

## CAPITAL BUDGET – SUPPORT SERVICES

### 1.0 PURPOSE

This evidence provides an overview of the capital expenditures by OPG's Support Services groups for the historical years (2020-2024), bridge years (2025-2026), and the IR term (2027-2031). It also sets out period-over-period changes in these expenditures.

### 2.0 OVERVIEW

Exhibit D3-1-1, Table 1 sets out capital expenditures by OPG's Support Services groups that impact rate base or the asset service fees. The Support Services capital expenditures for real estate and information technology ("IT") for the regulated facilities are delivered by the Real Estate ("RE") and Digital Technology & Services ("DTS") groups respectively within the Corporate Services business unit.

OPG's role in meeting the demand for energy in Ontario, including the advancement of the Pickering Refurbishment Program ("PRP"), Pickering's "second-life" operations, the development of the Darlington New Nuclear Program ("DNNP") and the expanded hydroelectric work program, are necessitating new IT and real estate capital work. The Support Services capital expenditures budget for the IR term reflects this growing demand in a dynamic business environment, including a changing IT landscape. These investments will need to be delivered to meet current requirements while meeting the objectives of the Company's longer-term digital strategy and considering the impact on the Company's real estate footprint. An overview of IT and RE capital investments over the historical, bridge and IR term is provided in this exhibit.

As shown in Chart 1, the total OPG capital expenditures for Support Services projects over the IR term total \$1,073.3M. The annual expenditure will decline over the IR term, starting at \$313.0M in 2027 and reducing to \$159.0M in 2031. Capital expenditures for IT projects account for about 75% of the total Support Services capital portfolio over the IR term, with an average expenditure of \$161.5M per year, beginning at \$210.6M in 2027 and reducing to \$127.8M by 2031. Excluding non-portfolio investments in the Corporate Headquarters ("CHQ"), the

1 Enterprise System Modernization portfolio and the DNNP Operational Readiness Technology  
 2 Projects, the Support Services sustaining portfolio capital expenditures of \$703.9M for the IR  
 3 term is substantially the same as the currently forecast 2022-2026 period expenditures of  
 4 \$711.6M. Explanations of the term over term and period over period changes are provided in  
 5 Section 4.0.

6  
 7

**Chart 1 – Support Services Capital Expenditures (\$M)**

Line No.	Category	2027 Plan	2028 Plan	2029 Plan	2030 Plan	2031 Plan	2027- 2031 Plan
		(a)	(b)	(c)	(d)	(e)	(f)
	<b>Project Portfolios:</b>						
1	IT	82.9	88.2	92.9	91.6	82.3	437.9
2	Real Estate	102.4	41.8	42.9	47.7	31.2	265.9
3	<b>Total Project Portfolio</b>	185.3	130.0	135.8	139.3	113.5	703.9
4	<b>Enterprise System Modernization</b>	99.0	61.7	43.7	44.3	39.8	288.4
5	<b>DNNP Operational Readiness Technology Projects</b>	28.7	22.4	16.6	7.5	5.8	81.0
6	<b>Total Support Services Capital Expenditures</b>	313.0	214.1	196.0	191.1	159.0	1,073.3

8

9 As capital projects are completed, the resulting assets are placed in-service. Details on in-  
 10 service additions are provided in Ex. D3-1-2, Tables 1-5. Where the assets can be directly  
 11 assigned, they are declared as in-service additions to the rate base for the respective business  
 12 units. OPG's fixed and intangible assets to be used exclusively or near exclusively for the  
 13 DNNP facilities are not included in OPG or DNNP LP's rate base or associated depreciation  
 14 and amortization expense component of the revenue requirement. If the assets cannot be

1 directly assigned<sup>1</sup> because they are used by multiple groups, they are held centrally, and the  
2 regulated businesses are charged an asset service fee for their use. Additionally, in-service for  
3 projects to be used exclusively or near exclusively for the DNNP facilities are not included in  
4 OPG or DNNP LP's rate base and, instead, are expected to be charged to DNNP LP through  
5 an asset service fee under the respective agreement between the parties. Asset service fees  
6 are further discussed in Ex. F3-2-1.

### 8 **3.0 CAPITAL EXPENDITURES**

9 Exhibit D3-1-1, Tables 1 and 2 present the actual and forecasted Support Services capital  
10 expenditures for the period 2020-2031. These expenditures represent the sum of the following,  
11 as categorized in these tables:

- 12 • **Portfolio Projects:** Project portfolios are developed and tailored to ensure the safety and  
13 reliability of OPG's assets, meet regulatory requirements, sustain or optimize performance,  
14 and address issues of obsolescence. The Support Services project portfolio consists of the  
15 following:
  - 16 ○ **IT:** Planned technology capital expenditures over the IR term were developed with  
17 approximately half the expenditures targeting on-going cyber security investments,  
18 emerging regulatory compliance (e.g., Federal Bill C-8), and system sustainment. The  
19 remaining portion of the portfolio includes technology investments in areas that will  
20 directly support nuclear and hydroelectric operations and are key to maintaining and  
21 improving operational reliability and safety. For more information on IT Portfolio  
22 Projects, refer to Section 3.1.1.
  - 23 ○ **Real Estate:** OPG operates facilities across the province, and its real estate capital  
24 portfolio is designed to support the Company's evolving needs while optimizing real  
25 estate costs. For more information on Real Estate portfolio projects, refer to Section  
26 3.2.
- 27 • **Non-Portfolio Projects:** Non-portfolio capital expenditures for Support Services are  
28 organized as either standalone portfolios for significant investment programs covering a

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<sup>1</sup> The ASF methodology considers that to the extent that 90% or more of the beneficial use of a joint-use asset relates to a particular business, the related assets are fully attributed to that business. For a regulated business, this means that such assets are included in the rate base.

1 number of related IT systems or extraordinary projects and are managed separately from  
2 the capital portfolio budgets. The reasons for treating a program/project as non-portfolio  
3 include its size relative to the overall portfolio whereby both the non-portfolio project(s) and  
4 the portfolio budgets are more effectively identified separately. The non-portfolio  
5 investments over the bridge and IR term include the following:

- 6 ○ **DNNP Operational Readiness Technology Projects:** Refer to Section 3.1.2
- 7 ○ **Enterprise System Modernization:** Refer to Section 3.1.3
- 8 ○ **Clarington Campus and CHQ:** Refer to Section 3.2

9  
10 Project categories are further subdivided in the tables as follows:

- 11 • Allocated projects are those in the planning, execution, or closeout phases (refer to Ex.  
12 D2-1-1, Section 3.1) and have an approved Business Case Summary (“BCS”). The  
13 approved BCS for these projects can vary from a very preliminary development estimate  
14 (e.g., Class 5 estimate) to an Execution BCS (e.g., Class 3 or better estimate).
- 15 • Unallocated projects are those in the project identification or initiation phase (as described  
16 in Ex. D2-1-1, Section 3.2). Unallocated amounts reflect the difference between the total  
17 approved capital budget and the amount of capital allocated to projects in the respective  
18 category. The unallocated amount represents the amount of approved capital and amounts  
19 reflected in OPG’s approved business plan that remains available to undertake projects  
20 currently at the project identification or initiation phases, until those projects move forward  
21 with an approved budget and BCS. Due to the volume of Support Services projects  
22 projected to be under \$10M, OPG has provided the list of unallocated Tier 1 (>\$30M) and  
23 Tier 2 (\$10M-\$30M) projects in Ex. D3-1-2, Table 6. OPG expects that during the forecast  
24 period some of these projects (or other projects yet to be identified) will move from the  
25 project identification and initiation phases into the project planning and execution phase as  
26 part of the ongoing portfolio management process (Ex. D2-1-1, Section 3.1).

27  
28 All projects, both allocated and unallocated, have been reviewed and approved to be entered  
29 into OPG’s business plan in alignment with its asset management and investment planning  
30 processes (Ex. D2-1-1, Section 3.2). Further details on Tier 1 capital projects are provided in  
31 Ex. D3-1-2, Table 1 and Tier 2 capital projects are listed in Ex. D3-1-2, Tables 2a-2e.

1 **3.1 Information Technology**

2 Technology continues to play a critical role in the execution of OPG's planned major capital  
3 programs and the strong operational performance of the fleet. In EB-2020-0290, OPG's  
4 technology focus was on sustaining core systems and cyber security compliance during a  
5 period of cost structure realignment in view of the then anticipated Pickering closure. OPG's  
6 current digital strategy builds on these foundations and guides the Company's plans and  
7 priorities for technology investments in support of OPG's mandate. OPG's 2024-2028 Digital  
8 Business Strategy Roadmap ("Roadmap") is provided as Attachment 1 to this schedule,  
9 reflecting a natural evolution from maintaining reliability to enabling a more integrated and  
10 adaptive digital environment. While the digital strategy continues to address the refresh of IT  
11 systems according to their lifecycle, it also directs investments in enhanced technologies to  
12 support OPG's ongoing and future operational requirements. This includes investments in  
13 operational readiness technology for the DNNP facilities and an Enterprise System  
14 Modernization portfolio, further discussed in Sections 3.1.2 and 3.1.3, respectively.

15  
16 OPG's digital strategy focuses on three areas:

- 17 1. Support Growth of the business;
- 18 2. Enable Core Business functions to operate efficiently and effectively; and
- 19 3. Manage OPG's Technology Foundation, including product lifecycle upgrades.

20  
21 The "Support Growth" pillar of the strategy focuses on providing innovative solutions and  
22 initiatives to OPG's growth areas and large-scale projects such as the DNNP. This includes  
23 implementing digital solutions necessary for the DNNP to meet its operating model  
24 requirements.

25  
26 The goal of the "Enable Core Business" pillar is to optimize the effectiveness of current  
27 business processes and systems by identifying industry best practice, re-engineering  
28 processes to fit with new technology solutions, and modernizing technology to ensure robust  
29 cyber security. Process re-engineering will also set up the required foundation to capture and  
30 manage data required to drive automation, including leveraging technologies such as Artificial  
31 Intelligence ("AI").

1 The “Manage OPG’s Technology Foundation” pillar focuses on upgrades to infrastructure that  
2 digitally connects OPG’s stations, investments in new cyber security solutions, AI, and data  
3 platforms, along with a set of investments in OPG’s IT capabilities to meet resilience and  
4 performance requirements. This includes “right-sized”, proactively planned projects to manage  
5 end-of-life systems with scalable replacements and/or upgraded technology. The continued  
6 maturation of project delivery, including change management, is also a focus of the strategy  
7 to ensure the technology is well-adopted in order to realize its intended outcomes.

8  
9 OPG’s Digital Roadmap lays out a series of sequentially timed investments aimed at ensuring  
10 the technology investments align with corporate objectives, regulatory obligations, and  
11 evolving external conditions, through to the end of the IR term. This directional roadmap is  
12 designed with the goal of maintaining the reliability, security, and performance of core systems  
13 while having the flexibility to respond to emerging risks and opportunities over the IR term.

14  
15 External factors, such as cyber security threats, industry trends and regulatory changes, play  
16 a critical role in shaping technology adoption and investment decisions over the IR term. These  
17 factors are continuously monitored and assessed to inform strategic technology planning and  
18 system architecture. For example, the increasing frequency and sophistication of cyber threats  
19 such as the use of AI in cyber-attacks, necessitate ongoing investment in security infrastructure  
20 and protocols. Similarly, investments are earmarked to address regulatory changes that are  
21 expected to require enhancements to data management systems to ensure compliance with  
22 new reporting standards.

23  
24 Furthermore, the pace of technological innovation requires OPG to adapt and to be responsive  
25 to technological disruptions and new opportunities that support business requirements. This  
26 can be enabled by selecting platforms with modular design<sup>2</sup> and open architecture<sup>3</sup> that can  
27 adapt to and integrate with new tools and services. OPG’s goal is to ensure that its IT project  
28 portfolio remains resilient and capable of supporting future operational and regulatory

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<sup>2</sup> Modular system design enables parts of the system to be added, removed, or replaced independently, which makes systems easier to maintain, upgrade, and scale.

<sup>3</sup> Open architecture enables one system to work with, or integrate more easily, with other systems.

1 requirements within this constantly changing landscape so that the value of technology  
2 investments can persist over the longer term, where possible.

3  
4 With a diverse technology ecosystem, OPG has many different technologies and platforms. In  
5 conjunction with the processes outlined in Ex. D2-1-1, DTS utilizes the Gartner TIME  
6 framework (defined below) to examine and validate technology solutions for technical and  
7 functional fit and to ensure additional technologies and platforms are appropriate to the  
8 ecosystem. The framework enables OPG to categorize a potential investment into one of four  
9 groups: Tolerate, Invest, Migrate, or Eliminate. This practice helps to ensure that decisions  
10 continue to be based on operational requirements and architecture standards, and to identify  
11 and address risks associated with system obsolescence or ongoing support. The framework  
12 is incorporated into project prioritization and review cycles and informs decisions on upgrades  
13 and retirements of existing technologies.

### 14 15 3.1.1 IT Projects Portfolio

16 Since EB-2020-0290, cyber security investments continue to be an important part of the IT  
17 portfolio, and significant investments have been made to protect OPG's digital and physical  
18 infrastructure and assets, as well as to comply with new regulatory requirements. Additionally,  
19 there continues to be a need to address risks associated with aging IT infrastructure, and the  
20 emergence of new data and AI capabilities as new and updated technology is introduced to  
21 OPG's technology ecosystem.

22  
23 OPG is also adapting to an evolving IT services marketplace. As the IT industry continues to  
24 move away from older on-premise systems to more cloud-based software, system  
25 obsolescence is a continued risk over the IR term. Vendors continue to move towards cloud-  
26 based solutions, and some, such as SAP, will soon discontinue their support for existing  
27 platforms. These evolving services also result in new opportunities and benefits. New cloud-  
28 based tools deliver improved automation and significant advancements in data analytics, and  
29 AI is increasingly being integrated into systems. In addition to improving system reliability and  
30 reducing maintenance needs, transitioning to cloud software also offers benefits such as  
31 enhanced scalability, improved system resilience, reduced reliance on physical infrastructure

1 as well as access to advanced security and compliance tools. To appropriately plan for these  
2 IT investments, the portfolio includes estimates for planning the migration strategy, defining  
3 business requirements, streamlining processes, securely transferring data, integrating legacy  
4 systems with cloud platforms, and training staff to operate in the new environment. These steps  
5 will help to ensure a smooth transition, minimize operational disruption, and maximize the value  
6 of the new technology.

7  
8 System obsolescence is a risk to OPG's continued safe and reliable operations. Planned  
9 expenditures to mitigate this risk include updating technology platforms, upgrading core  
10 systems and replacing obsolete technology to address the obsolescence of core systems and  
11 to improve business functionality. A key initiative is to upgrade and update OPG's core systems  
12 through an Enterprise System Modernization portfolio for Enterprise Resource Planning  
13 ("ERP") and Enterprise Asset Management ("EAM") systems, further discussed in Section  
14 3.1.3. The IT portfolio also includes investments for operational technology such as the  
15 modernization of all primary Niagara River Control Center/International Niagara Control Works  
16 applications to replace obsolete technologies and the modernization of the nuclear Site  
17 Condition Record platform.

18  
19 OPG is currently tracking about 350 project demands over the IR term. The IT portfolio aims  
20 to enable OPG to be agile to respond to changes in technology developments and needs while  
21 being separate from the non-portfolio investments further discussed in Sections 3.1.2 and  
22 3.1.3. OPG will continue to review and manage the project portfolio to prioritize projects for  
23 advancing to execution and respond with flexibility as the technology landscape and OPG's  
24 business requirements evolve, ultimately reducing the unallocated portfolio to zero over the IR  
25 term.

### 26 27 3.1.2 DNNP Operational Readiness Technology Projects

28 OPG is investing in digital technologies to ensure operational readiness for the DNNP facility.  
29 As a newly built asset, the DNNP facility provides an opportunity to design and integrate a  
30 modern suite of technology from the start, efficiently addressing operational needs and taking  
31 advantage of modular design and open architecture for the core systems. In 2023, OPG

1 undertook a comprehensive request for proposal process to select an EAM solution system for  
2 managing the lifecycle of physical assets for the DNNP facility. The SAP S/4HANA solution  
3 was selected based on the system's ability to deliver a streamlined, automated approach to  
4 asset management. The platform offers advanced capabilities that are expected to provide the  
5 necessary asset performance and ensure compliance with regulatory standards.

6  
7 Additionally, this portfolio includes other technologies to support functions such as engineering  
8 modeling and the digitalization of plant operations, as well as tools for areas such as work  
9 protection, chemistry and radiation protection. This new suite of technology and systems will  
10 support the DNNP facilities' distinct operating model, including a streamlined workforce plan.  
11 These technologies are a prerequisite for operating the assets safely, reliably, efficiently and  
12 in compliance with regulatory requirements when Unit 1 comes online in 2030.

13  
14 Planned expenditures for DNNP Operational Readiness Technology Projects are \$151.8M  
15 from 2025-2031 including \$81.0M through the IR term. This includes \$68.7M for the DNNP  
16 EAM project discussed further in Ex. D3-1-2, Section 3.3, with the remaining expenditures for  
17 the unallocated operational technology investments described above. Capital expenditures for  
18 these projects are included in Ex. D3-1-1, Tables 1 and 2, and in-service amounts are shown  
19 in Ex. D3-1-2, Table 4.

### 20 21 3.1.3 OPG Enterprise System Modernization Portfolio (ERP and EAM)

22 A critical investment within the IR term is the broader modernization of OPG's ERP and EAM  
23 systems, driven by system obsolescence and evolving business needs. This modernization is  
24 expected to update core finance, supply chain and asset management systems and  
25 processes, consistent with the configuration of the technology to OPG's requirements. This  
26 holistic approach to systems and processes is expected to improve data integrity and  
27 cross-functional integration, and deliver improvements in service delivery, productivity, and  
28 cost control across the Company. As the sequence of the projects progress, OPG will leverage  
29 lessons learned from earlier projects including the DNNP EAM project. These projects  
30 collectively represent an investment of \$288.4M over the IR term to modernize all three core  
31 systems of Finance ERP, Supply Chain ERP, as well as OPG's EAM systems and processes

1 for the Renewable Generation (“RG”) and Nuclear fleets. These projects are shown in Ex. D3-  
2 1-1, Tables 1 and 2 as part of the Enterprise System Modernization portfolio.

