OPG's Amended 2020-2026 Business Plan

October 19, 2020

ONTARIO POWER GENERATION

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Executive Summary

This business plan sets out Ontario Power Generation's (OPG) operational, financial and other performance goals and targets for the 2021-2026 period, a forecast of performance for the 2020 year and, to reflect pandemic-related impacts, a restated 2020 budget. Through the plan, OPG will drive continuous improvement across the organization, deliver strong financial results to its Shareholder, the Province of Ontario (Province), and provide value to electricity consumers and broader economy, all while advancing the company through a period of significant change. The performance of the company's regulated business over the period will be underpinned by the outcomes of the upcoming five-year rate application to the Ontario Energy Board (OEB).

The business plan is ambitious as the company concurrently focuses on a number of key priorities, including: continued streamlining of the operating cost structure, completing the Darlington refurbishment, executing a large fleet-wide capital program, preparing for the end of Pickering commercial operations, integrating recently acquired assets, and continuing to transform the organizational culture. Additionally, the plan reflects OPG's strong leadership in climate change and sustainability, with a portfolio of strategic growth investments and initiatives that will contribute to carbon reduction and economic development, increase value for the Shareholder and prepare Ontario and Canada for the future of energy.

The plan also reflects implementation of an organizational realignment undertaken in the second half of 2020 with the goal of increasing cross-functional synergies and collaboration. These changes are resulting in incremental operational efficiencies and savings in management positions, marking an important step towards preparing the company for post-Pickering operations.

Most importantly, the business plan recognizes the company's critical role, as Ontario's largest electricity producer, in the current pandemic environment. It also recognizes that the pandemic continues to affect many across the province and beyond. Since the onset of COVID-19 earlier in the year, OPG has taken steps to protect the safety of its essential workers, while ensuring a continued safe, reliable supply of electricity and helping community needs through donations of personal protective equipment and other contributions. In alignment with provincial measures, OPG took prompt action to suspend a number of projects and other activities in March 2020, before resuming this work with enhanced safety measures beginning in June 2020.

The business plan reflects the impact of actions taken in response to COVID-19, primarily through amended generation plans reflecting the adjusted Darlington refurbishment schedule, other revised project timelines and expenditures on pandemic measures. OPG continues to closely monitor and respond to the evolving pandemic but, given uncertainties, has not assumed any additional impacts to the business in developing the plan. To the extent the second or subsequent wave necessitates additional actions, there remains an inherent risk to the operating, project and financial assumptions and outcomes of the plan.

- ***OPG to earn an average of over [redacted] in net income annually and achieve a net income of [redacted] while managing risks to the credit rating in earlier years of the plan***

OPG expects to earn over [redacted] per year of net income, on average, over the 2020-2026 period, [redacted] through rate base growth upon return to service of refurbished Darlington nuclear units, continued investment in the hydroelectric fleet, and [redacted] This level of earnings will enable OPG to deliver a Total Shareholder Return of [redacted], on average, [redacted] In addition to net income, Total Shareholder Return includes income tax, hydroelectric gross revenue charge and property tax amounts payable to the Province.

As the regulated businesses account for a great majority of OPG's revenues, the success of OPG's upcoming rate application to the OEB that will set the 2022-2026 nuclear regulated rates is critical to the organization's continued financial strength. Under an existing rate smoothing mechanism that defers collection of revenues until after the Darlington refurbishment project ends, OPG will propose nuclear regulated rates that will help to maintain more stable customer prices, while seeking to balance the impact on OPG's investment grade credit ratings that affect cost of financing. For the regulated hydroelectric business, OPG has assumed a frozen base rate for the 2022-2026 period, at the OPG-requested rate for 2021, based on proposed regulation amendments at the time of writing. Taking into account the rate freeze,

the plan assumes a weighted average increase in the hydroelectric and smoothed nuclear regulated rates of 2% over the 2022-2026 period, on average, which approximates inflation and is consistent with the average increase approved by the OEB in the 2017-2021 rate application. This results in incremental rate smoothing deferrals of approximately $900 million, plus interest, over the period, bringing the cumulative deferred amount to $1.7 billion by end of 2026.

[redacted]

Upon resetting of nuclear regulated rates and inclusion of the natural gas plant assets acquired in April 2020, OPG expects to maintain an approximate [redacted] price advantage over the average of other generators in Ontario over the business plan period. The company will also maintain its position as the largest clean energy provider in the province.

Earnings, operating cash flow and credit metrics are expected to [redacted]. In 2021, this reflects changes to the Darlington refurbishment and planned outage schedules in response to the pandemic, including deferral of a major planned outage from 2020 to 2021, which is reflected in correspondingly [redacted]. The [redacted] reflect the resetting of regulated rates and associated rate smoothing impacts. [redacted]

- ***OPG to achieve cumulative savings in base operating costs of approximately [redacted] relative to inflation and an Enterprise Total Generating Cost of [redacted] while managing organizational impacts of the end of Pickering commercial operations***

OPG continues to focus on maximizing the value of its low-carbon generating assets by improving operational and cost performance and maximizing their safe, reliable energy production. For the nuclear business, this includes optimizing the remaining operating life of the Pickering nuclear station (Pickering) and positioning the Darlington nuclear station (Darlington) toward industry-leading performance post refurbishment.

Under OPG's optimized Pickering shutdown plan as endorsed by the Province's August 2020 announcement, Units 1 and 4 are expected to be taken offline by the end of 2024 and Units 5-8 by the end of 2025, which takes into consideration the need to mitigate a period of energy supply constraints as Bruce and Darlington nuclear units undergo refurbishment. The operation of Pickering units beyond December 31, 2024 is subject to regulatory approval by the Canadian Nuclear Safety Commission (CNSC). The end of Pickering commercial operations will have consequential impacts to the company, its workforce and the province, as the station currently supports more than 7,500 jobs, including over 3,000 employees at OPG, accounts for approximately 14% of Ontario's total electricity generation and attracts a significant portion of the company's corporate and operations support costs.

To streamline the organizational cost structure and help mitigate the post-Pickering reallocation of support costs to OPG's remaining operations, the plan targets efficiencies that will result in estimated cumulative savings in Base operating, maintenance and administration (OM&A) costs, [redacted], of approximately [redacted]. Combined with the sustaining capital program discussed below, these targeted efficiencies will allow the company to achieve an Enterprise Total Generating Cost (TGC) of [redacted] for its Ontario-based operations by [redacted]. OPG will enable these cost savings through a wide range of approaches, including: leveraging technological solutions such as process automation, artificial

intelligence and drone use; implementing organizational changes to achieve additional functional synergies in-line with the targeted post-Pickering cost structure; office space consolidation as part of a real estate strategy; sourcing efficiencies; resource rationalization; and optimization of maintenance work programs. These and other initiatives will allow OPG to reduce staffing levels over the business plan period.

By 2026, OPG expects to reduce a total of approximately [redacted] filled by term-based employees in accordance with agreements with the company's unions. Leading up to 2026, OPG primarily plans to leverage attrition, reducing up to 300 regular positions by the end of 2023. Remaining positions will be eliminated in 2026, primarily through a downsizing process, as Pickering units are taken offline and Darlington refurbishment is completed. These reductions are in addition to the management positions being eliminated primarily through the balance of 2020 under the recent organizational realignment, which strategically consolidated operating groups to leverage cross-functional efficiencies and reduce support costs. Subject to future collective bargaining outcomes, the plan assumes continued hiring of term-based employees for unionized positions expected to be eliminated following the safe shutdown of Pickering. Term-based employees attract a lower severance obligation than regular employees and are not subject to collective agreement redeployment processes.

The downsizing and transition of employees out of the organization following the end of Pickering commercial operations will be a complex undertaking, governed by collective agreements. The provisions of the agreements are expected to trigger redeployment and training of regular employees who transition from former Pickering positions to similar positions at Darlington or any other affected parts of the organization. While the plan includes an indicative estimate of the downsizing costs expected to be incurred in the period of approximately [redacted], further planning work and a number of uncertainties remain regarding the underlying assumptions and impacts, which will continue to evolve through the business plan period. As such, the plan assumes that the costs will be recorded in a new OEB-authorized deferral account for future recovery, rather than be reflected in the upcoming rate application, as facilitated by proposed regulation amendments at the time of writing. OPG will continue to implement strategies to mitigate the impact of the downsizing and associated costs, including identifying potential redeployment and retraining opportunities to enable employee skill development, augmenting their ability to continue to benefit Ontario.

OPG plans to generate [redacted] of energy from Ontario based facilities and approximately [redacted] from the US operations over the business plan period. In striving to maximize electricity generation, OPG is targeting achievement of a stable forced loss rate of 3.5% for Pickering through to the end of life and a top-quartile forced loss rate of 1.0% for Darlington. Pickering continues to strive consistently for operational improvements, planning '*its last day*' as '*its best day*' and is projected to reach TGC per MWh performance in line with first quartile by 2025. While incremental capital investments in support of 'second life' operations will continue to put pressure on Darlington's TGC per MWh performance during the business plan period, OPG estimates the station will achieve second quartile performance by 2026. These investments will position Darlington towards achieving industry-leading performance metrics upon return to normal capital investment levels and steady state post-refurbishment operations.

OPG's hydroelectric fleet remains the mainstay of the company's low cost, reliable, carbon-free generation and, with appropriate reinvestment, will continue to deliver strong value to customers and the Shareholder for many decades. Based on peer industry data, OPG's regulated hydroelectric fleet performed at the second quintile for OM&A and sustaining capital costs and in the first quintile for availability. Subject to water and market conditions, the company's sustained strategy for both Ontario and US based assets is to increase output, maximize cost efficiency and ensure reliability, while preserving their long-term value.

For Ontario based hydroelectric assets, OPG's focus over the period will be on improving water utilization and management, increasing capacity through asset redevelopment and upgrade programs, and strengthening resilience against adverse weather events and future climate change impacts. For the US operations, OPG's near-term focus will be on completing integration activities, advancing re-licencing efforts with the Federal Energy Regulatory Commission (FERC) and investing in reliability improvements at key facilities, as the acquired fleet moves down a continuous improvement path toward the Ontario based assets. Across the entire hydroelectric fleet, the company will continue to invest in dam and public safety enhancements as an overriding priority.

In providing over 2,700 MW of capacity to Ontario's system, OPG's four recently acquired natural gas-fired facilities operating under the self-sustaining subsidiary Atura Power (Atura) will focus on efficiently ensuring

availability during peak demand periods and offering flexibility to respond to changing conditions, thereby enabling intermittent sources of renewable generation. In supplying an increasing share of the province's energy needs over the business plan period, Atura will also examine changes in technology to continue to improve the environmental performance of the plants with the goal of achieving best in class efficiency and reducing carbon. [redacted]

- ***OPG's capital investment plan of [redacted] to support growth of regulated rate base to $23 billion by 2026 and generate new revenue opportunities, while advancing the company's ambitious climate change goal of achieving net-zero carbon emissions by 2040***

As a North American clean energy leader, OPG will advance ambitious climate change goals and prepare Ontario and Canada for the future of energy through significant investments in the company's low-carbon fleet, continuing to expand and innovate the business. With total planned capital investments of [redacted] during the business plan period, OPG will: complete the Darlington refurbishment; invest in continued efficiency, safety and reliability of existing assets; continue re-developing an aging hydroelectric fleet; invest in electrification, energy storage and other solutions; [redacted] advance the company's digital strategy; and build a new, sustainable corporate campus in Clarington, Ontario. OPG will also continue to advance potential deployment of SMRs in Ontario and beyond.

OPG estimates that, inclusive of Darlington refurbishment, at least [redacted] out of the total planned capital program will progress de-carbonization efforts and other climate change related strategies, in line with its goals of becoming a net-zero carbon company by 2040 and supporting a net-zero carbon economy by 2050. These investments will form part of the company's formal climate change plan. Additionally, subject to the OEB's approval, the planned capital program will increase the regulated rate base to $23 billion by 2026, net of depreciation, a doubling from year-end 2019 levels.

Having safely and successfully returned Darlington's Unit 2 to service in June 2020 in line with the approved execution estimate, OPG has commenced the refurbishment of Unit 3 in September 2020. While the refurbishment schedule has been adjusted to reflect response actions to the pandemic earlier in the year, the project is expected to be completed by the end of 2026 and, excluding any ultimate impacts of the pandemic, continues to track to the baseline budget of $12.8 billion. The planned capital program also includes $2.5 billion for life cycle management and other sustaining infrastructure investments at Darlington, which will help to prepare the station for its second life. This will secure clean energy to supply over 20% of Ontario's electricity needs for the next 30-plus years.

For the hydroelectric assets, OPG plans to invest [redacted], including a major unit overhaul and upgrade program at a number of larger Ontario based facilities, redevelopment of several smaller facilities, projects to address dam safety requirements and other improvements at facilities on the Lower Mattagami River, and investments to improve reliability and advance re-licencing efforts for the US based facilities. [redacted]

OPG expects SMRs to be a central element of its, and the Province's, climate change plan, and continues to advance the acceptance and deployment of this technology for both grid-scale and off-grid applications. Over 2020 and 2021, OPG expects to devote $272 million in non-capital spending related to preliminary planning and preparation for grid-scale SMR development in Ontario and the renewal of the site preparation licence for the New Nuclear Darlington site, which can accommodate SMRs. Upon completion of the preliminary planning activities, OPG expects to put forth a detailed business case to the Board for approval and the Shareholder for concurrence to proceed with SMR development and construction activities. The plan does not reflect SMR expenditures or project team ramp up beyond the preliminary planning phase. This determination is expected to be made as part of next year's business plan.

[redacted]

[redacted]

- ***OPG to be recognized as the organization of choice for customers, partners, talent and Indigenous and local communities, with a strong focus on community relationships, public trust and commitment to equity & diversity***

As Ontario's largest electricity provider, OPG recognizes that it must focus on a broad range of corporate and social responsibilities in executing business strategies. In addition to ensuring safe, reliable and carbon conscious operations, central to this is maintaining public trust, building strong partnerships and demonstrating a clear commitment to equity, diversity and inclusion (ED&I). To help advance some of these goals, OPG will continue to execute a well established community outreach program, maintain transparent dialogue with stakeholders and continue to build greater familiarity with OPG's contributions to the province.

Advancing the company's ED&I strategy to deliver on a corporate promise to "accelerate equity, celebrate diversity and foster a culture of inclusion" will continue to be of particular focus. ED&I at OPG means that all employees, contractors and business partners are treated fairly and respectfully and each individual is able to reach their full potential, which is fundamental to a healthy workforce and achievement of business objectives. OPG will continue to implement its ED&I strategy with the goal of being recognized as one of Canada's Best Diversity Employers by 2023. Building on the recent signing of the BlackNorth Initiative's CEO pledge, OPG will also advance its anti-racism plan to evaluate internal practices to identify and address systemic barriers to the retention, advancement and success of Black and other historically disadvantaged groups. Finally, OPG will continue to target increases in diverse representation, including representation of women, throughout the workforce, with progress being made in this area at the senior leadership level.

OPG will also continue to place an emphasis on building and reinforcing strong relationships with Indigenous communities. This includes continuing with such efforts as community outreach and engagement, facilitating employment and procurement opportunities, and, as appropriate, exploring new potential mutually beneficial partnerships. SMR development is expected to be one strategic area of outreach over the business plan period, as is continuing to advance and potentially expand OPG's Indigenous Opportunities in Nuclear employment placement program. OPG will also continue working towards a Gold certification in its next submission under the Progressive Aboriginal Relations program of the Canadian Council of Aboriginal Businesses.

To help identify Ontario electricity customer needs as inputs to the business plan, OPG undertook a multi-stage customer engagement process. The first phase of the customer engagement process identified the outcomes on which customers expected OPG to focus. Customers highlighted that, while low-cost power is a top priority, other outcomes are also critical, including safety, environmentally responsible disposal of nuclear materials, minimizing impact on the environment, and reliability. When asked to rank priorities, most customers selected outcomes other than price as their first priority. The second phase sought customer input on a range of business decisions that OPG was contemplating for the coming years, with feedback received on such specific matters as capital investments, rate smoothing and innovation. OPG has incorporated customers' input from both phases into the business plan. Further details on the results of the Customer Engagement Process and how they informed the business plan are found in Appendix 5.

Key planning assumptions underpinning the business plan are found in Appendix 1, and the major risks are identified in Appendix 2. Appendix 3 sets out the detailed financial and headcount business plan targets and outcomes.

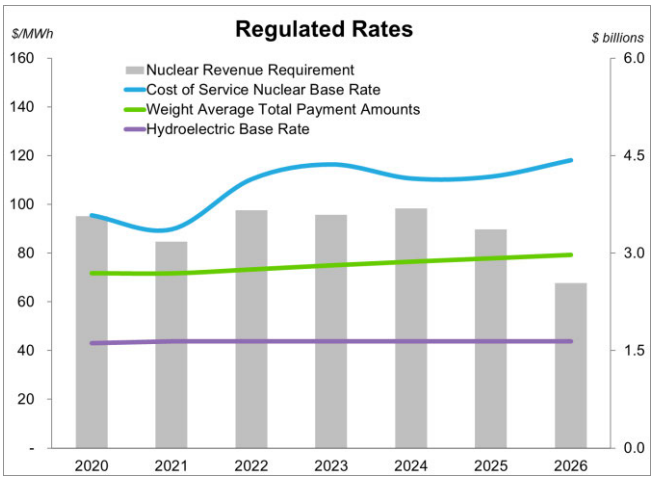
Financial Strength

OPG's plan achieves strong financial returns to the province, with net income of [redacted] and Total Shareholder Return of [redacted] OPG will continue to leverage its industry experience and financial strength to pursue strategic investments that will increase Shareholder value and diversify operational risk, while managing impacts to its credit ratings and supplying electricity at [redacted] lower cost than the average of other generators.

OPG's strategic objective is to generate strong financial returns for the Shareholder, while taking into account the impact on electricity consumers by continuing to implement improvements in the company's cost structure. In line with its commercial mandate, during the business plan period, OPG will focus on increasing earnings from its existing operations and recently completed acquisitions, and continues to pursue opportunities to expand its North American portfolio through a combination of development projects, potential acquisitions and energy solutions. OPG's financial results for the 2022-2026 period will be subject to the outcome of the upcoming five-year rate application to the OEB.

