during the Darlington refurbishment and continued Pickering operations could adversely impact the successful execution of these projects and other strategic imperatives.
- OPG continues to report its financial results in accordance with United States generally accepted accounting principles (US GAAP) and the OEB continues to rate regulate OPG on that basis. Adoption of International Financial Reporting Standards (IFRS), either as a result of the expiry of the Ontario Securities Commission exemption allowing OPG to prepare its consolidated financial statements using US GAAP or the Shareholder's requirement to consolidate OPG's results under IFRS, is expected to cause significant volatility in OPG's net income compared to US GAAP. Currently, IFRS does not adequately address a rate regulated environment.
- OPG's pension, OPEB and nuclear waste obligations, and related funds are exposed to financial market conditions. The plan assumes that the funds perform according to long-term expectations.

Further details of the key planning assumptions for the 2017-2021 period are found in Appendix 1 and additional key risks to the plan are identified in Appendix 2. A discussion of the 2017-2019 Business Plan, organized by each of OPG's four strategic imperatives, is provided below. The detailed financial and headcount information is included in Appendix 3.

Operational Excellence

OPG remains focused on improving asset reliability, increasing output and safely generating electricity at a low cost. The business plan reflects funding and staffing levels aimed at achieving top performance at the Darlington nuclear station, maximizing the value of the Pickering nuclear station by continuing its safe and reliable operation to 2024, and maintaining strong cost-effective performance at OPG's hydroelectric and thermal facilities. Performance targets for safety and reliability over the planning period will continue to drive operational excellence.

Total Generating Cost* ($/MWh)	Forecast 2016	Business Plan 2017	2018	2019	Projection 2020	2021
Enterprise	[redacted]					
Nuclear	63.2	75.6	74.6	74.5	77.1	77.3
Hydroelectric	[redacted]					

* Total Generating Cost is calculated as: (OM&A expenses from ongoing operations + fuel and Gross Revenue Charge expenses for OPG-operated stations + sustaining capital expenditures) divided by OPG generation adjusted for surplus baseload generation losses

The business plan builds on efficiencies achieved to date, with a focus on pursuing further opportunities for cost effectiveness improvement across the generating business units and support services. In 2016, OPG adopted Total Generating Cost (TGC) per MWh as an enterprise-wide measure of operational cost effectiveness, in addition to TGC per MWh metrics for each of the Nuclear and Hydroelectric operations. Enterprise-wide targets for TGC per MWh range from approximately [redacted] over the 2017-2021 period. The [redacted] in the TGC over the planning period reflects [redacted] the Darlington refurbishment outages, as well as [redacted] large hydroelectric project [redacted] the Sir Adam Beck I GS power canal liner rehabilitation. The TGC targets are adjusted for hydroelectric generation losses due to surplus baseload generation conditions.

A prominent feature of the OEB's incentive regulation framework is to encourage productivity savings. In particular, for the hydroelectric business, OPG's application requests regulated rates that reflect annual increases of less than inflation. For the nuclear business, OPG's application includes a stretch factor that reduces recoverable OM&A expenses below planned levels. This will challenge OPG to find additional cost savings within its operations, beyond those already reflected in planned cost levels. In order to improve profitability, OPG must identify and implement such additional efficiency improvements starting as early as 2017, with cost savings growing over time.

Benchmarking studies have indicated that OPG has reduced the gap to the average nuclear staffing benchmark from 17% in 2011 to 4% in 2014. With further sustained headcount reductions since 2014, OPG is confident that its current and planned nuclear staffing levels are at the benchmark level. OPG also benchmarks the costs of the Pickering and Darlington stations against other nuclear stations. On a per unit, basis, OPG's all-in operating and capital expenditures for the stations continue to be amongst the lowest in the industry. OPG's nuclear stations will continue to target strong reliability performance, including a top-quartile forced loss rate performance of 1.0% for the Darlington station and a 5.0% forced loss rate for the Pickering station consistent with planned investment levels, for the 2017-2019 period. The operational targets and associated initiatives for the Nuclear business unit are found in Appendix 4, with OPG's Nuclear strategic planning framework included in Appendix 5.

The hydroelectric stations continue to exhibit strong cost effectiveness performance, with regulated fleet operating costs, excluding Gross Revenue Charge (GRC) payable to the Province, benchmarking in the second quartile relative to peers. Operating targets for 2017-2019 include strong fleet-wide hydroelectric availability factors averaging [redacted] per year. The operational targets and associated initiatives for the Renewable Generation & Power Marketing (RG&PM) business unit are found in Appendix 6.

The operational targets and associated initiatives for OPG's centre-led Business and Administrative Services organization, which is focused on providing cost effective information technology, supply chain and real estate services in support of business priorities, are found in Appendix 7.

Production

Total planned OPG production ranges from [redacted] per year over the 2017-2019 period, [redacted] forecast in 2016 and [redacted] in 2021. This reflects a declining trend in the Darlington production due to refurbishment outages starting in October 2016, including a partial overlap starting in 2021 between the second and third unit refurbishments.

The following other main factors affect the variability in the planned nuclear production over the period:
- Incremental planned outage days at the Pickering station to enable continued operations in line with the business case approved by the Board in November 2015;
- Single Fuel Channel Replacement outage work at the Pickering station in 2019 and at the Darlington station in 2017 and 2020;

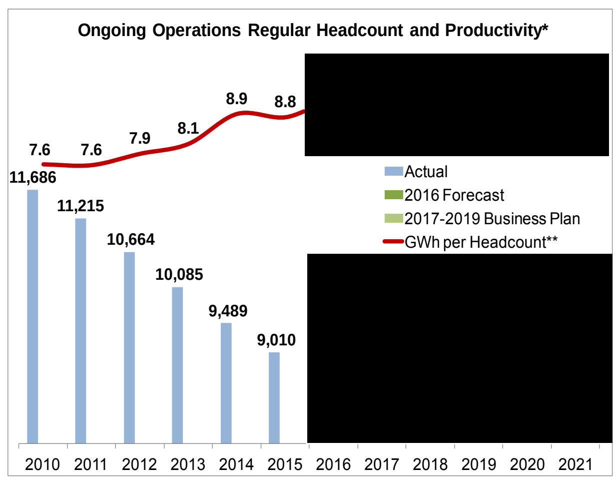
- Initial increase in the forced loss and planned outage days expected at the Darlington station as the first refurbished unit returns to service in early 2020; and
- Pickering VBO in 2021 requiring the shutdown of all units for the duration of the outage.

Production (TWh)	**Forecast** 2016	**Business Plan** 2017	2018	2019	**Projection** 2020	2021
Darlington	*25.8*	*19.1*	*19.3*	*19.7*	*17.8*	*16.6*
Pickering	*20.1*	*19.1*	*19.2*	*19.4*	*19.6*	*18.8*
Total Nuclear	45.9	38.1	38.5	39.0	37.4	35.4
Regulated Hydroelectric	30.5	31.2	32.2	32.0	31.2	30.8
Contracted Generation Portfolio	[redacted]					
Total Production (Net of SBG Losses)						
Regulated Hydroelectric SBG Losses	4.0	1.3	1.0	0.9	0.3	0.3
Contracted Plant SBG Losses	[redacted]					
Total SBG Losses						

The following are the main drivers of the forecast hydroelectric production for the period:

- Anticipated improvement in surplus baseload generation conditions during the planning period, largely driven by nuclear refurbishment outages;
- A major unit overhaul outage at the DeCew II GS in 2017;
- A series of outages at the Sir Adam Beck units to accommodate Hydro One's planned work in the Beck switchyard over 2017-2019;
- Outages at the Sir Adam Beck I GS to rehabilitate the forebay and crossover canal in 2020 and the power canal liner over 2020 and 2021; and
- [redacted]

Headcount



* Excludes Darlington refurbishment headcount
** Production is normalized by adding back hydroelectric surplus baseload generation losses and, in 2017 - 2021, the lower production due to the Darlington refurbishment outages

The downsizing efforts from OPG's Business Transformation initiative have been successful in achieving significant attrition-based headcount reductions across the organization since 2011, with cumulative savings from the reductions reaching $1 billion in 2016. However, continuing high levels of attrition reflecting employee demographics are necessitating increased hiring to fill key vacancies in certain areas (particularly in the Nuclear business unit). To address this gap and in light of the decision to pursue extended Pickering operations beyond 2020, OPG has modified resourcing plans and staffing models, taking into consideration the current need for qualified staff while seeking to minimize the financial impact of future downsizing programs associated with the planned Pickering end of life in 2024.

Through these efforts, OPG has hired ~500 regular (full-time) employees (excluding Darlington refurbishment) between January 2016 and the end of September 2016, and is actively continuing to ramp up recruitment and on-boarding efforts to attract the necessary talent. In addition, to date OPG has hired ~60 Term Employees, a new category of non-regular employees negotiated with the Power Workers' Union (PWU) through collective bargaining in 2015, with a view to adding fewer regular staff in circumstances where they are likely to be laid off as a result of the end of Pickering commercial operations. OPG is targeting to bridge the remaining staffing gap in 2017 by filling open positions, which will increase year-end 2017 regular headcount from ongoing operations by [redacted] compared to 2016. While planned positions are being filled, work programs are being managed through the selective use of temporary resources and overtime.