3  
4 In addition to addressing obsolescence risk, the investment in updated technology is expected  
5 to facilitate improvements in several areas of operational effectiveness. These include  
6 functions that are essential to OPG’s day-to-day operations and ongoing project planning and  
7 execution. Once the modernization is complete and process changes have matured, the  
8 modernization is expected to improve overall data integration, asset management lifecycles,  
9 procurement processes, financial controls, and reporting capabilities. OPG is at varying stages  
10 of each project, with Finance ERP the first OPG-wide project to enter the execution phase (see  
11 Ex. D3-1-2, Section 3.3).

12  
13 A modernization of this scale has inherent risks, and in determining the Enterprise System  
14 Modernization portfolio timeline and planning, OPG will consider project risks such as the  
15 potential for operational disruption and the need for business subject matter expertise where  
16 appropriate. Change management and resourcing risks will be mitigated through appropriate  
17 project planning and a phased implementation approach that first prioritizes the systems that  
18 are directly impacted by obsolescence. This phased approach will enable OPG to learn and  
19 address opportunities for improvement before initiating the next implementation. The three  
20 company-wide Enterprise System Modernization portfolio projects are discussed below. These  
21 assumptions, where applicable within the IR term, are also reflected in Support Services OM&A  
22 costs discussed in Ex. F3-1-1 and Ex. F3-1-2.

23  
24 Planned capital expenditures for the Enterprise System Modernization portfolio are \$365.8M  
25 from 2025-2031 including \$288.4M through the IR term (Ex. D3-1-1, Table 1). This includes  
26 \$118.6M for the Finance ERP project, an allocated project, with the remaining expenditures  
27 for the unallocated projects, Supply Chain ERP and Enterprise Asset Management (Ex. D3-1-  
28 2, Table 1). The three projects are discussed in greater detail below.

1 **Finance ERP**

2 Currently, financial operations at OPG are supported by a customized SAP system that  
3 manages activities such as business planning, reporting, consolidation, and financial  
4 performance analysis. The current SAP system is approaching the end of its lifecycle, with  
5 support scheduled to end in 2027.

6

7 The sustaining project upgrade of the ERP system to SAP S/4HANA will mitigate the risk of an  
8 otherwise under supported system which would require significant ongoing system patchwork  
9 and maintenance. As a cloud-based platform, the upgraded system is expected to provide  
10 improved functionality and scalability compared to the legacy, on-premise system. It will enable  
11 faster implementation timelines, automatic delivery of security updates, as well as the ability  
12 to scale system capacity and functionality in response to potential business growth or change.  
13 This flexibility is important as OPG's operations become increasingly diverse and complex.

14

15 SAP S/4HANA was selected as the preferred platform based on its proven performance in the  
16 utility sector, its ability to support regulatory compliance, and its alignment with OPG's existing  
17 SAP ecosystem. Its integrated architecture is expected to simplify system maintenance,  
18 reduce change management risks, and enable expansion into other modules as needed. This  
19 project is further discussed in Ex. D3-1-2, Section 3.3.

20

21 **Supply Chain ERP**

22 Asset Suite 9 ("AS9") is a legacy enterprise system currently used by OPG to support work  
23 management, asset management, and supply chain functions across Nuclear and RG  
24 operations, including regulated hydroelectric operations and projects. In 2022, based on the  
25 planned shutdown of Pickering, OPG upgraded from Asset Suite 7 ("AS7") to AS9 to avoid  
26 technical obsolescence, sustain vendor support and address identified cyber security risks.  
27 With the expectation of PRP and increased focus on the renewal of the hydroelectric assets,  
28 OPG has reassessed its operational needs and determined that AS9 is approaching the end  
29 of its lifecycle. In its current form, AS9 lacks the necessary scalability and functionality required  
30 for Supply Chain operations to support OPG's evolving business.

1 OPG is planning a phased transition to a modern ERP solution that will support Supply Chain  
2 and RG operations in 2029, followed by Nuclear operations in 2031. The specific technology  
3 platform has not yet been selected. The investment strategy for the replacement includes  
4 planning and requirements gathering, system licensing, integration activities, and  
5 comprehensive change management to minimize operational disruption. In selecting the  
6 preferred solution, OPG will assess the long-term operational reliability and functionality of  
7 candidate systems. A modern ERP platform is expected to strengthen demand forecasting,  
8 inventory optimization and supply chain responsiveness, streamline workflows and improve  
9 integration with other enterprise platforms.

10  
11 OPG expects to progress this project on a timeline that balances operational impacts while  
12 addressing the business needs and managing the risk associated with vendor support for the  
13 current platform.

#### 14 15 **Enterprise Asset Management (“EAM”)**

16 Enterprise Asset Management systems are specialized for managing the lifecycle of physical  
17 assets from acquisition through to maintenance and finally to end of life. The selection process  
18 for the DNNP facilities’ EAM discussed in Section 3.1.2 helped OPG to identify potential vendor  
19 solutions that can meet the operational requirements for its broader nuclear and regulated  
20 hydroelectric operations, including compatibility with the SAP S/4 HANA Finance ERP system  
21 and further requirements for scalability, user experience and vendor support.

22  
23 As discussed above, OPG’s current asset management system, AS9 is approaching the end  
24 of its lifecycle and will no longer meet the needs of OPG’s fleet. By updating OPG’s asset  
25 management and resource planning systems and associated processes in an integrated  
26 manner, OPG expects to simplify systems and overall system architecture, eliminating system  
27 silos and ensuring processes are interconnected. Real-time insights across systems and  
28 processes are expected to enable OPG to respond to operational requirements more readily  
29 than can be done through unintegrated systems. The transition and associated integration will  
30 require careful project planning and risk management to minimize potential operational  
31 disruption.

1 OPG's Enterprise System Modernization is expected to ensure continued reliable operations,  
2 effective cyber security, and greater certainty in planning for technology maintenance costs  
3 over the longer term.

#### 4 5 3.1.4 Microsoft Enterprise Agreement

6 In 2017, OPG entered into an Enterprise Agreement with Microsoft ("Microsoft Enterprise  
7 Agreement"), which allows OPG to obtain per-user software licenses for Microsoft E5. This  
8 model allowed OPG to shift away from the purchase and implementation of individual software  
9 as it became obsolete to enter into term agreements with Microsoft. As such, OPG has been  
10 renegotiating and renewing its agreement with Microsoft every three years. In EB-2020-0290,  
11 for the 2022-2026 IR term, qualifying costs associated with the planned subsequent renewals  
12 in 2023 and 2026 of the Microsoft Enterprise Agreement formed part of OPG's capital  
13 expenditure and in-service amounts (OEB-approved columns of Ex. D3-1-1, Table 2; Ex. D3-  
14 1-2, Tables 5a and 5b).<sup>4</sup>

15  
16 Given the additional guidance on cloud computing software arrangements under a US GAAP  
17 accounting standards update that was issued and effective for periods beginning January 1,  
18 2020, the agreement terms and conditions were reviewed in detail and it was noted that the  
19 Microsoft E5 software license hosting costs did not meet the criteria to be recognized as capital  
20 expenditures (Ex. D4-1-1). As such, for renewals and related costs incurred during the 2022-  
21 2026 period, these amounts were recorded as OM&A costs. For the IR term, the costs are  
22 included as OM&A software costs in Ex. F3-1-1, Tables 4-6.

### 23 24 **3.2 REAL ESTATE ("RE")**

25 OPG's generating stations, facilities and offices are located across the province, and its real  
26 estate capital portfolio is developed to meet the Company's evolving needs while seeking to  
27 optimize overall real estate costs. RE capital expenditures in the IR term total \$265.9M  
28 compared to \$212.8M in the 2022-2026 period (excluding the CHQ). After the 2027 peak of  
29 capital expenditures for certain identified operational enablement projects discussed below,

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<sup>4</sup> EB-2020-0290, Ex. D3-1-1, section 2.1.1.

1 the average annual expenditure from 2028-2031 will reduce to \$40.9M compared to the  
2 average annual expenditure of \$42.6M in the 2022-2026 period.

3  
4 To streamline OPG's real estate workspace cost structure, RE will continue to focus on the  
5 optimization of the overall workspace footprint for OPG's existing sites and facilities by  
6 transforming office layouts and leveraging its CHQ in Oshawa, Ontario, which became  
7 operational in 2025. Since EB-2020-0290, OPG has executed plans to optimize the overall  
8 corporate real estate footprint of its office space. By the end of 2025, OPG will have achieved  
9 nearly a 30% reduction of its square foot per full-time equivalent ("FTE") (from approximately  
10 315 square feet per FTE to approximately 225 square feet per FTE). OPG is planning to further  
11 optimize the overall real estate footprint of its office space to approximately 200 square feet  
12 per FTE by the end of 2031. This will be accomplished by managing leases and continuing to  
13 invest in workplace optimization projects to enable effective utilization of workspaces and.  
14 These Tier 2 workplace transformation projects are listed in Ex. D3-1-2, Tables 2a-2d.

15  
16 Real estate and facilities optimization is achieved by planning and designing with flexibility.  
17 Real Estate regularly reviews projects and project demand through the business planning  
18 process and seeks to adapt to emerging business requirements as needed (as discussed in  
19 Ex. D3-1-2). While RE does not maintain an explicit unallocated portfolio of projects due to the  
20 relatively small size of its capital program, it otherwise follows the principles of the investment  
21 planning process outlined in Ex. D2-1-2 and adjusts the plan as new projects are identified and  
22 managed within the portfolio budget. This may result in the deferral, cancelling or adding of  
23 projects to respond to evolving and emerging business needs.

24  
25 The Ontario government's approval for the extended operation of Pickering Units 5-8 to  
26 September 2026 and OPG's plan to refurbish Units 5-8 at Pickering have resulted in  
27 incremental capital projects to address infrastructure deficiencies, optimize the associated  
28 corporate real estate facilities and maintain the site for a lifecycle that can be extended to  
29 Pickering second-life operations. In EB-2020-0290, these projects were not identified due to  
30 the planned Pickering closure in 2025 are described in Section 5.2.

1 **Corporate Headquarters (“CHQ”)**

2 In EB-2020-0290, OPG proposed to build the Clarington Corporate Campus at an estimated  
3 cost of \$200M, which in combination with the DEC would allow OPG to have a corporate head  
4 office. In 2022, a renewed assessment of building costs was completed, which indicated that  
5 costs to complete the project would be higher than the original estimate given the inflationary  
6 and supply chain pressures following the COVID-19 pandemic (further discussed in Ex. D3-1-  
7 2, Section 3.3). At that time, the land and building at 1908 Colonel Sam Drive in Oshawa  
8 became available for purchase. OPG made the decision to move away from constructing a  
9 new building, to instead purchase and renovate the 1908 Colonel Sam Drive building to serve  
10 as the new OPG headquarters. Excluding undeveloped land, the expenditures for the purchase  
11 and renovation of the CHQ was \$190.8M. Located between Pickering and Darlington, the CHQ  
12 seeks to increase collaboration while creating a modern long-term office space to meet  
13 business needs and realize greater optimization of the corporate real estate footprint.

14  
15 **Operational Enablement Projects**

16 The RE capital portfolio includes several notable investments to maintain operational continuity  
17 for OPG’s core businesses as described below:

- 18 • To ensure continued training capacity for the Renewable Generation (“RG”) business, OPG  
19 will lease and fit out a new Renewable Generation Training Center, as the current lease at  
20 800 Kipling Avenue is at risk to cease in 2026. This investment will provide a dedicated  
21 hub for technical and safety training for the RG fleet and will necessitate a short period of  
22 overlap between leased properties to accommodate the fit-out of the new facility (Ex. D3-  
23 1-2, Table 2e).
- 24 • In 2027, OPG will develop a leased centralized warehouse to address growing logistics  
25 needs driven by near term major projects such as the PRP and the DNNP, as well as long  
26 term operational needs at both Darlington and Pickering sites. By consolidating warehouse  
27 capacity and fitting out a single leased property, OPG seeks to mitigate operational risk  
28 and avoid inefficiencies associated with fragmented inventory storage solutions and ageing  
29 existing facilities. This transition will necessitate a short period of overlap between leased  
30 properties to accommodate the fit-out of the new facility (Ex. D3-1-2, Table 2d).

- 1 • OPG will upgrade its electric vehicle (“EV”) charging infrastructure at nuclear and  
2 hydroelectric generation sites and support locations to enable fleet electrification. This  
3 initiative ensures compliance with evolving regulatory requirements (Ex. D3-1-2, Table 2e).
- 4 • Real Estate is undertaking a security project to address corporate security requirements  
5 (Ex. D3-1-2, Table 1).

#### 6 7 **4.0 TERM-OVER-TERM CHANGES**

8 Term-over-term comparisons of capital expenditures by OPG’s Support Services groups are  
9 presented in Ex. D3-1-1, Table 2.

#### 10 11 **5.0 TERM-OVER-TERM CHANGES – IR TERM**

##### 12 **2027-2031 Plan versus 2022-2026 Actuals and Budget**

13 The capital expenditures in the IR term of \$1,073.3M are largely consistent with the capital  
14 expenditures over the previous five-year period of \$1,050.6M. The increase in capital  
15 expenditures of \$22.7M in the IR term is mainly the result of increased expenditures for the  
16 advancement of the Enterprise System Modernization program, DNNP Operational Readiness  
17 Technology Projects, and RE’s workplace optimization projects, new RG Training Centre, the  
18 Central Warehouse project and the CHQ Parking Lot (see Ex. D3-1-2, Table 2d). These  
19 increases were largely offset by expenditures on the CHQ in the 2022-2026 period.

20  
21 The plan reflects OPG’s investment in the modernization of core technology and real estate  
22 assets to address ongoing business needs, support OPG’s major project commitments, drive  
23 continuous improvement, and improve long-term resilience and scalability to meet future  
24 business needs. These projects include the advancement of enterprise-wide digital tools,  
25 investments in operational readiness for the DNNP, sustainment of the Pickering site  
26 infrastructure and ensuring effective cybersecurity protection.

#### 27 28 **5.1 PERIOD-OVER-PERIOD CHANGES – BRIDGE YEAR**

##### 29 **2026 Budget versus 2026 OEB-Approved**

30 The increase in capital expenditures of \$162.4M in 2026 Budget compared to 2026 OEB-  
31 approved amount is mainly the result of increased expenditures for the advancement of the

1 Digital Strategy and RE projects, which were not included in EB-2020-0290. These include the  
2 Finance ERP project and the DNNP Operational Readiness Technology projects described  
3 above and in Ex. D3-1-2. The RE expenditures include the retrofit of the assumed newly leased  
4 Nuclear Central Warehouse and RG Training Center, and the workplace transformation of the  
5 3<sup>rd</sup> and 2<sup>nd</sup> Floor at the DEC. The increase in capital expenditures was partly offset by the  
6 change in accounting classification for the Microsoft Enterprise Agreement (discussed in  
7 Section 3.1.4).

8

#### 9 **2025 Budget versus 2025 OEB-approved**

10 The increase in capital expenditures in the 2025 Budget of \$165.2M compared to 2025 OEB-  
11 approved is mainly due to projects that were not planned in EB-2020-0290 to meet regulatory  
12 requirements, advance the planning and execution of core technology lifecycle upgrades, and  
13 the RE plan. The IT project budget in 2025 includes Finance ERP, DNNP Operational  
14 Readiness Technology Projects, and, as part of the IT portfolio, the Energy Market Application  
15 Refresh Program due to the Market Renewal program. The RE budget in 2025 includes the  
16 CHQ renovation project, Workplace Transformation of DEC 2<sup>nd</sup> Floor, and the update to  
17 Pickering facilities, including changing the HVAC at the Pickering Learning Center and Main  
18 Security Building, which were not originally planned in EB-2020-0290 with the expected  
19 shutdown of Pickering, and due to these HVAC systems reaching end of life.

20

## 21 **5.2 PERIOD-OVER-PERIOD CHANGES – HISTORICAL YEARS**

### 22 **2024 Actual versus 2024 OEB-Approved**

23 The increase in capital expenditures of \$60.1M in 2024 Actual compared to 2024 OEB-  
24 approved is mainly attributable to the CHQ renovation project. In 2024, DTS executed more  
25 work than was planned in the IT portfolio, including the Enterprise Service Management  
26 Project, Energy Market Application Refresh Program, and Enterprise Data Lake Deployment  
27 Project. The increase in RE expenditures was due to Pickering related projects being executed  
28 to support the infrastructure requirements to operate the site and support the planned  
29 refurbishment not contemplated in EB-2020-0290.

1 **2023 Actual versus 2023 OEB-Approved**

2 The increase in capital expenditures of \$29.5M in 2023 Actual compared to 2023 OEB-  
3 approved is primarily due to the advancement of the Digital Strategy, the acquisition of the  
4 CHQ property<sup>5</sup> and real estate projects that were not included in EB-2020-0290. In addition to  
5 the planned AS9 Upgrade in 2023, DTS initiated and executed the Energy Market Application  
6 Refresh Program, Enterprise Data Lake Deployment, and the Enterprise Service Deployment  
7 Project as part of the IT portfolio. RE project expenditures included new projects such as the  
8 Corporate Headquarters Renovation Project and progressed the update of the Darlington  
9 Engineering Support Services Building Floor 2, update of the Darlington Engineering Support  
10 Services Building Floor 3 and the Darlington Holt Road Project. The increase in capital  
11 expenditures was partly offset by the Clarrington Corporate Campus project which was  
12 cancelled (Section 3.2), and the updated accounting treatment for the Microsoft Enterprise  
13 Agreement (Section 3.1.4).