Regulated Rates

OPG is planning to file a five-year nuclear rate application with the OEB for the 2022-2026 period. Consistent with the current rate-setting framework, the business plan assumes that the application will seek approval of annual nuclear revenue requirements, net of an assumed efficiency stretch factor. In accordance with proposed amendments to O. Reg. 53/05 at the time of writing, OPG's hydroelectric base rates for the 2022-2026 period are assumed to be frozen at the 2021 base rate requested in OPG's September 2020 annual adjustment application under the approved incentive regulation formula. If the proposed amendments are enacted, OPG will not file a 2022-2026 hydroelectric base rate application.



Pursuant to O. Reg. 53/05, OPG's application will include a rate smoothing proposal, with a nuclear base rate trajectory that produces a more stable change in OPG's total weighted average payment amounts (WAPA) over the five year period. The difference between the approved nuclear revenue requirements and amounts forecasted to be collected based on smoothed nuclear base rates will be recorded in the authorized interest-bearing Rate Smoothing Deferral Account (RSDA) for future collection. The projected cost-of-service nuclear base rates, which are the rates absent smoothing, increase over the 2022-2026 period, mainly due to lower nuclear generation resulting from the Darlington refurbishment outages, an increase in the rate base from the Darlington refurbishment investment, and, by 2026, the end of Pickering commercial operations. WAPA includes both nuclear and hydroelectric regulated rates.

In addition to the impact of the remaining three Darlington units completing refurbishment, the projected 2022-2026 nuclear revenue requirements reflect OPG's targeted cost structure leading up to and immediately following post-Pickering operations. Projected nuclear revenue requirements also reflect pension and other post-employment benefits (OPEB) costs on an accrual basis, consistent with the OEB's 2017 generic consultation report and the outcome of OPG's 2018 deferral and variance account application, in which the OEB approved a settlement agreement between OPG and interveners that supported the use of the accrual accounting method of recovery. The plan assumes that Pickering closure downsizing costs are recorded in a deferral account facilitated by proposed amendments to O. Reg. 53/05 at the time of writing, for future collection subject to OEB's approval, and therefore are not included in the projected 2022-2026 revenue requirements and associated rate smoothing deferrals.

OPG's rate smoothing proposal in the application will seek to balance the impact on customers with the effects on OPG's credit rating metrics, in order to mitigate potential increases to the company's financing costs. The business plan assumes an annual average increase in the WAPA of 2%, which approximates inflation and is consistent with the average WAPA increase approved by the OEB in the 2017-2021 rate application. Based on the projected revenue requirements, this level of rate smoothing is estimated to defer approximately $900 million of revenue into the RSDA over the 2022-2026 period, bringing the cumulative RSDA balance to approximately $1.7 billion by the end of 2026. Pursuant to O. Reg. 53/05, the OEB must authorize the recovery of the account balance over a period of up to 10 years beginning at the end of the Darlington refurbishment project. The account records interest at OPG's long-term borrowing cost as authorized by the OEB.

In accordance with US GAAP, amounts deferred in the RSDA are recognized as revenue in the period to which the underlying nuclear revenue requirement relates and are recorded as a regulatory asset on the balance sheet. Accordingly, the estimated deferral from the 2022-2026 rate application is included in net income over the business plan period, to be collected as part of the RSDA balance beginning in 2027.

The business plan continues the recovery of deferral and variance account balances as of December 31, 2017 approved by the OEB through OPG's 2018 deferral and variance account application. The plan also assumes that most of the deferral and variance account balances as of the end of 2019 accumulated since December 31, 2017 are cleared as part of the 2022-2026 rate application. The resulting deferral and variance account rate riders for the 2022-2026 period are included in the WAPA calculations for nuclear rate smoothing purposes. As deferral and variance accounts represent amounts recorded in prior periods, their recovery improves operating cash flow but does not have a material impact on net income over the business plan period.

Based on a current typical residential customer's monthly bill, OPG's upcoming rate application is estimated to result in requested increases of up to 0.5%, or $0.5, each year over the 2022-2026 period. Taking into account the estimated rate increases, the cost to customers of all electricity generated in the province by OPG is expected to be approximately [redacted] below the average of other generators in Ontario over the business plan period.

Building the Business through Innovation

OPG will continue to invest strategically in electrification, clean energy generation and innovative technologies. These revenue-generating growth strategies will help to drive economic renewal in the province and are aligned with the company's climate change plan to become a net-zero carbon company by 2040 and support net-zero carbon economies by 2050. As further discussed in the respective sections, the plan is estimated to include a total of at least [redacted] in investments that will progress climate change related strategies, including completion of the Darlington refurbishment project.

OPG expects SMRs to be a key element of the energy sector, and the Province's, efforts to support de-carbonization. As Canada's largest nuclear operator with extensive experience and a strong safety record, OPG is well-positioned to advance and secure acceptance of both grid-scale and off-grid SMRs across Canada and beyond. To that end, in 2020, OPG formed a joint venture with Ultra Safe Nuclear Corporation and the Global First Power, with the goal of developing a proposed Micro Modular Reactor™ SMR at the Chalk River Laboratories site. The joint venture is the first commercial partnership on the development of an SMR in Canada and can serve as a model for future off-grid SMR projects. The plan allocates non-capital expenditures of [redacted] toward OPG's portion of funding for this demonstrator reactor.

Additionally, OPG is progressing preliminary planning phase work for grid-scale SMR development in Ontario and the renewal of the site preparation licence for the Darlington New Nuclear site, which can accommodate SMRs. In collaboration with other major utilities, OPG recently concluded a due diligence process and is working to advance engineering and design work with three grid-scale SMR developers. Subject to the OEB's approval, the preliminary planning phase costs are recoverable in the future through an authorized regulatory account. Prior to finalizing plans to proceed with grid-scale SMR development beyond the preliminary planning phase, OPG will seek approval from the Board and concurrence from the Province. The plan does not reflect project development expenditures or resource requirements beyond the preliminary planning phase.

Nuclear generating technology also continues to be an efficient source of medical isotopes that serve significant societal needs, including Molybdenum-99 and Cobalt-60 that are critical for life saving technologies. OPG currently produces over 50% of medical isotopes in Ontario. During the business plan period, OPG's non-regulated business will continue to make investments in support of commercial opportunities related to isotope production at the Darlington station, as further discussed in the Project Excellence section.

With more than 30% of Ontario's carbon emissions coming from transportation, electrification of the sector represents a significant opportunity for reducing carbon emissions and growing OPG's business. OPG's strategy is focused on advancing electrification through deployment of personal charging infrastructure and expansion into electrification of mass transit and commercial transportation. During the business plan period, OPG will leverage its expertise to enable adoption of electric vehicles in the province and advance strategic relationships with transit authorities and commercial fleet owners to identify opportunities for building out charging networks and providing electrification services. The business plan allocates capital investments totalling approximately [redacted] toward these potential opportunities.

As advances in technology continue to enable the growing prominence of distributed energy resources, OPG's strategy, subject to securing appropriate financial returns, is to leverage its industry expertise to build a scalable portfolio of energy storage business. In addition to supporting an efficient electricity system, when paired with intermittent sources of renewable generation such as wind and solar, energy storage solutions can significantly improve these sources' reliability, especially in peak periods of demand. [redacted]

Continued advancement of cost effective clean energy developments and innovative solutions is critical to preparing Ontario and Canada for the future of energy as part of an evolving global response to climate change. OPG's multi-pronged strategy of proactive investment in these technologies, ranging from SMRs to transportation electrification, will support achievement of climate change goals, help to create 'Made-in-Ontario' jobs and generate incremental financial returns to the Shareholder.

Building the Business through Acquisitions

Since 2018, OPG has invested approximately $5 billion in strategic growth of the organization through acquisitions of over 600 MW in smaller scale US hydroelectric assets and four combined-cycle natural gas fired plants in Ontario. [redacted] In addition to generating financial returns, OPG's acquisition strategy will help to maintain the company's industry leadership position, diversify generation business risk and create potential for further growth. The impact of the US electricity market prices and [redacted] is discussed further in the Net Income and Business Development sections.

The US hydroelectric expansion to date has included the acquisition of Eagle Creek Renewable Energy (Eagle Creek) in November 2018 and the acquisition of Cube Hydro Partners and affiliate (Cube Hydro) in October 2019. In order to maximize the economic, operational and strategic value of the investments, the two companies have been combined into a single "best of both" organization to form OPG's self-sustaining US hydroelectric platform, operating under the Eagle Creek name. [redacted]

[redacted]

In April 2020, OPG completed an acquisition of a portfolio of combined-cycle natural gas fired plants in Ontario. Adding to an earlier acquisition of the remaining 50% of the Brighton Beach plant in August 2019, the transaction included the Halton Hills and Napanee plants and the remaining 50% of the Portlands Energy Centre (PEC). The four gas plants are being integrated into a single fleet with a capacity of approximately 2,700 MW under the Atura subsidiary, headquartered in Ontario. OPG's long-term horizon for the investment in these assets allows their economic benefits to accrue directly to Ontario.

As the province's single largest operator of natural gas fired generating facilities, Atura's goal is to maximize the value of the fleet by efficiently ensuring its availability during peak demand periods and offering flexibility in response to changes in electricity demand, thereby enabling intermittent sources of renewable generation in the province. In doing this, Atura will examine changes in technology that will continue to improve the environmental performance of the plants with the goal of achieving best in class efficiency and reducing carbon. [redacted]

Net Income

OPG forecasts generating over [redacted] per year of net income, on average, over the 2020-2026 period, reaching [redacted] by 2026. Over 2020 and 2021, this represents a [redacted] in net income of approximately [redacted] compared to the 2019-2021 Business Plan.

[redacted]

As discussed below, [redacted] forecasted net income of [redacted] followed by a [redacted] reflects nuclear generation impacts arising from adjustments to the Darlington refurbishment and planned outage schedules in response to the COVID-19 pandemic. The net income profile over the 2022-2026 period reflects the impact of the assumed resetting of regulated rates, increase in rate base from the completion of the Darlington refurbishment, and earnings from the recently completed acquisitions.

The drivers of the [redacted] in net income to [redacted] compared to [redacted] in 2019, include:

- fewer refurbishment outage days at Darlington reflecting operation of all four units for a portion of the year upon Unit 2 returning to service, along with the deferred start of Unit 3 refurbishment later in the year, in response to the pandemic;
- fewer non-refurbishment planned outage days at Darlington reflecting deferral of the Unit 1 planned outage to 2021 in support of the revised refurbishment schedule in response to the pandemic;
- impact of refurbished Darlington Unit 2 entering rate base upon return to service in June 2020; and
- incremental earnings from the acquisition of gas fired plants in April 2020.

These factors are partially offset by the following:

- a larger planned outage program at Pickering in line with the station's planned outage schedule, which decreases nuclear production and increases OM&A expenses;
- lower capitalized interest related to Darlington refurbishment expenditures; and

- [redacted]

[redacted]

[redacted] OPG is planning to achieve net income of [redacted]. The year-over-year [redacted] in net income compared to [redacted] primarily results from:

- higher non-refurbishment planned outage days at Darlington reflecting two major planned outages, including the one deferred from 2020;
- higher refurbishment outage days at Darlington reflecting a full year of Unit 3 refurbishment;
- [redacted], primarily for components of major hydroelectric unit overhaul and civil structure rehabilitation projects not eligible for capitalization and due to pandemic-related deferral of work into 2021 as a result of suspending activities in Spring 2020; and
- [redacted]

These factors are partially offset by the following:

- impact of a full year of refurbished Darlington Unit 2 in rate base;
- fewer planned outage days at Pickering, which increases nuclear production and decreases OM&A expenses;
- a full year of earnings from the gas fired plants acquired in 2020, [redacted]
- [redacted]

Revised nuclear regulated rates are assumed to be in effect as of January 1, 2022 and are the main driver for the [redacted] net income in [redacted]

Net income is projected to [redacted], as a total of [redacted] of capital enters nuclear rate base upon return to service of refurbished Darlington units over the period. Other factors impacting planned net income over the 2022-2026 period include:

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- variability in capitalized interest in line with the Darlington refurbishment cost estimate and schedule.

In projecting earnings on rate base, the plan reflects the OEB's most recent prescribed return on equity (ROE) value of 8.52% at the time of writing, published on October 31, 2019 and in effect for rate applications for rates effective in 2020. The OEB's prescribed ROE value applies to all regulated utilities, including OPG, and is typically updated annually by the OEB as part of cost of capital parameters.

Plan over Plan Net Income

The major drivers of the [redacted] forecasted net income over the 2019-2021 Business Plan are as follows:

- [redacted]
- higher revenue due to higher nuclear production at Darlington, primarily from changes to the refurbishment schedule, partially offset by changes to the station's planned outage schedule, including those in response to the pandemic (+$250 million);
- higher revenue due to higher nuclear production from the deferral of the Pickering Vacuum Building Outage (VBO) to 2022 (+$150 million);
- [redacted]
- [redacted] sustainment project OM&A expenditures across the business to maintain and renew ongoing asset and infrastructure reliability [redacted]
- OM&A costs associated with enhanced health, safety and social response measures implemented in response to COVID-19 [redacted]
- [redacted] and
- [redacted]

In March 2020, the OEB authorized a deferral account for regulated utilities to record lost revenues and incremental costs related to the pandemic. Given the OEB's ongoing industry-wide consultation on the development of guidance related the account, OPG has not recognized an asset related to the account in the business plan.

The forecasted net income for [redacted] is tracking [redacted] than the restated budget for the year. The forecasted net income includes fewer Darlington refurbishment related outage days reflecting earlier return to service of Unit 2 and higher regulated hydroelectric production, partly offset by the impact of lower US electricity market prices. The restated budget for 2020 is detailed within the income statements in Appendix 3.

Financing and Liquidity

[redacted] due to Darlington generation impacts from COVID-19 response actions, forecasted operating cash flow [redacted] The [redacted] and reflects assumed payment of Pickering-closure downsizing expenditures, which the plan assumes are recorded in a new deferral account for collection in regulated rates subsequent to 2026, subject to the OEB's approval.

The [redacted] in forecasted operating cash flow [redacted] is driven mainly by lower nuclear production, higher nuclear outage expenditures reflecting two major planned outages at Darlington, including the one deferred from 2020, and higher SMR preliminary planning phase expenditures. This is partly offset by the full year of cash flow from the natural gas fired assets acquired in 2020, net of associated financing costs.

[redacted]

The year-over-year [redacted] in operating cash flow to [redacted] is mainly due to resetting of nuclear regulated rates and lower SMR preliminary planning phase expenditures, partially offset by the expiry of approved deferral and variance account rate riders, and assumed higher rate smoothing deferrals reflecting lower nuclear generation.

The year-over-year [redacted] in operating cash flow in [redacted] are driven mainly by assumed lower rate smoothing deferrals in 2023 and an increase in rate base from the Darlington refurbishment in 2024, and [redacted]. Operating cash flow [redacted].

OPG's total debt is forecasted at [redacted], inclusive of the impact of acquiring the natural gas fired assets at a purchase price of $2.8 billion. [redacted] in the plan, total debt is projected to [redacted] During the intervening years, debt levels [redacted] to fund peaks in the capital program, before [redacted] as Darlington unit refurbishments and other major projects are completed.

OPG's sources of long-term corporate debt include the public debt platform and credit facilities with the Ontario Electricity Financial Corporation. The assumed effective interest rate for new general long-term corporate debt is 2.50% up to 2022 and 3.50% for the remainder of the business plan period.

Credit Metrics

OPG monitors credit metrics used by credit rating agencies to evaluate the company's credit rating. Maintaining an investment grade credit rating is critical to OPG's continued ability to access cost effective financing, including for major projects and investments. OPG's current long-term/short-term credit ratings include A3/P-2 from Moody's Investors Service (Moody's) and BBB+/A-2 from S&P Global Ratings (S&P). In reaffirming OPG's current credit rating in July 2020, S&P revised their outlook from "Negative" to "Stable". OPG anticipates that it will maintain an overall high level of investment grade credit ratings over the business plan period. Importantly, OPG's credit rating receives a lift from Province's ownership, such that a rating outcome change for the Province would impact OPG's rating.

[redacted]

[redacted]

S&P and Moody's definitions of debt consider, as applicable, defined benefit pension and OPEB liabilities recognized on the balance sheet. [redacted] and the OEB's findings to date in support of the accrual method of recovery for pension and OPEB costs.

Furthermore, while OPG's rate smoothing proposal in the 2022-2026 rate application will seek to balance the impact on customers with the impact on OPG's credit metrics, the resetting of regulated rates and associated rate smoothing will likely add pressure to the metrics. Higher amounts of revenue are assumed to be deferred under rate smoothing in 2022 and 2023 reflecting lower nuclear generation during the Darlington refurbishment. OPG will highlight to the rating agencies that the decline in nuclear generation enables future growth of the rate regulated business, adding over $6 billion to the rate base over the 2022-2026 period. As discussed in the Regulated Rates section, the Province has provided for the collection of amounts deferred under rate smoothing and associated financing costs pursuant to O. Reg. 53/05.

Delivering Shareholder Value

Over the business plan period, OPG projects contributing [redacted] in Total Shareholder Return (on OPG's fiscal basis) to the Province's fiscal results. Total Shareholder Return consists of net income, income taxes payable to the Province, hydroelectric gross revenue charge payments, and payments in lieu (PILs) of property taxes to the OEFC.

Compared to the 2019-2021 Business Plan, Total Shareholder Return is forecasted to be [redacted], mainly due to [redacted] net income across [redacted]. For the [redacted] year, OPG [redacted] the commitments made in the 2019-2021 Business Plan by approximately [redacted].

Total Shareholder Return [redacted].

Operational Excellence

Through a period of significant change, OPG will demonstrate operational excellence by maximizing production, maintaining industry-leading safety performance and saving [redacted] in inflation-adjusted base operating costs, as it prepares for, and mitigates the organizational impacts of Pickering's end of life. By achieving Total Generating Cost of [redacted] OPG will continue to provide strong value to Ontario customers.

The plan recognizes that strong core operational and cost performance is foundational to OPG's continued success and business strategy. This includes a continued focus on opportunities for increased efficiencies across the organization and, in particular, mitigating the impact to the future cost structure posed by the dis-economies of scale resulting from the end of Pickering commercial operations.