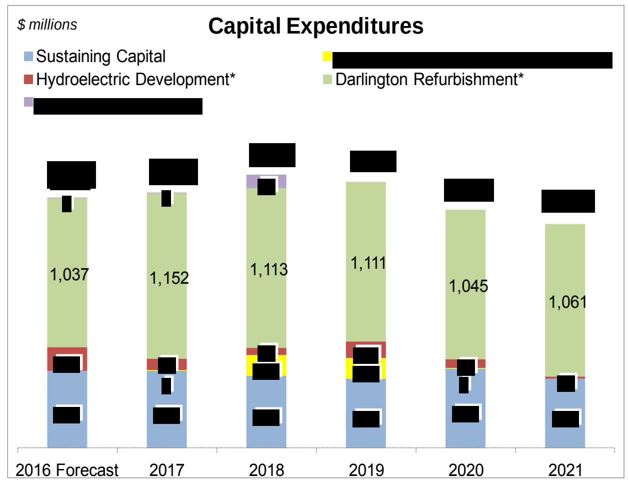
After 2017, planned staffing levels from ongoing operations begin to [redacted] By the end of 2021, headcount from ongoing operations is expected to be about [redacted] than at the end of 2016 and about [redacted] than at the end of 2017. These reductions reflect efficiency improvement initiatives and the impact on work programs from the approaching Pickering end of life. These reductions are expected to be realized by leveraging attrition. The decline in future staffing levels also reflects [redacted]. Employee productivity, as measured by GWh per headcount, remains relatively stable during the planning period.

The Darlington refurbishment headcount peaks at about 640 during the planning period, compared to about 460 at the end of 2016. This headcount is not considered part of ongoing operations.

Project Excellence

Asset base growth through development or acquisition is a key element to achieving increased profitability and ROE levels. OPG continues to focus on delivering projects safely, on time, on budget and with high quality. In line with the 2013 LTEP, OPG's capital program is focused on the continued efficient utilization of existing generation assets through sustaining expenditures, the refurbishment of the Darlington units, development of new and existing hydroelectric sites, and the pursuit of other renewable energy opportunities. The upcoming 2017 LTEP may or may not support OPG's pursuit of additional investment opportunities.

Total annual capital expenditures range between [redacted] per year over the 2017-2019 period and between [redacted] and [redacted] in 2020 and 2021. This includes Darlington refurbishment expenditures of between ~$1.0 billion and ~$1.2 billion per year in line with the Board-approved Unit 2 cost estimate, [redacted]



* Includes expenditures budgeted by Support Services

The first refurbished Darlington unit, Unit 2, is assumed to be returned to service in February 2020 per the high-confidence project schedule, with the second unit refurbishment commencing immediately thereafter and the third unit refurbishment starting in July 2021, assuming any necessary concurrence from the Province is obtained. The planned in-service amount associated with the return to service of Unit 2 is $4.8 billion in February 2020, including costs incurred during the planning phase of the project.

Total sustaining capital expenditures average [redacted] per year over the 2017-2021 period. This includes Nuclear expenditures in the order of ~$300 million per year to 2020, decreasing to ~$245 million by 2021 as regulatory programs are completed and non-refurbishment capital project work at Darlington is temporarily reduced while two units undergo refurbishment. Pickering expenditures decline over the period in line with the planned end of life in 2024.

Excluding the Sir Adam Beck I GS power canal liner rehabilitation project, regulated hydroelectric sustaining capital expenditures over the 2017-2021 period average ~$130 million per year. This includes a number of projects aimed at maintaining and enhancing availability and reliability of OPG's renewable fleet, including:

- The completion of the Sir Adam Beck Pump GS reservoir rehabilitation in 2017;
- The overhaul and upgrade of the DeCew II GS Unit 2 scheduled for completion in 2018;
- The overhaul and upgrade of Sir Adam Beck I GS Unit 5 in 2018-2019 and Unit 8 in 2020-2021;
- Electrical equipment, headgate and sluicegate replacements in Eastern Operations;
- Rehabilitation of the forebay and crossover canal at the Sir Adam Beck I GS in 2020;
- Flow control equipment replacements in Northwest Operations; and
- Unit overhauls at the Sir Adam Beck Pump GS.

The total expenditures for the power canal liner rehabilitation project at the Sir Adam Beck I GS are projected at ~$125 million over 2020 and 2021. The project will repair concrete deterioration and restore the original flow capacity, ensuring reliable operations for the next 50 years.

[redacted]

Other planned generation development projects include the conversion of the Sir Adam Beck Units 1 and 2 to 60 Hz to increase capacity, and the expansion/redevelopment of regulated hydroelectric stations that are approaching end of life by leveraging existing infrastructure (i.e. Ranney Falls, Coniston and Calabogie generating stations). [redacted]

Planned expenditures against previously established provision for nuclear station decommissioning and waste management are planned to increase over the planning period, from close to $300 million in 2016 to $525 million by 2021. The increase over the period reflects the following:

- The Nuclear Waste Management Organization's planned siting process activities for the Adaptive Phased Management used fuel disposal program;
- Expenditures on the Darlington refurbishment nuclear waste containers; and
- Expenditures for proceeding with OPG's proposed low and intermediate level waste deep geologic repository (L&ILW DGR), assuming receipt of a preparation and construction licence.

Eligible nuclear provision expenditures are funded from the nuclear segregated funds.

[redacted]

Financial Strength

In line with the Company's commercial mandate, OPG's business plan is focused on increasing net income and return on the Shareholder's investment, through higher revenues and a continued focus on efficiency improvements, while ensuring that the Company is able to cost effectively fund its major projects and obligations. In pursuing commercial objectives, OPG takes into account the impact on Ontario electricity customers by continuing to seek further efficiencies in the Company's cost structure.

Net Income and Return on Equity

Net income attributable to the Shareholder is forecast to [redacted] respectively. By 2021, net income attributable to the Shareholder is projected to [redacted] different regulatory outcomes from those assumed in the plan could result in significantly lower net income and returns to the Shareholder.

[redacted]

The planned 2017 net income attributable to the Shareholder [redacted] is primarily a result of:

- New regulated rates assumed to come into effect at the beginning of 2017;
- [redacted] new leaseback costs [redacted]
- Recognition of regulatory assets for the portion of the nuclear revenue requirement, including associated interest, deferred for future recovery under nuclear rate smoothing starting in 2017; and
- Higher capitalized interest for the Darlington refurbishment capital expenditures.
- These factors are partially offset by [redacted], planned outages at Sir Adam Beck I and DeCew II hydroelectric stations in 2017, and a gain recognized in 2016 from the OEB's decision to partially reverse a previous disallowance of Niagara Tunnel project expenditures.

Net income attributable to the Shareholder is planned to [redacted] primarily due to:
- Year-over-year higher capitalized interest for the Darlington refurbishment capital expenditures;
- Fewer outages at the regulated hydroelectric stations compared to 2017;
- [redacted]
- [redacted]
- [redacted]

Net income attributable to the Shareholder is projected to [redacted] as the first refurbished Darlington unit returns to service and enters rate base in February 2020. This is partially offset by the depreciation of the Pickering rate base, the impact of outages at the Sir Adam Beck I GS related to the rehabilitation work on the forebay and crossover canal as well as the power canal liner, and the [redacted]

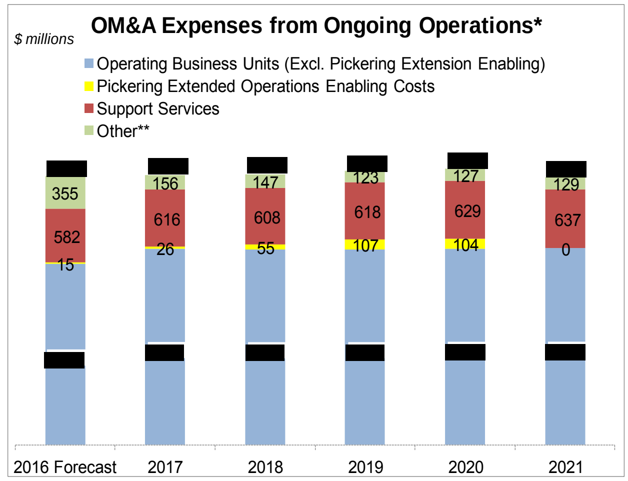
Assurance of recovery of pension and OPEB costs on an accrual basis (including associated taxes) through OEB regulated rates remains a material risk to the business plan. As the generic proceeding related to the treatment of pension and OPEB costs for regulated utilities in Ontario is ongoing, the plan continues to assume that the recovery of pension and OPEB costs for 2017-2021 is limited to cash amounts and that the difference between cash and accrual amounts continues to accumulate in an OEB authorized deferral account (for both nuclear and hydroelectric operations). This is in line with the proposal put forward in OPG's May 2016 rate application. The deferral account balance is projected to accumulate to ~$480 million by the end of 2016, with further additions of ~$150 million over the 2017-2021 period. The future outcome of the OEB generic proceeding or another related OEB decision are expected to determine the recoverability of the deferral account (and associated income taxes). An OEB decision leading to a write-off of the balance would result in a substantial reduction of up to $630 million in net income over the planning period. Write-offs would be recorded in the period the applicable OEB decision is issued.

The plan reflects an updated valuation of OPG's registered pension plan filed with the Financial Services Commission of Ontario in September 2016, as approved by the Board. The valuation was performed as of January 1, 2016 and determined OPG's required cash contributions for 2016 to 2018. Compared to the previous valuation, this reduced OPG's 2016 contributions by about $100 million, while increasing the cash-to-accrual differential recorded in the deferral account for 2016.

In its 2015-2017 Business Plan concurrence letter, the Shareholder recognized that OPG's existing accrual accounting methods for recovery of pension and OPEB costs are a fair representation of the long-term nature of these liabilities. OPG continues to believe that the accrual accounting basis aligned with OPG's financial accounting requirements is the most appropriate rate recovery basis for the Company's pension and OPEB costs, and has made submissions to this effect through the OEB's generic proceeding.