14  
15 **2022 Actual versus 2022 OEB-Approved**

16 The decrease in actual capital expenditures of \$88.8M in 2022 Actual compared to 2022 OEB-  
17 approved is mainly due to changes in the RE plan to not proceed with building Clarrington  
18 Corporate Campus that was included in EB-2020-0290. A renewed assessment of building  
19 costs was completed in 2022 which indicated that costs to complete the project would be higher  
20 than the original estimate given inflationary and supply chain pressures following the COVID-  
21 19 pandemic. It was decided that OPG will not pursue this project (further discussed in Section  
22 3.2).

23  
24 **2021 Actual versus-2021 OEB-Approved**

25 The increase in actual capital expenditures in 2021 of \$113.5M compared to 2021 OEB-  
26 approved in EB-2020-0290 was due to the advancement of the Digital Strategy and RE  
27 projects to perform critical infrastructure upgrades at its Darlington and Pickering facilities not  
28 planned in EB-2016-0152. DTS's portfolio expenditure included the Re-imagine 2.0 Project,  
29 AS9 Upgrade, Data Center Migration Project, Pickering Communication System Improvement,

---

<sup>5</sup> Corporate Headquarters includes the cost to acquire the building and associated renovation. The acquisition cost excludes costs associated with undeveloped land.

1 Network Segmentation Project and Energy Market Application Refresh Program, as well as  
2 emergent projects such as Enterprise Data Lake Deployment Project, and Equipment Status  
3 Monitoring II Project. In RE, the Darlington Holt Road Project, Upgrade of the Pickering  
4 Administration Building Workplace Transformation and planned Electric Service Distribution  
5 Project were executed.

6

7 **2020 Actual versus 2020 OEB-Approved**

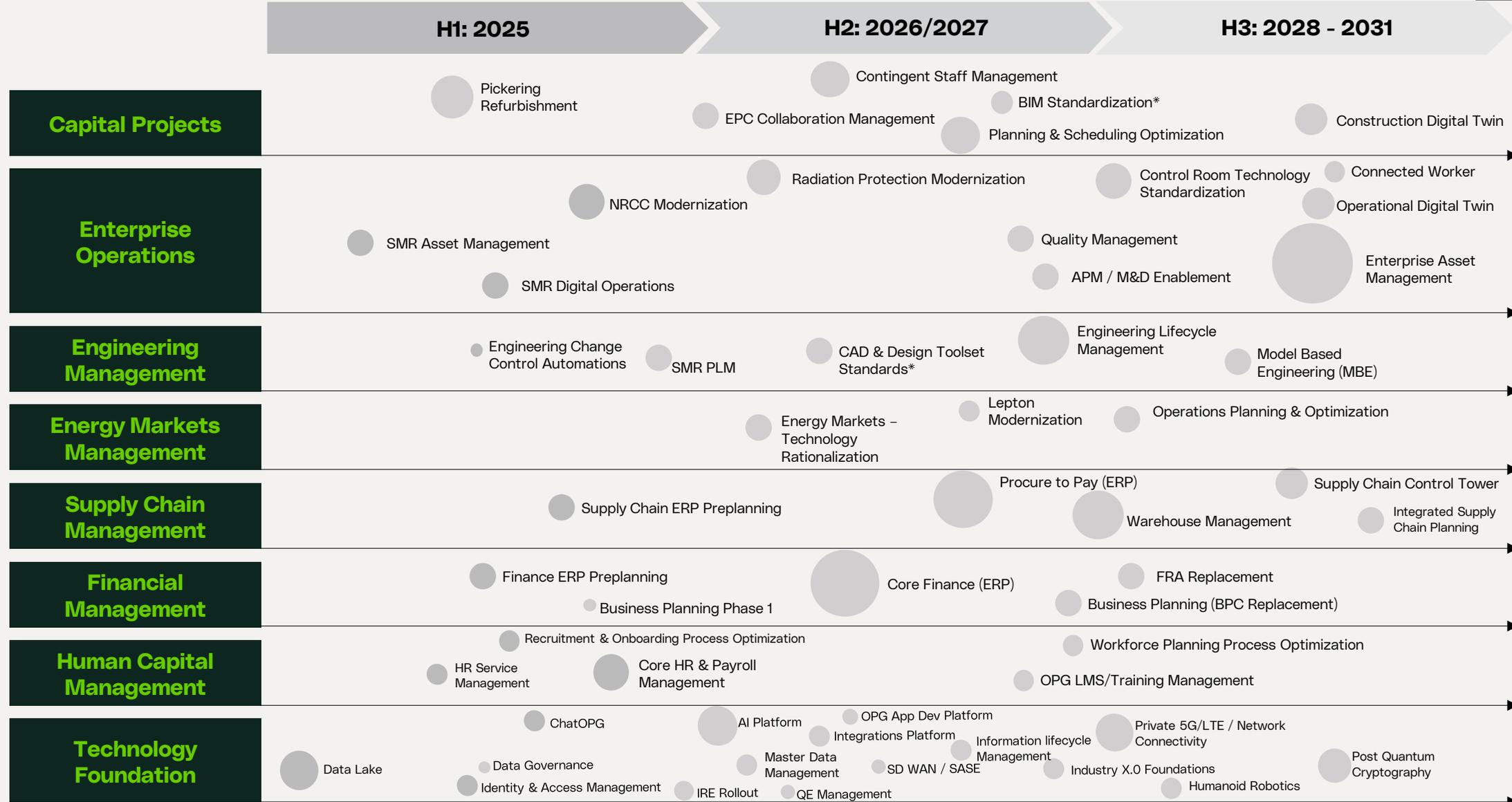
8 The increase in actual capital expenditures in 2020 of \$129.8M compared to 2020 OEB-  
9 approved in EB-2016-0152 was due to the advancement of the Digital Strategy and RE  
10 projects to perform critical infrastructure upgrades at its Darlington and Pickering facilities not  
11 planned in EB-2016-0152. DTS's portfolio expenditure included planned projects such as the  
12 AS9 Upgrade, Tempus Lifecycle, Re-imagine Project, Pickering Communication System  
13 Improvement, Darlington Wireless Project, Network Segmentation Project, Wireless  
14 Improvement Program, Energy Market Application Refresh Program and EAM. In RE, the  
15 Electric Service Distribution Project was executed.

1 **LIST OF ATTACHMENTS**

2

3 Attachment 1: OPG's 2024-2028 Technology Roadmap

# Enterprise Digital Roadmap \* (Directional)



\*Roadmap is meant to illustrate a relative level of investment and timing of the investments and may include a single project or a multi-project initiative

Numbers may not add due to rounding.

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EB-2025-0297

Exhibit D3

Tab 1

Schedule 1

Table 1

Table 1  
Capital Expenditures Summary - Support Services<sup>3</sup> (\$M)  
(Capital Expenditures Impacting OPG Rate Base or Asset Service Fees)

Line No.	Support Services	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Actual	2025 Budget	2026 Budget	2027 Plan	2028 Plan	2029 Plan	2030 Plan	2031 Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	<b>IT Portfolio<sup>1</sup></b>	101.0	104.6	96.9	116.4	92.7	96.2	96.6	82.9	88.2	92.9	91.6	82.3
2	<b>Real Estate</b>	20.0	24.3	27.9	37.4	34.7	36.1	76.6	102.4	41.8	42.9	47.7	31.2
3	<b>Subtotal</b>	121.0	128.9	124.9	153.8	127.4	132.3	173.2	185.3	130.0	135.8	139.3	113.5
4	<b>Microsoft Enterprise Agreement</b>	23.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	<b>Corporate Headquarters<sup>2</sup></b>	0.0	0.0	0.0	61.4	44.1	85.3	0.0	0.0	0.0	0.0	0.0	0.0
6	<b>Enterprise System Modernization Projects</b>	0.0	0.0	0.0	0.0	0.0	19.0	58.5	99.0	61.7	43.7	44.3	39.8
7	<b>Subtotal</b>	23.1	0.0	0.0	61.4	44.1	104.3	58.5	99.0	61.7	43.7	44.3	39.8
8	<b>DNNP Operational Readiness Technology Projects (DNNP Asset Service Fee)</b>	0.0	0.0	0.0	0.0	0.0	25.4	45.3	28.7	22.4	16.6	7.5	5.8
9	<b>Total</b>	144.0	128.9	124.9	215.1	171.5	262.1	277.0	313.0	214.1	196.0	191.1	159.0

Notes:

- Expenditures include a project with assumed cloud computing arrangements (Ex. D3-1-2, p. 3, footnote 1).
- Corporate Headquarters includes the cost to acquire the building and associated renovation. The acquisition cost excludes costs associated with undeveloped land.
- Clarington Corporate Campus (EB-2020-0290) is not shown as the project was cancelled for a preferable alternative and written off to Project OM&A. The cancelled project is discussed further in Ex. D3-1-1 Section 3.2.

Numbers may not add due to rounding.

Filed: 2025-12-12  
 EB-2025-0297  
 Exhibit D3  
 Tab 1  
 Schedule 1  
 Table 2

Table 2  
 Comparison of Capital Expenditures - Support Services (\$M) 2020-2031  
 (Capital Expenditures Impacting OPG Rate Base or Asset Service Fees)

Line No.	Business Unit	2020 OEB Approved	(c)-(a) Change	2020 Actual	2021 OEB Approved	(f)-(d) Change	2021 Actual	2022 OEB Approved <sup>5</sup>	(i)-(g) Change	2022 Actual	2023 OEB Approved <sup>5</sup>	(l)-(j) Change	2023 Actual
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	<b>Capital Projects (Allocated)</b>												
1	IT Portfolio <sup>1</sup>	6.2	94.8	101.0	7.4	97.2	104.6	76.6	20.3	96.9	71.0	45.4	116.4
2	Real Estate	8.0	12.0	20.0	8.0	16.3	24.3	29.5	(1.5)	27.9	4.2	33.2	37.4
3	<b>Subtotal Capital Projects (Allocated)</b>	<b>14.2</b>	<b>106.8</b>	<b>121.0</b>	<b>15.4</b>	<b>113.5</b>	<b>128.9</b>	<b>106.1</b>	<b>18.8</b>	<b>124.9</b>	<b>75.2</b>	<b>78.6</b>	<b>153.8</b>
4	IT Portfolio (Unallocated)	0.0	0.0	0.0	0.0	0.0	0.0	14.6	(14.6)	0.0	7.5	(7.5)	0.0
5	<b>Subtotal Capital Projects</b>	<b>14.2</b>	<b>106.8</b>	<b>121.0</b>	<b>15.4</b>	<b>113.5</b>	<b>128.9</b>	<b>120.7</b>	<b>4.2</b>	<b>124.9</b>	<b>82.7</b>	<b>71.1</b>	<b>153.8</b>
6	Microsoft Enterprise Agreement <sup>2</sup>	0.0	23.1	23.1	0.0	0.0	0.0	0.0	0.0	0.0	23.0	(23.0)	0.0
7	Clarrington Corporate Campus <sup>3</sup>	0.0	0.0	0.0	0.0	0.0	0.0	93.0	(93.0)	0.0	80.0	(80.0)	0.0
8	Corporate Headquarters <sup>4</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.4	61.4
9	<b>Subtotal</b>	<b>0.0</b>	<b>23.1</b>	<b>23.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>93.0</b>	<b>(93.0)</b>	<b>0.0</b>	<b>103.0</b>	<b>(41.6)</b>	<b>61.4</b>
10	Enterprise System Modernization Projects	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Enterprise System Modernization Projects- Unallocated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	<b>Subtotal</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
13	DNNP Operational Readiness Technology Projects	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	DNNP Operational Readiness Technology Projects- Unallocated Projects	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	<b>Subtotal</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
16	<b>Total (line 5 + line 9 + line 12 + line 15)</b>	<b>14.2</b>	<b>129.8</b>	<b>144.0</b>	<b>15.4</b>	<b>113.5</b>	<b>128.9</b>	<b>213.7</b>	<b>(88.8)</b>	<b>124.9</b>	<b>185.7</b>	<b>29.5</b>	<b>215.1</b>

Line No.	Business Unit	2024 OEB Approved <sup>5</sup>	(c)-(a) Change	2024 Actual	2025 OEB Approved <sup>5</sup>	(f)-(d) Change	2025 Budget	2026 OEB Approved <sup>5</sup>	(i)-(g) Change	2026 Budget	2022-2026 Actuals & Budget	(l)-(j) Change	2027-2031 Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	<b>Capital Projects (Allocated)</b>												
17	IT Portfolio <sup>1</sup>	41.7	51.0	92.7	66.0	31.2	97.2	14.5	18.9	33.4	436.6	(352.8)	83.8
18	Real Estate	12.3	22.4	34.7	11.6	24.5	36.1	8.4	68.2	76.6	212.8	53.2	265.9
19	<b>Subtotal Capital Projects (Allocated)</b>	<b>54.0</b>	<b>73.4</b>	<b>127.4</b>	<b>77.6</b>	<b>55.7</b>	<b>133.3</b>	<b>22.9</b>	<b>87.1</b>	<b>110.0</b>	<b>649.4</b>	<b>(299.7)</b>	<b>349.7</b>
20	IT Portfolio (Unallocated)	39.5	(39.5)	0.0	17.2	(17.2)	0.0	68.7	(5.5)	63.2	63.2	291.0	354.1
21	<b>Subtotal Capital Projects</b>	<b>93.5</b>	<b>33.9</b>	<b>127.4</b>	<b>94.8</b>	<b>38.5</b>	<b>133.3</b>	<b>91.6</b>	<b>81.6</b>	<b>173.2</b>	<b>712.6</b>	<b>(8.7)</b>	<b>703.9</b>
22	Microsoft Enterprise Agreement <sup>2</sup>	0.0	0.0	0.0	0.0	0.0	0.0	23.0	(23.0)	0.0	0.0	0.0	0.0
23	Clarrington Corporate Campus <sup>3</sup>	18.0	(18.0)	0.0	2.0	(2.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	Corporate Headquarters <sup>4</sup>	0.0	44.1	44.1	0.0	85.3	85.3	0.0	0.0	0.0	190.8	(190.8)	0.0
25	<b>Subtotal</b>	<b>18.0</b>	<b>26.1</b>	<b>44.1</b>	<b>2.0</b>	<b>83.3</b>	<b>85.3</b>	<b>23.0</b>	<b>(23.0)</b>	<b>0.0</b>	<b>190.8</b>	<b>(190.8)</b>	<b>0.0</b>
26	Enterprise System Modernization Projects	0.0	0.0	0.0	0.0	18.0	18.0	0.0	48.1	48.1	66.1	(13.6)	52.5
27	Enterprise System Modernization Projects- Unallocated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	10.3	10.3	225.6	235.9
28	<b>Subtotal</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>18.0</b>	<b>18.0</b>	<b>0.0</b>	<b>58.5</b>	<b>58.5</b>	<b>76.5</b>	<b>211.9</b>	<b>288.4</b>
29	DNNP Operational Readiness Technology Projects	0.0	0.0	0.0	0.0	15.1	15.1	0.0	15.3	15.3	30.4	7.9	38.3
30	DNNP Operational Readiness Technology Projects- Unallocated Projects	0.0	0.0	0.0	0.0	10.3	10.3	0.0	30.1	30.1	40.4	2.4	42.8
31	<b>Subtotal</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>25.4</b>	<b>25.4</b>	<b>0.0</b>	<b>45.3</b>	<b>45.3</b>	<b>70.7</b>	<b>10.3</b>	<b>81.0</b>
32	<b>Total (line 21 + line 25 + line 28 + line 31)</b>	<b>111.5</b>	<b>60.1</b>	<b>171.5</b>	<b>96.8</b>	<b>165.2</b>	<b>262.1</b>	<b>114.6</b>	<b>162.4</b>	<b>277.0</b>	<b>1,050.6</b>	<b>22.7</b>	<b>1,073.3</b>

Notes:

- Expenditures include a project with assumed cloud computing arrangements (Ex. D3-1-2, p. 3, footnote 1).
- Variance in 2023 and 2026 due to updated accounting treatment of these costs as OM&A (Ex. D3-1-1, s. 3.1.4)
- Clarrington Corporate Campus (EB-2020-0290) is not shown as the project was cancelled for a preferable alternative and written off to Project OM&A. The cancelled project is discussed further in Ex. D3-1-1 Section 3.2.
- Corporate Headquarters includes the cost to acquire the building and associated renovation. The acquisition cost excludes costs associated with undeveloped land.
- For comparison with the Corporate Headquarters project, the "OEB Approved" column includes the Clarrington Corporate Campus project capital expenditures planned EB-2020-0290, including the years 2022 (\$93.0M), 2023 (\$80.0M), 2024 (\$18.0M) and 2025 (\$2.0M). A deferral account for the Clarrington Corporate Campus project was established in EB-2020-0290 and associated impacts were excluded from the EB-2020-0290 final payment amounts order.

## CAPITAL PROJECTS – SUPPORT SERVICES

### 1.0 PURPOSE

This evidence provides descriptions and listings of capital projects, business case summaries (“BCS”), and in-service additions for OPG’s Support Services’ projects that support the regulated facilities.

As discussed in Ex. D3-1-1, OPG has evolved corporate strategies for Information Technology (“IT”) and Real Estate to enable the company to meet its objectives, including the extension of Pickering operations, while leveraging the strategy presented in EB-2020-0290 to control costs. These corporate strategies have resulted in OPG undertaking a number of new capital projects not previously identified in EB-2020-0290 to address emerging technology needs and to maintain infrastructure approaching end of life with the previously planned Pickering closure. In addition, this exhibit sets out the capital projects underpinning these strategies that form part of the IR term capital budgets presented in Ex. D3-1-1.

### 2.0 CAPITAL PROJECTS LISTING

The following tiered reporting structure, consistent with the OEB’s filing requirements issued in EB-2024-0136, has been used to present the evidence for all allocated capital projects that have budgeted expenditures in the IR term or in-service amounts during the bridge years or forecast period, or have been completed since EB-2020-0290. The structure of the accompanying tables setting out the project listing details is consistent with EB-2020-0290.

#### Tier 1:

This tier comprises individual projects with a total cost of \$30M or more. For these projects, summary level information is provided in Ex. D3-1-2, Table 1.