To drive improvement in these areas, the plan builds on OPG's recent performance and the realignment of the organizational structure implemented in the second half of 2020. The changes mark an important step towards achieving the targeted post-Pickering cost structure, and better align the organization to focus on improving productivity, strengthening asset reliability and safely generating cost effective electricity at a low cost. Facilitated by an enterprise-wide focus, the plan targets substantial reductions in OPG's cost structure by the end of the business plan period, which will position Darlington towards industry-leading cost performance post refurbishment.

The company remains committed to targeting the highest standards of workplace and public safety across its operations, and will continue to invest in maintaining and enhancing the safety and security of its generating facilities. This includes managing, where possible, the risks of the COVID-19 pandemic. While OPG's preparedness plans and protocols have been effective at ensuring continued safe operation of its facilities during the pandemic, the second or a subsequent wave may require additional actions to be taken that may impact future generation and project plans, expenditure levels or other operating assumptions in the plan. OPG will continue to monitor and as necessary respond to the public health situation.

Key enterprise level initiatives that will support achievement of strategic objectives and business plan goals are summarized in Appendix 6.

Nuclear Operations

OPG is focused on continuously improving operational performance and cost effectiveness of the nuclear fleet across a broad range of processes. To enable achievement of the business plan targets, OPG is undertaking initiatives aimed at: continuing to drive better outage performance, improving equipment reliability, reducing maintenance backlogs, improving asset management planning, enhancing maintenance programs and strengthening the digital infrastructure. Some of the key initiatives include:

- Transitioning to digital work management tools and artificial intelligence in work management and outage planning processes;
- Utilizing the Monitoring and Diagnostics Centre to develop predictive failure models, transition to condition-based maintenance, and improve prioritization of maintenance activities;
- Leveraging supply chain initiatives to improve sourcing efficiencies and lower procurement cycle times, and leveraging project management initiatives to optimize portfolio management; and
- Empowering leaders by continuing to strengthen an innovation mindset to drive business efficiencies.

OPG benchmarks a variety of measures to drive continuous improvement, including the costs of the Pickering and Darlington stations against other nuclear stations using indicators of performance on a per MWh basis. To facilitate closer comparison, OPG normalizes the TGC per MWh measure for the impact of the Darlington refurbishment as well as CANDU technology and age-related factors when comparing against the benchmarked utilities.

As it approaches the end of commercial operations, Pickering is projected to improve to first quartile TGC performance by 2025, reflecting improved reliability and reduced capital investment requirements. In 2025, Pickering's TGC measure will have improved by $15/MWh compared to 2019, in line with management's commitment to making Pickering's '*last day*, *its best day*'. These results reinforce the economic and

operational benefits of Pickering's continued operation to the province's electricity system, which remain strong, particularly as system capacity is reduced during the Bruce and Darlington unit refurbishments. OPG expects to generate 59 TWh of energy from Pickering over the 2023-2025 period, realizing the benefits of the station's end of life optimization in capacity-constrained years. Operation of the Pickering units beyond December 31, 2024 is subject to CNSC's regulatory approval.

OPG continues to target industry leading cost performance at the Darlington station following refurbishment and transition to steady state 'second life' operations. Until such time, as anticipated, Darlington's TGC performance continues to be temporarily affected by higher project-related investments and reduced generation resulting from refurbishment outages. By 2026, the station is estimated to achieve second quartile performance. This aligns with OPG's objectives, whereby the asset investments and productivity improvements implemented during the period will position the station toward top quartile performance upon entering steady state post-refurbishment operations.

While cost performance is integral to OPG's operational excellence, achieving industry-leading safety metrics remains paramount. OPG's dedication to safety, plant reliability and overall operations was recognized in December 2019, when the World Association of Nuclear Operators (WANO) gave Pickering an exemplary performance rating, marking the first time the station has received this recognition and placing it amongst the top performing nuclear plants in the world. It was recognized that many areas of improvement from the previous review were converted to strengths, which supported the rating.

Darlington also continues to hold its excellent rating for the fourth consecutive review, based on the last WANO peer evaluation performed in the fourth quarter of 2018. Strengths identified in that review included fostering a culture of innovation to generate solutions to plant problems, striving for continuous learning and having an engaged workforce and leadership team. Reflecting an ongoing commitment to excellence, earlier in 2020, Darlington's Unit 1 set a new world record for continuous operation of a nuclear power reactor in North America and subsequently the world. During the business plan period, OPG will continue to strive for excellence and demonstrate continuous improvement by leveraging best practices and opportunities identified by WANO reviews.

The Darlington and Pickering operational targets are further detailed in Appendix 4.

Renewable Generation Operations

In support of operational excellence within its hydroelectric fleet, OPG is focused on optimizing production output through effective water utilization, increasing value of existing assets through capital investment, and implementing condition-based maintenance and technological efficiencies.

During the business plan period, OPG will continue to invest in the fleet by executing major rehabilitation of hydroelectric generators, including at the Sir Adam Beck 2 and R.H. Saunders flagship stations in Ontario. These cyclical investments are critical to ensuring that the company's hydroelectric assets, which have an average age of over 80 years, continue to be a reliable, cost effective energy source in the province. To reduce operation and maintenance costs, OPG will also continue to invest in water-to-wire efficiency improvements through the runner upgrade program and the replacement of aging equipment with more efficient components, in conjunction with the unit rehabilitations.

The plan reflects an optimized hydroelectric outage plan that will drive strong availability performance while supporting the long-term asset investment strategy. The forecasted fleet-wide availability for stations in Ontario averages [redacted] during the business plan period, with a target equivalent forced outage rate of [redacted]. Availability of the contracted hydroelectric assets in Ontario averages [redacted] over the period, [redacted] Availability of the regulated hydroelectric facilities averages 87% over the period and is lower in certain years due to outages in support of the generator rehabilitation program.

To maximize the value of existing assets, OPG plans to add approximately 200 MW of incremental capacity to its Ontario-based fleet by the end of the business plan period. As outlined in the Project Excellence section, the increase in capacity will be achieved by completing the conversion of two previously decommissioned units (G1 and G2) at the Sir Adam Beck 1 station, the redevelopment of the Calabogie and Coniston stations and additional regulated hydroelectric generating sites that are approaching end of

life, and the runner upgrade program. This increase of 200 MW is one of the central aspects of OPG's climate plan and will directly increase the de-carbonizing potential of the Ontario power system.

OPG compares regulated hydroelectric facilities against peer utilities in North America for unit energy costs and availability. Based on most recently available data, OPG's regulated hydroelectric facilities performed at the second quintile for OM&A and sustaining capital costs compared to peers. For availability, OPG's regulated hydroelectric generation overall ranked in the first quintile compared to peers.

OPG continues to pursue productivity improvements within the hydroelectric fleet. This includes technological solutions and resourcing strategies, such as use of electronic work packages, advancement of the Monitoring and Diagnostics Centre to further the implementation of condition-based maintenance for Ontario based assets, and optimization of trades resource allocation. These and other initiatives will enable achievement of targeted efficiencies in asset maintenance costs over the business plan period. Digital solutions are being deployed to promote a connected workforce and improve data-driven decision making.

[redacted]

[redacted] Consistent with the OEB's generation licence requirements, Atura's production and outage plan for the gas fleet is developed separately from the rest of OPG's operations, ensuring that no competitively sensitive information is disclosed between the organizations.

The operational targets for Ontario-based Renewable Generation operations are further detailed in Appendix 4.

Safety

OPG is committed to high standards of public and workplace safety, continuing to operate all of its facilities in a safe, secure and reliable manner. With nuclear safety and dam safety as overriding priorities, OPG will maintain a strong focus on nuclear safety programs, invest in nuclear safety systems and dam and waterway safety upgrades, and further strengthen public awareness regarding water safety. The company also remains vigilant in mitigating risks posed to its workers, partners and communities by the ongoing COVID-19 pandemic.

OPG's focus on radiological safety over the business plan period will target reductions in collective radiation exposure at the nuclear stations, with a continued focus on the 'as low as reasonably achievable' protective measures. Improvements in radiation protection protective equipment and shielding are some of the tools used to reduce radiation exposure to workers at Darlington and Pickering. Key measures to enable achievement of business plan targets include lanxess resin implementation to improve removal of radiation source term, and magnetic shielding to reduce dose.

Over the last number of years, OPG has strengthened the nuclear safety program at the 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. Through its annual evaluation of the safety performance of Canada's nuclear plants, the CNSC has concluded that both Pickering and Darlington have operated safely, with a number of CNSC Safety and Control Areas rated at the highest level for both stations.

OPG continues to strive for and demonstrate strong industry leadership with its hydroelectric dam and public safety programs. In particular, OPG's well-established public safety and emergency management program over its 241 dams and 66 hydroelectric facilities in Ontario is considered to be international best practice in a number of areas. During the business plan period, OPG will continue to make investments to further strengthen dam safety across the fleet in Ontario and the US, including the $650 million Little Long Dam Safety project discussed under the Project Excellence section. For the US operations, these investments will support movement down a continuous improvement path that is consistent with the Ontario based assets. OPG will also continue to maintain a strong water safety education and outreach program.

OPG has consistently achieved top quartile workplace safety performance compared to the Canadian Electricity Association (CEA) benchmark. In 2019, OPG met its own aggressive internal target and stood first in the CEA comparator group for safety performance. OPG will continue to set aggressive internal workplace safety targets to drive continuous improvement across the organization, including for the recently acquired assets, toward the ultimate goal of zero injuries. In 2020, OPG adopted a new corporate safety metric, Serious Injury Incidence Rate (SIIR), which captures a more serious sub-set of injuries than the Total Recordable Injury Frequency (TRIF) metric. The introduction of the SIIR metric in addition to TRIF helps OPG to maintain a focus on high consequence hazards as part of its safety culture. Business plan targets for SIIR and TRIF can be found in Appendix 4.

Achievement of safety goals during the business plan period will be supported through a number of initiatives targeting broad-based cultural and work program improvements, including:

- ongoing strengthening of a 'values-based' safety culture through peer coaching, information sharing, work planning and proactive reporting;
- a focus on the use of human performance tools such as increased field supervisory oversight, situational awareness, communication, and procedural use and adherence;
- utilizing technology to improve monitoring capabilities and reinforce a culture of personal leadership in safety; and
- implementing the voluntary WSIB Health and Safety excellence program aimed at improving systems and processes for workplace safety.

OPG continues to monitor and respond to the health and safety risks posed by the COVID-19 pandemic, including the risks associated with the second wave. To help safeguard workers' health, the company will continue to place an emphasis on enhanced safety measures based on guidance from public authorities, such as physical distancing requirements, vendor onboarding protocols, use of personal protective equipment and managing maximum occupancy at certain worksites. Operating strategies and contingency plans are being continuously reviewed to ensure OPG remains, where possible, well positioned for ongoing safe and effective execution of work during the pandemic. In the event of a need for a temporary return to earlier restrictions impacting on-site work, OPG will leverage experience from the successful implementation of response measures and subsequent recovery actions earlier in 2020.

Climate Change and Environmental Leadership

As a climate change leader, OPG is committed to minimizing its environmental and carbon footprint while increasing climate resilience of the assets. During the 2020-2026 period, OPG will continue to manage operations to minimize environmental risks, plan and implement programs to meet legal requirements and voluntary commitments, and seek opportunities for environmental leadership. In addition to implementing its climate change plan, OPG's priorities over the period include preventing significant environmental events, keeping radiological emissions as low as reasonably achievable, and fostering biodiversity.

OPG believes that clean power is fundamental to a healthy environment and a strong, sustainable economy – the company's business growth and investment strategies support this vision by facilitating a supply of clean power and electrification. Having delivered on one of the world's single largest climate change actions to date by stopping the burning of coal, OPG expects to continue generating over 90% of its electricity from low-carbon sources over the business plan period. Additionally, OPG is finalizing its 'Made-in-Ontario' climate change plan that will guide the company in being a catalyst for efficient, economy-wide de-carbonization and economic renewal in the province and beyond. OPG is targeting the following goals in support of a low-carbon future:

- ***Being a net-zero carbon company by 2040***: this means implementing and investing in CO_2 reductions that achieve an overall balance between direct carbon emissions produced and carbon emissions removed from the atmosphere; and

- ***Being catalyst to help the markets where we operate achieve net-zero carbon economies by 2050***: this means OPG will be a leading energy innovation company, advancing clean technologies and solutions like SMRs.

OPG is uniquely positioned to be a climate change leader because of its track record of innovation, project excellence and continuous improvement. Combined with the company's diverse mix of generating assets and deep operational experience, these organizational strengths are informing the development of OPG's climate change plan. The climate change plan will outline a range of specific actions and timelines, founded on guiding principles of transparency and protecting customers' interests. In addition to completing the Darlington refurbishment, some of the key actions OPG expects to undertake to achieve its climate change goals include:

- Leading the development of SMRs;
- Advancing electrification initiatives in the province;
- Continuing investment in hydroelectric generation in Ontario and the US;
- Pursuing opportunities in other renewable technologies and energy storage;
- Strengthening climate adaptation and resilience of the assets;
- Building and operating a new corporate campus with low carbon and sustainable principles;
- Developing innovative technologies for sustainable decommissioning of nuclear facilities;
- Exploring negative emissions technology (i.e., the removal/sequestration of carbon);
- Supporting nature-based solutions and biodiversity initiatives; and
- Supporting the issuance of innovative financial instruments in line with climate change goals.

OPG's plan aims to address climate change in a way that will help create new jobs and nurture new industries, strengthening both the environment and the economy. As previously noted, this business plan is estimated to include a total of at least [redacted] in investments that will progress de-carbonization efforts and other climate change related strategies, including through the Darlington refurbishment project and the [redacted] The planned investments are discussed in the corresponding sections of this document.

In support of climate change and environment goals, OPG will continue to advance its biodiversity conservation program during the business plan period. The program focuses on effectively allocating resources through biodiversity management plans that identify priority natural areas, conservation goals, threats and actions. Through the program, OPG seeks to protect and restore habitat, promote biodiversity education and awareness, and help the recovery of species. This includes creating 500 acres of grasslands by planting a total of 10 million trees between 2000 and 2025, with approximately 7 million trees planted to date. OPG will also explore the feasibility of using nature-based climate adaptation solutions, such as building wetlands to help regulate water flow upstream of hydroelectric dams.

In order to drive continuous improvement in other aspects of corporate environmental performance, OPG establishes annual targets in key areas. This includes tracking environmental events including spills and compliance with regulatory requirements, as well as measures for airborne tritium emissions from nuclear operations to ensure releases remain a small fraction of the legal limits. The key targets for the business plan period can be found in Appendix 4.

Consistent with a focus on climate change mitigation and sustainability, OPG has expanded climate-related disclosures as part of the Environmental, Social and Governance (ESG) framework in its regulatory filings with the Ontario Securities Commission since 2018. While such disclosure practices remain in early stages globally, OPG aims to be a leading corporate participant in supporting the development of consistent industry-specific practices based on the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures. To date, OPG's disclosures have focused on actions implemented in support of climate-related corporate strategies as well as a set of initial climate-related performance metrics, including annual reporting of Scope 1 and 2 greenhouse gas emissions. OPG also continues to

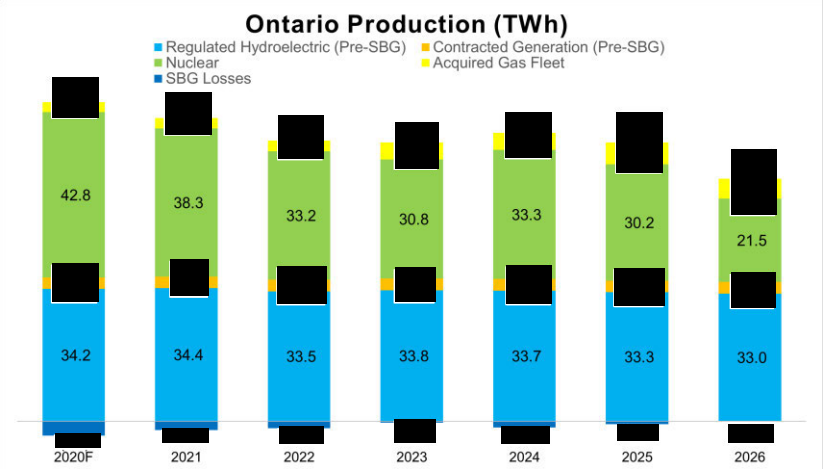
monitor the Canadian Securities Administrators' guidance on recommended disclosures of risks and financial impacts associated with climate change.

OPG continues to be a leader in leveraging climate change goals to support innovative financing options, providing a potential opportunity to reduce financing costs. Most prominently, OPG is currently Canada's largest corporate green bond issuer, after its most recent issuances totalling $1.2 billion in April 2020. The green nature of these issuance enabled the company to attract investors and increase order book size notwithstanding the pandemic-related market disruption. OPG uses proceeds from the green bonds to finance or re-finance eligible projects offering tangible environmental benefits as defined under the company's Green Bond Framework and publishes an associated annual report on the use and impact of the proceeds. Additionally, OPG is in the process of establishing a first-of-a-kind sustainability linked revolving corporate facility [redacted]

With over $14 billion in assets managed under the OPG pension plan and over $24 billion in nuclear segregated funds jointly managed with the Ontario Financing Authority (OFA) under the Ontario Nuclear Funds Agreement (ONFA), OPG has the ability to influence progress towards the achievement of climate change goals through its investment strategies. In particular, the choice of investment strategies in equity markets, and of specific assets in the real estate and infrastructure portfolio, is guided by an Environmental, Social and Governance policy in place for the pension plan, and similar principles for the ONFA funds. OPG will build on the existing strategies to formalize a climate change action plan for the pension fund and, in collaboration with the OFA, for the ONFA funds that supports the company's overall climate change direction. OPG will also increase engagement with ESG groups domestically and globally to leverage the combined sizable asset base.

Ontario Electricity Generation

OPG expects to generate approximately [redacted] of energy from Ontario-based assets over the business plan period, reflecting a continued strong focus on maximizing reliable energy production while considering market and operating conditions.



Notably, OPG continues to plan for an industry leading forced loss rate target of 1.0% at Darlington and a stable FLR target of 3.5% at Pickering. The Pickering target applies to the end of the station's operating life, in line with OPG's commitment to maximize the station's value to the province. With respect to refurbished units, the Darlington target applies to each unit after transition to regular operations following return to service.