Operations, Maintenance & Administration Expenses

OM&A expenses from ongoing operations, which exclude the impact of regulatory variance and deferral account offsets as well as Darlington Refurbishment project expenses, average [redacted] per year during the 2017-2019 period, [redacted]. This reflects increases in business unit expenditures across the organization, partly offset by declining pension and OPEB costs. The increases in business unit expenditures are primarily driven by the following:
- Incremental outage and other work program costs to enable Pickering continued operations in line with the business case approved by the Board;



* Excludes Darlington refurbishment OM&A expenses and all OEB variance and deferral account offsets
** Includes centrally held pension /OPEB costs

- Changes in nuclear outage scope, including maintenance work on Darlington Unit 2 to be performed during the refurbishment outage that would have otherwise occurred online or during regular outages, and Single Fuel Channel Replacement outage work at Darlington scheduled for 2017;
- Planned external hiring to fill critical staffing gaps and support effective succession planning across the Company;
- Sustaining projects to maintain asset reliability at regulated and contracted hydroelectric stations, including unit overhauls, repair work, and civil structure remediation;
- New drug testing program expected to take effect for the nuclear facilities during the planning period in accordance with CNSC Fitness for Duty regulatory requirements;
- Additional maintenance and other work programs at the nuclear stations to maintain asset reliability and address equipment aging issues;
- Labour cost escalation pursuant to collective agreements, and inflationary impacts; and
- Higher nuclear liability insurance requirements pursuant to federal legislation.
- These increases are partially offset by a gradual decline in regular staffing levels after the planned increase in 2017, as well as higher expenses in 2016 associated with inventory obsolescence costs.

OM&A expenses from ongoing operations begin to decrease in 2021, reflecting the following:
- Completion of work programs to enable Pickering continued operations;
- Further reductions in staffing levels, reflecting efficiency improvement initiatives and the impact on work programs from the approaching Pickering end of life;
- Decline in nuclear outage expenses in 2021 as no major outages are planned to occur at the Darlington station in that year, partly offset by the incremental costs of the assumed station-wide Pickering VBO in 2021.

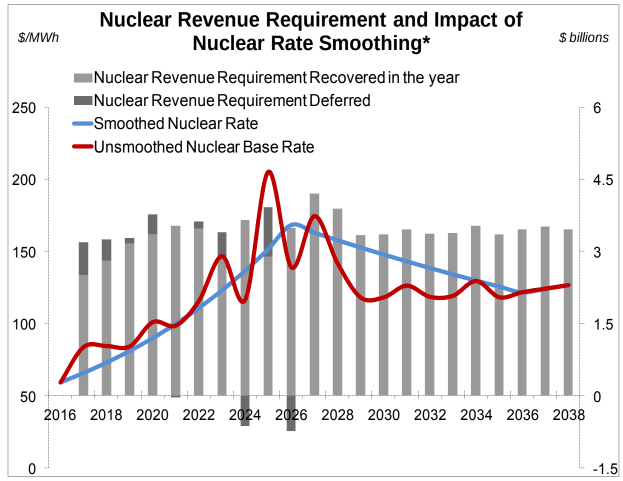
Declining pension and OPEB costs over the period are due to a combination of factors, including: projected pension asset returns, the impact of increased employee contributions, and a recently emergent, more refined US GAAP method for applying discount rates to determine the interest components of pension and OPEB costs that OPG expects to adopt for financial reporting purposes starting in 2017. This approach determines interest costs by applying individual spot rates in the yield curve to each year of cash flows, rather than a single weighted average discount rate determined based on the yield curve. This has the effect of lowering OPG's pension and OPEB costs over the planning period, compared to 2016. The factors decreasing pension and OPEB costs relative to 2016 are partly offset by the reduction in discount rates, from 4.1% for pension and 4.2% for other post retirement benefits at the beginning of 2016 to 3.6% and 3.7%, respectively. The regulated portion of the decreases in pension and OPEB costs is assumed to be offset by the pension and OPEB cash-to-accrual deferral account, resulting in a relatively small overall impact on net income.

The regulatory variance and deferral account offsets to OM&A expenses decline over the planning period. This reflects a narrowing of the differential between pension and OPEB accrual costs and cash amounts that is being recorded in the cash-to-accrual deferral account. The Darlington Refurbishment project expenses vary over the planning period with the expected timing of pressure tube and feeder removal activities and other work programs not eligible for capitalization.

Regulated Rates

The plan reflects OPG's filed 2017-2021 nuclear and hydroelectric rate application, which results in an estimated average increase in a typical residential customer's monthly bill of ~0.7% or ~$1.05 each year to the end of 2021. Based on the application, the plan assumes annual hydroelectric base rate increases of ~1.5% beginning in 2017, off the existing base rates with some adjustments.

For the nuclear operations, consistent with *Ontario Regulation 53/05*, the rate application includes OPG's 11% per year rate smoothing proposal that avoids large price spikes arising during the Darlington refurbishment and at the end of Pickering operations. Under rate smoothing, the rate application seeks approval of annual nuclear revenue requirements as well as a smoothed rate trajectory for the 5-year period. The difference between the approved revenue requirements and the approved base rate trajectory will be recorded in a deferral account for recovery in the post-refurbishment period. The assumed nuclear rate trajectory from the rate application is below the 2013 LTEP assumptions for OPG's nuclear rates.



* Information beyond 2021 is included for illustrative purposes

In accordance with the regulation, the portion of the approved nuclear revenue requirement deferred for future collection will be determined by the OEB and captured in a deferral account that will earn interest at a long-term debt rate reflecting OPG's long-term borrowing cost as authorized by the OEB, compounded annually. Pursuant to the regulation, the OEB must authorize the recovery of the account balance over a period of up to 10 years beginning at the end of the refurbishment project. The rate smoothing illustration shown assumes recovery of the deferred balance over the 10-year period following the completion of the Darlington refurbishment. Based on the assumed rate trajectory, the deferral account balance, including associated interest, is projected to grow to ~$1.3 billion by 2019 and ~$1.9 billion by 2021. In accordance with US GAAP, rate smoothing deferrals in a given period will be recorded by OPG as income of that period, with the deferral account recorded as a regulatory asset on the balance sheet. Accordingly, the collection of the deferred amounts in future years will not result in additional net income.

Although for planning purposes OPG assumes smoothed nuclear base rate increases of 11% per year for the full Darlington refurbishment period, the determination of the rate trajectory beyond 2021 is not part of OPG's current rate application and will be established by the OEB in the future. Leading up to that period, OPG will continue to focus on improving its cost structure and generation performance.

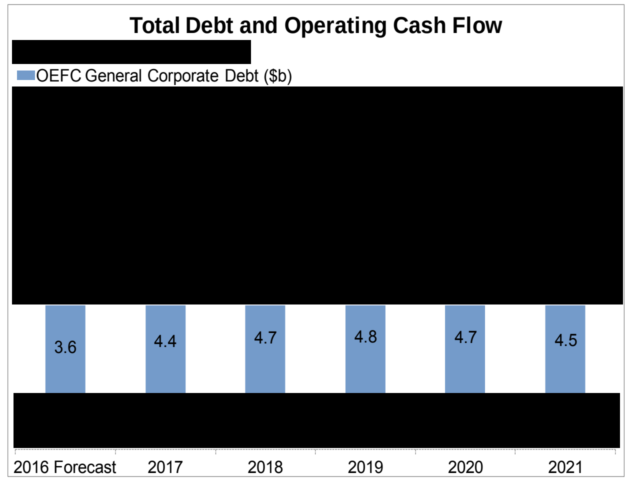
Ontario Nuclear Funds Agreement Reference Plan Update

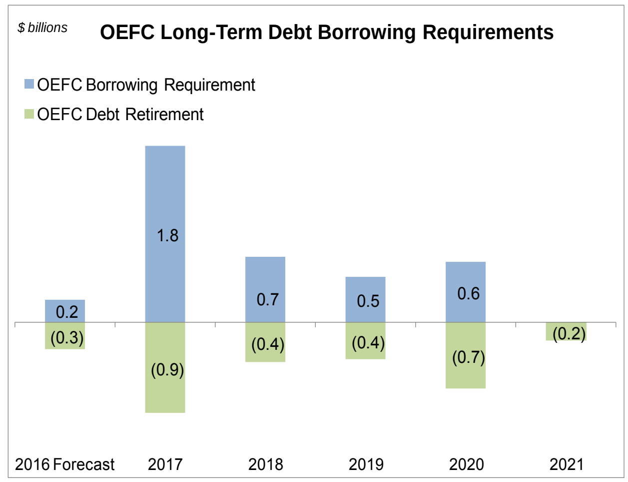
The plan reflects estimated impacts from the 2017 ONFA Reference Plan, assumed to be approved by the Minister of Finance by the end of 2016. The impacts over the planning period include the elimination of ~$180 million per year in OPG's contributions to the ONFA segregated funds, due to lower funding obligations for nuclear decommissioning and waste management. The impacts also include a decrease of ~$1.5 billion in OPG's present value accounting liability for these obligations, at the end of 2016. The main driver of the reduced obligations is lower costs associated with the long-term management of used nuclear fuel as estimated by the Nuclear Waste Management Organization. The lower costs are primarily due to a combination of a more cost effective used fuel disposal container and a delay in the assumed construction of the used fuel deep geologic repository as part of the Adaptive Phase Management plan. OPG's decommissioning and waste management obligations include those for the stations leased to Bruce Power.

The reduction in segregated fund contributions reflects the expectation that both the Decommissioning Segregated Fund and the Used Fuel Segregated Fund will be fully funded when the new ONFA Reference Plan with lower obligations is approved by the Province. This change improves OPG's operating cash flow but will not impact earnings, as the contributions are not treated as operating expenses. The reduction in the accounting liability lowers future depreciation, accretion and other related expenses; however, the majority of this impact does not affect net income as it will reduce amounts recovered through regulated rates. Upon approval of the new ONFA Reference Plan, OPG expects to file an update to its May 2016 rate application to reflect the lower costs to the benefit of customers.