There are nine Tier 1 capital projects with costs greater than \$30M comprising four categories: Completed/Deferred Projects from EB-2020-0290, Ongoing Projects from EB-2020-0290, New Projects approved since EB-2020-0290, and Cancelled Projects from EB-2020-0290. Ex. D3-1-2, Table 1 presents the Tier 1 projects by the IT group and Real Estate groups discussed

1 below. Business case summaries, where available, are provided in Attachments to this exhibit,  
2 and also listed in Ex. D3-1-2, Table 7. Further information on Tier 1 projects is provided in  
3 Section 3.0 below.

4  
5 **Tier 2:**

6 This tier comprises individual projects with a total cost of more than \$10M but less than \$30M,  
7 for which summary level information is provided in Ex. D3-1-2, Tables 2a-2e. There are 25 Tier  
8 2 projects.

9  
10 **Tier 3:**

11 This tier comprises individual projects with a total cost of less than \$10M, for which aggregated  
12 information is provided in Ex. D3-1-2, Tables 3a and 3b. There are 589 Tier 3 projects,  
13 comprised of 408 IT projects and 181 real estate projects

14  
15 **Unallocated Projects:**

16 There is also an unallocated IT project portfolio category. As discussed in Ex. D3-1-1, OPG  
17 will review the project portfolio on an annual basis to prioritize projects for execution each year.  
18 OPG expects that during the IR term, current projects being developed or other projects to be  
19 identified, as new IT tools, innovations, and cyber security needs arise, will form part of the  
20 project prioritization process, ultimately reducing the unallocated portfolio to zero.

21  
22 **3.0 TIER 1 CAPITAL PROJECTS**

23 **3.1 Completed/Deferred Projects from EB-2020-0290**

24 **Asset Suite 9 Upgrade** is a sustaining project for an enterprise resource management system  
25 used to support work management processes including materials management and plant  
26 maintenance across OPG. The project included critical fixes and enhancements required to  
27 avoid technical obsolescence, sustain vendor support and address identified cyber security  
28 risks This project started in 2020 was completed in December 2023 at a total project cost of  
29 \$37.8M compared to a first execution BCS Class 3 estimate of \$37.5M.

1 **Ongoing Projects from EB-2020-0290**

2 **Cyber Security – CSA N290.7** is an ongoing regulatory compliance program comprised of  
3 nine separate projects to address discrete regulatory requirements as and when issued by the  
4 Canadian Nuclear Safety Commission. The primary purpose of the program is to comply with  
5 Canadian Nuclear Safety Commission Action Items 2008-13-05 and 2008-04-08 as part of the  
6 Canadian Standard Association (“CSA”) N290.7 Cyber Security Standard. Compliance with  
7 this standard has been added as a License Condition Handbook requirement for Darlington,  
8 Pickering, and OPG’s nuclear waste sites with an effective date of March 31, 2027. The  
9 program started in 2017 and is expected to be completed in 2026, at an estimated total project  
10 cost of \$35.8M and the remaining in-service amount of \$5.6M fully in the bridge period.

11  
12 **3.3 New Projects not Listed in EB-2020-0290**

13 **DNNP Enterprise Asset Management** is a sustaining project that is expected to deliver an  
14 Enterprise Asset Management (EAM) solution in support of operating the DNNP small modular  
15 reactors utilizing SAP S/4 HANA. This system will enable a comprehensive approach to  
16 managing assets throughout their lifecycle, aiding maintenance, planning and scheduling,  
17 supporting compliance with regulatory standards, and to meet the streamlined operating model  
18 and workforce plan requirements for the DNNP facilities. The project began in 2025 with a total  
19 estimated project cost of \$68.7M. The total forecast in-service amount during the IR term is  
20 \$56.0M, with \$9.6M forecast outside the period. The planned final in-service is in 2032.

21  
22 **Integrated HR Service Delivery**<sup>1</sup> project will address the required transition from the current  
23 on-premise human capital management solution (SAP ECC), which will no longer be supported  
24 by 2027, to a new cloud platform (SAP SuccessFactors/Employee Central). This new cloud  
25 platform will also support OPG’s goals of improving operational efficiency, enhancing  
26 employee experience, and leveraging innovative technology-based solutions. This project  
27 replaces the Human Resource System Replacement Project and SAP Payroll Project from EB-  
28 2020-0290. The project started in 2022 and has a planned final in-service in 2026, with an

---

<sup>1</sup> While this project does not meet the requirements for capitalization as an intangible asset (Ex. D4-1-1), the associated project implementation costs will be recognized as a prepaid asset, which will amortized over the software license period once the implementation is completed. The project costs are included in the calculation of the corresponding asset service fees in the same manner as capital assets.

1 estimated total project cost of \$52.7M and the corresponding forecast in-service amount fully  
2 in the bridge period.

3  
4 **Finance Enterprise Resource Planning Solution** is a sustaining project to update the current  
5 SAP on-premise system which is at its end-of-life, with SAP S/4 HANA and update the  
6 associated business processes. The project is expected to result in improved data integration,  
7 business agility and decision-making. SAP S/4HANA Enterprise Resource Planning solution  
8 is expected to optimize Finance processes and services in line with industry practice and  
9 through a modern technology solution, to ensure business continuity and support OPG's  
10 current and future needs. This is part of OPG's Enterprise System Modernization, discussed  
11 further in Ex. D3-1-1. The project started in 2025 and has an estimated total project cost of  
12 \$118.6M. The total forecast in-service amount during the IR term is \$114.6M, with \$4.0M of in-  
13 service amounts in 2025. The planned final in-service is in 2031.

14  
15 **Corporate Headquarters ("CHQ")** includes two projects to purchase<sup>2</sup> (87414) and renovate  
16 (87413) an office workspace for OPG's non-station corporate staff. In EB-2020-0290, the  
17 Clarington Corporate Campus project was planned until the project was closed due to the  
18 substantial cost escalation experienced in the construction industry following the COVID-19  
19 pandemic (discussed in Ex. D3-1-1 and Ex. H1-1-1, Section 5.24). OPG closed the Clarington  
20 Corporate Campus Project and instead acquired the office building and associated property at  
21 1908 Colonel Sam Drive, Oshawa in 2023. The goal of the project is to reduce on-going leasing  
22 and building maintenance costs and increase collaboration amongst employees by developing  
23 a new corporate head office, based on the long-term workforce needs. This targets a reduction  
24 in square footage per employee in alignment with current industry standards, while providing  
25 a new workplace design that encourages and supports innovation and agility across OPG. The  
26 property was renovated and opened to over 2,000 OPG employees in August 2025, meeting

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<sup>2</sup> CHQ includes the cost to acquire the building and conduct the associated renovation. The acquisition cost excludes the costs associated with undeveloped land. For confidentiality reasons, the project number for the CHQ purchase was assigned after the BCS was approved, resulting in a different number showing on the BCS shown in Attachment 1, Tab 5.

1 OPG's objectives for the new head office within the planned timeline and budget.<sup>3</sup> The final in  
2 service is planned in December 2025, with an estimated total cost of \$190.8M.

3  
4 **Security Project D** is a proactive replacement of security systems across OPG. The total  
5 project cost is estimated as \$34.3M, starting in 2025. The total forecast in-service amount  
6 during the IR term is \$26.2M, with \$8.1M of in-service amounts in the bridge period. The  
7 planned final in-service is in 2027. As it is a security-classified project, the project BCS is not  
8 provided.

#### 9 10 **3.4 Cancelled/Discontinued Projects from EB-2020-0290**

11 **SAP Payroll Upgrade** was originally planned as a standalone sustaining project with the  
12 objective of upgrading the existing SAP Payroll system used at OPG, for which vendor support  
13 was expected to expire by 2027. This project was planned to start in 2024 with an estimated  
14 cost of \$27.0M. The project's objectives were combined with the Integrated HR Service  
15 Delivery project discussed in Section 3.3, and this project did not proceed.

16  
17 **Clarington Corporate Campus** project included the construction of a new corporate campus  
18 facility in Clarington adjacent to the current Darlington Energy Complex ("DEC"). The purpose  
19 of the project was to support the consolidation of OPG's workspaces through the construction  
20 of a corporate campus. Consolidation would have involved the release / termination of existing  
21 real estate interests over the next five-seven years, coordinated with the construction of the  
22 new office building. This new building was expected to accommodate non-plant employee and  
23 function as OPG's new corporate head office. This project was estimated to cost \$200.0M with  
24 a planned final in-service date in 2027. The project was subsequently closed for a preferable  
25 alternative to purchase and renovate 1908 Colonel Sam Drive as OPG's new corporate  
26 headquarters (Section 3.3).

---

<sup>3</sup> A separate project to increase the capacity of CHQ parking is in progress, with an estimated total project cost of \$27.2M forecast in-service as of 2027 (Ex. D3-1-2, Table 2d). This project is currently on hold pending the completion of soil screening activities.

1 Approximately \$7.0M of project costs incurred to the time of project cancellation was written  
2 off and recorded in the Clarington Corporate Campus Deferral Account. These costs covered  
3 preliminary geotechnical investigations, establishing technical specifications, materials  
4 sourcing and sufficiently developing the building designs such that an appropriate cost and  
5 schedule estimate could be developed in preparation for the execution phase. The information  
6 gained from this planning phase was leveraged to inform the evaluation and decision to  
7 purchase and renovate the property at 1908 Colonel Sam Drive and subsequently terminate  
8 the Clarington Corporate Campus project.

#### 9 10 **4.0 TIER 2 CAPITAL PROJECTS**

11 There are 25 Tier 2 projects comprising four categories: Completed/Deferred Projects from  
12 EB-2020-0290, Ongoing Projects from EB-2020-0290, Cancelled Projects from EB-2020-  
13 0290, and New Projects approved since EB-2020-0290 and are shown in Ex. D3-1-2, Tables  
14 2a-2e.

#### 15 16 **5.0 TIER 3 CAPITAL PROJECTS**

17 Exhibit D3-1-2, Tables 3a and 3b provide aggregated information for Tier 3 projects with a cost  
18 less than \$10M. There are 589 Tier 3 projects, comprised of 408 IT projects and 181 real estate  
19 projects.

#### 20 21 **6.0 PROJECT VARIANCE EXPLANATIONS**

22 There are three Tier 1 projects with a variance greater than 10% as compared to the total  
23 forecast cost provided in EB-2020-0290.

24  
25 **Asset Suite 9 Upgrade** is a sustaining project for an enterprise asset management system  
26 used to support work management processes including materials management and plant  
27 maintenance and supply chain activities across OPG. In EB-2020-0290 the project was  
28 estimated at a cost of \$15.0M at the pre-planning phase, at which time there was not a BCS.  
29 The final project cost of \$37.8M was about \$0.3M (1%) higher than the first execution BCS  
30 Class 3 estimate of \$37.5M. The variance relative to the EB-2020-0290 cost estimate was due

1 to the uncertainty in the estimates at the earlier phase of project planning as full extent of the  
2 requirements had not yet been determined.

3  
4 **Cyber Security – CSA N290.7** is a collection of projects to address OPG’s compliance with  
5 CSA N290.7, Cyber Security Standard. The final total project cost is estimated to be \$35.8M,  
6 which is \$4.9M or 12.0% less than the estimated total project cost of \$40.7M in EB-2020-0290.  
7 The variance to EB-2020-0290 was due to the uncertainty in the estimates at the earlier phase  
8 of project planning, which occurred prior to the standard being formally released and without a  
9 BCS estimate for most of the program at that time.

10  
11 **Integrated HR Service Delivery Model** is a sustaining project to address a required transition  
12 from the current on-premise human capital management solution (SAP ECC), which will no  
13 longer be supported by 2027, to a new cloud platform (SAP SuccessFactors/Employee  
14 Central). The project has an estimated cost of \$52.7M, aligned with the first execution BCS  
15 Class 3 estimate. This project replaces the Human Resource System Replacement project and  
16 SAP Payroll Project from EB-2020-0290, which were estimated at a total project cost of \$13.0M  
17 and \$27.0M, respectively, totaling \$40.0M. The variance to EB-2020-0290 was the result of  
18 the early phase of project planning at that time, where there was not yet a BCS with a Class 5  
19 or better estimate.

## 20 21 **7.0 TERM-OVER-TERM CHANGES – IR TERM**

### 22 **2027-2031 Plan versus 2022-2026 Actuals and Budget**

23 The capital in-service amounts in the IR term of \$1,276.9M is \$456.5M or about 56% higher  
24 than the capital in-service actuals and budget over the 2022-2026 period of \$820.4M. The  
25 increase in capital in-service in the IR term is mainly the result of the advancement of non-  
26 portfolio IT projects, including the Enterprise System Modernization portfolio and DNNP  
27 Operational Readiness Technology Projects, with the majority of total in-service amounts  
28 occurring within the IR term. Real Estate’s workplace optimization projects, new RG Training  
29 Centre, the Central Warehouse project and the CHQ Parking Lot projects (see Ex. D3-1-2,  
30 Table 2d) in-service amounts in the IR-term were largely offset by the in-service amounts for  
31 the CHQ in the 2022-2026 period.

**LIST OF ATTACHMENTS**

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Attachment 1: Business Case Summaries and Supporting Information

Note: Business Case Summaries included in Attachment 1 are marked “Confidential” or “Internal Use Only”, however, OPG has determined them to be non-confidential either in their entirety or with redactions as indicated.

**ATTACHMENT 1**

1  
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**1.0 Business Case Summaries**

Provided below is a list of projects with a total project cost (actual or forecast) of \$30M or greater. The business case summaries (“BCS”) for the projects listed are attached. This list of releases can also be found in Ex. D3-1-2, Table 7.

<b>Tab</b>	<b>Project</b>	<b>Project Title</b>	<b>Date Approved</b>	<b>BCS Status</b>
1	84975	Asset Suite 9	May-21	Execution Phase
2	87188	DNNP Enterprise Asset Management	Apr-25	Planning Phase
3	83746	Integrated HR Service Delivery	May-25	Execution Phase
4	89273	Finance ERP Solution	Oct-25	Planning Phase
5	87414	Corporate Headquarters Acquisition	Jan-23	Execution
6	87413	Corporate Headquarters Renovation	Jul-24	Execution

8

## Business Case Summary

<b>Project #</b>	IT Project - <b>ICICO026</b> AS7 CAP- <b>ICO84975</b> AS7 OMA - <b>ICO84976</b>	<b>Controlled Doc #</b>	ICICO026
<b>Project Title</b>	Asset Suite 9 Upgrade Project		
<b>Facility</b>	CORP	<b>Investment Classification</b>	Sustaining
<b>Project Level (Scalability)</b>	B	<b>Financial Classification</b>	<input checked="" type="checkbox"/> OM&A <input checked="" type="checkbox"/> Capital <input type="checkbox"/> Capital Spare <input type="checkbox"/> MFA <input type="checkbox"/> CMFA <input type="checkbox"/> Provision <input type="checkbox"/> Others: [if applicable]
<b>Release: Gate and Project Phase</b>	<input type="checkbox"/> Choose an item. G0 <input type="checkbox"/> : Initiation <input type="checkbox"/> Choose an item. G1 <input type="checkbox"/> : Planning		<input type="checkbox"/> Choose an item. G2 <input type="checkbox"/> : Definition <input checked="" type="checkbox"/> Full G3 <input type="checkbox"/> : Execution
<b>Estimate Class (overall project)</b>	Class 3	<b>Target Project Completion Date</b>	Dec 2022

<b>Recommendation</b>
<b>We recommend a release of \$26,997 K (\$23,574 K Capital, \$3,423 K OM&amp;A), including \$3,530 K of contingency.</b>
The estimated total project cost is \$37,497 K (\$31,439 K Capital, \$6,057 K OM&A), including \$3,530 K of contingency (\$3,200 K Capital, \$330 K OM&A).
This project is to complete the upgrade of OPG's Enterprise Asset Management system, Asset Suite. Capital funding will be used for project management, detailed design, build, testing and commissioning of the new Asset Suite application and interfacing programs. OM&A funding is required to deliver data migration for multiple Asset Suite environments, detailed requirements for a new mobile warehouse solution and performance testing, hardware purchase, change management and training.
This Full Execution release is for the completion of the Asset Suite upgrade work in 2021 and 2022.

Investment Cash Flows									
\$K	LTD	2021	2022	2023	2024	2025	2026	Future	Total
Previous releases	10,037	462							10,499
Current request	-	15,753	11,244						26,997
<b>Total released to date</b>	<b>10,037</b>	<b>16,215</b>	<b>11,244</b>	-	-	-	-	-	<b>37,496</b>
Future required	-								-
<b>Total Project Cost</b>	<b>10,037</b>	<b>16,215</b>	<b>11,244</b>	-	-	-	-	-	<b>37,496</b>
Ongoing Costs	-								
						<b>Gate:</b>	<b>G3</b>	<b>OAR Approval:</b>	\$37,496 K

Approvals	Signatures	Date
The recommendation, including the identified ongoing costs, if any, represents the best option to meet the validated business need.		
<b>Recommended by: Project Sponsor</b> Chris Woodcock Director IT Services, CIO		
I concur with the business decision as documented in this BCS.		
<b>Finance Approval:</b> Barbara Kerr VP, Controllership		
I confirm that this investment/project, including the identified ongoing costs, if any, will address the business need, is of sufficient priority to proceed, and provides value for money.		
<b>Line Approval per OAR 1.1:</b> Jason Wight Chief Information Officer		

## Business Case Summary

### EXECUTIVE SUMMARY – Project Overview

OPG's Enterprise Asset Management system requires an upgrade or replacement to avoid technical obsolescence. The version currently in use at OPG, Asset Suite 7.0.1, has been out of vendor support since 2019, is not certified for use with many components of OPG's IT Enterprise Architecture including the Microsoft Edge web browser and Microsoft Office 365 applications and represents an increasing support cost and security risk as it approaches end of life.

An assessment of options, including upgrading to AS9 and its replacement with other comparable ERP/EAM software, was performed in 2018 and recommended an upgrade to AS9 as the most cost-effective and least risk option.

The Asset Suite Upgrade project is a sustaining project that aims to address the existing operational and cyber security risk associated with the current application version and system infrastructure. This project will also provide a modern interface that promotes mobility and worker efficiency improvements at the work face. Additionally, the upgrade introduces an improved system architecture that is expected to improve application performance and the end-user experience.