The planned energy profile over the period is informed by OPG's outlook for Ontario's grid supplied electricity demand and is mainly driven by the Darlington refurbishment schedule, the optimized planned Pickering shutdown sequence, nuclear planned outage profile, and projected water flows on the Niagara River.

IESO's Market Renewal program, scheduled for implementation at the end of the first quarter of 2023, is progressing through the Energy Stream detailed design stages of a Single Schedule Market, a Day Ahead Market, and an Enhanced Real-Time Unit Commitment. While OPG continues to participate actively in all stakeholder engagement areas that may affect the operation and compensation of its assets in the new market, the business plan does not include any potential Market Renewal impacts given the inherent uncertainty associated with the final design of a number of key features.

Nuclear Generation

In 2020, planned nuclear generation reflects fewer refurbishment and non-refurbishment outage days at Darlington and a larger outage program at Pickering. The former reflects a deferred start of the Unit 3 refurbishment and immediately preceding single fuel channel replacement outage later in the year, resulting in all four Darlington units supplying electricity for a portion of the year upon Unit 2 returning to service in June 2020. Additionally, following deferral of a previously scheduled Unit 1 outage to 2021, there are no major planned outages in the Darlington cyclical schedule in 2020, compared to two planned outages in 2021, at Unit 1 and Unit 4. The Unit 3 refurbishment outage and the Unit 1 outage were deferred, and the Unit 4 outage added, as a result of the pandemic. The larger outage program at Pickering is in line with the station's planned outage cycle, with three major planned outages in the year.

Planned nuclear generation in 2021 decreases by 4.5 TWh compared to 2020, reflecting a full year of Unit 3 refurbishment and two major planned outages at Darlington, partially offset by two major planned outages at Pickering.

In 2022, planned nuclear generation decreases by 5.1 TWh compared to 2021, due to the commencement of Darlington Unit 1 refurbishment, which results in an overlap with the Unit 3 refurbishment outage, and the Pickering VBO. In 2023, nuclear production is forecasted to decrease by 2.4 TWh compared to 2022, as the commencement of Unit 4 refurbishment results in three Darlington units undergoing refurbishment for a significant portion of the year. Lower production from Darlington in 2023 is partially offset by higher production from Pickering.

With the return to service of Darlington Unit 3 in early 2024, year-over-year planned nuclear generation increases in 2024, before decreasing in 2025 due to the shutdown of Pickering Unit 1 and Unit 4 by the end of 2024. The decrease in 2025 is partially offset by the return to service of Darlington Unit 1 in the second quarter of 2025. Nuclear production is planned to decrease by 8.7 TWh in 2026, compared to 2025, mainly due to the shutdown of Pickering Units 5-8 at the end of 2025, partially offset by the return to service of Darlington's Unit 4. The year-over-year increase in Pickering generation in 2024 is due to fewer major outages under the station's planned outage cycle, largely offset by the planned shutdown of Unit 1 in September 2024. There are no major planned outages at Pickering in 2025 and at Darlington in 2026.

The planned outage at Darlington in 2025 will accommodate Unit 2 Turbine Control & Auxiliary Systems Upgrade work, which was excluded from the unit's refurbishment scope as there was still useful life in the existing control system and to mitigate execution risk given that Unit 2 was the first unit to be refurbished.

Regulated Hydroelectric Generation

Forecasted regulated hydroelectric production before surplus baseload generation (SBG) impact is higher in 2020 and 2021, reflecting higher anticipated water flows on the Niagara River and the St. Lawrence River, before a gradual return to normal levels toward end of the business plan period. The decrease in regulated hydroelectric production in 2022 and 2023 also reflects previously scheduled outages to accommodate Hydro One's planned work on the Sir Adam Beck switchyard.

SBG conditions continue to impact OPG's ability to schedule all of its available hydroelectric energy in the Ontario market. After a temporary increase forecasted in 2020 as result of lower electricity demand due to the COVID-19 impacts, forgone OPG hydroelectric production due to SBG conditions is projected to continue to lessen, from 2.3 TWh in 2021 to 0.2 TWh in 2026, primarily reflecting the nuclear generation profile and timing of nuclear refurbishment programs in the province.

Non-Regulated Generation

[redacted]

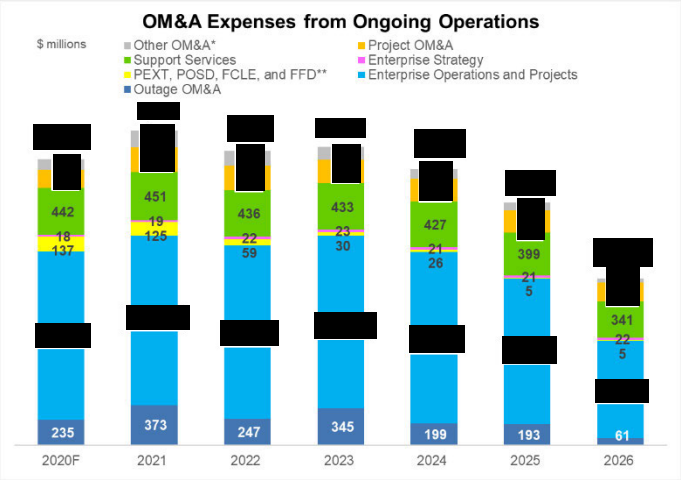
The business plan reflects the current contractual arrangements with the IESO for OPG's existing thermal stations, including the energy supply agreement for the dual-fired Lennox GS expiring in 2022. [redacted]

[redacted] In addition to providing 2,100 MW of capacity, generation at Lennox reflects the station's value to the system in providing energy and operating reserve when dispatched by the IESO economically and in support of system flexibility events.

In addition to providing over 2,700 MW of capacity to Ontario's electricity system, Atura's recently acquired natural gas-fired fleet will leverage its flexibility to respond to changing conditions by supplying an increasing share of the province's energy needs. Annual generation from the gas-fired fleet is estimated to [redacted] the first full year post acquisition, to [redacted] toward the end of the business plan period. [redacted]

Operations, Maintenance & Administration Costs

The operating cost profile in the business plan reflects OPG's strong commitment to continuous efficiency improvement while maintaining the long-term value of its assets. In particular, the plan reflects the realigned organizational structure implemented in the second half of 2020 with the goal of increasing internal operating and cost synergies. As discussed below, OPG will continue to focus on sustainably reducing base operating costs and preparing for the end of Pickering commercial operations over the next several years by leveraging technological and other productivity improvements, streamlining work programs and pursuing resourcing efficiencies. The operating cost plan also includes necessary expenditures in support of age management and life extension initiatives to ensure continued strong performance of the fleet.



*Includes centrally held pension/OPEB costs, insurance and other corporate level costs
**Represents Pickering Extension and Enabling (PEXT), Pickering Optimization Shutdown (POSD), Fuel Channel Life Extension (FCLE), and Fitness for Duty (FFD).

Base Operating Costs

Over the 2020-2026 period, the business plan targets estimated cumulative savings in 2% inflation-adjusted total Base OM&A costs of [redacted], in addition to cost reductions reflecting the shutdown of the Pickering units beginning in the second half of 2024. These savings reflect below-inflation increases of less than [redacted] in Base OM&A costs, on average, during the years in which all six Pickering units are operational. Customers will benefit from these cost savings through the regulated rates to be set by the OEB for the 2022-2026 period.

Within Base OM&A costs, reductions for Support Services costs are generally expected to lead reductions in Operations costs in earlier years, as centre-led functions and processes are further redesigned to support a smaller-scale operating business following the Pickering closure. As such, on average, projected Support Services costs increase by close to 0% per year over the 2020-2024 period, while absorbing a temporary increase related to enhanced health, safety and social response measures to the pandemic and incremental support and licencing costs for the company's increasing digital footprint.

OPG expects to achieve improvements in operating costs targeted in the business plan through the following key areas of focus:

> ***Technology and Innovation*** – Continued advances in technology offer the ability to implement digital solutions to redesign internal processes, both to increase efficiencies and to enhance operational decision-making. In particular, OPG's digital strategy focuses on the following key elements: ensuring an efficient, responsive and scalable information technology environment to

support OPG's strategic direction; providing tools, services and information to enable increased employee productivity and collaboration; improving core operational business processes and systems to enable a more agile enterprise; and extracting insight from data to better leverage and manage information across the enterprise. Increasing use of digital solutions such as process automation and artificial intelligence will help to reduce labour intensive work effort across the organization.

Organizational Design – In the second half of 2020, OPG implemented an organizational realignment that combined operating and certain other groups. As part of the realignment, OPG centralized engineering and other operations support groups across the former Nuclear and Renewable Generation business units, which have been combined under an Enterprise Operations organization. Additionally, major project execution groups have been integrated into a single Enterprise Projects organization, and all business development and strategic initiatives, including new nuclear development and electrification, have been centralized under an Enterprise Strategy organization. These changes are facilitating increased collaboration, innovation and talent development across the enterprise and supporting the OneOPG culture. In preparation for the post-Pickering closure organization, the changes are also facilitating reductions in management positions, which are reflected in the plan. OPG will continue to identify further potential opportunities for consolidating departments, centralizing functions and redesigning roles to enable achievement of the targeted post-Pickering closure structure.

Asset Optimization – Leveraging the advancement of the Monitoring and Diagnostics Centre and other initiatives, OPG will seek to optimize maintenance and project activities across the generating fleet. The objective of this focus area is to enhance the company's ability to assess asset condition and improve the scheduling and prioritization of work programs, allowing for better optimization of associated resources and costs, in addition to improving asset reliability.

Real Estate Footprint – OPG's strategy is to reduce its real estate footprint by investing in a new, sustainable corporate campus for non-plant employees, located in Clarington, Ontario. Leveraging experience with an agile layout recently implemented for the current corporate head office, OPG is targeting a reduction in square footage per employee, while improving productivity through increased collaboration. Accordingly, OPG expects to reduce its leasing and other real estate operating costs during the business plan period.

Starting in 2024, as Pickering units begin to be taken offline under OPG's optimization plan, total planned Base OM&A costs decline significantly, until they reach the post-Pickering cost structure in 2026. Through implementation of operational efficiencies to enable achievement of the business plan targets, OPG will, to a significant extent, mitigate the need to reallocate operations and corporate support costs currently tied to Pickering to the remaining operations.

Nuclear Outage and Enterprise Project Costs

The variability in forecasted nuclear outage costs over the period is largely driven by planned outage cycles and scope, averaging approximately $235 million annually. The costs are higher in 2021 and 2023 reflecting four major planned outages in each year across the nuclear fleet. As discussed in the Ontario Electricity Generation section, there are two major planned cyclical outages at each of Pickering and Darlington in 2021, one being the Darlington Unit 1 planned outage deferred from 2020 and one being the Darlington Unit 4 outage that has been added, both as an impact of COVID-19. In 2023, the plan reflects one major planned outage at Darlington and three major planned outages at Pickering. In addition to these regular outages, the outage costs in 2022 include the station-wide VBO at Pickering. There are no major planned outages in 2026.

Forecasted OM&A costs also include funding for several key work programs to support the continued operation and regulatory compliance of the nuclear stations, including:

- approximately $150 million over 2020 to 2021 to complete previously identified work to enable operation of Pickering to the planned end of life, in line with the approved overall program budget;
- approximately $50 million over the period to enable Pickering's optimized shutdown sequence;
- approximately $145 million over the period for previously identified work to support extended fuel channel life and related activities; and

- approximately $35 million for the implementation of CNSC Fitness for Duty regulatory requirements related to drug testing.

All of the above costs are subject to true-up with customers through OEB-authorized variance or deferral accounts, if approved by the OEB.

Project portfolio OM&A costs across the organization average approximately [redacted] per year over the business plan period, including work directly in support of the generating businesses and enterprise-wide investments through the centre-led Chief Information Office and Real Estate functions. The [redacted] in the costs starting in 2021 primarily supports the hydroelectric capital program, reflecting components of major unit overhaul and civil structure rehabilitation projects not eligible for capitalization. Additionally, project portfolio OM&A costs are [redacted] reflecting the temporary deferral and suspension of project activities in Spring 2020 in response to the pandemic.

Project portfolio OM&A costs are planned to [redacted] toward the end of the business plan period as the hydroelectric non-capital work is completed and as the nuclear non-capital work declines in line with the stabilization of the overall Darlington project portfolio, following completion of a significant volume of plant life extension work. The hydroelectric overhaul program and the Darlington life extension work are discussed in the Project Excellence section.

The Darlington refurbishment project OM&A costs totaling $166 million over the planning period form part of the overall refurbishment project budget, and vary year over year primarily with the expected timing of pressure tube and feeder removal activities.

Planned New Nuclear OM&A costs include $272 million over 2020 and 2021, as approved by the Board in August 2020, in support of preliminary planning phase work for grid-scale SMR development and renewal of the New Nuclear Darlington site preparation licence expiring in 2022. OPG submitted a site preparation licence renewal application to the CNSC in June 2020, with a CNSC hearing scheduled for June 2021. The grid-scale SMR preliminary planning phase costs include such activities as technology selection, engineering and preparation for a licence to construct application.

Pension, OPEB and Insurance Costs

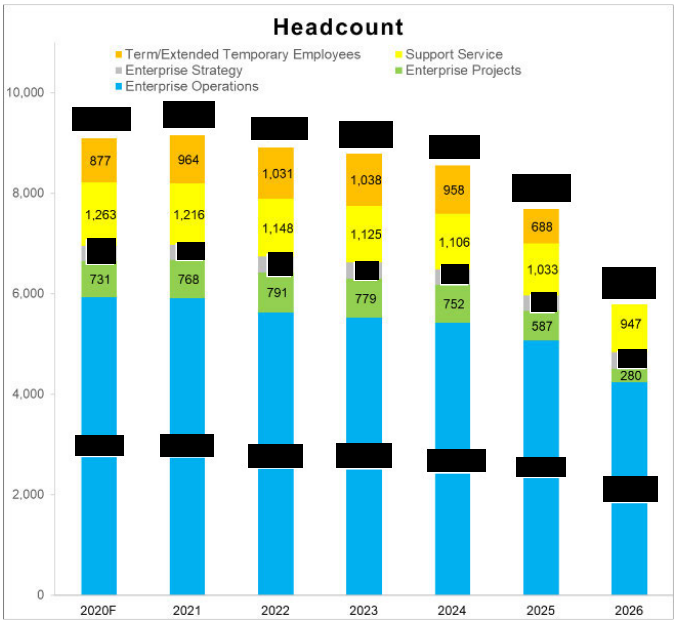
Forecasted pension and OPEB costs are higher in 2021 compared to 2020, mainly due to a decline in discount rates reflecting current market conditions and overall lower than expected pension fund asset performance since the beginning of 2020. Over the remainder of the business plan period, pension and OPEB costs are forecasted to decrease gradually year over year, mainly reflecting projected pension asset returns based on the long-term expected rate of return, declining regular headcount and lower amortization of historical net actuarial losses. The projected costs over the 2020-2026 period reflect a reduction in the inflation rate assumption, as reflected in the determination of the accrued liabilities as at December 31, 2019. Management considers the reduction in the inflation rate assumption to be consistent with the observed trend of declining nominal interest rates.

Prior to the next resetting of regulated base rates, the income impact of the regulated business' portion of pension and OPEB cost changes continues to be offset by corresponding changes in OEB-authorized variance and deferral accounts. This includes recording, for future recovery or refund, the pension and OPEB cash to accrual differential in an existing deferral account. For 2022 onwards, new regulated nuclear rates are assumed to be set based on the accrual accounting method, with the difference between accrual amounts recovered and cash outlays made toward pension and OPEB obligations attracting an asymmetric interest credit to customers, consistent with previous OEB conclusions and approvals.

OPG is forecasting an increase in insurance costs beginning in 2020, driven by the impact of general negative market conditions on insurance premiums and available capacity. The insurance providers are increasing premiums and reducing capacity in response to sustained losses experienced over the last several years. The business plan anticipates these depressed market conditions will persist into the near term based on the current economic and risk environment, resulting in an approximately 25% increase in insurance costs.

Headcount

As a labour intensive organization, OPG's focus continues to be on driving productivity improvements and reducing the level of work required to maintain strong operational performance. Over the business plan period, OPG will continue to implement a broad range of initiatives to support these objectives and to prepare for the post-Pickering organizational state, with a sustained trend of headcount reductions across both Enterprise Operations and Support Services groups. In the near term, this includes the realignment of the organizational structure implemented in the second half of 2020 to combine and centralize operations and certain other groups across the business, as discussed under the Operations, Maintenance & Administration Costs section. Headcount includes all regular employees as well as PWU-represented term employees (Term Employees) and Society-represented extended temporary employees (Extended Temporary Employees), discussed below.



* Excludes operating subsidiaries. As Pickering units come offline in 2024 and 2025, headcount excludes employees transitioning out of the organization.

Following a required increase in Term Employees and Extended Temporary Employees in 2021 to support the optimization of the Pickering unit shutdown sequence, planned headcount reduces by over 3,300 employees by 2026 as it trends toward the targeted post-Pickering organizational design. The reduction in headcount includes employees transitioning out of the organization as the Pickering units are taken offline and the Darlington refurbishment project is completed. Planned headcount over the period includes the current estimate of resources in support of the Pickering SAFSTOR project to de-water, de-fuel and place the units in a safe storage state after shutdown, [redacted] Upon completion of the project beyond the business plan period, OPG expects long-term regular headcount to [redacted] for existing operations. These reductions are in addition to the management positions being eliminated through the balance of 2020 under the recent reorganizational realignment.

Consistent with current planning assumptions for grid-scale SMR funding beyond the preliminary planning phase, the plan does not assume a ramp-up in project resources to support future project development activities. This determination is expected to be made as part of next year's business plan.

Term-based Represented Employees

OPG remains focused on maintaining productive working relationships with the unions and facilitating positive collective bargaining results. Through the 2015 and 2018 rounds of collective bargaining, OPG established Term Employees as a separate category of PWU-represented employees. Through an arbitration award received in the fourth quarter of 2019, OPG similarly established the separate category of Society-represented Extended Temporary Employees.