Financing and Liquidity

With the exception of 2017, OPG's operating cash flow outlook is forecast [redacted]. In 2017, operating cash flow is expected to [redacted] as nuclear production decreases by ~8 TWh, a nuclear rate rider of $10.84/MWh for collection of deferral and variance account balances expires at the end of 2016, and the collection of new regulated rates based on the anticipated timing of the OEB's decision on OPG's rate application does not begin until approximately the fourth quarter of 2017. Assuming that the OEB's decision is issued in the third quarter of 2017 and makes new rates effective January 1, 2017, the full revenue shortfall for the period between January 1, 2017 and the implementation date of the decision would be accrued in net income at the time of the decision, but would be collected over time. [redacted] operating cash flow starting in 2018 reflects 11% per year increases in nuclear base rates, partly offset by the impact of decreasing nuclear production in 2020 and 2021.





Total debt is forecast to [redacted], as nuclear rate smoothing defers collection of revenue and [redacted] The assumed effective interest rate for new debt is 4.5%, resulting in a weighted average interest rate on OPG's long-term debt of approximately 4.75% over the planning period. The debt ratio ranges from [redacted] level reflected in the OEB deemed capital structure used to set regulated rates.

The cash flow forecast for 2017 includes proceeds from the Shareholder-directed sale of OPG's head office property, an asset of OPG's unregulated business, [redacted]

[redacted] the plan assumes that Darlington refurbishment expenditures and other corporate borrowing needs continue to be financed through general-purpose long-term corporate debt sourced through the Ontario Electricity Financial Corporation (OEFC).

At the end of September 2016, OPG's average term to maturity of OEFC debt is less than 6 years. OPG intends to extend this average term to reflect the longer life cycle of its assets; however the OEFC restricts the amount of debt OPG can issue with a term longer than 10 years to 50% of the amount issued at any time. This restriction increases interest rate risk and refinancing risk, as debt will need to be refinanced in the future, at which time the interest rates may be significantly higher than the current historically low rates. OPG believes that, with interest rates at these low levels, it is prudent to take advantage of beneficial market conditions to issue longer term debt to fix future interest costs.

[redacted]

Credit Metrics

Maintaining an investment grade credit rating is critical to the Company's ability to access cost effective financing. To support this objective, OPG monitors the Funds from Operations (FFO)/Total Debt ratio and the Debt/EBITDA ratio, which are the core measures used in Standard & Poor's credit rating methodology. OPG also monitors the

FFO Adjusted Interest Coverage ratio, which is the Company's main liquidity metric.

[redacted]

[redacted]

Management believes that the forecast credit metrics and operating cash flow, combined with the support for future collection of rate smoothing deferrals under the regulation, should continue to support OPG's current investment grade credit rating. Different regulatory outcomes from those assumed in the plan could result in significantly lower cash flows, increased borrowing and weaker credit metrics, increasing the risk of a credit rating downgrade. In turn, this could increase costs, limit borrowing capacity, and/or necessitate curtailment of project or other expenditures.

[redacted]

Delivering Shareholder Value

OPG's Total Shareholder Return consists of net income, income taxes, hydroelectric GRC payments, and payments in lieu (PILs) of property taxes to the OEFC. OPG plans to [redacted]

The 2017 Total Shareholder Return on OPG's fiscal basis is projected at [redacted] Total Shareholder Return is projected to [redacted]

Social Licence

OPG is committed to maintaining high standards of public safety and corporate citizenship, including environmental stewardship, transparency, community engagement, and Indigenous Relations.

Environment and Climate Change

OPG's virtually carbon free generation has underpinned the decarbonisation of the power sector and can act as a catalyst for reducing carbon emissions from the broader economy. With a generating fleet that is 99% emission free, OPG avoids over 30 million tonnes of greenhouse gas emissions annually in comparison to a fleet of gas generators. OPG's business plan supports Ontario's climate change strategy and technology deployment and electrification objectives, including microgrids, energy storage technology and electric vehicles. In addition to continuing to drive a focus on environmental performance through business plan targets, the decisions to proceed with the Darlington refurbishment and to pursue continued operations at Pickering will contribute to achieving Ontario's climate change objectives by leveraging OPG's lower-priced, carbon-free baseload nuclear power. It is expected that the refurbished Darlington station will reduce greenhouse gas emissions by an estimated 297 million tonnes over its life, which is the equivalent of removing two million cars per year from Ontario's roads.

Climate change adaption and related safety considerations are a key aspect of OPG's plans for the hydroelectric facilities. These plans consider the impact of water availability, its utilization and the associated environmental and stewardship responsibilities. OPG is also taking steps to better understand the potential changes in water flow conditions that these facilities may experience, including consideration of extreme weather events. This includes development of flood forecasting models in an effort to better predict potential impacts of these changes and to put in place appropriate risk mitigation plans. OPG will continue to operate its hydroelectric facilities by balancing the economic, environmental, social, and legal requirements associated with the affected watersheds while optimizing electricity production.

OPG is in the process of obtaining approvals, establishing processes, and implementing systems for compliance with the requirements of Ontario's new climate change legislation including a cap-and-trade program effective January 1, 2017. Overall, compliance with these requirements is not expected to have a significant financial cost impact on the plan given OPG's virtually emission free generating fleet.

Public Safety

OPG is committed to high standards of workplace and public safety and will continue to operate all of its facilities in a safe, secure and reliable manner, while making investments to maintain and enhance the safety of its generating assets. In particular, OPG will continue to operate with nuclear safety as an overriding priority, by maintaining a strong focus on nuclear safety programs and continuing to invest in nuclear safety systems. In the past five years, as a result of lessons learned from the Fukushima accident, OPG has strengthened the nuclear safety program at its stations by installing multiple portable emergency mitigating equipment units, enhancing emergency preparedness and response capability, and improving protocols and procedures in response to potential adverse events. Probabilistic safety assessment results have confirmed that these initiatives have further strengthened the safety of OPG's nuclear plants. OPG also will continue to demonstrate strong industry leadership with its hydroelectric Dam Safety Program, which encompasses public safety and emergency management over the Company's 238 dams and 65 hydroelectric facilities. Many aspects of the program are considered to be international best practice.

Indigenous Relations

Throughout the planning period, OPG will remain committed to engaging proactively and building long-term, mutually beneficial working relationships with Indigenous communities, people, businesses and organizations through a number of diverse initiatives. This includes pursuing generation-related development partnerships, such as the Peter Sutherland Sr. GS and the Nanticoke solar facility, collaborating on capacity building initiatives and projects, such as the recently completed shoreline restoration projects, and conducting community outreach efforts.

Moderating Electricity Prices and Contributing to the Economy

[redacted]

Taking into account the assumed rate increases over the 2017-2021 period from OPG's current rate application, the cost to customers of electricity generated by OPG is expected to [redacted] below the average non-OPG cost of electricity in Ontario to 2019 and [redacted] by 2021. The expected average increase from OPG's nuclear and hydroelectric rate application on a typical residential customer's monthly bill over the period to 2021 is estimated to be ~0.7% each year.

OPG will continue to make a significant contribution to the Ontario economy and job creation, including through the refurbishment and continued operation of the Darlington station. According to The Conference Board of Canada, Ontario's Gross Domestic Product is estimated to increase by a total of ~$90 billion in the period spanning to the end of the post-refurbishment life of the station.

RECOMMENDATION / RESOLUTION

It is recommended that the Board of Directors approve OPG's 2017-2019 Business Plan including the financial projection for the 2020-2021 period.

Recommended by:	**Approved for submission to the Board of Directors by:**
[original signed by]	[original signed by]
Ken Hartwick Senior Vice President, Finance, Strategy, Risk and Chief Financial Officer	Jeff Lyash President and CEO

This Board memo was reviewed and approved for submission to the Board of Directors by the Audit and Risk Committee at their meeting on November 8, 2016.

APPENDICES

1. Key Planning Assumptions
2. Key Risks
3. Financial and Headcount Plan Information
4. Nuclear Financial Plan, Operational Targets, and Initiatives
5. Nuclear Strategic Framework
6. Renewable Generation & Power Marketing Financial Plan, Operational Targets, and Initiatives
7. Business and Administrative Services (BAS) Financial Plan, Operational Targets, and Initiatives