Asset Suite upgrade project was launched in April 2020 and to-date has completed all planning and definition phase activities to validate the approach outlined in the 2018 Assessment, gather business requirements, determine scope, obtain cost estimate, and plan for execution phase of the project. The project is ready to proceed to the execution phase to deliver following:

- Detailed design and Installation of new Asset Suite 9 Cloud environments
- Detailed design and installation of new Asset Suite 9 Operational Data Store (ODS) environments
- Replacement of AnyWare for Inventory with new warehouse mobile solution, TAShelix
- TAShelix integration with AS9
- Data migration, system configuration and security setup
- Detailed design, build and test, customizations, AS9 and ODS integrations
- Organizational Change Management for all impacted OPG users to ensure business readiness
- Training for all OPG users
- Commissioning and cutover to new AS9 and ODS systems
- Decommissioning of AS7 system and infrastructure, including AS7 ODS and AWI
- Post-cutover production system support
- Project closeout work

This release will bring the total released-to-date amount to \$37,496 K (\$31,439 K Capital, \$6,057 K OM&A). The requested funding amount for execution phase is based on the vendors' budgetary estimates provided during definition phase and includes all activities required to successfully upgrade Asset Suite and its integrated systems to the latest vendor-supported release.

OM&A funding is required to deliver data migration for multiple Asset Suite environments, detailed requirements for TAShelix and performance testing, hardware purchase, change management and training. Capital funding will be used for project management, detailed design, build, testing and commissioning of the new Asset Suite application and interfacing programs.

Funding for the Asset Suite upgrade project has been allocated in the 2021-2022 Business Plan.

Large enterprise system upgrades, such as this, have been successfully executed a number of times by the CIO. The project does introduce a few areas of risk, such as the migration off the mainframe to a cloud infrastructure, complexity of integrations with other systems and vendor management. The project has incorporated risk mitigation measures to manage all project risks.

### Business Need

For Project Level A or B

OPG has been using Asset Suite (previously PassPort) as its Enterprise Asset Management software since 1998, initially for Nuclear Line of Business, which was further expanded in 2014 to Renewable Generation and Corporate Lines of Business, making it a company wide solution being used by over 13,000 users.

Asset Suite application is critical to OPG operations, including Nuclear Stations, Renewable Generation and Darlington Refurbishment project and requires recovery within 24 hrs. As such, it follows a detailed maintenance strategy and has a formal business continuity plan, including defined and tested back up, disaster recovery and business resumption plans. The performance and reliability of the application is dependent on vendor support, as well as that of New Horizon System

## Business Case Summary

<b>Business Need</b>	For Project Level A or B
<p>Solutions. Asset Suite's Lifecycle Maintenance Strategy minimizes the risk of losing vendor support and preventing technology obsolescence issues by staying on a current, vendor certified release.</p> <p>OPG's Enterprise Asset Management system requires an upgrade or replacement to avoid technical obsolescence. The version currently in use at OPG, Asset Suite 7.0.1, which was implemented in 2012, has been out of vendor support since 2019. It is not certified for use with many components of OPG's IT Enterprise Architecture including the Microsoft Edge web browser and Microsoft Office 365 applications and represents an increasing support cost and security risk as it approaches end of life.</p> <p>An assessment of options, including upgrading to AS9 or its replacement with other comparable ERP/EAM software, was performed in 2018 and recommended an upgrade to AS9 as the most cost-effective and least risk option.</p>	

<b>Preferred Alternative:</b>	<b>Upgrade to Asset Suite 9</b>	For Project Level A, B or C
<b>Description of Preferred Alternative</b>		
<p>Based on the Asset Suite roadmap assessment performed by CIO in 2018 and the final system requirements completed during planning and definition phase of this project, it was determined that the preferred alternative includes:</p> <ol style="list-style-type: none"> <li>1) Upgrade of Asset Suite 7 to Asset Suite 9,</li> <li>2) Replacement of AnyWare for Inventory (AWI) warehouse mobile solution,</li> <li>3) Migration from mainframe to a Unix/Linux infrastructure to increase operational stability and reduce cost,</li> <li>3) Transition from a on premise solution to a cloud-based solution,</li> <li>4) Migration from a DB2 database to an Oracle database</li> </ol>		

<b>Deliverables:</b>	<b>Associated Milestones (if any):</b>	<b>Target/Actual Date:</b>
<i>Previous releases:</i>		
Feasibility Assessment and software Selection		Jul 31, 2020 (A)
Draft Project Charter		Jul 31, 2020 (A)
Project definition plan		Dec 31, 2020 (A)
Organizational Change Management Plan		Nov 31, 2020 (A)
Training Needs Assessment and Training Plan		Nov 31, 2020 (A)
Requirements Documents (BRD, SRD, IRD, RTM)		Mar 17, 2021 (A)
Design Documents (EAD, ALCP, SDD)		Feb 25, 2021 (A)
Execution Project Management Plan		Mar 23, 2021 (A)
Environments (Sandbox, Development, UAT)		Mar 30, 2021 (A)
<i>Current release:</i>		
Solution development complete		Feb 28, 2022
Development and Integration Testing		Mar 31, 2022
User Acceptance Testing		May 31, 2022
Training		Jun 30, 2022
Go-live		Aug 31, 2022
Post Go-live Support	In-Service	Oct 31, 2022
Project Closure		Dec 31, 2022

<b>Alternative 2:</b>	<b>Base Case – No Project</b>	For Project Level A, B or Value-Enhancing
<p>"No Project" is not a viable alternative, as it will put OPG at significant risk to manage station and corporate assets effectively.</p>		

## Business Case Summary

<b>Alternative 3:</b>	<b>Delay Work</b>	For Project Level A or B or Value-Enhancing
<p>Delay of the work is not recommended for a number of reasons:</p> <ol style="list-style-type: none"> <li>1. Delay of the realization of the support cost reduction with the migration of the mainframe infrastructure</li> <li>2. Extended cyber security exposure due to vulnerabilities in the current Asset Suite user interface (Portal/J)</li> <li>3. Increased operational risks associated with obsolescence and technical incompatibility of Asset Suite system and its components with current standard technology.</li> </ol>		

<b>Alternative 4:</b>	<b>Replace Asset Suite</b>	For Project Level A or B
<p>Not Recommended. The CIO investigated the viability of replacing Asset Suite with a competing ERP/EAM product as part of the 2018 Asset Roadmap initiative. The study determined that it is a technically viable option, but should not be considered the preferred alternative for a number of reasons:</p> <ol style="list-style-type: none"> <li>1. Purchase Cost. The one-time purchase cost is expected to be greater than \$10-30M</li> <li>2. Implementation Cost. The implementation cost is considered to be 2-3 times the cost of an upgrade project, as it required much higher requirements for definition, development and testing effort.</li> <li>3. Business Impact. A system replacement would have significant change management, acceptance test and training impact on the business. All business process governance and documentation would require extensive updates with the introduction of a new system. Further, a large amount of training and post-production support would be required.</li> </ol>		

<b>Key Risk Assessment</b>				
For Project Level A, B or C				
<b>Risk Class</b>	<b>Description of Risk</b>	<b>Response Type/ Actions/Final TCD</b>	<b>For Additional Review</b>	<b>Residual Ranking</b>
Cost	Increase of costs and/or schedule delays due to rework for modifications to integrated systems introduced by other OPG projects/initiatives	Mitigate: <ul style="list-style-type: none"> <li>• Establish interface agreements with other projects or initiatives that could impact AS9 upgrade project.</li> </ul>	No	Low
Schedule	Increase of costs and/or schedule delays due to Hitachi not being able to deliver the bug fixes (originally customizations in AS7) in time for the project to properly absorb the fixes into the defined schedule, including configuration, documentation, and testing.	Mitigate: <ul style="list-style-type: none"> <li>• OPG expects the bug fixes to be delivered earlier than Hitachi's planned Q1-2022 release date for 9.6.4 or release a hot fix if there's a delay.</li> <li>• The project will maintain communications with Hitachi on the delivery date.</li> <li>• Project to set the latest possible dates the fixes can be accepted without compromising the quality of the fixes.</li> </ul>	No	Low
Schedule	AS7 Production performance impacted by the activities occurring in non-production environment. Data migration runs into the core LOB business hours.	Mitigate: <ul style="list-style-type: none"> <li>• Stop the long running process and restart after hours.</li> </ul>	No	Low
Schedule	Data migration performance impacted increasing costs and/or delaying schedule. Network throughput between on-premise and Azure might not be sufficient.	Mitigate: <ul style="list-style-type: none"> <li>• Build on-premise server complete DB2 to Oracle conversion on-premise and then uplift Oracle to Oracle DB in the cloud.</li> </ul>	No	Low
Schedule	Data migration performance impacted increasing costs and/or delaying schedule. Microsoft backend VM throttling (Input/Output limit is reached)	Mitigate: <ul style="list-style-type: none"> <li>• Complete the Data Migration PoC in early execution phase.</li> <li>• Increase OPG Network throughput.</li> </ul>	No	Low

## Business Case Summary

### Key Risk Assessment For Project Level A, B or C

Risk Class	Description of Risk	Response Type/ Actions/Final TCD	For Additional Review	Residual Ranking
	may happen due to cloud maintenance activities.			
Cost	Retesting of the completed work packages. New requirements may impact the previous work packages that have been tested. Increased testing effort and timeline could increase costs and/or delay schedule.	Mitigate: <ul style="list-style-type: none"> <li>New requirements will be reviewed according to Change</li> <li>Request management process and the overall impact to the project will be assessed.</li> </ul>	No	Low

### Additional Risk Analysis For Project Level A or B

The project undertook a Quantitative Risk Analysis. Cost contingency was established based on residual risks and the results of the contingency modelling with a 90% confidence level.

### Financial Evaluation For Project Level A, B (with multiple feasible alternatives) or Value-Enhancing

\$K	Preferred Alternative	Base Case (No Project)	Delay work	Replace Asset Suite	
Project Cost	\$37,496 K	N/A	N/A	N/A	
NPV	N/A				
Other: (e.g., IRR)					

### Analysis of Financial Evaluation – Key Assumptions and Key Results:

A Financial Evaluation is not required for a sustaining project.

### Qualitative Factors For Project Level A or B

These factors may include:

- Cost savings with commodity-based hardware with Linux versus z/OS mainframe
- Elimination of 3rd party software such as COBOL and CICS Transaction Server resulting in a lower cost of support
- Simplified infrastructure with one user interface across OPG
- Dramatically reduces cost profile of the infrastructure
- Open application architecture with extensibility to eliminate customizations
- Open database architecture that supports accessibility for Analytics, Mobility, Integrations
- Simplified support structure reducing total cost of ownership
- Mitigation of Cyber Security issues due to unsupported UI (Portal/J)
- Engaging UI with personalized user experience
- Integration with mobile solution and mobile devices, enabling worker mobility
- End-user improvements will simplify plant work for both Darlington Refurbishment and Pickering End of Commercial Operations

## Business Case Summary

Post Implementation Review (PIR) Plan (refer to OPG-PROC-0056)				
Type of PIR Report	Simplified/Standard PIR	PIR Completion Date	DEC-2022	
<input type="checkbox"/> Detailed PIR KPIs will be provided in future BCS(s) when Choose an item. Phase BCS release is requested.				
PIR KPIs	Current Baseline	Target Result	How to measure?	Who will measure?
Technical Obsolescence	AS7 is out of vendor support, not certified for use with other components of IT infrastructure, and has operational and cyber security risks.	Cutover completed on schedule without disruption to station outages or business operations.	Approval to proceed with cutover from Business Readiness SPOCs and project sponsors. Commissioning tickets closed and AFS completed.	IT Services Manager
Improve Application Performance		Provide modern user interface, and improve system architecture. System performance meets or exceeds Service Level Agreement targets.	No tickets not meeting performance SLA target.	IT Services Manager

Definitions and Acronyms
ALCP – Asset Life Cycle Plan AS7 – Asset Suite Release 7 AS9 – Asset Suite Release 9 AWI – AnyWare for Inventory BRD – Business Requirements Document CICS – Customer Information Control System is a transaction server that runs on mainframe systems CIO – Chief Information Officer COBOL – Programming language used primarily in a mainframe environment DB2 – Relational database currently used by the Asset Suite application on mainframe EAD – Enterprise Architecture Document EAM – Enterprise Asset Management ERP – Enterprise Resource Planning FA – Foundation Architecture, web-based user interface for Asset Suite 7 IT – Information Technology KPI – Key Performance Indicator Linux – Operating System to manage Asset Suite 9 LOB – Line of Business ODS – Operational Data Store. Near real-time replication of the Asset Suite database for reporting purposes OEM – Original Equipment Manufacturer PIR – Post Implementation Review PoC – Proof of Concept Portal/J – Java based user interface for Asset Suite 7 RTM – Requirements Traceability Matrix SDD – System Design Document SLA – Service Level Agreement SPOC – Single Point of Contact SRD – System Requirements Document TAShelix – new mobile warehouse solution replacing AWI UAT – User Acceptance Test UI – User interface VM – Virtual Machine (virtual computer) z/OS – Mainframe Operating System used to manage Asset Suite 7

Project #: ICICO026  
 Project Title: Asset Suite 9 Upgrade Project  
 Document #: ICICO026

**OPG Confidential**  
 OPG-FORM-0076-R006

## Business Case Summary

### APPENDICES

Appendix A1: Summary of Estimate - Total Project Cost										
<b>Project Number:</b>	ICO84976 (OM&A)									
<b>Project Title:</b>	Asset Suite 9 Upgrade Project (IT Project #ICICO026)									
\$K	LTD	2021	2022	2023	2024	2025	2026	Future	Total	%
Project Mgmt	886	200							1,086	18%
Requirements	823	428							1,251	21%
Engineering	4	379							383	6%
Procurement	64	120							184	3%
Construction	394								394	7%
OCM/Training		1,160	1,268						2,428	40%
Closeout									-	0%
<b>Subtotal</b>	<b>2,172</b>	<b>2,287</b>	<b>1,268</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,727</b>	<b>95%</b>
Outside WBS									-	0%
Contingency		50	280						330	5%
<b>Subtotal w/ Contingency</b>	<b>2,172</b>	<b>2,337</b>	<b>1,548</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,057</b>	<b>100%</b>
Interest									-	0%
Other									-	0%
<b>Total</b>	<b>2,172</b>	<b>2,337</b>	<b>1,548</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,057</b>	<b>100%</b>
Removal Costs (incl. above)									-	0%

Appendix A1: Summary of Estimate - Total Project Cost										
<b>Project Number:</b>	ICO84975 (Capital)									
<b>Project Title:</b>	Asset Suite 9 Upgrade Project (IT Project #ICICO026)									
\$K	LTD	2021	2022	2023	2024	2025	2026	Future	Total	%
Project Mgmt	204	1,165	1,283						2,651	8%
Inspection									-	0%
Engineering	5,080	2,734	850						8,664	28%
Procurement	2,127	250	350						2,727	9%
Construction	447	7,105	2,608						10,160	32%
Commissioning		1,021	1,619						2,640	8%
Closeout			165						165	1%
<b>Subtotal</b>	<b>7,857</b>	<b>12,274</b>	<b>6,875</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>27,006</b>	<b>86%</b>
Outside WBS									-	0%
Contingency		1,200	2,000						3,200	10%
<b>Subtotal w/ Contingency</b>	<b>7,857</b>	<b>13,474</b>	<b>8,875</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>30,206</b>	<b>96%</b>
Interest	8	404	821						1,233	4%
Other									-	0%
<b>Total</b>	<b>7,865</b>	<b>13,878</b>	<b>9,696</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>31,439</b>	<b>100%</b>
Removal Costs (incl. above)									-	0%

Appendix A2: Summary of Estimate - Notes			
<b>Escalation Rate</b>	2%		<b>Interest Rate (going-forward)</b> 5%

Project #: ICICO026  
 Project Title: Asset Suite 9 Upgrade Project  
 Document #: ICICO026

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 OPG-FORM-0076-R006

## Business Case Summary

Appendix A3: Summary of Estimate – In-Service Estimates				
<b>\$K</b>	Only applicable to capital projects. In-Service amount shall include interest but exclude removal costs.			
Project #	Date (YYYY-MM-DD)	Description	Amount	%
ICO84975	12/31/2022	100% In Service	28,239	100%
				0%
<b>Total</b>			28,239	100%
Prepared by:		Reviewed and Endorsed by:		
Iwona Fleming Project Manager Mar. 31, 2021		Alewyn Mouton Program Manager Mar. 31, 2021		

## KWAN Sherwin -ENTENG

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**From:** POWER PLATFORM SERVICE ACCOUNT  
**Sent:** Tuesday, April 27, 2021 10:00 AM  
**To:** FLEMING Iwona -C I O  
**Cc:** PMOC DOC REVIEW  
**Subject:** APPROVED: ICICO026 G3 EXEF BCS (2021-04-01).docx (ID: 260)

The approval proces you initiated for the file [ICICO026 G3 EXEF BCS \(2021-04-01\).docx](#) has completed.

**Outcome:** Approved

### Approval summary:

Event: Approval started

Time: 2021-04-21T15:42:48Z

User: FLEMING Iwona -C I O (iwona.fleming@opg.com)

Description/Comment: Approval was started. Type: Parallel Comment: Please approve Full Execution BCS for Asset Suite Upgrade Project. The project has completed Planning and Definition phase and is ready to proceed with the Execution phase to complete the project. Participants: chris.woodcock@opg.com; barbara.kerr@opg.com; jason.wight@opg.com.

Event: Task created

Time: 2021-04-21T15:42:51Z

User: FLEMING Iwona -C I O (iwona.fleming@opg.com)

Description/Comment: Task created for chris.woodcock@opg.com: Approval.

Event: Task created

Time: 2021-04-21T15:42:53Z

User: FLEMING Iwona -C I O (iwona.fleming@opg.com)

Description/Comment: Task created for barbara.kerr@opg.com: Approval.