Term Employees and Extended Temporary Employees attract a lower termination cost than regular represented employees, are not subject to collective agreement redeployment processes, and may be hired instead of regular represented employees for positions likely to be eliminated as a result of Pickering's safe shutdown. This allows OPG to continue to meet its operational needs while mitigating future Pickering closure downsizing costs. At its peak in 2023, the business plan reflects filling over 1,000 positions with Term Employees and Extended Temporary Employees. Continued ability to hire Term Employees and Extended Temporary Employees over the business plan period is subject to future collective bargaining outcomes.

Headcount Highlights

Following a temporary increase in 2021, headcount is expected to decrease steadily during the business plan period, as OPG continues to implement efficiency improvements and reduce work demand across the organization leading up to the end of Pickering commercial operations. The planned reductions are net of selective hiring in support of key corporate priorities, including business development initiatives such as electrification, planning for nuclear decommissioning, nuclear waste minimization, and current activities in support of SMR advancement.

The year-over-year increase in headcount in 2021 mainly comprises Term Employees to address operational needs in support of optimizing the Pickering unit shutdown sequence, taking into account training time requirements and anticipated attrition over the remaining life of the station.

Between 2020 and 2023, Enterprise Operations regular headcount is projected to decline by approximately [redacted] and Support Services headcount by approximately 140 employees, leveraging attrition. These decreases are partially offset by an expected increase of approximately 160 Term Employees and Extended Temporary Employees for ongoing operational needs. The overall declining trend in Enterprise Operations reflects strategies to improve operational efficiency and reduce work program effort.

By the end of 2026, Enterprise Operations regular headcount is planned to decline by a further [redacted] and Support Services by a further 180 employees, after the Pickering units are taken offline and the Darlington refurbishment project is completed. The complement of Term Employees and Extended Temporary Employees is assumed to exit the organization by the end of the business plan period. The reduction in Enterprise Operations regular headcount during the latter part of the period also reflects assumed changes in [redacted]

The total planned reductions in Support Services regular headcount by 2026 are approximately 25% of current levels and comprise all major centre-lead corporate functions including Chief Information Office, Human Resources, Finance, Real Estate and Supply Chain. While some roles in these functions directly support Pickering operations and will no longer be required once the units are taken offline, the majority of the targeted reductions will be achieved by continuing to drive productivity improvements and streamlining work prior to the Pickering closure.

Enterprise Projects regular headcount is forecasted to increase by 60 employees between 2020 and 2022 in support of execution planning for overlapping Darlington refurbishment outages, before declining to 280 employees by 2026 as the refurbishment project is completed.

Pickering Downsizing Liability

OPG expects to incur workforce transition and downsizing costs following the cessation of Pickering operations. This includes severance costs resulting from the expected elimination of over 3,000 positions across the organization, as well as the post-station shutdown transition costs necessary for the effective redeployment and training of affected employees based on current collective agreements.

The severance portion of the costs will encompass management and unionized positions expected to be eliminated as a result of ending Pickering commercial operations, including completing the SAFSTOR project in 2028. Severance entitlements for unionized employees will be determined in accordance with the collective agreement provisions. Redeployment and training will arise as certain unionized regular employees transition from former Pickering positions to similar positions at Darlington or other affected parts of the organization under the downsizing processes specified in the collective agreements.

The transition of qualified employees from former Pickering positions to other parts of the organization will be a complex process. OPG is developing a detailed transition plan with the objective of executing the redeployment in a manner that maintains high safety standards, ensures effective post-refurbishment operations at Darlington, and mitigates downsizing costs within the provisions of the collective agreements. Providing necessary training to redeployed regular employees will be a key element of the transition, recognizing inherent differences in the equipment, technology and operation of the Pickering and Darlington stations.

The business plan incorporates proactive implementation of certain strategies to mitigate the downsizing costs and transition impacts within the terms of the collective agreements. This includes hiring Term Employees and Extended Temporary Employees, facilitating the transfer of regular employees from Pickering to Darlington ahead of the Pickering closure, within operational constraints, and leveraging attrition-based headcount reductions. Additionally, the optimization of the Pickering shutdown sequence helps to reduce the downsizing costs. OPG's preparations for the downsizing will include identifying potential redeployment and retraining opportunities to enable employee skill development, augmenting their ability to continue to benefit Ontario's economy.

OPG has reflected an indicative estimate of approximately [redacted] in the plan for the downsizing costs to be incurred during the business plan period. However, this estimate is expected to continue to evolve over time, as it remains subject to a range of uncertainties regarding underlying assumptions and outcomes of planning work to be executed over the business plan period. Some of the uncertainties include: employee attrition patterns; implementation of previously untested downsizing provisions of collective agreements; seniority and skillset of transitioning employees; future collective bargaining outcomes; and specific timing of effecting the downsizing plan. As planning and preparation activities progress, OPG will continue to review assumptions and update the cost estimate as part of future business plans. These changes could increase or decrease total expected downsizing costs.

The business plan includes the total amount of currently estimated severance costs related to the Pickering closure as an expense over the 2024-2026 period, based on an assumption that OPG will have sufficient certainty over the full estimated downsizing impacts to meet the accounting recognition requirements under US GAAP. Redeployment and training costs are reflected on a pay-as-you-go basis. The plan assumes that the downsizing costs are recorded in a deferral account for future collection, facilitated by the proposed amendments to O. Reg. 53/05 at the time of writing, and therefore are not included in the projected nuclear revenue requirements for the 2022-2026 rate application.

Total Generating Cost

Enterprise TGC per MWh, OPG's measure of cost effectiveness for Ontario-based operations, is forecasted to be approximately [redacted] temporarily [redacted] in the intervening period as discussed below. The measure includes OM&A expenses from ongoing operations, fuel expense (including gross revenue charge and other water rental costs) and sustaining capital expenditures, and is calculated on SBG-adjusted production volumes. In addition to excluding development-related costs such as Darlington refurbishment, the measure also excludes expenditures on major hydroelectric projects such as Little Long Dam Safety and Smoky Falls Sluicegate Upgrade. The acquired fleet of Ontario-based gas plants is included in the measure as of the date of the acquisition, but is not forecasted to have a material impact over the business plan period.

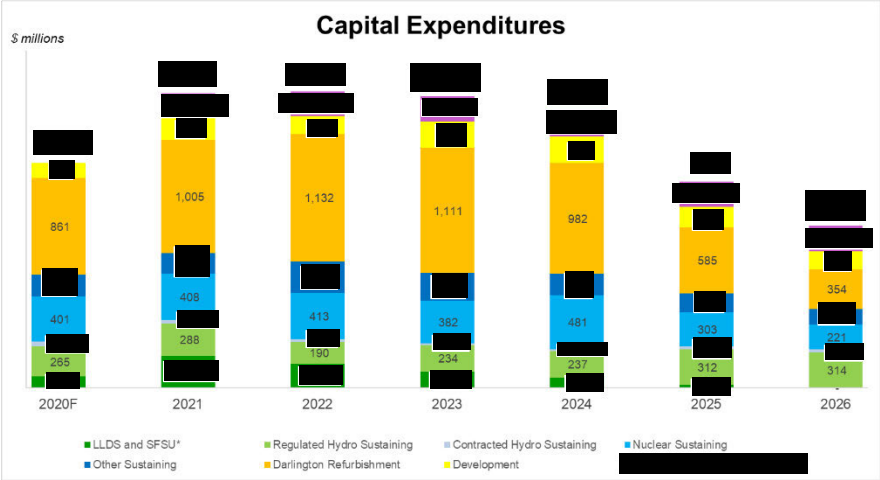
[redacted]

* Reflects OPG owned and operated facilities in Ontario.

The major driver of the [redacted] Enterprise TGC per MWh projected in the intervening years of the business plan period is reduced nuclear generation reflecting overlapping Darlington refurbishment unit outages and, in 2022, the Pickering VBO. The year-over-year [redacted] reflects a full year of Unit 3 refurbishment and two major planned outages at Darlington, compared to fewer refurbishment outage days due to the deferred start of Unit 3 refurbishment and no major planned outages in 2020. Performance on the metric improves toward the end of the period as Darlington units return to service.

Project Excellence

As a North American industry leader, OPG will advance ambitious climate change goals and prepare Ontario and Canada for the future of energy by investing in its low-carbon fleet, new projects and energy solutions, including hydroelectric redevelopment, electrification and [redacted] OPG will invest [redacted] in existing assets, $6 billion for Darlington refurbishment, and [redacted] in business development.



* Represents Little Long Dam Safety (LLDS), and Smoky Falls Sluicegate Upgrade (SFSU)

OPG is focused on continuing to advance its role as a clean energy leader in North America. Leveraging its ambitious climate change plan that will help the energy sector to be a primary catalyst for economy-wide de-carbonisation, OPG is continuing to invest in climate change mitigation and adaptation through its capital plans. Over the business plan period, growth of the company's asset portfolio through the Darlington refurbishment, redevelopment of hydroelectric stations, and investments in innovative energy solutions will make a significant contribution toward Canada's goal of achieving net-zero carbon emissions by 2050, while supporting 'Made-in-Ontario' jobs and economic development.

By the [redacted], OPG plans to invest [redacted] in capital assets, including $5.9 billion to complete the Darlington refurbishment (excluding COVID-19 impacts), [redacted] to maintain and upgrade the existing low-carbon fleet and supporting infrastructure, [redacted] and [redacted] to develop or redevelop hydroelectric and other renewable energy assets and technologies. For the regulated business, OPG estimates this will result in a total capital in-service rate base (net of depreciation) of approximately $23 billion by 2026, subject to the OEB's approvals, a doubling of 2019 levels driven mainly by the completion of the Darlington refurbishment. As noted earlier, investments in the plan do not currently include any capital expenditures for grid-scale SMR development.

Improving project planning and execution capability continues to be critical to OPG's focus on project excellence. To help consistently deliver projects safely, on time, on budget and with high quality, OPG is leveraging a company-wide scalable project delivery model. The goal of the model is to enhance and streamline planning and execution processes by enabling an appropriate level of project management, commensurate to the value and complexity of the project. Strong project planning and execution in turn facilitates prudent growth of the regulated rate base. The current plan is set to deliver non-refurbishment capital in-service amounts that will cumulatively exceed OEB-approved levels by 2021.

In response to the COVID-19 pandemic, a number of project activities were temporarily suspended in Spring 2020, prior to being safely resumed beginning in June 2020 with enhanced safety measures. OPG's prompt remobilization of project activities and ongoing communication with vendors, suppliers and contractors has helped to minimize the impact on project milestones and is reflected in the business plan. OPG's execution of the planned capital program is also contributing to increasing economic activity in the province. As noted earlier, there remains an inherent uncertainty around the course of the pandemic and the impact of any additional necessary restrictions on future operating and project activities and milestones. Any such potential impacts have not been reflected in the plan.

Sustaining Capital

OPG's sustaining investments are based on asset management principles aimed at ensuring capital is deployed in a manner that derives the greatest value while mitigating organizational risks. Over the business plan period, OPG plans to invest [redacted] in sustaining capital expenditures, including $2.6 billion related to the nuclear fleet, [redacted] for the hydroelectric and non-Atura thermal plants, [redacted] and $1.0 billion in IT and real estate infrastructure.

Nuclear

The Darlington nuclear capital program totals $2.5 billion over the business plan period, averaging approximately $350 million per year excluding a planned capital lease. An increase above historical levels, the program continues to focus on ensuring the station is well positioned to transition to steady-state 'second life' operations, achieving and maintaining longer-term industry-leading cost and reliability performance following refurbishment. By the end of the period, Darlington's capital program begins to decline toward longer term steady-state levels as major planned investments are completed.

Significant life cycle management and other investments targeted to be completed at the Darlington station during the period include such projects as Unit 2 Turbine Control & Auxiliary Systems Upgrade, 4kV Motor Refurbishment and Replacement, and Main Output Transformer & Unit Service Transformer Replacement. Additionally, in 2024, OPG currently plans to replace the Darlington Water Treatment Plant that is approaching its end of service life, under a capital lease contracting arrangement with a third party specializing in high purity demineralized water management, with an assumed value of approximately $140 million.

Following completion of previously identified work to enable station operation to the planned end of life, expenditures for the Pickering capital program average less than $10 million per year over the 2022-2025 period.

Regulated Hydroelectric

Regulated hydroelectric sustaining capital expenditures total $1.8 billion over the business plan period, an average of approximately $260 million per year. In addition to ongoing investments to upgrade or replace electrical equipment and water control structures and to ensure continued safety of civil structures, the capital program is focused on major generator rehabilitation and upgrades as well as investments in dam and public safety.

In particular, the sustaining capital program includes approximately $650 million for a number of major unit overhauls and upgrades across the fleet (i.e. Sir Adam Beck 1 and 2, R.H. Saunders, Otto Holden, Barrett Chute, Abitibi Canyon), reflecting the cyclical nature of investments required every several decades to maintain the value of these long-lived assets. In addition to ensuring the continued reliable operation of the stations for another 30 years, the upgrade component of these investments will further increase the generating capacity of OPG's renewable fleet.

Dam safety investments included in the sustaining capital portfolio total approximately $280 million over the period, including approximately $200 million for a planned project to address dam safety requirements and changing climate conditions on the Madawaska River. The increase in sustaining capital in 2025 and 2026 is primarily due to the Madawaska River project, as well as major unit overhauls at the Sir Adam Beck stations. The Madawaska River project is estimated to commence execution in 2023.

Contracted Hydroelectric and Thermal

Sustaining capital expenditures on Ontario-based contracted hydroelectric and non-Atura thermal assets total [redacted] over the business plan period. In large part, this includes the Little Long Dam Safety project, which commenced execution in November 2019 with a budget of $650 million and is scheduled for completion in 2023, and the Smoky Falls Sluiceway Upgrade project, currently in the definition phase. Excluding these major projects, the contracted hydroelectric and non-Atura thermal capital program averages approximately [redacted] per year over the period. The Little Long Dam Safety project is tracking

within the approved budget. [redacted]

Both the Little Long Dam Safety project and the Smoky Falls Sluiceway Upgrade project will address dam safety requirements in line with OPG's commitment to high standards of dam and public safety. The projects will increase the discharge capacity and make other reliability and operational improvements at the affected water control structures on the Lower Mattagami River. This will ensure safe and effective management of extreme floodwater conditions and preserve long-term sustainability of the structures at the Adam Creek spillway and OPG's Little Long and Smoky Falls stations. Both projects will earn a return under the Lower Mattagami hydroelectric energy supply agreement, once in service.

Other Sustaining

OPG will continue to invest in digital solutions and information technology infrastructure as critical enablers of productivity and performance improvement targets over the business plan period. Total planned capital investments in this area are over $700 million, an average of approximately $100 million per year. Planned investments are focused on value enhancing projects in the generating businesses and centre-led support functions, supporting opportunities for cost reductions, innovation and asset reliability improvements across the enterprise. In addition to sustainment expenditures to replace or upgrade life-expired infrastructure, the capital program also includes incremental investments to address increased cyber security related operational risks.

The plan includes real estate related capital expenditures totaling approximately [redacted] over the period. In addition to the asset sustainment work program, this includes approximately [redacted] for the Clarington corporate campus plan announced in 2019 as part of OPG's real estate strategy and other workplace strategy initiatives, expected to be in place by 2024. Expenditures on the Clarington campus [redacted] over the 2022-2023 period.

Planned sustaining expenditures for the US hydroelectric operations average approximately [redacted] per year over the 2020-2026 period, and approximately [redacted] per year for Atura's natural gas fired fleet. The US hydroelectric capital program is focused on dam safety enhancements, investments in fleet reliability and support for FERC relicensing efforts. [redacted]

Darlington Refurbishment

The business plan reflects capital expenditures to complete the Darlington refurbishment project by the end of 2026, based on the schedule adjusted in response to the COVID-19 pandemic. Upon conclusion, the refurbishment of the station will secure clean energy to supply over 20% of Ontario's electricity needs for the next 30-plus years.

In March 2020, OPG announced a decision to postpone the start of Unit 3 refurbishment execution activities to later in the year as a result of the pandemic. This allowed the company to limit the number of people at the Darlington station, while completing construction work on Unit 2 and optimizing the station's operational and health protocols in response to the pandemic. Following resumption of prerequisite activities, Unit 3 was taken offline for the single fuel channel replacement outage at the end of July 2020 and, immediately thereafter, began defueling of the reactor in September 2020, which marked the start of Unit 3 refurbishment execution. Unit 3 is planned to return to service in the first quarter of 2024.

The Unit 1 and Unit 4 refurbishments are included in the plan with start dates in the first quarter of 2022 and the third quarter of 2023, respectively, returning to service in 2025 and 2026. OPG has implemented a number of lessons learned and several strategic improvements in planning the refurbishment of Units 3, 1 and 4, and will continue to assess opportunities to optimize the schedule and costs of the project. In line with the Unit 3 Execution Estimate approved by the Board in August 2020, the plan projects $5.9 billion in capital expenditures for the refurbishment of Units 3, 1 and 4 over the 2020-2026 period, excluding any

ultimate impact of the pandemic as discussed below. Total capital expenditures of $6.4 billion are projected to be placed in service for Units 3, 1 and 4 over the business plan period.

Unit 2 was successfully returned to service in June 2020. The final steps of construction and return to service were performed amidst the pandemic, with additional measures implemented to help safeguard the health of employees and contractors. As reflected in the plan, the total cost to complete the Unit 2 refurbishment was in line with the Unit 2 Execution Estimate approved by the Board in August 2016. Capital expenditures totaling $4.8 billion were placed in service upon Unit 2 returning to service.

The Heavy Water Storage Facility has been declared available for service, and is expected to support Unit 3 refurbishment activities. The total estimated cost of the facility remains at $510 million. The OEB is expected to conduct a prudence review of the project costs as part of OPG's upcoming nuclear rate application.

Subject to the OEB's ultimate approval, Darlington refurbishment capital expenditures begin to earn a return as part of rate base as soon as they are declared in service, directly or through a variance account authorized pursuant to O. Reg. 53/05. In the last rate application, the OEB approved a total of $5.5 billion in Darlington refurbishment capital in-service additions in rate base through 2021, which excluded the Heavy Water Storage Facility. The impact of any differences in the timing and amount of Darlington refurbishment in-service capital compared to OEB approved forecasts, including the impact of the Heavy Water Storage Facility coming into service, is recorded in the variance account for future disposition, subject to the OEB's approval.