APPENDIX 1: KEY PLANNING ASSUMPTIONS

- Darlington Unit 2 is refurbished from October 2016 to February 2020, with Unit 3 refurbishment starting immediately after Unit 2 is returned to service and Unit 1 refurbishment starting in July 2021.
- All six operating Pickering units operate until 2022, with four of these units operating until 2024. The plan includes additional costs and outage days to achieve Pickering operations beyond 2020, in line with the business case approved by the Board.
- A station-wide Vacuum Building Outage takes place at Pickering in 2021
- The plan reflects currently approved accounting station service lives for Pickering to December 2020, Darlington to 2052, Bruce Units 1-4 to 2052 and Bruce Units 5-8 to 2061. The Pickering service life will be reassessed upon technical work confirming ability to achieve operations beyond 2020.
- The first Bruce unit refurbishment starts in 2020, as per the Bruce Power refurbishment agreement
- The site preparation and construction licence is received for the proposed L&ILW DGR
- Incremental expenses are allocated in the plan for potential initial planning and preparation activities related to the study of new nuclear facilities starting in 2018
- The following major projects are carried out at the Sir Adam Beck plants:
    - Sir Adam Beck Pump GS reservoir rehabilitation is completed in the first half of 2017
    - Sir Adam Beck I GS Units 1 & 2 are converted to 60 Hz over the 2018-2020 period
    - Sir Adam Beck I GS power canal liner rehabilitation takes place over 2020 and 2021
- [redacted]
- [redacted]
- [redacted]
- Nuclear base rates increase by 11% per year under nuclear rate smoothing, effective January 1, 2017. Effective January 1, 2017, hydroelectric base rates increase by ~1.5% per year, off the existing base rates with some adjustments, under an incentive regulation approach.
- Recoveries for pension and OPEB are limited to cash requirements in the 2017-2021 rate application, pending the outcome of OEB's generic consultation and any other applicable OEB determinations, with the difference between cash and accrual amounts continuing to accumulate in the existing deferral account (for nuclear and hydroelectric operations)
- Carbon pricing in Ontario is based on the Province's cap-and-trade program effective January 1, 2017
- The sale of OPG's head office property, an asset of the unregulated business, is closed in the second quarter of 2017 [redacted] as directed by the Shareholder. [redacted]
- Nuclear Fund investments earn 5.15%/yr
- Pension fund investments earn 6%/yr. An accounting discount rate of 3.6% is used for valuing pension costs and 3.7% for other post retirement benefit costs.
- The plan reflects the January 1, 2016 actuarial funding valuation of OPG's registered pension plan as filed with the regulator and a subsequent valuation as of January 1, 2019
- Due to inherent uncertainties, inflationary impacts on salary costs are assumed for periods after the expiry of the current collective agreements
- The 2017 ONFA Reference Plan is assumed to be approved by the Province by the end of 2016
- Existing OEFC debt platform continues to be used for long-term corporate debt purposes, [redacted] The assumed effective interest rate for new debt is 4.5%.
- OPG continues to prepare its consolidated financial statements and report its financial results in accordance with US GAAP for the full planning period

APPENDIX 2: KEY RISKS

The key risks associated with the 2017-2019 Business Plan are outlined below.

Operational and Project Risks

- Failure to maintain the Darlington refurbishment cost and schedule commitments per the approved project budget and schedule;
- Inability to meet the objectives of the first unit refurbishment, resulting in sub-optimal post-refurbishment performance;
- Risk of the Province not concurring with the refurbishment of the subsequent Darlington units;
- Inability to retain and attract effective, knowledgeable and engaged leadership talent during the Darlington refurbishment and continued Pickering operations given an aging workforce and Management group compensation constraints;
- Failure to appropriately staff operational and support groups in critical skill areas given ongoing demographic challenges;
- Inability to achieve production targets, including risks associated with unit capability factors, planned nuclear outage performance, nuclear station lifecycle management, and human performance;
- Risk of increased operating costs as a result of greater-than-planned deterioration of station components and systems, discovery of unexpected conditions, and/or equipment failures; and
- Risk of technical challenges in confirming ability to operate Pickering beyond 2020, and/or failure to obtain regulatory assurance from the CNSC in support of the station's continued operations, including inability to renew the operating licence without conditions.

Rate Regulation Risks

OEB rulings impacting OPG's rate regulated operations may be unfavourable compared to assumptions in the plan, including the following:

- Inability to receive sufficient assurance from the OEB for future recovery of the pension and OPEB cash-to-accrual deferral account balance projected at ~$480 million by the end of 2016 with further additions totalling ~$150 million over the 2017-2021 period, and associated taxes, which would result in a write-off against net income;
- An OEB-set nuclear rate smoothing trajectory that does not provide sufficient cash flow to fund operations, projects and/or obligations, and/or to maintain the current investment grade credit rating. A credit rating downgrade would increase borrowing costs and could reduce borrowing capacity;
- OEB-approved revenue requirements that do not allow for recovery of the full costs of the regulated operations and/or do not allow the regulated business to earn an appropriate return; and
- An effective date for new regulated rates that is later than the assumed January 1, 2017 date, which would reduce 2017 planned net income by ~$50 to $60 million per month.

Financial Risks

- Risk of delay in the Province's approval of the 2017 ONFA Reference Plan to 2017, which could result in a reduction in 2017 planned nuclear segregated fund earnings, through a reduction limiting fund asset balance sheet values to the updated, lower ONFA funding obligations. The impact of this reduction is currently reflected in the 2016 forecast net income on the assumption that the new reference plan is approved by the end of 2016.
- Risk of lower than planned returns on segregated nuclear and pension fund assets as a result of various market factors, including equity prices, interest rates, inflation, and commodity prices, which would lower net income and potentially increase future funding requirements compared to the plan;
- Risk of lower discount rates and other differences in assumptions for future pension and OPEB accounting and funding valuations, compared to the plan, including those due to underlying financial market conditions; and
- Risk of adoption of IFRS for financial reporting purposes, either as a result of the expiry of the Ontario Securities Commission exemption allowing OPG to prepare its consolidated financial statements under US GAAP or the Shareholder's requirement to consolidate OPG's results using IFRS. Adoption of IFRS is expected to cause significant net income volatility compared to US GAAP.

APPENDIX 3: Financial and Headcount Plan Information

Key Financial Metrics *(in millions of dollars unless otherwise noted)*	**Forecast 2016**	**Business Plan 2017**	**2018**	**2019**	**Projection 2020**	**2021**
Net Income Attributable to the Shareholder	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Income	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Earnings Before Tax	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Return on Equity* *(%)*	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Nuclear Total Generating Cost per MWh** *($/MWh)*	63.2	75.6	74.6	74.5	77.1	77.3
Hydroelectric Total Generating Cost per MWh** *($/MWh)*	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Enterprise Total Generating Cost per MWh** *($/MWh)*	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
FFO / Total Debt Ratio *(%)* *(Minimum threshold of 9%)*	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Debt / EBITDA Ratio (times) *(Maximum threshold of 5.5)*	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
FFO Adjusted Interest Coverage Ratio* (times) *(Minimum threshold of 3)*	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Debt Ratio *(%)*	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Cash from Operations	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cash Balance at Year-End	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total Debt at Year-End	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total Return to Shareholder***	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
OM&A Expenses from Ongoing Operations	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Darlington Refurbishment Capital Expenditures	1,037	1,152	1,113	1,111	1,045	1,061
Darlington Refurbishment In-Service Additions	387	398	2	-	4,849	-
Capital Expenditures excluding Darlington Refurbishment	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
In-Service Additions excluding Darlington Refurbishment	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Nuclear Waste and Thermal Decom. Provision Expenditures	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

* Calculated using the methodology per OPG's external financial filings

** Total Generating Cost is calculated as: (OM&A expenses from ongoing operations + fuel and Gross Revenue Charge expenses for OPG-operated stations + sustaining capital expenditures)/OPG generation adjusted for surplus baseload generation losses. Nuclear TGC/MWh adjusted for lower production due to the Darlington refurbishment outages is: $63.8/MWh in 2017, $63.2/MWh in 2018, $65.8/MWh in 2019, $62.8/MWh in 2020 and $60.4/MWh in 2021.

*** Calculated as: Net Income Attributable to Shareholder + Income Taxes + Gross Revenue Charge + Property Tax PILs

Total Shareholder Return *$ millions*	**Provincial Fiscal Year Basis ending March 31: 2017**	**2018**	**2019**	**2020**
Net Income Attributable to Shareholder	[redacted]	[redacted]	[redacted]	[redacted]
Non Income Tax PILs	[redacted]	[redacted]	[redacted]	[redacted]
GRC: Payable to OEFC & Niagara Parks Commission	[redacted]	[redacted]	[redacted]	[redacted]
Property Tax Payable to OEFC	[redacted]	[redacted]	[redacted]	[redacted]
Total Non Income Tax PILs	[redacted]	[redacted]	[redacted]	[redacted]
Income Tax PILs	[redacted]	[redacted]	[redacted]	[redacted]
Total Shareholder Return	[redacted]	[redacted]	[redacted]	[redacted]

Operating Statement - Years Ended December 31 *(in millions of dollars)*	**Forecast 2016**	**Business Plan 2017**	**Business Plan 2018**	**Business Plan 2019**
Electricity Generation Revenues	[redacted]	[redacted]	[redacted]	[redacted]
Fuel and Gross Revenue Charge	[redacted]	[redacted]	[redacted]	[redacted]
Generation Sales Gross Margin	[redacted]	[redacted]	[redacted]	[redacted]
Net Trading Margin	[redacted]	[redacted]	[redacted]	[redacted]
Non-Electricity Generation Gross Margin	[redacted]	[redacted]	[redacted]	[redacted]
Total Gross Margin	[redacted]	[redacted]	[redacted]	[redacted]
OM&A Expenses [redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Accretion on Nuclear Waste and Other Liabilities	[redacted]	[redacted]	[redacted]	[redacted]
Earnings on Nuclear Funds	[redacted]	[redacted]	[redacted]	[redacted]
Depreciation and Amortization	[redacted]	[redacted]	[redacted]	[redacted]
Property Taxes	[redacted]	[redacted]	[redacted]	[redacted]
Restructuring	[redacted]	[redacted]	[redacted]	[redacted]
Total Expenses	[redacted]	[redacted]	[redacted]	[redacted]
Income before Interest and Other Income	[redacted]	[redacted]	[redacted]	[redacted]
Net Interest Expense	[redacted]	[redacted]	[redacted]	[redacted]
Other (Income)/Expense*	[redacted]	[redacted]	[redacted]	[redacted]
Income before Tax	[redacted]	[redacted]	[redacted]	[redacted]
Income Tax	[redacted]	[redacted]	[redacted]	[redacted]
Net Income	[redacted]	[redacted]	[redacted]	[redacted]
Net Income Attributable to the Shareholder	[redacted]	[redacted]	[redacted]	[redacted]
Net Income Attributable to Non-Controlling Interests	[redacted]	[redacted]	[redacted]	[redacted]