Event: Task created

Time: 2021-04-21T15:42:55Z

User: FLEMING Iwona -C I O (iwona.fleming@opg.com)

Description/Comment: Task created for jason.wight@opg.com: Approval.

Event: Approved

Time: 2021-04-22T16:47:53Z

User: WOODCOCK Chris -C I O (chris.woodcock@opg.com)

Description/Comment: Document approved by chris.woodcock@opg.com. Comment:

Event: Approved

Time: 2021-04-26T18:09:40Z

User: KERR Barbara -FIN & C CTRL (barbara.kerr@opg.com)

Description/Comment: Document approved by barbara.kerr@opg.com. Comment:

Event: Approved

Time: 2021-04-27T13:58:29Z

User: WIGHT Jason -C I O (jason.wight@opg.com)

Description/Comment: Document approved by jason.wight@opg.com. Comment:

Event: Approval completed

Time: 2021-04-27T13:58:53Z

Outcome: Approved

Description/Comment: All approvers have approved their tasks. The workflow has been completed with a status Approved.

## Business Case Summary

<b>Project #</b>	NS355	<b>BCS Document Number</b>	COR-BCS-00120-1473652
<b>Project Title</b>	87188 - NS355 - EAM IMPLEMENTATION 87189 - NS355 - EAM IMPLEMENTATION		
<b>Facility</b>	D - DARLINGTON NGD	<b>Investment Classification</b>	Sustaining
<b>Project Level (Scalability)</b>	B	<b>Financial Classification</b>	18500 - CAPITAL - INTANGIBLES 62030 - OM&A - PROJECT
<b>Release: Gate and Project Phase</b>	G3 - Execution - a (Partial)	<b>Target Project Completion Date</b>	2031-Sep-30
<b>Estimate Class (Current Request)</b>	Class 3	<b>Estimate Class (Overall Project)</b>	Class 3

**Recommendation**

We recommend a release of \$12,052K in Capital including ██████ of contingency.

This will bring the total released-to-date to \$12,692K including ██████ contingency, which includes ██████ Capital and ██████ OM&A.

The estimated total project cost is \$69,543K (\$65,705K Capital and \$3,838K OM&A), including ██████ of contingency ██████ Capital ██████ OM&A)

The purpose of this release is to fund Year 1, 2 and 3 of SAP S/4 HANA licensing and the requirements, design, build, configuration, testing, training and deployment of the Enterprise Asset Management (EAM) solution.

**Investment Cash Flows**

Project Number	87188 - NS355 - EAM IMPLEMENTATION					FAC	18500 - CAPITAL - INTANGIBLES		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total
Previous releases	0								0
Currently Requested	0	8,370	3,682						12,052
Total released to date	0	8,370	3,682						12,052
Future required	0	2,288	4,662	11,481	10,835	10,165	7,842	6,380	53,653
Total Project Cost	0	10,658	8,344	11,481	10,835	10,165	7,842	6,380	65,705
Ongoing Costs	0								0

Project Number	87189 - NS355 - EAM IMPLEMENTATION					FAC	62030 - OM&A - PROJECT		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total
Previous releases	588	52							640
Currently Requested									
Total released to date	588	52							640
Future required		598	650	650	650	650			3,198
Total Project Cost	588	650	650	650	650	650			3,838
Ongoing Costs									

## Business Case Summary

<b>Total OAR Approval</b>	69,543.0
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Approvals	Signatures	Date
The recommendation, including the identified ongoing costs, if any, represents the best option to meet the validated business need.		
<b>Recommended by: Direct Report of Line Approver : Aida Cipolla CFO &amp; Corporate Services Officer CAO SVP</b>	Aida Cipolla	2025-04-26
I concur with the business decision as documented in this BCS.		
<b>Finance Approval : Aida Cipolla CFO &amp; Corporate Services Officer</b>	Aida Cipolla	2025-04-26
I confirm that this investment/project, including the identified ongoing costs, if any, will address the business need, is of sufficient priority to proceed, and provides value for money.		
<b>Line Approval per OAR : OAR Element : 1.1 Nicolle Butcher President &amp; Chief Executive Officer</b>	Nicolle Butcher	2025-04-30

EXECUTIVE SUMMARY – Project Overview
<p>The goal of the Enterprise Asset Management (EAM) Modernization Project is to establish an EAM solution for the Small Modular Reactor (SMR) facility, Unit 1 only. The newly implemented EAM system will leverage SAP S/4 HANA software to manage and track assets throughout their lifecycle. This comprehensive system will include the Master Equipment List, Asset Work Management, Maintenance Planning &amp; Management, and Engineering Design &amp; Change Management.</p> <p>The purpose of this current release is to:</p> <ol style="list-style-type: none"> <li>address the definition phase actuals (complete) which included the delivery of requirements and design workshops and documentation in addition to Year 1 SAP S/4 HANA licensing</li> <li>complete partial execution phase implementation including the configuration, build, testing, training and deployment of SAP S/4 HANA environment</li> <li>complete SAP S/4 HANA Signavio implementation</li> <li>include SAP S/4 HANA licensing for Year 2 and 3</li> <li>develop future Gate estimates and schedules</li> </ol> <p>Future Gate releases are expected to include the funding of SAP S/4 HANA licensing from 2027 to 2031, implementation of a Corrective Action Program (CAP) module, implementation of EAM operational requirements for the construction phase, development of Reports, Interfaces, Conversion, Enhancements, Forms, Workflows (RICEFWs) and integrations with other systems.</p> <p>Key project risk includes the risk that the Canadian Nuclear Safety Commission (CNSC) regulations may change in the future concerning SaaS deployment strategies. Proactively, the risk is mitigated by incorporating flexible terms and conditions in our contracts with the vendor. This will allow the project to shift the deployment strategy from an OPG private cloud solution and re-allocate otherwise committed costs to other necessary products, ensuring project continuity and financial efficiency.</p>

Business Need	For Project Level A or B
<p>An Enterprise Asset Management (EAM) system is required for the new Small Modular Reactor (SMR) facility. The system will need to include off-the-shelf cloud functionality with readily available integration capabilities and scalable to OPG enterprise needs. The system will need to manage assets throughout their lifecycle, address proactive maintenance planning and scheduling while in compliance with regulatory standards and providing a user-friendly interface. The system will need to support the SMR staffing business case for Unit 1.</p>	

Preferred Alternative:	SAP S/4 HANA EAM system	For Project Level A, B or C
<b>Description of Preferred Alternative</b>		

## Business Case Summary

The preferred alternative is to deliver an Enterprise Asset Management (EAM) solution utilizing SAP S/4 HANA. During a Request For Proposal (RFP) process, SAP S/4 HANA was selected by an OPG cross-functional committee from Enterprise Operations in RG and Nuclear, Maintenance, Emergency Services and Training, Engineering and Supply Chain.

The EAM system with SAP S/4 HANA will incorporate off-the-shelf cloud functionalities, with a user-friendly interface permitting easy navigation, and ready-to-use integration capabilities with other systems. The system will enable a comprehensive approach to managing assets throughout their lifecycle, aiding proactive maintenance planning and scheduling, supporting compliance with regulatory standards, and meeting business and staffing requirements.

This system is designed to adjust and scale according to changing business needs and to maintain robust data continuity, ensuring it remains an effective solution for OPG in the long run.

<b>Deliverables:</b>			
<i>Previous Release:</i>			
<i>Deliverable Type</i>	<i>Milestones</i>	<i>Associated Milestones (if any):</i>	<i>Target Date</i>
PO Issued	Award Contracts / PO Issued		2023-09-15
Gate 1A Partial Release Approval	Gate G1 Approval		2023-10-03
Gate 1B Release Approval	Gate G1 Approval		2024-02-27
PO Issued - EAM licensor and system integrator	Award Contracts / PO Issued		2024-04-30
<i>Current Release:</i>			
<i>Deliverable Type</i>	<i>Milestones</i>	<i>Associated Milestones (if any):</i>	<i>Target Date</i>
Requirements Complete	Design Requirement Complete		2024-11-04
Design Complete	Detailed Design Complete		2025-01-10
Training Strategy Complete	Training Strategy Approved – Milestone type “TRA”		2025-01-10
Testing Strategy Complete	Testing Strategy Approved – Milestone type “TSA”		2025-01-10
Gate 3A Approved	Gate G3A Approval		2025-03-14
Configuration Complete	Finish of Installation		2025-03-31
UAT Complete	UAT - User Acceptance Testing		2025-05-30
Pre-production System Available - Configuration, Testing and Deployment Complete	Available for Service and/or Ready For Service Completed		2025-06-30
Future Gate Approval	Gate G3B Approval		2025-10-31

<i>Future Release:</i>			
<i>Deliverable Type</i>	<i>Milestones</i>	<i>Associated Milestones (if any):</i>	<i>Target Date</i>
EAM Construction Scope Complete	Finish of Installation		2026-06-30
Future Gate Approval	Gate G3C Approval		2026-10-31
Corrective Action Program (CAP) Complete	Finish of Installation		2027-12-31
Future Gate Approval	Gate G3D Approval		2027-12-31
Partial System Integrations Complete	Finish of Installation		2028-06-30
Future Gate Approval		Gate G3E Approval	2028-12-31
System Integrations Complete	Finish of Installation		2029-06-30
Future Gate Approval		Gate G3F Approval	2029-12-31
Partial REIS	Report of Equipment in Service		2030-09-30
Full REIS	Report of Equipment in Service		2031-09-30
Project Closure Report Complete	Project Close Out Completed		2031-09-30
Post Implementation Review (PIR) Complete	Post Implementation Review		2032-09-30

<b>Alternative 2:</b>	<b>Base Case - No Project</b>	For Project Level A, B or Value-Enhancing
It is not a preferred or feasible alternative to execute no project as the existing OPG AS9 enterprise solution does not support the staffing model, cloud-based functionality or integration requirements required for the Small Modular Reactor (SMR) facility.		
<b>Alternative 3:</b>	<b>Delay Work</b>	For Project Level A, B or Value-Enhancing
It is not a preferred or feasible alternative to delay this project. There is commitment for the first SMR unit at this facility to be online and operational by 2030. The implementation of an EAM solution is required for the SMR operation of Unit 1.		
<b>Alternative 4:</b>	<b>AS9 implementation</b>	For Project Level A, B
AS9 implementation was considered but is not a preferred solution for the following reasons: a) AS9 will reach end of life during the expansion of the SMR facility. The selection and deployment of a new fleet wide EAM during this expansion will be disruptive to day-to-day and future operations. b) Existing OPG AS9 configuration and build does not support the staffing business case for the SMR facility. c) Existing OPG AS9 system does not support cloud-based functionalities and integration capabilities with robust digital toolsets required for the SMR facility.		

## Business Case Summary

Key Risk Assessment			For Project Level A, B or C
Risk Class	Description of Risk	Response Type / Actions / Final TCD	Residual Ranking
Technical	The development of the new nuclear management system introduces a potential risk to the successful deployment of the Enterprise Asset Management (EAM) system and its seamless operational use due to integration issues which may cause cost overruns.	Mitigate 65927 - To mitigate this risk, the EAM project will establish a cadence of intervals during the initial EAM implementation when this risk will be reviewed with the team developing the new nuclear management system. 6/30/2025	Medium
Licensing & Regulatory	Risk of CNSC regulations changing in the future concerning SaaS deployment strategies; Due to a change in regulatory landscape; Causing us to shift to an OPG on premise solution which may lead to cost and schedule impact.	Mitigate 70380 - Monitor regulatory changes with digital strategies 6/30/2025	Medium
Integration	The gap in deployment timelines between the enterprise SAP ECC upgrade and the SAP S4HANA EAM solution may limit automation of Finance and Procurement processes for DNNP.	Mitigate 68391 - The EAM Modernization project will work with the key SAP ECC Upgrade stakeholders to gather business and system requirements that will enable a scalable solution design for future Finance and Procurement automation. 5/30/2025	Medium

Additional Risk Analysis	For Project Level A or B
Quantitative Risk Analysis (QRA) was completed and Monte Carlo analysis was conducted by Enterprise Project Management Office (EPMO).	

Financial Evaluation		For Project Level A, B (with multiple feasible alternatives) or Value-Enhancing			
\$K	Alternative	Base Case (No Project)	Delay Work	Alternative 4	Alternative 5
N/A					
<b>Analysis of Financial Evaluation – Key Assumptions and Key Results:</b>					
Financial Evaluation not required for Sustaining Projects					

Qualitative Factors	For Project Level A or B
The SAP S/4 HANA EAM system will incorporate off-the-shelf cloud functionalities, with a user-friendly interface permitting easy navigation, and ready-to-use integration capabilities with other systems. This system will enable a comprehensive approach to managing assets throughout their lifecycle, aiding proactive maintenance planning and scheduling, supporting compliance with regulatory standards, and meeting business and staffing requirements. This system is designed to adjust and scale according to changing business needs and to maintain robust data continuity, ensuring it remains an effective solution for OPG in the long run.	

Post Implementation Review (PIR) Plan (refer to OPG-GUID-00120-0007)	
Is PIR Required?	Yes
PIR Completion Date	2032-09-30

**Business Case Summary**

PIR KPI's	Current Baseline	Target Result	How to Measure?	Who will measure?
EAM processes	Greenfield implementation	Support the development and enhancement of asset management processes	Assess asset and work management functionalities	DNNP Project Sponsor
Reliability and uptime	Greenfield implementation	Improve asset reliability and uptime.	Track system uptime metrics	DNNP Project Sponsor
System efficiency	Greenfield implementation	Long-term application efficiency and continued support	Assess user experience	DNNP Project Sponsor
Sustainability and compatibility	Greenfield implementation	Support future IT strategy for sustainable and compatible solutions.	Assess ease of integration capabilities, upgrades and product support	DT&S Project Sponsor
Staffing requirements	Greenfield implementation	Supporting the business case for reduced SMR staffing levels	Assess and compare SMR FTE count to business case projections	DNNP Project Sponsor

## Business Case Summary

### APPENDICES

#### Appendix A1: Summary of Estimate

Project Number	87188 - NS355 - EAM IMPLEMENTATION						FAC	18500 - CAPITAL - INTANGIBLES		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total	%
0 - Cost Management		82	51	53	54	55			295	0
1 - Project Management		487	295	303	311	312	80	60	1,848	3
2 - Inspection										0
3 - Engineering		■							■	■
4 - Procurement		■	■	■	■	■	■	■	■	■
5 - Construction		■	■	■	■	■			■	■
6 - Commissioning										0
Closeout						■			■	■
Subtotal		■	■	■	■	■	■	■	■	■
Outside WBS										0
Contingency		■	■	■	■	■	■	■	■	■
Subtotal w/ Contingency		■	■	■	■	■	■	■	■	■
Interest		■	■	■	■	■	■	■	■	■
Other										0
Total		10,658	8,344	11,481	10,835	10,165	7,842	6,380	65,705	100
Removal Costs (incl. above)										0

Project Number	87189 - NS355 - EAM IMPLEMENTATION						FAC	62030 - OM&A - PROJECT		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total	%
0 - Cost Management										0
1 - Project Management	112								112	3
2 - Inspection										0
3 - Engineering		■							■	■
4 - Procurement										0
5 - Construction										0
6 - Commissioning		■	■	■	■	■			■	■
Closeout										0
Subtotal		■	■	■	■	■			■	■
Outside WBS										0
Contingency		■	■	■	■	■			■	■
Subtotal w/ Contingency		■	■	■	■	■			■	■

## Business Case Summary

Interest										0
Other										0
Total	588	650	650	650	650	650			3,838	100
Removal Costs (incl. above)										0

### Appendix A2: Summary of Estimate – Notes

<b>Escalation Rate</b>	<b>3.50</b>	<b>Interest Rate (going-forward)</b>	<b>4.67</b>
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### Appendix A3: Summary of Estimate - In-Service Estimates

<b>\$K</b>	Only applicable to capital projects. In-Service amount shall include interest but exclude removal costs.			
<b>Project#</b>	<b>Date</b>	<b>Description</b>	<b>Amount</b>	<b>%</b>
NS355	2030-09-30	Partial REIS	50,767	91.0
NS355	2031-09-30	Full REIS	5,268	9.0
<b>Total:</b>			<b>56,035</b>	<b>100</b>

Prepared by		Reviewed and Endorsed by (Execution Authority)	
Daniella Florio Senior IT Leader/Advisor Nuclear & Engineering Products	2025-03-11	Viktoras Borodinas Project Director Strategic Project Delivery 2	2025-03-11

Total Project Estimate Variance Explanation
Not applicable

## Business Case Summary

<b>Project #</b>	CO034	<b>BCS Document Number</b>	COR-BCS-000000-1633366
<b>Project Title</b>	83746 - INTEGRATED HR SERVICE DELIVERY CO034CAP 84959 - INTEGRATED HR SERVICE DELIVERY CO034OMA		
<b>Facility</b>	COR - OPG CORPORATE	<b>Investment Classification</b>	Sustaining
<b>Project Level (Scalability)</b>	B	<b>Financial Classification</b>	18500 - CAPITAL - INTANGIBLES 62030 - OM&A - PROJECT
<b>Release: Gate and Project Phase</b>	G3 - Execution - (Full)	<b>Target Project Completion Date</b>	2026-Jun-30
<b>Estimate Class (Current Request)</b>	Class 3	<b>Estimate Class (Overall Project)</b>	Class 3

Recommendation	
<p>We recommend a release of \$20,707 K [of which \$19,255 K is Capital including ██████████ of contingency and \$1,452 K of OM&amp;A with ██████████ of contingency]. This will bring the total released-to-date to \$57,386K including ██████████ contingency, which includes \$52,726 K Capital (incl. ██████████ contingency) and \$4,660 K OM&amp;A (incl. ██████████ contingency).</p> <p>The estimated total project cost is \$57,386K including ██████████ contingency, which includes \$52,726 K Capital (incl. ██████████ contingency) and \$4,660 K OM&amp;A (incl. ██████████ contingency).</p> <p>The objective of the project is to upgrade the Human Resources and Payroll Administration systems to the SAP Success Factors Employee Central solution.</p> <p>This release will support the execution phase work to complete the build, test and deploy the solution into production.</p>	

Investment Cash Flows									
Project Number	83746 - INTEGRATED HR SERVICE DELIVERY CO034CAP					FAC	18500 - CAPITAL - INTANGIBLES		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total
Previous releases	25,369	8,102							33,471
Currently Requested	0	18,943	312						19,255
Total released to date	25,369	27,045	312						52,726
Future required	0								0
Total Project Cost	25,369	27,045	312						52,726
Ongoing Costs	0								0

<b>Project Number</b>	84959 - INTEGRATED HR SERVICE DELIVERY CO034OMA	<b>FAC</b>	62030 - OM&A - PROJECT
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**Business Case Summary**

\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total
Previous releases	2,878	330							3,208
Currently Requested		1,418	34						1,452
Total released to date	2,878	1,748	34						4,660
Future required									
Total Project Cost	2,878	1,748	34						4,660
Ongoing Costs		264	1,179	1,179	1,178	1,178	1,178		6,156

<b>Total OAR Approval</b>	57,386.0
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Approvals	Signatures	Date
The recommendation, including the identified ongoing costs, if any, represents the best option to meet the validated business need.		
<b>Recommended by: Direct Report of Line Approver : Cynthia Domjancic SVP HR &amp; Chief Ethics Officer SVP Human Resources</b>	Cynthia Domjancic	2025-04-30
I concur with the business decision as documented in this BCS.		
<b>Finance Approval : Alec Cheng SVP Chief Controller &amp; Acctng Offcr</b>	Alec Cheng	2025-05-01
I confirm that this investment/project, including the identified ongoing costs, if any, will address the business need, is of sufficient priority to proceed, and provides value for money.		
<b>Line Approval per OAR : OAR Element : 1.1 Aida Cipolla CFO &amp; Corporate Services Officer</b>	Aida Cipolla	2025-05-09

**EXECUTIVE SUMMARY – Project Overview**

The Human Resources and Payroll Administration functionality currently resides on SAP Enterprise Resource Planning (ERP) Central Component, which is the current on-premises solution. This legacy technology is reaching the end of life by 2027. No new features are being developed, and the vendor will stop supporting this technology by 2030. This sustaining project aims to address technology obsolescence, streamline business processes and provide improved HR employee administration functionality aligned with industry leading practice.