Excluding any ultimate impact of COVID-19, the Darlington refurbishment project continues to track to the $12.8 billion budget. Based on impacts experienced to date, incremental capital costs of approximately $150 million have been forecasted as a result of deferring the start of Unit 3 refurbishment execution in response to COVID-19. Due to inherent uncertainties associated with the pandemic and its ultimate impact, OPG is monitoring, tracking and assessing related expenditures separately from the baseline project budget, which does not include contingency for 'black swan' events such as a pandemic. The company will continue to seek ways to manage the impact of the pandemic on the total cost of the project, which will not be known until the last unit has been refurbished. For these reasons, the plan does not reflect pandemic-related impacts in projected capital in-service amounts and OPG does not intend to seek recovery of any such impacts from customers until the last unit is refurbished.

Business Development

Aligned with the company's goals of driving de-carbonization, OPG's business development strategy is focused on organic growth opportunities within its core clean energy fleet, [redacted] and development of innovative technologies and services. The business plan includes a total of [redacted] in capital investments toward these growth paths, discussed below.

The plan does not assume any additional large-scale transactions. Any such proposed transaction will be brought to the Board for approval when appropriate.

Ontario Hydroelectric Redevelopment

OPG plans to invest approximately $890 million in hydroelectric asset redevelopment in Ontario during the business plan period, adding incremental capacity to its long-lived hydroelectric portfolio. Aligned with the company's climate change plan, projects over the business plan period include the frequency conversion of previously decommissioned G1 and G2 units at the Sir Adam Beck 1 station, the redevelopment of the Calabogie and Coniston stations, and a planned future small hydro redevelopment program.

The Sir Adam Beck 1 Units G1 & G2 replacement project commenced execution phase in late 2019 and is expected to be completed in 2022, adding approximately 125 MW to the station's peaking capacity by replacing two decommissioned 25 Hz unit generators with new 60 Hz generators. Consistent with the Board-approved budget, the business plan reflects approximately $100 million of remaining expenditures for this project. The project is tracking within the approved budget.

The redevelopment of the Calabogie site, after the 2018 tornado heavily damaged the original station, is currently in the execution phase and is scheduled for completion in 2022. The new powerhouse will double the original station's capacity to approximately 11MW. Consistent with the Board-approved budget, the business plan reflects approximately $127 million of remaining expenditures for this project. The project is tracking within the approved budget.

The redevelopment of the over 100-year old Coniston station is expected to add 4 MW of incremental capacity to the hydroelectric fleet and is included in the plan at a total cost of approximately $85 million. The project is estimated to be completed in 2024, with definition phase activities currently in progress.

OPG has identified a number of additional regulated hydroelectric generating sites, each with up to 30 MW of capacity, that are approaching end of life. The facilities require significant ongoing capital requirements in the coming years in order to maintain their existing operation and are being evaluated for redevelopment potential. It is expected that the redevelopment would allow OPG to utilize the available river flows more efficiently and optimize power generation. The plan allocates over $550 million to these investments, primarily in the latter half of the business plan period. The projects will support Ontario's climate change goals by allowing OPG to maintain the sites and continue generating clean renewable electricity for future generations.

US Hydroelectric Platform Growth

[redacted]

Electrification and Other Business Development

[redacted]

Electrification funding in the plan targets a range of potential investments across personal, commercial and mass transportation infrastructure in the province. This includes [redacted] over the business plan period

toward a 20-year phased program of electrifying the Toronto Transit Commission's (TTC) diesel bus fleet. OPG and TTC are in the process of negotiating definitive agreements under which OPG would design, build, operate and maintain all electrical infrastructure related to the project. Electrification funding also includes scheduled installation of 160 electric vehicle chargers across 70-plus locations through the Ivy Charging Network (Ivy) by the end of 2021, making Ivy the largest, most connected electric vehicle fast-charger network in Ontario. Ivy is an OPG-Hydro One partnership.

Additionally, OPG's non-regulated business is planning to invest a total of approximately [redacted] over the business plan period to enable the production of the Molybdenum-99 and Cobalt-60 isotopes at Darlington, both of which are used for medical purposes. The production of Molybdenum-99 will take place in collaboration between Laurentis Energy Partners, a wholly owned subsidiary of OPG's non-regulated business, and BWX Technologies, Inc. The production of Cobalt-60 at Darlington will be facilitated by an agreement with Nordion Inc. The production of Molybdenum-99 is targeted to commence in 2022 while the production of Cobalt-60 is targeted beyond the business plan period, following completion of necessary modifications to the reactors and subject to the CNSC's regulatory approvals.

Provision Expenditures

Planned expenditures against the previously established provision for nuclear decommissioning and waste management total $3.8 billion, an average of approximately $540 million per year over the business plan period. The expenditures are funded from the nuclear segregated funds for decommissioning and long-term management of used fuel and low and intermediate level waste (L&ILW) and from operating cash flow for interim storage operations.

The expenditures over the period primarily include costs for the following:

- ongoing used fuel and L&ILW interim storage operations, including associated projects;
- planning and execution activities for the Pickering SAFSTOR project to de-fuel, de-water and place the units in a safe storage state after the end of the station's commercial operations;
- OPG's portion of funding for Nuclear Waste Management Organization's (NWMO) planned activities in support of Canada's Adaptive Phased Management (APM) used fuel disposal program; and
- activities toward establishing a future permanent solution for long-term management of L&ILW following the Saugeen Ojibway Nation's community vote in January 2020 to not support OPG's proposed Deep Geologic Repository project for L&ILW.

Over the business plan period, OPG's used fuel and L&ILW interim storage operations will continue to advance waste minimization initiatives to reduce the environmental footprint for low level waste, optimize loading of used fuel bundles into dry storage containers, optimize low level waste storage building space, and meet commitments under agreements with Bruce Power.

With respect to the Pickering SAFSTOR project, the plan reflects the current planning phase, which includes completion of preliminary and detailed engineering design, implementation of an execution organization to support planning of execution fieldwork and development of a release quality cost estimate. The project will transition to execution phase after the first Pickering units are taken offline in 2024. The higher planned nuclear provision expenditures in 2025 and 2026 reflect the commencement of de-fueling and safe storage activities on the units planned to be taken offline in 2024 and the four remaining units planned to be taken offline at the end of 2025.

The work underway to prepare for Pickering decommissioning will be supported by OPG's recently launched Centre for Canadian Nuclear Sustainability, with the goal of integrating collaboration and research with the nuclear sector to build leading expertise in nuclear decommissioning and advance innovative solutions for nuclear waste material.

Funding for the APM program included in the plan is based on the NWMO's anticipated transition from the current site selection phase to the regulatory approval phase for Canada's used fuel deep geologic repository during the business plan period. This reflects the NWMO's stated goal of selecting a single, preferred site to host the used fuel deep geologic repository by 2023.

Impacts from the 2022 ONFA Reference Plan update process on the nuclear decommissioning and waste management liabilities and the nuclear segregated funds are in the process of being developed and will be incorporated into a future business plan. The 2022 ONFA Reference Plan will be subject to review and approval by the Province.

In accordance with O. Reg. 53/05, OPG recovers the costs of its liabilities for nuclear decommissioning and waste management through regulated rates for nuclear generation. A number of intervenors in OPG's last rate application argued for prospectively changing the OEB's previously approved, accrual accounting-based methodology for determining the costs of these obligations for rate-making purposes to a cash-based methodology. A cash-based methodology would have included OPG's segregated fund contributions and operating cash flow funded expenditures in rates. In response, OPG argued that, similar to pension and OPEB costs, an accrual accounting-based methodology is the most appropriate approach to match costs to underlying nuclear production, particularly as the historical funding contributions have significantly exceeded accrual costs and resulted in fully funded segregated funds by the end of 2016. The OEB ultimately found that it had insufficient evidence to change the methodology in setting OPG's 2017-2021 regulated rates, directing OPG to file a jurisdictional study of recovery methodologies in the next rate application. OPG will support the continued use of the previously approved accrual accounting based methodology in the 2022-2026 rate application. A prospective switch to a cash-based methodology would be expected to result in a significant reduction in OPG's revenues and net income compared to planned levels.

Thermal Decommissioning

The plan includes expenditures totaling approximately [redacted] over the period to decommission OPG's thermal generating stations, drawing down a previously established provision for these purposes. This includes completing demolition of, and returning the Nanticoke site to brownfield state in 2020 and Lambton site by [redacted] to be followed by environmental remediation. [redacted]

Social Licence

By building public confidence, community relationships, industry leadership, climate focus and commitment to equity & diversity, OPG will be recognized as the organization of choice for customers, partners, talent and Indigenous and local communities. OPG's diverse operations are well positioned to meet stakeholder expectations through clean, safe, reliable and cost effective generation, projects, energy solutions and engagement activities.

As Ontario's largest electricity provider, OPG holds itself accountable to the public, customers and employees, and continues to focus on maintaining and expanding its public trust, social licence and industry leadership. OPG works to maintain public trust through community and customer engagement, transparency, corporate citizenship initiatives and Indigenous relations. OPG focuses on upholding its social licence through safe, reliable, environmentally responsible operations that continue to mitigate Ontario's electricity prices, support local economies and demonstrate climate change leadership. In advancing these values, the company seeks to embrace and promote workplace equity, diversity and inclusion.

Climate Change Adaptation and Resilience

OPG recognizes that Ontario and many other jurisdictions globally have experienced unprecedented changes in climate and an increase in extreme weather events in recent years. These developments can impact various aspects of OPG's operations and the environment in host communities. In addition to impacts on water management at hydroelectric stations and cooling water efficiency at nuclear and thermal stations, changes in climate can significantly affect the overall reliability and life expectancy of major equipment and Ontario's electricity supply and demand profile. It has become apparent in the energy and infrastructure sectors that decisions and design assumptions can no longer rely solely on historic trends, but must also incorporate climate projections.

With its technologically and geographically diverse asset base, OPG remains focused on developing strategies to reduce the impact of climate change on operations and host communities. The primary goal of climate change adaptation for OPG is to increase resilience against climate impacts, whether the impacts manifest gradually over time (such as streamflow or air temperature changes) or arise acutely (such as extreme weather events or flooding). OPG also recognizes potential transitional risks arising from policy and socio-economic responses to combating climate change, and where appropriate considers any potential benefits or opportunities introduced by climate change.

OPG believes that continuing to lead initiatives targeting climate risks will strengthen the electricity grid's resilience, ensuring an efficient, sustainable and accessible electricity sector in the years to come. In the near term, OPG is investing in projects and initiatives aimed at addressing immediate physical adaptations as part of its sustaining capital portfolio, such as sluicegate upgrades across the hydroelectric fleet, the advanced algae early warning system at Pickering and migration to cloud-based information technology infrastructure.

Looking forward, OPG's approach to adaptation involves embedding consideration of climate change into a range of business processes, including investment decision and engineering processes when considering future design and asset upgrades. This involves integrating evaluation of climate vulnerabilities, developing standardized decision support systems, and strengthening data collection and modelling to better understand and predict climate impacts. As discussed in the Operational Excellence section, OPG also continues to deploy equipment monitoring and diagnostic tools to help better understand, manage and predict asset condition. OPG also participates in industry leading adaptation research to further inform its climate-related business decisions. In conjunction with promoting an internal climate change adaptation culture, these and other initiatives will facilitate development of a systematic approach to identifying, assessing, mitigating and reporting physical climate-related risks across the organization.

Over the business plan period, OPG will continue to play a leadership role in developing and leveraging best practices to support the strengthening of critical infrastructure across Ontario and Canada. OPG will also continue to support government initiatives to increase resilience and will monitor and as appropriate

respond to any changes in policies, standards and regulatory requirements. In collaboration with industry partners, OPG will also advance development of consistent metrics to quantify the level of achieved climate change resilience, which will facilitate the setting of specific forward-looking targets in the future.

Government Carbon Policy

OPG is currently subject to certain federal and provincial carbon-related regulations. The federal legislation imposes a carbon pollution pricing system in jurisdictions where the federal government determines that the provincial system is insufficient. This federal backstop comprises a regulatory charge on fossil fuel and an output-based pricing system (OBPS) for large industrial facilities, which includes OPG. Carbon pricing under the federal program is $30 per tonne CO_2-equivalent beginning April 2020, increasing by $10 annually to $50 per tonne in 2022. Ontario is currently subject to the federal program.

In July 2019, the Ontario government released its final Emissions Performance Standards (EPS) as a means to seek equivalency for the federal OBPS program. Currently, only the registration provisions of the EPS apply; the other key provisions will apply once Ontario is removed from the federal OBPS program. In September 2020, the federal government announced that Ontario's carbon pollution pricing systems for industrial facilities meet the federal government's minimum stringency benchmark requirements. The federal and Ontario governments will work to transition the province from the OBPS to the EPS. Until such time, OPG's Lennox station and Atura's natural gas-fired stations will continue to be subject to the OBPS.

OPG's non-thermal operations are currently subject to a pass-through federal fuel charge from its suppliers on all fossil fuel purchases. The Ontario government is challenging the constitutionality of the federal fuel charge through the courts.

OPG continues to comply with the applicable federal and provincial carbon regulations. Neither the federal program nor the EPS will have a material financial impact on the company during the business plan period.

Equity, Diversity and Inclusion

OPG is committed to workplace equity, diversity and inclusion (ED&I) as part of a culture in which all employees, contractors and business partners are treated fairly and respectfully, and each individual is able to reach their full potential. OPG believes that ED&I is integral to fostering an innovative, healthy and engaged workforce, and is therefore fundamental to the achievement of the company's strategic goals. As a corporate commitment, ED&I is supported by a set of enterprise-wide programs and reinforced through OPG's Code of Business Conduct.

Over the business plan period, OPG will advance its ED&I strategy and deliver on a corporate promise to "accelerate equity, celebrate diversity and foster a culture of inclusion." The success of the strategy will be measured by achievement of the following goals:

- Be recognized as one of Canada's Best Diversity Employers by 2023; and
- Be recognized as a global leader in ED&I best practices by 2030.

OPG will continue to integrate ED&I principles and practices into the business based on the following:

- Equity – Ensure OPG is compliant with the *Employment Equity Act*, including increased representation of women, Indigenous peoples, visible minorities and persons with disabilities.
- Diversity – Support a workplace culture that values, attracts, retains and celebrates employees with unique backgrounds, skills and characteristics.
- Inclusion – Facilitate the integration of all employees, and provide an inclusive culture where everyone, regardless of difference, can connect, belong and grow.

OPG is committed to continuing to advance diverse representation at the Board and throughout its workforce, including within senior management. Currently, overall diversity of the Board is greater than 50 percent and representation of women on the Board is above 30 percent. Women also make up approximately 35% of the Enterprise Leadership Team (ELT), which comprises the President & CEO and other executives, and of the Senior Leadership Team, which generally comprises Vice Presidents reporting directly to the ELT. Strides towards greater diverse representation in leadership continue to be made during 2020.

OPG's anti-racism plan includes an evaluation of internal practices to identify and address systemic barriers to the retention, advancement and success of historically disadvantaged groups. Additionally, OPG has joined over 200 organizations in signing the BlackNorth Initiative's CEO pledge to end systemic anti-Black racism in Canada, and has committed to provide scholarship funding through the Black Business and Professional Association to support Black students in science, technology, engineering and/or math. While OPG recognizes that significant work remains in this area for the organization and the industry, these steps are part of the company's initial efforts to help break down the systemic barriers that Black and other historically marginalized Canadians face.

Indigenous Relations

OPG is committed to continuing to build mutually beneficial working relations with Indigenous communities proximate to its current and future operations. OPG believes and takes pride in establishing and maintaining these relationships through dialogue founded in respect and aimed at preserving openness, transparency and trust. These strong relationships and partnerships are vital to maintaining OPG's social licence in the communities and are a source of valuable competitive advantage while developing clean, renewable power in the province.

The health and safety of Indigenous communities is another important priority for OPG. During the second quarter of 2020, OPG donated 10,000 of its 3D printed shields for distribution to Indigenous communities and organizations throughout the province in response to the COVID-19 pandemic. OPG also has made several financial donations to support Indigenous communities' needs during the pandemic.

OPG's Indigenous Relations Policy will continue to guide the company's approach to working with Indigenous communities, peoples and businesses over the business plan period, with a focus on the following areas:

- Community relations and outreach;
- Capacity building;
- Employment and training opportunities;
- Business and procurement opportunities; and
- Employee Indigenous relations training.

OPG will continue to proactively engage with Indigenous communities, people, businesses and organizations through a diverse range of initiatives. This includes, where appropriate, exploring potential opportunities for equity or joint-venture partnerships on new generation development projects, collaborating on capacity building, and continuing to conduct community outreach efforts. OPG will continue to undertake meaningful consultation as required by law or guided by industry best practices, throughout all phases of projects that may have an impact on Aboriginal and Treaty rights. A particular focus during the business plan period will be on developing and implementing strategic outreach initiatives and collaborative relationships related to the development and application of SMRs. OPG will also continue to advance its Indigenous Business Engagement initiative aimed at increasing Indigenous access to procurement opportunities, including supporting business relationships between OPG's current suppliers and Indigenous communities and businesses across the province.

OPG will also progress collaboration under a March 2020 Memorandum of Understanding with Minawshyn Development Corporation (MDC), Enterprise Canada, EPCOR Utilities and PCL Construction on the development of community-based infrastructure projects with the Matawa First Nations member communities in northern Ontario. The collaboration with MDC, a wholly owned corporation of the Matawa First Nations member communities, provides a potential opportunity for OPG to develop mutually beneficial innovative, energy-based solutions for the Mattawa communities, supporting economic development within the region located about 450 kilometres north of Thunder Bay.

OPG continues to support and enhance recruitment strategies and initiatives with the objective of increasing Indigenous representation in all levels of OPG's workforce and beyond. This includes advancing OPG's Indigenous Opportunities in Nuclear (ION) program, which aims to increase the number of Indigenous people working in the nuclear industry, using the Darlington refurbishment project as a catalyst. ION's main focus to date has been on roles in the building trades within OPG and its partnering vendors and unions. Over the past two years, the ION program has exceeded its annual targets for successful employment

placements. Building on this success, OPG will explore opportunities to expand the program into other parts of the company's operations during the business plan period. The company's strategic partnership with Kagita Mikam, an Indigenous employment and training organization, will remain key to ION.