* Includes [redacted] representing OPG's share of equity income from its 50 percent ownership interests in the Portlands Energy Centre and the Brighton Beach GS, respectively. In 2017, also includes [redacted]

Balance Sheet - As at December 31 *(in millions of dollars)*	**Forecast 2016**	**Business Plan 2017**	**2018**	**2019**
Assets	[redacted]			
Current assets				
Cash and cash equivalents				
Available-for-sale securities				
Short-term investments				
Accounts receivable*				
Fuel inventory				
Materials and supplies				
Other current assets				
Property, plant and equipment and intangible assets				
Fixed and intangible assets (net)**				
Other assets				
Nuclear fixed asset removal and nuclear waste management fund				
Long-term materials and supplies				
Regulatory assets (net)				
Investments subject to significant influence				
Other long-term assets				
Total Assets				
Liabilities				
Current liabilities				
Short-term notes payable				
Accounts payable and accrued charges				
Deferred revenue due within one year				
Current income taxes payable				
Long-term debt due within one year				
Long-term debt				
Other liabilities				
Fixed asset removal and nuclear waste management liabilities**				
Pension liabilities (non-current)				
Other post-employment benefit liabilities (non-current)				
Long-term accounts payable and accrued charges				
Deferred revenue				
Deferred income taxes				
Equity				
Common shares				
Retained earnings				
Accumulated other comprehensive loss				
Equity attributable to non-controlling interests				
Total Liabilities and Equity				

* As at December 31, 2017, includes accrued revenues for new regulated rates for the period from January 1, 2017 to the implementation date of the OEB's decision, which is assumed to be received in the third quarter of 2017. The accrued balance is assumed to be fully collected by the end of 2018.

** As at December 31, 2016, reflects an adjustment that reduces the nuclear decommissioning and waste management liabilities based on cost estimates from the 2017 ONFA Reference Plan update process.

OM&A Expenses by Business Unit *(in millions of dollars)*	**Forecast 2016**	**Business Plan 2017**	**2018**	**2019**	**Projection 2020**	**2021**
Nuclear Operations*	1,601	1,725	1,735	1,786	1,777	1,689
Renewable Generation & Power Marketing	[redacted]					
[redacted]						
Total Operations	[redacted]					
Business and Administrative Services (Chief Information Officer, Real Estate, Supply Chain)	298	299	295	300	305	309
Finance (excl. Insurance) (Finance, Risk & Assurance, Corp. Bus. Development)	82	84	81	80	80	81
Insurance	31	42	45	48	52	53
People/Culture & Communications	135	149	148	150	152	151
Legal/Ethics & Compliance (Law, Regulatory Affairs, Environment)	32	36	32	32	33	35
Corporate Office	5	7	7	8	8	8
Total Support Services	**582**	**616**	**608**	**618**	**629**	**637**
Total Business Unit Expenditures	[redacted]					
Centrally Held Pension and OPEB	277	89	60	42	37	37
Other (incl. Cost of Goods Sold)	77	67	88	81	90	92
Total Ongoing Operations	[redacted]					
OEB Variance and Deferral Account Offsets	(129)	(103)	(62)	(12)	(7)	(6)
Darlington Refurbishment Project	3	49	16	7	52	26
Nuclear New Build	1	2	7	10	11	11
Total OM&A Expenses	[redacted]					

* Total Pickering extended operations enabling costs are: $15M in 2016, $26M in 2017, $55M in 2018, $107M in 2019 and $104M in 2020.

Regular Headcount by Business Unit	Forecast	Business Plan			Projection	
	2016	2017	2018	2019	2020	2021
Nuclear Operations	5,552	5,760	5,755	5,678	5,571	5,496
Renewable Generation & Power Marketing	[redacted]					
[redacted]	[redacted]					
Total Operations	[redacted]					
Business and Administrative Services (Chief Information Officer, Real Estate, Supply Chain)	829	864	863	862	849	849
Finance (Finance, Risk & Assurance, Corp. Bus. Development)	350	351	343	337	332	332
People/Culture & Communications	647	681	674	678	673	665
Legal/Ethics & Compliance (Law, Regulatory Affairs, Environment)	96	99	98	98	98	98
Corporate Office	9	12	12	12	12	12
Total Support Services	**1,931**	**2,007**	**1,990**	**1,987**	**1,964**	**1,956**
Total Ongoing Operations	[redacted]					
Darlington Refurbishment Project	458	631	642	626	610	642
Total Regular Headcount	[redacted]					

Capital Expenditures *(in millions of dollars)*	**Forecast 2016**	**Business Plan 2017**	**2018**	**2019**	**Projection 2020**	**2021**
Sustaining						
Nuclear	291	322	319	299	289	244
Regulated Hydroelectric						
Sir Adam Beck 1 Canal Liner Rehabilitation	-	-	1	1	62	62
Sir Adam Beck Pump GS Reservoir Rehabilitation	40	7	-	-	-	-
Other Projects	109	125	111	120	153	133
Total Regulated Hydroelectric	149	132	112	122	215	195
Contracted Generation Portfolio						
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Other Projects	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total Contracted Generation Portfolio	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Support Services	59	49	38	38	35	35
Total Sustaining Capital	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Generation Development Projects*						
Hydroelectric Development						
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Sir Adam Beck Units 1 & 2 Conversion	-	2	17	43	27	-
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Ranney Falls GS Expansion	2	35	18	8	-	-
Coniston GS Redevelopment	-	-	6	28	14	7
Calabogie GS Redevelopment	-	3	4	34	20	11
Other	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total Hydroelectric Development	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Darlington Refurbishment Project* **	1,037	1,152	1,113	1,111	1,045	1,061
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total Generation Development Capital	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total Capital Expenditures	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

* While in definition phase, projects are budgeted by Corporate Business Development and, while in execution phase, projects are budgeted by RG&PM

[redacted]

*** Includes expenditures budgeted by the Nuclear organization and Support Services

Provision Expenditures *(in millions of dollars)*	**Forecast 2016**	**Business Plan 2017**	**2018**	**2019**	**Projection 2020**	**2021**
Nuclear Decommissioning and Nuclear Waste Management Expenditures						
Nuclear Operations*	272	358	377	418	471	511
Support Services	15	16	16	13	14	14
Total Nuclear Provision Expenditures	**287**	**375**	**392**	**431**	**485**	**525**
[redacted]	[redacted]					
[redacted]						
[redacted]						
Total Provision Expenditures	[redacted]					

* Includes expenditures for the Darlington Refurbishment Project nuclear waste containers

Financing and Liquidity Outlook - Years Ended Dec 31 *(in millions of dollars)*		**Forecast 2016**	**Business Plan 2017**	**2018**	**2019**	**Projection 2020**	**2021**
Opening Cash Balance		**464**	**275**	**259**	**264**	**246**	**224**
Net Operating Cash Inflows before the following:		[redacted]					
Interest Paid							
Nuclear Funds Contribution		(150)	-	-	-	-	-
Pension Fund Contribution		(253)	(248)	(251)	(299)	(305)	(308)
OPEB Payments		(120)	(113)	(118)	(123)	(128)	(133)
Internally Funded Nuclear Provision Expenditures		(196)	(220)	(236)	(217)	(213)	(195)
Net Cash from Operations		[redacted]					
Investing Activities							
Sustaining Capital Expenditures		[redacted]					
Darlington Refurbishment		(1,037)	(1,152)	(1,113)	(1,111)	(1,045)	(1,061)
[redacted]		[redacted]					
[redacted]							
Other Generation Development							
Cash Outflow for Capital Investments		[redacted]					
[redacted]							
Pre-tax Proceeds from Sale of OPG Head Office							
[redacted]							
Investment in Hydro One Shares		(213)	-	-	-	-	-
Other		(4)	-	-	-	-	-
Net Cash Outflow for Investing Activities		[redacted]					
Financing Activities							
General Corporate (OEFC)	- *Debt Issuance/Refinancing*	220	1,750	650	450	600	-
	- *Debt Retirement*	(270)	(900)	(395)	(365)	(660)	(185)
Project Financing (Private Placement)	- *Debt Issuance/Refinancing*	[redacted]					
	- *Debt Retirement*						
Short-Term Notes	- *Net Issuance (Repayment)*						
Dividends Paid							
Distribution Paid to Non-Controlling Interests							
Net Cash from Financing Activities							
Net Cash (Outflow) Inflow for Period							
Ending Cash Balance							
Total Debt at Year-End							

APPENDIX 4: NUCLEAR FINANCIAL PLAN, OPERATIONAL TARGETS, AND INITIATIVES

Financial Plan

(in millions of dollars)	Forecast 2016	Business Plan 2017	Business Plan 2018	Business Plan 2019	Projection 2020	Projection 2021
OM&A						
Base*	1,172	1,196	1,215	1,254	1,263	1,281
Outage Incremental	319	392	373	343	328	322
Project Portfolio	94	111	91	82	82	87
Pickering Continued Operations Enabling Costs	15	26	55	107	104	-
Darlington Refurbishment Project	3	49	16	7	52	26
Nuclear New Build	1	2	7	10	11	11
Total Nuclear OM&A	**1,605**	**1,776**	**1,758**	**1,803**	**1,841**	**1,727**
Capital						
Project Portfolio (including Spares and Minor Fixed Assets)**	291	322	319	299	289	244
Darlington Refurbishment Project (excl. Support Services)	1,008	1,119	1,084	1,082	1,019	1,035
Total Nuclear Capital	**1,299**	**1,441**	**1,403**	**1,381**	**1,308**	**1,279**
Provision Expenditures						
ONFA Funded	85	150	147	206	264	325
Internally Funded - Base	101	115	115	122	125	127
Internally Funded - Projects	54	49	70	45	45	40
Internally Funded - Darlington Refurbishment Waste Containers	31	44	45	45	38	19
Total Nuclear Provision Expenditures	**272**	**358**	**377**	**418**	**471**	**511**
Fuel Expense (Pickering and Darlington)	**263**	**223**	**220**	**228**	**217**	**198**

* Includes an estimated $4M to $5M per year for work in support of the RG&PM business unit

** In 2019, includes $16M related to the load of new fuel bundles into the refurbished Darlington Unit 2

Operational Targets

The key 2017-2019 targets for the Nuclear business unit are set out below. These targets reflect the operating environment of the nuclear fleet, including refurbishment activities at the Darlington station and continuing work on fuel channel inspections at the Pickering station.