While the project scope and objectives remain the same as the previous release, the approach has changed to engage an experienced System Integration partner to bring vendor agnostic product knowledge, best practices and critical resources with expertise in data migration, testing and business support. This approach will bring expertise that facilitates the successful deployment, optimization and support of the solution, maximizing the return on investment and driving organizational efficiency. Engaging a System Integration partner with vendor-agnostic expertise ensures impartial guidance throughout the implementation journey. While the ERP Software is a robust solution, it's essential to align its capabilities with OPG's specific needs and existing technology landscape. This enables the System Integration partner to offer unbiased recommendations, optimize system configurations, and facilitate seamless integrations with existing systems, which will mitigate key risks to the project.

Implementing an ERP Software solution of this magnitude requires a multidisciplinary team with expertise in HR processes, system configuration, data migration, change management, and user training. However, assembling and managing such a team internally can strain resources and distract from core business activities. By engaging a System Integration partner, OPG can access a dedicated team of professionals with specialized skills and experience in ERP Software implementations.

The ongoing OM&A costs of \$6,156K include annual SAP license fees. The prepaid portion of the project will be amortized through base OM&A once the project goes into service. It will be amortized until end of the contract + 2 year renewal on March 30, 2030 (i.e. 5 years) and is estimated to total \$48,726K.

The capital project 83746 is a prepaid asset as this SAP contract is a cloud computing arrangement under US GAAP. Unlike a typical intangible asset which is amortized through depreciation expense, prepaid assets are amortized through base OM&A. Since prepaids are assets, it goes into service as any other intangible asset would. The only nuance is that prepaid assets do not earn interest, therefore there is no interest rate included in Appendix A3.

#### PREVIOUS RELEASE

The previous release supported the onboarding of the System Integration partner to enhance and support Project Management, Solution Design, Implementation, Data Migration, Reporting, Testing, Hypercare, and Organizational Change Management. Furthermore, the previous phase supported the completion of design phase activities.

#### CURRENT RELEASE

This final release will support completion of build, test and deploy and hypercare work, including

- build of interfaces, reports, along with final Employee Central/SuccessFactors (EC/SF) configuration
- build of the onboarding process utilizing both ServiceNow and EC/SF
- plan and execute various stages of testing including System Integration Testing (SIT), User Acceptance Testing (UAT), Service Rehearsal Testing (SRT), and Pay Parallel Testing
- training development and training delivery
- deployment and cutover activities required to go-live with new solution
- post-production support and hyper-care
- project management and oversight

#### Key Risks:

- One potential risk to the project is integrating SAP Success Factors Employee Central (EC) with existing OPG systems and platforms. Poorly managed integrations could lead to data inconsistencies, system disruptions, and reduced efficiency in HR processes. This will be mitigated by conducting thorough assessments of existing systems and data structures to identify potential integration points and dependencies and implementing phased integration approaches to minimize disruptions and allow for iterative testing and refinement.
- Data migration poses a risk to the project, as transferring large volumes of data from legacy systems to SAP Success Factors Employee Central can be complex and error prone. Inaccurate or incomplete data migration could lead to data quality issues, compliance violations, and operational inefficiencies. This will be mitigated by conducting thorough testing and validation of migrated data to identify and resolve any discrepancies or anomalies before going live.

**Business Case Summary**

OPG leverages SAP technical platform to host HR and Payroll functionality. SAP ERP Central Component (ECC) is the on premise, legacy technical solution currently hosting HR and Payroll functionality. SAP Success Factors Employee Central (EC) is the modern cloud platform currently hosting the HR Talent modules.

SAP ECC is legacy technology and is scheduled to sunset in 2027, when regular software maintenance will cease, and only costly extended maintenance will be available until 2030. SAP has already stopped the development of functional features for this product which forces the implementation of manual workarounds and costly customizations to support ongoing business and to maintain a hybrid landscape. This project is upgrading the remaining HR and Payroll processes which reside on the SAP ECC legacy environment to the SAP Success Factors Employee Central cloud solution.

Through this upgrade, this project is addressing the technical constraints as well leveraging updated technology to support streamline business processes and improve their alignment with leading practice in Human Resources processes and functionality.

**Preferred Alternative:**

For Project Level A, B or C

**Description of Preferred Alternative**

OPG leverages SAP technical platform to host HR and Payroll functionality. SAP Employee Central (ECC) is the on premise, legacy technical solution currently hosting HR and Payroll functionality. SAP Success Factors Employee Central is the modern cloud platform currently hosting the HR Talent modules including Recruitment, Performance and Goals, Learning Management, Succession Planning, Workforce Analytics, and Compensation and Variable Pay.

SAP ECC is legacy technology and is scheduled to sunset in 2027, when regular software maintenance will cease, and only costly extended maintenance will be available until 2030. SAP has already stopped the development of functional features for this product which forces the implementation of manual workarounds and costly customizations to support ongoing business and to maintain a hybrid landscape. This project is upgrading the remaining HR and Payroll processes which reside on the SAP ECC legacy environment to the SAP Success Factors Employee Central cloud solution.

Through this upgrade, this project is addressing the technical constraints as well leveraging updated technology to support streamline business processes and improve their alignment with leading practice Human Resources processes and functionality.

Based on the SAP roadmap assessment performed, it is recommended that the HR and Payroll processes and functionality be upgraded to the Success Factors Employee Central cloud solution, a software as a service (SaaS) solution.

OPG HR and Payroll functionality is being hosted on SAP hybrid technology platforms, both on the legacy on-premises and the cloud SaaS (Software as a Service). This upgrade will enable OPG to be on a standard, current and updated platform as well as provide improved integration with already cloud hosted HR functionality (Talent modules).

This release will further review solution and recommendations of the program roadmap with the objective to investigate in depth the current state to ensure that the detailed scope is identified. During this exercise it is expected that the scope will be solidified as new or updated requirements may be identified and consolidated in the recommended architectural, technical and business solution.

**Deliverables:**

## Business Case Summary

<i>Previous Release:</i>			
<i>Deliverable Type</i>	<i>Milestones</i>	<i>Associated Milestones (if any):</i>	<i>Target Date</i>
Project Charter Approved	Project Charter Approved		2022-05-13
Project Roadmap			2022-12-22
BCS for Gate 1 approved	Gate G1 Approval		2023-02-28
Kick off meeting		End of initiation phase	2023-02-28
Project plans		End of Planning Phase	2023-09-29
BCS - Gate 2 Approved	Gate G2 Approval		2024-04-16
EC Payroll - Requirements IT 1 - Complete	Design Requirement Complete		2024-08-31
Overall Testing Strategy	Testing Strategy Approved – Milestone type “TSA”		2024-09-30
Requirements for EC, ECB, Retro - Complete - IT 3	Design Requirement Complete		2024-09-30
ECP Requirements IT 2 - Complete	Design Requirement Complete		2024-09-30
Overall Design - Complete	Detailed Design Complete		2024-10-30
EAD	Detailed Design Complete		2024-10-30
Training Strategy	Training Strategy Approved – Milestone type “TRA”		2025-03-31
Execution Business Case - Full	Gate G3 Approval	Readiness to start the execution phase	2025-04-15
<i>Current Release:</i>			
<i>Deliverable Type</i>	<i>Milestones</i>	<i>Associated Milestones (if any):</i>	<i>Target Date</i>
SIT Testing Complete			2025-07-07
UAT Test Complete			2025-08-22
Partial In-Service	Available for Service and/or Ready For Service Completed		2025-09-30
Partial REIS	Report of Equipment in Service		2025-11-17
Full In-Service	Available for Service and/or Ready For Service Completed		2026-03-31
Final REIS	Report of Equipment in Service		2026-04-30
Project Close-Out	EC Close-out Completed		2026-06-30
Post Implementation Review	Post Implementation Review		2026-12-31
<i>Future Release: N/A</i>			

<b>Alternative 2:</b>	<b>Base Case - No Project</b>	For Project Level A, B or Value-Enhancing
<p>SAP ECC is legacy technology and is set to sunset in 2027, when regular software maintenance will cease, and only costly extended maintenance will be available until 2030. SAP has already stopped the development of functional product features. The existing technology does not support the ongoing needs of the business as new and developing business requirements which would require manual workarounds and costly customizations to implement and integrate into the hybrid landscape. Upgrading to a sustainable and current platform enables dynamic updates, on a supported and integrated ecosystem with a product that is aligned with industry standards.</p>		
<b>Alternative 3:</b>	<b>Delay Work</b>	For Project Level A, B or Value-Enhancing

## Business Case Summary

Delaying the work is not recommended as per reasons listed below:

1. Re-platforming HR processes require extensive and detailed planning to ensure effective and smooth transition to the new environment. At the time the project was initiated ,the proposed project timing ensured that OPG was supported and ready for OPG 2025.
2. Increasing operational and support risks as the existing product's functionality is not being enhanced by the vendor forcing the implementation of manual process work arounds and costly custom solutions.

<b>Alternative 4:</b>	<b>Upgrade SAP ECC on premise to SAP S4/Hanna on premise solution</b>	For Project Level A, B
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The upgrade of the SAP ECC on premise solution to SAP S4/Hana on premise is Not Recommended as SAP has communicated that S4/Hanna is not being enhanced with HR functionality.

Key Risk Assessment			For Project Level A, B or C
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Risk Class	Description of Risk	Response Type / Actions / Final TCD	Residual Ranking
Technical	Onboarding (ServiceHub) may not meet the rest of EC Project Timelines to complete build, test, and deploy.	Mitigate - Leveraging SI background from the EC process design and targeted scoping sessions with the ServiceNow Team.  - Build proof of concept to finalize solution and scope viability for go-live.  - Build work on viable scope will operate outside timeline of rest of project and converge at System Integration Testing. 6/2/2025	Medium
Technical	There is a potential risk that key activities, such as testing, may not receive full support from Line of Business (LoB) Subject Matter Experts (SMEs) due to capacity constraints and competing priorities. This could impact the project timeline and/or quality.	Mitigate - Establish resource plan for testing and other LoB-intensive activities.  - Review the plan with affected leadership to identify any unmet resource demands.  - Explore options to supplement resources, such as utilizing additional testers or other support personnel. 9/30/2025	Low
Project Management	Potential Delays in System Integration Testing (SIT) Due to Data Migration and Build Activities	Mitigate 72351 - Establish clear SIT entry criteria with highlight on high-risk areas 72365 - Weekly meetings to track progress against entry criteria with Project Management team 72366 - Scope lockdown with any new demand undergoing formal scope decision process 6/30/2025	Medium

Financial Evaluation		For Project Level A, B (with multiple feasible alternatives) or Value-Enhancing			
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\$K	Alternative	Base Case (No Project)	Delay Work	Alternative 4	Alternative 5
N/A					

**Analysis of Financial Evaluation – Key Assumptions and Key Results:**

This is not required for a Sustaining project.

**Business Case Summary**

Post Implementation Review (PIR) Plan (refer to OPG-GUID-00120-0007)					
Is PIR Required?		Yes		PIR Completion Date	2026-12-31
PIR KPI's	Current Baseline	Target Result	How to Measure?	Who will measure?	
Implement Employee Central/SuccessFactors (EC/SF)	Current SAP ECC for HR System will be out of vendor support	Cut over to vendor supported SAP Employee Central/SuccessFactors solution	Confirmation from LOB that EC/SF is being used as a replacement for SAP ECC	HR and Shared Services LOB.	
All applicable IT General Controls (ITGC) and ICOFR narratives are in compliance	100% compliance to ITGC and ICOFR narratives	Ensure 100% compliance to applicable ITGC and ICOFR narratives	Evaluation of compliance by Internal Audit team.	Internal Audit	

## Business Case Summary

### APPENDICES

#### Appendix A1: Summary of Estimate

Project Number	83746 - INTEGRATED HR SERVICE DELIVERY CO034CAP						FAC	18500 - CAPITAL - INTANGIBLES		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total	%
0 - Cost Management	161	75							236	0
1 - Project Management	2,027	1,816	77						3,920	7
2 - Inspection										
3 - Engineering										
4 - Procurement										
5 - Construction										
6 - Commissioning										
Closeout										
Subtotal										
Outside WBS										
Contingency										
Subtotal w/ Contingency										
Interest										
Other										
Total	25,369	27,045	312						52,726	100
Removal Costs (incl. above)										0

Project Number	84959 - INTEGRATED HR SERVICE DELIVERY CO034OMA						FAC	62030 - OM&A - PROJECT		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total	%
0 - Cost Management	93	114							207	4
1 - Project Management	352								352	8
2 - Inspection										
3 - Engineering										
4 - Procurement										
5 - Construction										
6 - Commissioning										
Closeout										
Subtotal										
Outside WBS										
Contingency										

**Business Case Summary**

Subtotal w/ Contingency										
Interest										
Other										
Total	2,878	1,748	34						4,660	100
Removal Costs (incl. above)										0

**Appendix A2: Summary of Estimate – Notes**

<b>Escalation Rate</b>	<b>2.50</b>	<b>Interest Rate (going-forward)</b>	<b>0.00</b>
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**Appendix A3: Summary of Estimate - In-Service Estimates**

<b>\$K</b>	Only applicable to capital projects. In-Service amount shall include interest but exclude removal costs.			
<b>Project#</b>	<b>Date</b>	<b>Description</b>	<b>Amount</b>	<b>%</b>
CO034	2025-11-15	Partial-In Service. Based on Gate-3 projection	46,289	95.0
CO034	2026-04-30	Full-In Service	2,437	5.0
<b>Total:</b>			<b>48,726</b>	<b>100</b>

<b>Prepared by</b>		<b>Reviewed and Endorsed by (Execution Authority)</b>	
Jesse Migliaro Project Director Strategic Project Delivery	2025-04-28	Ranjika Manamperi Chief Information Officer Corporate and Technology Services	2025-04-29

## Business Case Summary

<b>Project #</b>	FI068	<b>BCS Document Number</b>	COR-BCS-000000-1689114
<b>Project Title</b>	89273 - ERP FINANCE SOLUTION IMPLEMENTATION(CAP) 89274 - ERP FINANCE SOLUTION IMPLEMENTATION(OMA)		
<b>Facility</b>	COR - OPG CORPORATE	<b>Investment Classification</b>	Sustaining
<b>Project Level (Scalability)</b>	B	<b>Financial Classification</b>	18500 - CAPITAL - INTANGIBLES 62030 - OM&A - PROJECT
<b>Release: Gate and Project Phase</b>	G1 - Development Phase - (Full)	<b>Target Project Completion Date</b>	2031-Dec-15
<b>Estimate Class (Current Request)</b>	Class 3	<b>Estimate Class (Overall Project)</b>	Class 5

**Recommendation**

We recommend a release of \$21,362K in Capital including ██████ of contingency. This will bring the total project released-to-date to \$26,062K(CAP:21,362K & OM&A: 4,700) including ██████ Contingency, which includes Contingency ██████ of Capital and ██████ OM&A.

The estimated total project cost range is to be determined prior to Gate 2 approval to proceed to the Definition phase. The project will implement a SAP S/4 HANA system replacing the current Finance landscape of SAP Central Component (ECC) 6.0 and SAP Central Component (ECC) Business Warehouse (BW) to support the Core Finance business capabilities. The objective of this release is to allocate funds for the development phase to conduct design workshops and deliver design deliverables to support the build of the comprehensive SAP S/4 HANA ERP (Enterprise Resource Planning) Finance solution.