As a member of the Canadian Council of Aboriginal Businesses (CCAB), OPG will continue working towards its next submission under the CCAB's Progressive Aboriginal Relations (PAR) program during the business plan period. OPG received its second Silver PAR certification in the spring of 2018. OPG is committed to building on the positive feedback received from the 2018 PAR assessment and has set a goal of achieving a Gold PAR certification as part of the next submission.

Moderating Electricity Prices and Contributing to the Economy

Taking into account the resetting of nuclear regulated rates and the proposed hydroelectric regulated base rate freeze for the 2022-2026 period, as well as the recent acquisition of the natural gas fired fleet, the average cost to customers of electricity generated by OPG is expected to track approximately [redacted] below the average of other electricity generators in Ontario over the period. Up to 2021, the average cost of OPG's generation reflects the existing regulated rates, including the deferral and variance account rate riders established by the OEB's decision on OPG's 2018 deferral and variance account application. The business plan assumptions on resetting of nuclear regulated rates for the 2022-2026 period are based on an average WAPA increase of 2% per year, as discussed in the Regulated Rates section.

[redacted]

As the largest generator in Ontario, OPG plays a significant role in driving economic value to Ontario, especially as the province seeks to address the economic effects of the pandemic. Over the business plan period, OPG will continue to make a significant contribution to Ontario's economic renewal and local jobs through its diverse project and operations portfolio and implementation of its climate change plan. Some of the company's largest contributions continue to be through the refurbishment and the 30-plus year operation of Darlington, and the operation of Pickering to its optimized end of life. In addition to avoiding greenhouse gas emissions equivalent to removing two million cars pear year from Ontario's roads, Darlington refurbishment and operation are estimated to boost Ontario's Gross Domestic Product by approximately $90 billion and provide over 14,000 jobs. Pickering's operation is estimated to continue to support more than 7,500 jobs, while avoiding approximately 17 million tonnes of carbon emissions.

OPG's economic impact was also realized through the company's prompt, safe reactivation of on-site project activities following a suspension earlier in the year due to the pandemic. These actions not only helped to mitigate the impact of the suspension on project milestones, but also supported OPG's vendors and partners. Additionally, with over 80% of the company's top ten goods and services being sourced from Ontario-based providers, OPG is exploring ways to further increase use of 'Made-in-Ontario' supply chains, where feasible and prudent.

Expanding OPG's Industry Leadership

In support of its strategic direction, OPG continues to expand its communication and outreach efforts, including as they relate to the company's role as an innovative climate change leader and driver of economic value. This includes maintaining and enhancing OPG's social licence and continuing to be a moderator of electricity prices in the province.

Priorities for OPG's communication and outreach efforts over the business plan period include the following:

- Building greater familiarity with, and trust in OPG. This includes continuing to make Ontarians and stakeholders aware of OPG's role and contributions, in order to build a deeper understanding of the company as an important asset to the province and its economy;
- Positioning OPG as a leader in clean energy generation and related services for the present and future. This includes building confidence in OPG as a credible voice supporting low-carbon energy generation and electrification, and delivering 'Made-in-Ontario' economic and customer benefits;
- Expanding public education efforts on OPG's diverse carbon-mitigating projects and cost effective operations, and continuing to enhance Indigenous relations. This includes supporting and communicating about the company's highly skilled, diverse people and partners to demonstrate OPG's commitment as an employer and development partner of choice; and
- Engaging employees through the OneOPG culture initiative, reinforcing high performance, agility and commercial focus principles, in addition to a continued focus on safety and efficiency. As it prepares for post-Pickering operations, OPG is mobilizing employees as a single team focused on customers, the future and the company's role in the economic renewal.

APPENDIX 1: KEY PLANNING ASSUMPTIONS

The key planning assumptions for the Amended 2020-2026 Business Plan are outlined below:

Operational and Project Assumptions

- Refurbishment of Darlington Unit 3 commences in Sept. 2020 and is completed by the first quarter of 2024. Unit 1 and Unit 4 refurbishments commence in the first quarter of 2022 and third quarter of 2023, respectively, and are completed in 2025 and 2026. Unit 2 refurbishment was completed in June 2020
- The end of Pickering commercial operations reflects the optimized shutdown plan as follows: Unit 1 – Sept. 2024, Unit 4 – Dec. 2024 and Units 5-8 – Dec. 2025. Operating the units beyond December 31, 2024 is subject to CNSC regulatory approvals. Accounting service lives will be re-assessed as applicable regulatory and technical work in support of the optimization is progressed
- A six-unit Vacuum Building Outage takes place at Pickering in 2022
- Generation plans for Darlington units include outage days for post refurbishment warranty activities
- New Nuclear Darlington site preparation licence is renewed and maintained; SMR expenditures and resources beyond the preliminary planning phase are not included in the plan
- Sir Adam Beck 1 GS Units 1 & 2 are converted to 60 Hz frequency and placed in service in 2022
- Little Long Dam Safety project is completed by [redacted]
- Calabogie and Coniston hydroelectric redevelopments are completed by 2022 and 2024, respectively, with two additional small hydro redevelopments of the Ontario-based fleet completed by 2025
- [redacted]
- [redacted]
- Bruce unit refurbishment dates are as per the Bruce Power refurbishment agreement
- [redacted] agreements are signed for phased investment in TTC transit electrification
- COVID-19 pandemic does not require new response measures beyond currently known impacts

Financial and Rate Regulation Assumptions

- New nuclear regulated rates are effective January 1, 2022, with a weighted average rate increase of 2% annually, on average, over the 2022-2026 period and based on the OEB's most recently published prescribed ROE value of 8.52% at the time of writing. The hydroelectric base rate is frozen for the 2022-2026 period at the 2021 rate requested in OPG's September 2020 annual adjustment application
- New regulated rates are set based on the accrual method of accounting for pension and OPEB costs, consistent with previous OEB conclusions and approvals, and using the currently approved accrual-based methodology for nuclear decommissioning and waste management liabilities
- Downsizing costs following end of Pickering operations are recorded in a new deferral account for future collection and are not recovered as part of the 2022-2026 rate application. There is sufficient certainty to meet US GAAP criteria for recognition of the full amount of severance costs during the period
- There is continued ability to hire PWU-represented Term Employees and Society-represented Extended Temporary Employees over the business plan period
- Salary costs over the business plan period reflect legislated compensation constraints for a three-year moderation period upon expiry of current collective agreements
- Pension fund investments earn 6%/yr. Discount rates for valuing accounting obligations for pension and other post-retirement benefits are 2.8% and 2.9%, respectively, beginning as of 2020 year-end
- Nuclear Fund investments earn 5.15%/yr
- Effective interest rate for new long-term corporate debt is 2.50% for debt issued up to 2022 and 3.50% for the remainder of the business plan period, on average
- [redacted]
- OPG continues to report financial results in accordance with US GAAP for the full business plan period

APPENDIX 2: KEY RISKS

The key risks associated with the Amended 2020-2026 Business Plan are outlined below:

Operational and Project Risks

- Risks associated with a second wave of the COVID-19 pandemic beginning in Fall 2020 and potential future waves, which may cause disruption to OPG's operations and projects
- Failure to maintain Darlington refurbishment cost and schedule commitments, with requisite quality, including risks related to vendor performance and key skilled trades availability
- Risk of the Province not proceeding with the refurbishment of subsequent Darlington units
- Inability to achieve production targets, including risks associated with unit capability factors, planned and unplanned outages, asset lifecycle management, and human performance
- Uncertainties related to long-term nuclear waste solutions, and risk of inadequate future interim storage capacity for low and intermediate level nuclear waste material and used nuclear fuel
- Risk of increased operating costs from greater-than-planned deterioration of station components and systems, discovery of unexpected conditions, scope changes and equipment failures
- Technical risks associated with operating the Pickering units until planned end of commercial operations and Darlington units until refurbishment
- Risk of cyber-attacks, which may impact availability, integrity or confidentiality of information systems and operation technologies
- Inability to retain and attract leadership talent and qualified management employees during the Darlington refurbishment and continued Pickering operations
- Failure to appropriately staff operational and support groups in critical skill areas given current demographics and strategies aimed at mitigating Pickering closure downsizing impacts
- Risks associated with significant environment, health and conventional and dam safety events
- Risks associated with collective bargaining, including impacts on operations, operating costs, Pickering closure downsizing costs and reputation
- Risks associated with severe weather events and climate change, including the potential for operational disruptions and flooding

Financial, Rate Regulation and Social Licence Risks

- [redacted]
- Risk of future changes to long-term financial obligations related to uncertainties or changes in nuclear waste management and decommissioning strategies and estimates
- Risk of lower than planned returns on nuclear segregated and pension fund assets as a result of market factors, which would lower net income and potentially increase future funding requirements
- Risks related to uncertainty or changes in rate regulation and OEB decisions and orders
- Risks associated with changes in government policies and regulations, or provincial policy directives
- Risks associated with a breakdown in Indigenous relations

APPENDIX 3: FINANCIAL AND HEADCOUNT PLAN INFORMATION

Key Financial Metrics *(in millions of dollars unless otherwise noted)*	Amended Budget 2020	Forecast 2020	Amended Business Plan 2021	2022	2023	2024	2025	2026
Financial Performance Metrics								
Net Income Attributable to Shareholder	[redacted]							
Earnings Before Tax								
Return on Equity*								
Debt Ratio *(%)*								
FFO / Total Debt Ratio *(Minimum threshold of 13%)*								
CF to Debt Ratio *(Minimum threshold of 12%)*								
Total Debt at Year-End								
Net Cash from Operations								
Cash Balance at Year-End								
Total Capital Assets								
Total Return to Shareholder**								
Cost Performance Metrics								
Enterprise Total Generating Cost † *($/MWh)*	[redacted]							
OM&A Expenses from Ongoing Operations (excluding Operating Subsidiaries)								
Darlington Refurbishment Baseline Capital Expenditures (excluding COVID-19 impacts)	759	759	1,007	1,136	1,077	963	585	352
Darlington Refurbishment In-Service Additions	4,816	4,798	9	-	1	2,506	1,907	2,028
Capital Expenditures excluding Darlington Refurbishment	[redacted]							
Capital In-Service Additions excl Darl Refurb, Operating Subsidiaries, LLDS, SFSU***	[redacted]							
Capital In-Service Additions - LLDS & SFSU***	[redacted]							
Nuclear Waste and Thermal Decom. Provision Expenditures	[redacted]							

* Calculated using the methodology per OPG's external financial filings
** Calculated as: Net Income Attributable to Shareholder + Income Taxes in Ontario + Gross Revenue Charge + Property Tax PILs
***LLDS stands for Little Long Dam Safety and SFSU stands for Smoky Falls Sluicegate Upgrade.
† Total Generating Cost for OPG-operated facilities in Ontario is calculated as: (OM&Aexpenses from ongoing operations + fuel and Gross Revenue Charge expenses + sustaining capital expenditures)/OPG generation adjusted for surplus baseload generation losses. Sustaining capital expenditures exclude such major hydroelectric projects as the Little Long Dam Safety project, and the Smoky Falls Sluiceway Upgrade project

Consolidated Operating Statement - Years Ended December 31 *(in millions of dollars)*	Amended Budget 2020	Forecast 2020	Amended Business Plan 2021	2022	2023	2024	2025	2026
Electricity Generation Revenues	[redacted]							
Fuel and Gross Revenue Charge								
Generation Sales Gross Margin								
Non-Electricity Generation Gross Margin								
Total Gross Margin								
OM&A Expenses (excl. Cost of Goods Sold)								
Depreciation and Amortization								
Accretion on Nuclear Waste and Other Liabilities								
Earnings on Nuclear Funds								
Property Taxes								
Total Expenses								
Income before Interest and Other Income								
Net Interest Expense								
Other (Income)/Expense*								
Income before Tax								
Income Tax								
Net Income								
Net Income Attributable to Shareholder								
Net Income Attributable to Non-Controlling Interests								

[redacted]

OM&A Expenses *(in millions of dollars)*	Amended Budget 2020	Forecast 2020	Amended Business Plan 2021	2022	2023	2024	2025	2026
Operations Base and Outage								
Nuclear Base	929	918	920	923	920	898	763	425
Nuclear Outage Incremental	225	235	373	247	345	199	193	61
Renewable Generation Operations	[redacted]							
Enterprise Operations Support	362	347	358	378	376	386	312	207
Enteprise Projects	40	43	42	49	49	49	32	26
Operations Base and Outage	[redacted]							
Operations Projects								
Nuclear	65	79	93	81	85	81	77	62
Renewable Generation Operations	[redacted]							
Operations Projects	[redacted]							
Pickering Extension Enabling Costs	94	94	60	-	-	-	-	-
Pickering Optimization Enabling Costs	0	2	8	16	5	18	-	-
Fuel Channel Life Extension and Related Costs	35	40	50	36	19	1	-	-
Total Operations and Projects	[redacted]							
Enterprise Strategy (incl. Corporate Business Development)	**11**	**10**	**22**	**23**	**24**	**23**	**22**	**23**
Support Services								
Chief Administrative Office	344	353	361	352	349	343	317	261
Finance	46	43	45	46	45	46	45	45
Corporate Office (incl. Corporate Affairs and Law)	46	47	45	38	39	39	38	35
Fitness for Duty	10	1	7	6	6	6	5	5
Support Service Projects	27	26	29	33	26	30	26	21
Total Support Services	**473**	**469**	**487**	**475**	**465**	**464**	**430**	**367**
Total Business Unit Expenditures	[redacted]							
Insurance	45	47	54	59	63	67	61	52
Centrally Held Pension and OPEB	(11)	(15)	32	15	(8)	(38)	(54)	(77)
Other	[redacted]							
Total Ongoing Operations (excluding Operating Subsidiaries)	[redacted]							
Eagle Creek	[redacted]							
Atura Power	[redacted]							
Laurentis Energy Partners	[redacted]							
OEB Variance and Deferral Account Offsets	(19)	23	(314)	(3)	0	1	7	(22)
Darlington Refurbishment	7	12	43	24	24	29	25	8
New Nuclear	106	66	206	8	5	6	5	5
Other	[redacted]							
Total OM&A Expenses	[redacted]							

Chief Administrative Office- Base OM&A	Amended Budget 2020	Forecast 2020	Amended Business Plan 2021	2022	2023	2024	2025	2026
Chief Information Office	144	150	155	157	157	152	144	121
Real Estate	81	82	93	85	84	85	74	54
Supply Chain	50	52	47	46	46	45	37	32
Human Resources	30	29	29	29	29	27	27	23
Environment and Health & Safety	30	30	27	24	24	25	25	19
Regulatory Affairs and Other	9	9	10	11	9	10	9	12
Total Chief Administrative Office Base	**344**	**353**	**361**	**352**	**349**	**343**	**317**	**261**

Consolidated Balance Sheet - As at December 31	Amended Budget	Forecast	Amended Business Plan					
(in millions of dollars)	2020	2020	2021	2022	2023	2024	2025	2026
Assets								
Current assets	[redacted]							
Cash and cash equivalents								
Equity Securities								
Accounts receivable								
Fuel inventory								
Materials and supplies								
Other current assets								
Property, plant and equipment and intangible assets								
Fixed and intangible assets (net)								
Other assets								
Loan receivable								
Nuclear fixed asset removal and nuclear waste management funds								
Long-term materials and supplies								
Regulatory assets (net)								
Investments subject to significant influence								
Goodwill								
Other long-term assets								
Total Assets								
Liabilities								
Current liabilities								
Short-term notes payable								
Accounts payable and accrued charges								
Long-term debt due within one year								
Long-term debt								
Other liabilities								
Fixed asset removal and nuclear waste management liabilities								
Pension liabilities								
Other post-employment benefit liabilities								
Long-term accounts payable and accrued charges								
Deferred revenue								
Deferred income taxes								
Equity								
Class A shares								
Common shares								
Contributed Surplus								
Retained earnings								
Accumulated other comprehensive loss								
Equity attributable to non-controlling interests								
Total Liabilities and Equity								

Consolidated Financing and Liquidity Outlook - Years Ended December 31 (in millions of dollars)	Amended Budget 2020	Forecast 2020	Amended Business Plan 2021	2022	2023	2024	2025	2026
Opening Cash Balance	520	498	605	460	467	388	376	420
Net Operating Cash Inflows before the following:	[redacted]							
Interest Paid								
Pension Fund Contribution								
OPEB Payments								
New Nuclear								
Internally Funded Nuclear Provision Expenditures								
Net Cash from Operations								
Investing Activities								
Capital Expenditures								
Sustaining Capital Expenditures	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Darlington Refurbishment Baseline	(759)	(759)	(1,007)	(1,136)	(1,077)	(963)	(585)	(352)
Sir Adam Beck Units 1 & 2 Conversion	(41)	(35)	(56)	(15)	-	-	-	-
Little Long Dam Safety & Smoky Falls Sluiceway Projects	[redacted]							
[redacted]								
Calabogie GS Redevelopment & Coniston GS Redevelopment	(44)	(44)	(67)	(61)	(29)	(8)	-	-
Future Small Hydro Redevelopment	(0)	(0)	(6)	(9)	(130)	(169)	(143)	(108)
Electrification & Energy Storage	[redacted]							
Other Development								
Capital Expenditures	[redacted]							
Ontario Natural Gas Fleet Acquisition								
[redacted]								
Net Cash Outflow for Investing Activities								
Financing Activities								
OEFC/Public Debt - *Debt Issuance/Refinancing*								
- *Debt Retirement*								
Private Placement Debt - *Debt Issuance/Refinancing*								
- *Debt Retirement*								
Short-Term Notes - *Net Issuance (Repayment)*								
Distribution Paid to Non-Controlling Interests (net of contributions)								
Net Cash from Financing Activities								
Net Cash Inflow (Outflow) for Period	[redacted]							
Ending Cash Balance								
Total OPG Consolidated Debt								

Production (TWh)	Amended Budget 2020	Forecast 2020	Amended Business Plan 2021	2022	2023	2024	2025	2026
Darlington	21.8	22.6	16.9	13.4	9.6	12.0	13.5	21.5
Pickering	20.3	20.2	21.4	19.8	21.2	21.4	16.6	-
Total Nuclear	42.0	42.8	38.3	33.2	30.8	33.3	30.2	21.5
Regulated Hydroelectric	31.0	30.8	32.2	31.9	33.4	32.1	32.6	32.8
Contracted Hydroelectric & Thermal	[redacted]							
Atura Power								
Total Ontario Production (Net of SBG Losses)								
Regulated Hydroelectric SBG Losses	(2.1)	(3.4)	(2.1)	(1.7)	(0.4)	(1.6)	(0.7)	(0.1)
Contracted Hydroelectric SBG Losses	[redacted]							
Total SBG Losses								
US Hydroelectric Platform								

* Due to inherent uncertainties, SBG assumptions for the amended 2020 budget are not adjusted for pandemic-specific impacts resulting from changes to electricity supply and demand

Headcount *Regular, Term, and Extended Temporary Employees*	**Amended Budget 2020**	**Forecast 2020**	**Amended Business Plan 2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Enteprise Operations								
Nuclear Operations	3,889	3,857	3,864	3,665	3,582	3,493	3,221	2,128
Renewable Generation Operations	[redacted]							
Enterprise Operations Support	1,648	1,611	1,628	1,614	1,608	1,540	1,279	946
Total Enterprise Operations	[redacted]							
Total Enterprise Projects	**789**	**744**	**786**	**809**	**797**	**769**	**592**	**280**
Enteprise Strategy								
Nuclear Waste Management	241	233	249	253	259	259	259	274
Corporate Business Development and Other	52	59	56	66	66	56	56	55
Total Enterprise Strategy	**293**	**292**	**305**	**319**	**325**	**315**	**315**	**329**
Support Services								
Chief Administrative Office	1,077	1,050	1,041	991	974	947	832	705
Finance	200	193	191	185	181	179	174	169
Corporate Office (incl. Corporate Affairs and Law)	103	95	95	95	94	94	88	73
Total Support Services	**1,380**	**1,338**	**1,327**	**1,271**	**1,249**	**1,220**	**1,094**	**947**
Total Business Unit Headcount	[redacted]							

*Excludes operating subsidiaries (Atura Power, Eagle Creek, Laurentis Energy Partners). As Pickering units come offline in 2024 and 2025, headcount excludes employees transitioning out of the organization.