Metric	NPI Max	Industry Best Quartile	Pickering 2016 Target	Pickering 2016 Forecast	Pickering 2017 Target	Pickering 2018 Target	Pickering 2019 Target	Darlington[1] 2016 Target	Darlington[1] 2016 Forecast	Darlington[1] 2017 Target	Darlington[1] 2018 Target	Darlington[1] 2019 Target
All Injury Rate[2] (#/200k hrs worked)	N/A	0.69	0.24	0.49	0.24	0.24	0.24	0.24	0.23	0.24	0.24	0.24
Collective Radiation Exposure (person-rem/unit)	80.00	38.17	111.50	104.50	126.90	137.30	153.30	65.00	80.90	111.90	82.70	78.40
Unit Capability Factor (%)	92.0	91.3	77.6	75.3	71.5	72.0	72.6	91.1	90.0	85.1	86.0	87.8
Forced Loss Rate (%)	1.00	0.38	5.00	4.37	5.00	5.00	5.00	1.00	1.93	1.00	1.00	1.00
On-line Corrective Maintenance Backlog (work orders/unit)	N/A	7	55	80	28	28	28	20	20	15	10	7
WANO NPI (Index)	N/A	93.5	72.3	75.6	69.7	67.2	65.9	87.3	85.5	83.1	90.7	91.0
Human Performance Error Rate	N/A	0.0010	0.0030	0.0030	0.0030	0.0030	0.0030	0.0030	0.0053	0.0020	0.0020	0.0020
Total Generating Cost per MWh[3]	N/A	$38.93	$71.09	$72.46	$78.83	$80.09	$81.49	$47.35	$46.46	$49.75	$49.54	$52.33

[1] Darlington targets reflect the impact of the Unit 2 Refurbishment starting in October of 2016, where applicable.

[2] Also applies to Darlington Refurbishment Project and Contractors.

[3] Metrics exclude centrally-held Pension and OPEB costs and asset service fees. Targets may change subject to allocations and assumptions being finalized. Darlington metrics have been normalized after 2016 for generation forgone during the Unit 2 refurbishment.

Initiatives

The following initiatives represent the focus areas of the Nuclear business unit aimed at closing performance gaps in order to achieve targeted results:

- **Outage Execution:** This initiative focuses on delivering predictable outage performance through improved planning and execution of outage work to meet planned outage day targets. Areas for improvement include: outage schedule and resource planning quality; implementation of a long-term purchased services agreement to optimize contracted work and improve quality of supplemental staff execution; inspection and maintenance execution improvements; Life Cycle Management Plan development improvements; and studying the option of moving Pickering to a 30-month outage cycle.
- **Workforce Planning & Resourcing Initiative:** This initiative focuses on implementing the resourcing strategy to support the safe operation of the plants and successful completion of the Darlington refurbishment, while minimizing disruption and costs associated with the Pickering end of commercial operations. A dedicated team provides oversight on the resourcing strategies and resourcing approval process.
- **Equipment Reliability:** This initiative aims to improve equipment reliability, improve effectiveness of the maintenance program and reduce equipment failures to meet forced loss rate targets.
- **Project Excellence Initiative:** This initiative supports the corporate-wide initiative focused on implementing a standard scalable project delivery model throughout OPG via the established Project Management Centre of Excellence, in order to increase project predictability and successful project outcomes.
- **Parts Improvement Sustainment:** This initiative aims to sustain and continuously improve on the results of the 19 completed sub-initiatives of the overall Parts Improvement Project. The focus of the Parts Improvement Project has been on obtaining the right parts on time, reducing churn in the work management system, and ultimately improving equipment reliability through the completion of the 19 cross-functional sub-initiatives across the Engineering, Supply Chain, Fleet Operations & Maintenance, and Work Management functions.
- **Human Performance:** This initiative focuses on: 1) Behaviours associated with procedural use and adherence; 2) Leadership accountability whereby leaders understand and model the behaviours expected from all staff; and 3) Supervisor effectiveness whereby supervisors set and communicate clear expectations to positively influence behaviours.

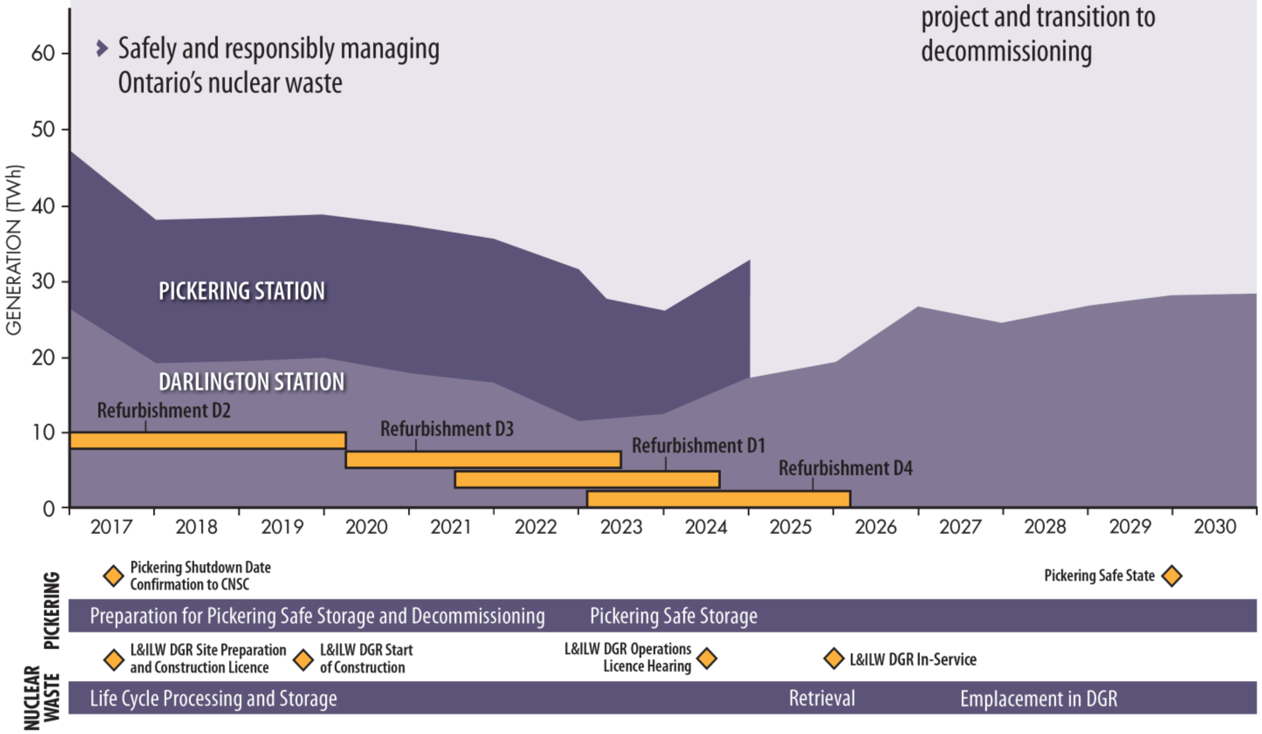
APPENDIX 5: NUCLEAR STRATEGIC FRAMEWORK

Nuclear Strategic Framework

Nuclear Cornerstones of Excellence

• Safety • Reliability • Value for Money • Human Performance

- Extending the life of Pickering station to 2024
- Achieving the cost and schedule commitments for the Darlington Refurbishment Project
- Safely and responsibly managing Ontario's nuclear waste
- Establish an organization that positions Darlington to achieve Top Quartile operational and financial performance
- Execute Pickering SAFSTOR project and transition to decommissioning



Key Strategic Goals

2017–2019

OPERATIONAL EXCELLENCE

- Protecting the health and safety of workers, public, environment, and plant.
- Establishing an Equipment Reliability Centre of Excellence to support sustainable reliability of our Nuclear stations.

PROJECT EXCELLENCE

- Integrating and executing the Darlington Unit 2 Refurbishment on schedule and budget.
- Improving project outcomes across the enterprise through the Project Management Centre of Excellence.

FINANCIAL STRENGTH

- Focusing on outage performance to meet our generation commitments.
- Optimizing inventory levels while ensuring availability of critical parts.
- Completing assessments to enable extending Pickering operations to 2024.

SOCIAL LICENCE

- Complying with all applicable laws, codes, and regulations.
- Ensuring safety of the public and environment and reducing tritium emissions as low as reasonably achievable.
- Strong community and stakeholder relations.