Provision Expenditures *(in millions of dollars)*	**Amended Budget 2020**	**Forecast 2020**	**Amended Business Plan 2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Nuclear Provision Expenditures:								
Used Fuel and L&IL Waste Disposal	164	149	178	130	168	161	176	162
Used Fuel and L&IL Waste Storage	246	272	287	281	253	242	270	245
Decommissioning	49	32	63	40	42	86	194	410
Total Nuclear Provision Expenditures	**460**	**452**	**529**	**450**	**464**	**489**	**639**	**817**
Thermal Decommissioning Provision Expenditures:	[redacted]							
Nanticoke GS								
Lambton GS								
Thunder Bay GS								
Other								
Total Thermal Decommissioning Expenditures								
Total Provision Expenditures								

Capital Expenditures	Amended Budget	Forecast	Amended Business Plan					
(in millions of dollars)	2020	2020	2021	2022	2023	2024	2025	2026
Sustaining								
Nuclear								
Nuclear Project Portfolio	398	401	408	413	382	343	303	221
Darlington Water Treatment Plant	-	-	-	-	-	139	-	-
Total Nuclear	398	401	408	413	382	481	303	221
Regulated Hydroelectric	255	265	288	190	234	237	312	314
Contracted Hydroelectric and Thermal								
Little Long Dam Safety Project	[redacted]							
Smoky Falls Sluicegate Project								
Other Contracted								
Total Contracted Hydroelectric and Thermal								
Support Services								
Information Technology Projects	112	127	115	96	106	85	85	107
Clarington Campus	[redacted]							
Other Projects	24	14	30	27	5	12	11	8
Total Support Services	159	143	151	217	191	115	98	115
Eagle Creek	[redacted]							
Atura Power								
Total Sustaining Capital								
Darlington Refurbishment								
Darlington Refurbishment Baseline	759	759	1,007	1,136	1,077	963	585	352
Darlington Refurbishment (COVID-19)	102	102	(2)	(4)	34	18	0	2
Total Darlington Refurbishment Project	**861**	**861**	**1,005**	**1,132**	**1,111**	**982**	**585**	**354**
Development Projects								
Sir Adam Beck 1 Units 1 & 2 Conversion	41	35	56	15	-	-	-	-
Energy Storage	[redacted]							
Calabogie GS Redevelopment	39	40	57	27	3	-	-	-
Future Small Hydro Redevelopment	0	0	6	9	130	169	143	108
Coniston GS Redevelopment	5	4	10	34	25	8	-	-
[redacted]	[redacted]							
Laurentis Energy Partners								
Electrification								
Other Business Development								
Total Development Projects	[redacted]							
Total Capital Expenditures								

APPENDIX 4: KEY OPERATIONAL TARGETS

Nuclear Targets

Metric	NPI Max	Industry Top Quartile	Pickering 2020 Amended Target	Pickering Forecast 2020	Pickering 2021 Annual Target	Pickering 2022 Annual Target	Pickering 2023 Annual Target	Pickering 2024 Annual Target	Pickering 2025 Annual Target	Darlington 2020 Amended Target	Darlington Forecast 2020	Darlington 2021 Annual Target	Darlington 2022 Annual Target	Darlington 2023 Annual Target	Darlington 2024 Annual Target	Darlington 2025 Annual Target	Darlington 2026 Annual Target
Total Recordable Injury Frequency(#/200k hours worked)[1]		0.81	0.20	0.16	0.13	0.10	0.09	0.09	0.08	0.20	0.18	0.17	0.10	0.09	0.09	0.08	0.08
Serious Injury Incident Rate (#/200k hrs worked)[1]		0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Collective Radiation Exposure (person-rem/unit)	80.0	38.54	121.70	116.00	94.50	101.00	99.50	72.70	19.50	30.63	30.63	126.20	21.10	73.90	40.00	78.20	31.80
Unit Capability Factor (%)	92.0	87.06	76.0	75.3	80.0	74.1	79.4	83.3	93.2	91.1	92.1	76.0	85.8	78.1	81.8	68.2	89.4
Forced Loss Rate (%) [2]	1.00	1.08	3.50	2.77	3.50	3.50	3.50	3.50	3.50	2.85	2.06	3.79	2.12	1.20	5.99	6.42	4.27
On-Line Corrective Non-Critical Mtce Backlog (work orders/unit)		2	10	10	2	2	2	2	2	2	2	2	2	2	2	2	2
On-line Corrective Critical Maintenance Backlog (work orders/unit)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WANO NPI (Index)[3]		92.7	77.6	83.4	74.7	76.9	75.7	80.3	85.6	93.7	94.6	84.3	93.1	77.5	86.9	84.8	85.0
Human Performance Error Rate		0.000	0.060	0.040	0.066	0.066	0.040	0.040	0.040	0.033	0.033	0.039	0.039	0.019	0.019	0.019	0.019
Total Generating Cost per MWh[4]		30.8	50.4	50.7	44.3	46.2	40.8	36.3	23.7	39.05	38.9	58.7	47.5	62.7	44.8	60.3	40.7

[1] The SIIR target included for the 2020-2026 period represents the target for total enterprise.

[2] Includes a temporarily higher forced loss rate for Darlington units upon return to service following refurbishment, based on industry experience, prior to transitioning to regular operations with a 1.00%

[3] NPI Index reflects the 2021-2026 approved targets that are benchmarked against CANDU standards. NPI targets subject to finalization.

[4] Consistent with industry definition metrics exclude centrally-held Pension and OPEB costs, asset service fees, and used fuel expenses. Targets are indicative and will be updated once cost allocations and assumptions are finalized. TGC/MWh shown in the table has been normalized to account for refurbishment (DN Only) and CANDU technology (including outage duration) and age-related impacts.

Renewable Generation Targets (Ontario)

	Amended Budget 2020	Forecast 2020	Amended Business Plan 2021	2022	2023	2024	2025	2026
Employee Safety								
Serious Injury Incident Rate (#/200k hrs worked)***	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Total Recordable Injury Frequency (#/200k hrs worked)	1.21	1.27	1.21	1.21	1.21	1.21	1.16	1.09
Environment *(#)*								
Category A and B Spills	-	-	-	-	-	-	-	-
Category C Spills	8	3	8	8	8	8	8	8
Environmental Infractions	6	3	6	6	6	6	5	5
Capacity (MW)	[redacted]							
Regulated Hydroelectric	6,430	6,421	6,437	6,560	6,567	6,588	6,602	6,612
Contracted Generation (Hydro, Thermal and Solar)**	[redacted]							
Hydroelectric Availability (%)	**85.9**	**86.3**	**86.3**	**87.1**	**88.2**	**87.0**	**87.9**	**87.0**
Regulated Hydroelectric	87.3	87.7	86.2	86.5	87.3	85.9	87.2	87.1
Contracted Generation	[redacted]							
Hydroelectric Equivalent Forced Outage Rate (%)	**2.0**	**4.8**	**2.6**	**2.3**	**2.2**	**2.2**	**2.3**	**2.3**
Regulated Hydroelectric	1.8	4.3	2.3	2.3	2.3	2.3	2.3	2.3
Contracted Generation	[redacted]							
Thermal Equivalent Forced Outage Rate (Operating) (%)	[redacted]							
Total Hydroelectric Generating Cost per MWh ($/MWh)*	[redacted]							

*Metrics exclude centrally- held Pension and OPEB costs, asset services fees and development capital expenditures. [redacted] Targets are indicative and will be updated once cost allocations and assumptions are finalized. Generation is adjusted for surplus baseload generation losses.

** [redacted]

***The SIIR target included for the 2020- 2026 period represents the target for total enterprise.

Chief Administrative Office Targets	Amended Budget	Forecast	Amended Business Plan					
	2020	2020	2021	2022	2023	2024	2025	2026
Employee Safety								
Serious Injury Incident Rate* (#/200k hrs worked)	0.02	0.01	0.02	0.02	0.02	0.01	0.01	0.01
Total Recordable Injury Frequency (#/200k hrs worked	0.74	0.74	0.58	0.48	0.52	0.47	0.44	0.42
Environment**								
Category A and B Spills (#)	-	-	-	-	-	-	-	-
Category C Spills (#)	17	11	16	16	16	15	14	13
Environmental Infractions (#)	18	9	16	16	17	14	13	11
Airborne Tritium Emissions (Ci)	21,000	21,780	19,950	19,700	19,00	18,900	13,270	8,260
Information Technology								
Critical IT System Availability (%)	100	100	100	100	100	100	100	100
IT Project – Cost Performance Index (CPI) (%)	80	80	80	80	80	80	80	80
IT Project – Schedule Performance Index (SPI) (%)	80	80	80	80	80	80	80	80
Cyber Incidents (> P2) (#)	4	2	4	4	4	4	4	4
Supply Chain								
% of Key Milestones Met for Top Priority Projects	100	100	100	100	100	100	100	100
Total Cost of Quality - Nuclear OPG Buy Only ($M)	17.6	17.6	17.2	16.3	15.5	14.7	8.9	8.5
Shared Services								
Payroll Accuracy (%)	99	99	99	99	99	99	99	99

* The SIIR target included for the 2020-2026 period represents the target for total enterprise.

** Represents corporate environment performance targets.

Rate Smoothing Options	As part of OPG's request for feedback, rate smoothing was explained to customers as a balance of maintaining stable rates versus deferring collection of amounts to the future that would attract interest costs. Customers indicated support for a moderate level of smoothing. The business plan reflects a rate smoothing trajectory based on a 2% annual WAPA increase over the 2022-2026 period, which approximates inflation and is consistent with the average WAPA increase approved by the OEB in the 2017-2021 rate application.
Making the Pickering Station Site Available for Other Uses after Shutdown	OPG's customer engagement process explored customers' willingness to pay more for an accelerated decommissioning process for the Pickering station site that would take approximately 25 years, making the site available for use sooner, as compared to the current standard approach that would make the site available for other uses after approximately 45 years. The majority of customers indicated that they would be willing to pay something additional on their monthly bill for the faster approach. These results will inform OPG's assessment of decommissioning strategy options going forward, without compromising OPG's focus on safety. In the near term, OPG will continue to conduct studies on the strategic evaluation of potentially moving to an accelerated decommissioning program that will take into consideration: experience from other nuclear station decommissioning, safety and security considerations, social and environmental impacts, availability of resources and infrastructure for waste management, and regulatory policies and framework, amongst other stakeholders' needs.
Hydroelectric Projects	*Overhauling Hydroelectric Stations:* Most customers prefer a faster or moderate pace over a slower pace for overhauling hydroelectric stations. Accordingly, the business plan reflects a moderate pace of major sustaining projects (i.e. overhauls), which aligns with customers' priorities of producing low cost power and operating in a safe and reliable manner. *Niagara Frequency Conversion Project:* OPG has begun the project to replace the previously decommissioned 25 Hz Units G1 and G2 at the Sir Adam Beck 1 station with 60 Hz units. This is consistent with the customers' preference that OPG proceed with this project, as opposed to delaying the work.
Nuclear Projects	*Darlington Vapour Recovery System (VRS):* While customers supported a more expensive plan to replace the VRS at Darlington, OPG has determined that it would be optimal to focus investment on improving the existing system. This approach addresses a critical operational and safety risk. Improving the existing system would provide redundancy related to breathing air restrictions when two units are undergoing refurbishment, whereas replacement would not provide this redundancy and would extend system down time. Moreover, improving the existing VRS system is expected to result in savings of $35 million compared to replacement. *Darlington Air Compressors Replacement:* OPG is planning to proactively replace all 19 air compressors at Darlington in alignment with customer feedback. This investment would mitigate operational risk as the current compressors' condition is expected to deteriorate. *Darlington Crane Project:* OPG is planning to refurbish 14 cranes and defer refurbishment of six cranes, in alignment with customer feedback.
Investing in Technology to Create Efficiencies	Customers were supportive of investments in new and innovative technologies that would lead to guaranteed savings, but did not support further investing in pilot projects. During the business plan period, OPG will invest in technologies to enable cost savings across the organization, such as the implementation of the Monitoring and Diagnostics Centre, digital solutions (e.g., process automation, artificial intelligence), drone utilization, and the like. OPG is confident that there is a high

	likelihood that these investments will lead to cost savings, with many of the investments in technological solutions included in the plan supported by experience at other organizations.

APPENDIX 6: KEY ENTERPRISE LEVEL INITIATIVES

Workforce & Culture

- **Human Resources and Labour Relations Strategy:** In order to meet its broader corporate strategic objectives, OPG must build and maintain a diverse, committed, healthy and agile workforce that thrives in a dynamic industry, while promoting a strong culture of collaboration, accountability and innovation. This means focusing both on OPG's core workforce of skilled workers who deliver operational excellence, while simultaneously attracting, developing and retaining new workers with the critical skillsets needed to support OPG's growth strategies. OPG is realigning its human resources programs and services to meet the company's future needs.

- **OneOPG:** From a culture perspective, the OneOPG initiative remains a cornerstone of OPG's long-term workforce strategy. Leveraging the recent realignment of operating groups into an integrated enterprise structure, OPG will focus on continuing to drive the OneOPG cultural transformation deeper into the organization, ensuring that employees understand that these cultural shifts are imperative for the company's long-term success.

- **Equity, Diversity & Inclusion:** A critical pillar of OPG's OneOPG culture is the achievement of ED&I, meaning all employees, contractors and business partners are treated fairly and respectfully, and each individual is able to reach their full potential. Through its ED&I strategy, OPG will deliver on the promise to "accelerate equity, celebrate diversity and foster a culture of inclusion".

Operations & Innovation

- **Climate Change Plan:** OPG's climate change plan will guide the company in being a catalyst for efficient, economy-wide de-carbonization and economic renewal in the province and beyond. OPG is targeting the following goals in support of a low-carbon future:

  A net-zero carbon company by 2040 – Having delivered the world's single largest climate action to date by closing its coal stations, OPG will continue to be a climate leader by investing in, and implementing CO_2 reductions to become a net-zero carbon company by 2040.

  A catalyst for a net-zero carbon economy by 2050 – OPG will be a leading energy innovation company, advancing clean technologies and solutions to help the markets where it operates achieve net-zero carbon economies by 2050.

  OPG will execute a series of actions in order to achieve its climate goals under the following pillars: mitigation, adaptation, innovation and leadership.

- **Pickering Decommissioning Strategy:** As Pickering approaches its end of life, stakeholder focus is shifting to OPG's decommissioning strategy. Given the increasingly complex stakeholder environment and the emergent US and international trend toward more immediate dismantlement as new commercial and technical solutions evolve, OPG plans to proactively review the decommissioning strategy.

- **Nuclear Materials Stewardship Strategy:** OPG is an industry leader in the safe transportation, processing, storage and recycling of nuclear by-products. OPG will continue to build on this success by implementing innovative methods and technologies to sort and segregate low and intermediate level waste material, with a focus on minimization throughout the entirety of its lifecycle.

Customers & Stakeholders

- **Regulatory Strategy:** OPG is focused on driving value for the Shareholder while ensuring it remains Ontario's low cost energy provider. OPG is currently preparing the OEB rate application to seek revenues that will support the nuclear business for the 2022-2026 period. Preparing the rate application is a complex and lengthy process that requires a high level of effort and coordination across the organization. The outcome of the rate application will be a significant determinant of OPG's financial performance over the business plan period.

- [redacted]

Growth & Transformation

- **Growth Strategy:** This initiative focuses on maintaining and enhancing OPG's scale and industry leadership across generation technologies, including through asset redevelopment, investments in commercial innovation and acquisitions. The growth strategy builds on OPG's strong wholesale generation business while continuing to support diversification across the evolving energy industry into new geographies and technologies and across the value chain.

- **Acquisition Integration & Performance Monitoring:** Given the significant acquisitions completed over the last two years, OPG is focused on ensuring that the assets are integrated in a way that achieves the established goals and aligns with the overall value drivers for each transaction. Using a systematic approach, OPG has been progressing the combination of Cube Hydro with Eagle Creek and the integration of the acquired natural gas-fired assets into Atura's single fleet. [redacted]

- **New Nuclear Growth:** As the largest, most experienced and most diverse nuclear operator in the country, OPG seeks to lead the development of SMRs, leveraging its existing site preparation licence and approved Environmental Assessment for the Darlington New Nuclear Project. The site can be used to build Canada's first grid-scale SMR, laying the groundwork for a fleet approach of additional SMRs across the country. Additionally, OPG will seek opportunities to be the first mover for off-grid SMR applications.