APPENDIX 6: RENEWABLE GENERATION & POWER MARKETING FINANCIAL PLAN, OPERATIONAL TARGETS, AND INITIATIVES

Financial Plan

	Forecast	Business Plan			Projection	
(in millions of dollars)	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
OM&A						
Regulated Hydroelectric	192	199	193	194	205	206
Contracted Generation Portfolio	[redacted]					
Other* [redacted]						
Total Base OM&A						
Regulated Hydroelectric	44	71	95	96	107	98
Contracted Generation Portfolio	[redacted]					
Total Project OM&A						
Regulated Hydroelectric	236	270	287	290	312	303
Contracted Generation Portfolio	[redacted]					
Other* [redacted]	[redacted]					
Total RG&PM OM&A	[redacted]					
Capital						
Sustaining						
Regulated Hydroelectric						
Sir Adam Beck Pump GS Reservoir Rehabilitation	40	7	-	-	-	-
Sir Adam Beck I GS Canal Liner Rehabilitation	-		1	1	62	62
Other Sustaining Projects	109	125	111	120	153	133
Total Regulated Hydroelectric	**149**	**132**	**112**	**122**	**215**	**195**
Contracted Generation Portfolio						
[redacted]	[redacted]					
Other Sustaining Projects						
Total Contracted Generation Portfolio						
Total Sustaining Capital						
Development Capital						
[redacted]						
Sir Adam Beck Units 1 & 2 Conversion	0	2	17	43	27	-
[redacted]	[redacted]					
Ranney Falls GS Expansion	-	33	18	8	-	-
[redacted]	[redacted]					
Total Development Capital						
Total RG&PM Capital						
[redacted]						
Hydroelectric Gross Revenue Charge and Thermal Fuel						
Regulated Hydroelectric (net of SBG losses)**	322	331	344	338	327	321
Contracted Generation Portfolio	[redacted]					
Other						

* Includes $8M to $10M per year for work in support of the Nuclear Organization

** Regulated hydroelectric GRC expenses assuming no SBG losses are: $324M in 2016, $348M in 2017, $357M in 2018, $350M in 2019, $331M in 2020, and $324M in 2021.

Operational Targets

The key 2017-2019 RG&PM targets designed to drive continuous performance are set out below.

	Forecast	Business Plan		
	2016	2017	2018	2019
All Injury Rate *(#/200k hrs worked)*	2.06	0.90	0.65	0.40
Environment				
Significant Environmental Events (incl. Category A and B Spills)	-	-	-	-
Category C Spills	7	9	9	9
Environmental Infractions	7	8	8	8
Capacity *(MW)*	[redacted]			
Regulated Hydroelectric	*6,421*	*6,433*	*6,433*	*6,509*
Contracted Generation Portfolio (Hydro, Thermal and Solar)	[redacted]			
Wind (No Contract)				
Hydroelectric Availability *(%)*	[redacted]			
Regulated Hydroelectric	*89.1*	*87.3*	*90.0*	*90.7*
Contracted Generation Portfolio Hydroelectric	[redacted]			
Hydroelectric Equivalent Forced Outage Rate *(%)*	[redacted]			
Regulated Hydroelectric	*1.9*	*1.7*	*1.7*	*1.7*
Contracted Generation Portfolio Hydroelectric	[redacted]			
Thermal Equivalent Forced Outage Rate (Operating) *(%)*				
Total Hydroelectric Generating Cost per MWh* *($/MWh)*	[redacted]			

* Calculated assuming no production is foregone due to SBG losses

Initiatives

The RG&PM business unit continues to focus on performance excellence, while continuing to drive for efficiency improvements through the following strategic initiatives:

- **Safety:** This initiative will focus on driving improvements in medical treatment injuries through stringent All Injury Rate targets.
- **Workforce Planning and Resourcing Efficiency:** This initiative will focus on resource planning with an emphasis on filling required positions. RG&PM will continue to review positions as they become vacant and challenge whether they are required. Attrition in engineering is being addressed through the re-introduction of the graduate engineer training program and the hiring of additional temporary senior engineers, to address shortfalls in the short term.
- **Environment:** This initiative aims to continue good environmental performance through programs such as the Management Self-Assessment on Drainage Surveys and support of the corporate environmental management system.
- **Project Excellence:** This initiative supports the corporate-wide initiative focused on implementing a standard scalable project delivery model throughout OPG via the established Project Management Centre of Excellence, in order to increase project predictability and successful project outcomes.
- **Operational Excellence:** This initiative focuses on sustaining hydroelectric availability and the thermal Equivalent Forced Outage Rate (operating) across the business plan period, as per targets and contractual limits, to ensure unit availability during the Darlington refurbishment.
- **Building Leadership Capability:** This initiative focuses on building strategic leadership capability, continuous improvement in succession planning, engagement in the company-wide leadership development program, mentoring of high potential individuals, and continuing to strengthen and develop partnerships with host communities and Indigenous communities.
- **Productivity Improvements:** This initiative focuses on continued review of opportunities for efficiency gains from strategic initiatives, optimizing the productivity of maintenance staff, and focusing on the Attendance Support Program.
- **Regionalization:** This initiative will continue to explore further efficiencies through regionalization.

APPENDIX 7: BUSINESS AND ADMINISTRATIVE SERVICES FINANCIAL PLAN, OPERATIONAL TARGETS, AND INITIATIVES

Financial Plan

	Forecast	Business Plan			Projection	
(in millions of dollars)	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
OM&A						
Chief Information Officer	118	120	119	121	122	121
Real Estate	96	99	99	101	102	107
Supply Chain	53	56	56	57	58	60
SVP Office	1	1	1	1	1	1
Base OM&A	**267**	**277**	**275**	**280**	**283**	**289**
Chief Information Officer	30	16	15	14	15	14
Real Estate	2	5	5	5	6	5
Project OM&A	**32**	**22**	**20**	**19**	**21**	**19**
Total BAS OM&A	**298**	**299**	**295**	**300**	**305**	**309**
Capital						
Chief Information Officer	41	30	26	26	26	26
Real Estate	18	18	11	12	8	8
Darlington Refurbishment Project	20	22	19	18	17	18
Total BAS Capital	**79**	**70**	**56**	**56**	**51**	**52**
Nuclear Waste Provision Expenditures	**3**	**5**	**5**	**5**	**6**	**6**
[redacted]	[redacted]					

Operational Targets

Business and Administrative Services (BAS) comprises the Company's centralized Supply Chain, Chief Information Office, and Real Estate Services functions. The key 2017-2019 targets for BAS include the following:

	Forecast	Business Plan		
	2016	2017	2018	2019
Employee Safety				
All Injury Rate *(#/200k hrs worked)*	< 0.38	< 0.35	< 0.35	< 0.35
Lost Time Injuries	0	0	0	0
Total Sick Days per Employee Annualized *(days)*	13.5	12.4	11.9	11.4
Environment				
Category C Spills	1	1	1	1
Environmental Infractions	3	3	2	2
Waste Diversion Target *(%)*	≥ 80	≥ 80	≥ 80	≥ 80
Supply Chain				
Unplanned Nuclear Generation Loss Due to Vendor Quality *(days)*	14.0	12.5	12.0	12.0
Scope Removal due to Unavailable Parts - Nuclear *(%)*	DN=3.0 PN=1.8	10% of outage scope variance target		
Stock-out Nuclear Materials (Critical 1 & 2 Parts) *(%)*	1.8	1.3	1.0	1.0
Strategic Sourcing (value improvement on addressable spend) *($m)*	[redacted]			
Supply Chain Achievement of Projects Business Unit Milestones *(%)*	100	100	100	100
Information Technology *(%)*				
Critical IT System Availability	99.98	99.98	99.98	99.98
Cyber Security Capability Health *(% Adherence to Plan)*	N/A	98	98	98
IT Projects Benefits Realization	98	98	98	98
IT Execution Phase Project Adherence (Portfolio)	95	95	95	95
Real Estate				
Cost Performance Index LTD Active Projects	≥ 0.95	≥ 0.95	≥ 0.95	≥ 0.95
Schedule Performance Index LTD Active Projects	≥ 0.95	≥ 0.95	≥ 0.95	≥ 0.95

Initiatives

Key initiatives of BAS focus on delivering cost effective, value added services in support of generation business unit operations and projects, while continuing to improve efficiency. The initiatives include:

- **Strategic Sourcing**: Supply Chain will maximize OPG spend leverage through a re-compete sourcing strategy and enhanced spend category management to achieve a targeted [redacted] value improvement over the business planning period.
- **Project and Contract Management Excellence**: Supply Chain, in collaboration with operating business units, will establish and execute an enterprise-wide model for project and contract management, leveraging industry best practices. This will include establishing a Centre of Excellence to provide leadership and oversight for governance, reporting, systems and tools, and training and development.
- **Supplier Quality and Counterfeit, Fraudulent and Sub-Standard Parts**: While Supply Chain has established effective programs for managing these risks, continuous improvement opportunities will continue to be identified through self-evaluation, benchmarking and third party review. In addition, Supply Chain will expand supplier quality programs to mitigate risk exposure from counterfeit, fraudulent and suspect items across second and third tier sub-suppliers by the fourth quarter of 2018.
- **IT Innovation Strategies and Technology Investments:** Chief Information Office will continue to leverage new IT technologies and automate business processes to deliver operational productivity and cost efficiency improvements.
- **Information Management Optimization Strategy:** Chief Information Office will advance the use of electronic records to transition to a common records and document management system to reduce costs and improve services to less than 5 days by November 2018.
- **Cyber Security:** Chief Information Office will continue to implement the 8-point cyber security program to better ensure OPG remains vigilant, secure and resilient against growing and emerging threats. This is in direct support of the OPG Board Policy on Cyber Security.
- **Strategic Long-Term Accommodation Plan:** Real Estate & Services will partner with business units across OPG to develop a long-term accommodation strategy to optimize owned and lease premises.
- **Infrastructure Life Cycle Planning:** Real Estate & Services will undertake an initiative to optimize infrastructure capital investment through life cycle planning to maintain aging assets and facilities.

ATTACHMENT ‘B’

Confidential, Unredacted Documents