**Investment Cash Flows**

Project Number	89273 - ERP FINANCE SOLUTION IMPLEMENTATION (CAP)					FAC	18500 - CAPITAL - INTANGIBLES		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total
Previous releases	0								0
Currently Requested	0	10,197	11,165						21,362
Total released to date	0	10,197	11,165						21,362
Future required	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Total Project Cost	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Ongoing Costs	0								0

Project Number	89274 - ERP FINANCE SOLUTION IMPLEMENTATION (OMA)					FAC	62030 - OM&A - PROJECT		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total
Previous releases	1,586	3,094	20						4,700
Currently Requested									
Total released to date	1,586	3,094	20						4,700
Future required	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Total Project Cost	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Ongoing Costs									

<b>Total OAR Approval</b>	26,062.0
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**Business Case Summary**

Approvals	Signatures	Date
The recommendation, including the identified ongoing costs, if any, represents the best option to meet the validated business need.		
<b>Recommended by: Direct Report of Line Approver : Hamza Mahmood Dir Enterprise Architecture &amp; Strat Enterprise Architecture</b>	Mahmood,Hamza,H	2025-08-26
I concur with the business decision as documented in this BCS.		
<b>Finance Approval : Anthony Melaragno VP Business Planning &amp; Reporting</b>		
I confirm that this investment/project, including the identified ongoing costs, if any, will address the business need, is of sufficient priority to proceed, and provides value for money.		
<b>Line Approval per OAR : OAR Element : 1.1 Ranjika Manamperi Chief Information Officer</b>		

<b>EXECUTIVE SUMMARY – Project Overview</b>
<p>Currently, financial operations at OPG are supported by an on-premise, highly customized SAP system that manages activities such as business planning, reporting, consolidation, and financial performance analysis. However, this system is approaching the end of its lifecycle, with official support scheduled to end in 2027. This sustaining project will be the first phase of the technology transformation due to the obsolescence of the current platform, mitigating the risk of an unsupported, unsecure system with significant system patchwork and maintenance. The End of Life (EOL) status of current SAP ECC 6.0 implies loss of support, security updates, and connectivity with new technologies. Consequently, the system becomes more prone to outages, failures, and security risks. Without ongoing support, OPG may struggle to meet industry standards and regulatory requirements. The likelihood and severity of the risk to continued operational reliability makes this option not viable given SAP ECC 6.0's support cessation beyond 2027. The transition to the cloud Finance ERP platform will also result in several significant improvements from the current on-premise system, including streamlined data models and to provide system flexibility to support OPG's increasingly complex operations and projects. The user experience will also improve with a modern interface and unified financial data structures, offering new capabilities that support better informed decision-making across the Finance function. The Finance organization's goal is to enable OPG's decision agility. The primary business objective of the project is to adopt a new finance system with limited customization utilizing the capability of the system that can adapt to Finance's and OPG's changing business in a changing electricity sector.</p> <p>From the previous release, the project has completed scope, working on identifying the right system integrator and understanding current landscape challenges.</p> <p>The purpose of this current release is to fund:</p> <ol style="list-style-type: none"> <li>1. Year 1 SAP S/4 HANA licensing</li> <li>2. SAP SI Award to Contract activities and Onboarding</li> <li>3. Design of Core SAP and Associated integrations</li> </ol> <p>Future Gate releases are expected to include the funding of SAP S/4 HANA licensing from 2026 to 2027 and configuration, build, testing, training and deployment of Project objectives with development of future Gate estimates and schedules.</p>

<b>Business Need</b>	For Project Level A or B
<p>The following are the problems and areas of opportunity that will be addressed by this project:</p> <ol style="list-style-type: none"> <li>1. Mitigating the risk of technology obsolescence (no new features are being developed) and end of vendor support (e.g. SAP ECC is being deprecated by 2027)</li> <li>2. Finance Goals: <ul style="list-style-type: none"> <li>- Timely availability of financial data for decision-making that promotes organizational agility and higher level of complexity due to growth</li> <li>- Quality insight, analysis, and decision support provided to business leaders by Finance teams</li> <li>- Dynamic processes that will continuously evolve to sustain data agility and integrity in a changing market</li> <li>- Improved Finance employee &amp; client experience</li> </ul> </li> </ol>	

<b>Preferred Alternative:</b>	For Project Level A, B or C

## Business Case Summary

### Description of Preferred Alternative

The current ERP Ecosystem is at its end-of-life, and the associated business processes needs to be optimized based on best practice to meet business objectives to promote data integration, business agility and decision making. The preferred alternative is to deliver a SAP S/4HANA Enterprise Resource Planning (ERP) solution which optimizes Finance processes and services in line with industry best practice and digitizes them with a modern technology solution, to ensure business continuity and support OPG's growth trajectory.

### Deliverables:

#### Previous Release:

Deliverable Type	Milestones	Associated Milestones (if any):	Target Date
Project Charter	Project Charter Approved		2025-07-09

#### Current Release:

Deliverable Type	Milestones	Associated Milestones (if any):	Target Date
Gate 1 Approval	Gate G1 Approval		2025-08-05
System Integrator contracting completed and PO raised	Award Contracts / PO Issued		2025-08-29

#### Future Release:

Deliverable Type	Milestones	Associated Milestones (if any):	Target Date
Gate G2 Approval	Gate G2 Approval		2026-03-31
Testing Strategy Approved	Testing Strategy Approved – Milestone type "TSA"		2026-05-29
Training Strategy Approved	Training Strategy Approved – Milestone type "TRA"		2026-05-29
Gate G3 Approval	Gate G3 Approval		2026-12-08
UAT - User Acceptance Testing	UAT - User Acceptance Testing		2027-05-10
Available for Service and/or Ready For Service Completed	Available for Service and/or Ready For Service Completed		2028-01-10
Post Implementation 1 Review Completed	Post Implementation Review		2028-11-30
System available for service	Available for Service and/or Ready For Service Completed		2031-07-10
Project Close Out Completed	Project Close Out Completed		2031-09-26
Post Implementation Review	Post Implementation Review		2031-10-30

### Alternative 2:

#### Base Case - No Project

For Project Level A, B or Value-Enhancing

A "No Project" alternative is not acceptable. The End of Life (EOL) status of current SAP ECC 6.0 implies loss of support, security updates, and connectivity with new technologies. Consequently, the system becomes more prone to outages, failures, and security risks. Without ongoing support, OPG may struggle to meet industry standards and regulatory requirements. The likelihood and severity of the risk to continued operational reliability makes this option not viable given SAP ECC 6.0's support cessation beyond 2027.

### Alternative 3:

#### Delay Work

For Project Level A, B or Value-Enhancing

Choosing to delay is not a viable option. With SAP ECC 6.0 reaching End of Life (EOL), continued use will result in the loss of vendor support, security updates, and compatibility with emerging technologies. This exposes the system to increased risks of outages, failures, and security vulnerabilities. Without ongoing support, OPG may also face challenges in maintaining industry standards and regulatory compliance. Given that SAP ECC 6.0 support will end after 2027, the heightened risk to operational reliability makes postponement unacceptable.

## Business Case Summary

<b>Alternative 4:</b>	N/A	For Project Level A, B
None		

Key Risk Assessment			For Project Level A, B or C
Risk Class	Description of Risk	Response Type / Actions / Final TCD	Residual Ranking
Technical	Security compliance and data repository requirements	Mitigate 74824 - Collaborate with finance and security 12/31/2025	Low
Stakeholder/Reputational	Engagement of key stakeholders and end users	Mitigate 74942 - Organizational Change Management strategy alignment 11/28/2025	Low
Technical	Limited details on Data Sources and Reports	Mitigate 74938 - Project team actively working to identify data sources and reports generated 12/26/2025	Low
Resources	Finance SME(s) availability	Mitigate 74939 - Management and alignment of SME(s) availability 11/27/2026	Low
Technical	ERP Implementation Risk from deviating from best practice	Mitigate 74940 - Architecture design for S/4 HANA integration 10/31/2025	Low
Licensing & Regulatory	Internal regulatory control requirements	Mitigate 74941 - Finance and development team alignment 12/26/2025	Low

<b>Additional Risk Analysis</b>	For Project Level A or B
Risks are registered in the online risk tool. Risk analysis was performed and contingency recommendations considered in the estimate.	

Financial Evaluation		For Project Level A, B (with multiple feasible alternatives) or Value-Enhancing			
\$K	Alternative	Base Case (No Project)	Delay Work	Alternative 4	Alternative 5
N/A					
<b>Analysis of Financial Evaluation – Key Assumptions and Key Results:</b>					
Financial Evaluation not applicable as this is a sustaining project					

<b>Qualitative Factors</b>	For Project Level A or B
<p>Execution of the preferred alternative will result in the following qualitative benefits:</p> <ul style="list-style-type: none"> <li>• Ensure long-term reliability and continued availability of core Finance technology system</li> <li>• Reduce risk of system outages and failures</li> <li>• Implement future looking processes catered to Finance and OPG's strategic outlook</li> </ul>	

**Business Case Summary**

<b>Post Implementation Review (PIR) Plan</b> (refer to OPG-GUID-00120-0007)					
<b>Is PIR Required?</b>	Yes			<b>PIR Completion Date</b>	2032-12-15
<b>PIR KPI's</b>	<b>Current Baseline</b>	<b>Target Result</b>	<b>How to Measure?</b>	<b>Who will measure?</b>	
To be Determined					

**Business Case Summary**

**APPENDICES**

**Appendix A1: Summary of Estimate**

Project Number	89273 - ERP FINANCE SOLUTION IMPLEMENTATION (CAP)						FAC	18500 - CAPITAL - INTANGIBLES												
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total	%										
0 - Cost Management										0										
1 - Project Management		535	259						794	4										
2 - Inspection																				
3 - Engineering																				
4 - Procurement																				
5 - Construction																				
6 - Commissioning																				
Closeout																				
Subtotal																				
Outside WBS																				
Contingency																				
Subtotal w/ Contingency																				
Interest																				
Other																				
<b>Total</b>												10,197	11,165						21,362	100
Removal Costs (incl. above)																				0

Project Number	89274 - ERP FINANCE SOLUTION IMPLEMENTATION (OMA)						FAC	62030 - OM&A - PROJECT		
\$K	LT YE last year	2025	2026	2027	2028	2029	2030	Future	Total	%
0 - Cost Management										0
1 - Project Management	242	390	20						652	14
2 - Inspection										
3 - Engineering										
4 - Procurement										
5 - Construction										
6 - Commissioning										
Closeout										
Subtotal										
Outside WBS										
Contingency										

\*Associated with OPG-STD-0076, Developing And Documenting Business Cases

## Business Case Summary

Subtotal w/ Contingency	[REDACTED]									
Interest	[REDACTED]									
Other	[REDACTED]									
Total	1,586	3,094	20						4,700	100
Removal Costs (incl. above)										0

### Appendix A2: Summary of Estimate – Notes

<b>Escalation Rate</b>	<b>2.50</b>	<b>Interest Rate (going-forward)</b>	<b>4.08</b>
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### Appendix A3: Summary of Estimate - In-Service Estimates

<b>\$K</b>	Only applicable to capital projects. In-Service amount shall include interest but exclude removal costs.			
<b>Project#</b>	<b>Date</b>	<b>Description</b>	<b>Amount</b>	<b>%</b>
N/A				
<b>Total:</b>				

Prepared by		Reviewed and Endorsed by (Execution Authority)	
Thapasya Nair Contract - Technical Specialist / MP 5-6 Enterprise Architecture	2025-08-06	Hamza Mahmood Dir Enterprise Architecture & Strat Enterprise Architecture & Strategy	2025-08-08

<b>Doc Number</b>	RE-BCS-00120.03-1049370	<b>Initiative Title</b>	New Corporate Head Office
<b>Financial Classification</b>	17662 - Administration and Ser. Buildings	<b>Investment Classification</b>	Value Enhancing
<b>Estimate Type</b>	Anticipated Market Value	<b>Target Purchase Date</b>	January 31, 2023

<b>Recommendation</b>
<b>We recommend a release of \$120 M.</b>
<b>The total purchase cost and associated closing costs are estimated to be approximately \$120 M.</b>
This release will fund the following scopes of work:
Purchase of the freestanding office building of approximately 284,524 square feet, as well as approximately 55 acres of designated industrial land located at 1908 Colonel Sam Drive, Oshawa for development as OPG's new corporate head office. The total property size is approximately 74 acres.

Investment Cash Flows									
<b>Initiative Title</b>	New Corporate Head Office					<b>FAC</b>	17662 - Administration and Ser. Buildings		
<b>\$K</b>	<b>LTD</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>Future</b>	<b>Total</b>
<b>Previous releases</b>									
<b>Currently Requested</b>		120,000							120,000
<b>Total released to date</b>									
<b>Future required</b>									
<b>Total Cost</b>		120,000							120,000
<b>Ongoing Costs</b>									

<b>Total OAR Approval</b>	120,000
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Approvals	Signatures	Date
The recommendation, including the identified ongoing costs, if any, represents the best option to meet the validated business need.		
<b>Recommended by: Sponsor</b> Connie Hergert VP Real Estate Corporate Real Estate		December 9, 2022
I concur with the business decision as documented in this BCS.		
<b>Finance Approval:</b> Alec Cheng VP Chief Controller and Accounting Officer		December 9, 2022
I confirm that this investment, including the identified ongoing costs, if any, will address the business need, is of sufficient priority to proceed and provides value for money.		
<b>Line Approval per OAR:</b> OAR Element : 9.1 Ken Hartwick President & CEO		10-Jan-2023

**EXECUTIVE SUMMARY – Initiative Overview**

**Business Need / Objective:**

OPG is currently leasing a large number of properties throughout the GTA, Durham and Niagara, and there is an opportunity to reduce on-going leasing and building maintenance costs, and leverage the changing workspace requirements, by transforming OPG’s real estate footprint in alignment with long term workforce needs.

**Summary of Preferred Alternative:**

The preferred alternative is to purchase the freestanding office building of approximately 284,524 square feet, as well as the associated designated industrial land of approximately 55 acres, located at 1908 Colonel Sam Drive, Oshawa, currently on sale on the market as one offering, for developing into OPG’s new corporate head office. The total property size is approximately 74 acres. The freestanding office building, currently owned by General Motors (“GM”), will be renovated into OPG’s new corporate head office to accommodate approximately 2,200 employees based on OPG’s current business plan projections.

The benefits of this new corporate head office include:

- A reduction in OPG’s overall real estate operating and maintenance costs over the next 40 years by transitioning away from an office leasing strategy and reducing the number of work locations (e.g., lower intra-site travel costs).
- The creation of a corporate head office will facilitate increased collaboration and enhance the One OPG cultural mindset.
- The purchase reflects our long-term commitment to the local community and stakeholders, in line with our social license business imperative.
- The building will function as OPG’s new corporate head office, and support OPG’s public image in alignment with our vision and mission.

The funding release for the renovation work will be managed through a separate Business Case Summary as per OPG’s project management governance.

**Key Risks:**

- OPG and GM may not be able to agree on purchase terms for the new building and adjoining lands.

**Business Need**

OPG is currently leasing a large number of properties throughout the GTA, Durham and Niagara. There is an opportunity for OPG to reduce ongoing leasing and building maintenance costs, and leverage the changing workspace requirements, by purchasing an existing building and consolidating OPG’s workspace needs into a new corporate head office building in Oshawa.

**Issue Background:**

A corporate head office structure is recognized as a strategic asset to strengthen employees’ sense of corporate identity and encourages a collaborative and innovative culture. Additionally, consolidation of workspace through the purchase of a corporate head office building allows OPG to optimize our real estate footprint and reduce costs. Consolidation will require the release / termination of current real estate interests over the next 5-10 years, coordinated with the purchase of an office building and renovation into a new corporate head office building.

The new corporate head office building will be in Oshawa, in close proximity to the Darlington Energy Complex, the Darlington Nuclear Generating Station and the site of the Darlington New Nuclear Project. Based on current staffing forecasts, the corporate head office building will be developed and renovated to accommodate a total of approximately 2,200 employees.

**Key Assumptions:**

- Certain training facilities and specialized lab / testing equipment will not be located in the new corporate head office building.
- OPG will own and renovate the new corporate head office building.
- The new corporate head office building will utilize an agile / free address work space arrangement.

**Initiative Constraints:**

- The purchase is fixed in one offer to include both the new corporate head office building and the additional 55 acres of designated industrial land.

<b>Preferred Alternative:</b>	<b>Purchase Office Building</b>
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**Description of Preferred Alternative**

The preferred alternative is to purchase the freestanding office building of approximately 284,524 square feet and approximately 55 acres of designated industrial land, currently for sale on the market as one offer, located at 1908 Colonel Sam Drive, Oshawa, for development as OPG’s new corporate head office. The office building will be renovated and operated to accommodate 2,200 employees and will function as OPG’s new corporate head office.

OPG's non-plant based staff are currently spread among different leased office locations around the Greater Toronto Area, Durham and in the region of Niagara. The preferred alternative is to terminate the majority of these occupancies and move all of the employees from these sites to the new corporate head office building. The close proximity of this office building to the DEC and Darlington Generating Station supports OPG's strategic goal of facilitating a more collaborative corporate culture. The financial modeling of this preferred alternative indicates a decrease in on-going operations and maintenance (O&M) costs as compared to the base case. Additionally, the new corporate head office building will leverage modern workplace design through renovation to promote innovation, provide flexibility to handle growth and will incorporate technological solutions to enhance efficiency at work.

The estimated purchase price for the office building, associated lands and closing costs is \$120 M, subject to final purchase negotiations.

The financial evaluation for this purchase indicates a net financial benefit of proceeding with the preferred alternative.

**Pros:**

- The purchase will realize long term real-estate cost savings by moving away from a leasing strategy and reducing the number of work locations (e.g., lower intra-site travel costs).
- Owning the head office building will help insulate OPG from leasing cost volatility / escalation.
- The acquisition of a new corporate head office building will facilitate increased collaboration and further enhance the One OPG cultural mindset.
- The building is located close to the existing DEC and Darlington Generating Station.
- The purchase reflects our long-term commitment to the local community and stakeholders, in line with our social license business imperative.
- The renovated office building will function as OPG's new corporate head office, and support OPG's public image in alignment with our vision and mission.
- Lower cost and schedule risk relative to building a new building in Clarington (Alternative 4)
- The site is presently accessible by public transit.

**Cons:**

- Certain employees may be unwilling to move to the new corporate head office building location.
- Cost and schedule associated with the renovations of the purchased building.

**Key Risk:**

- OPG and GM may not be able to agree on purchase terms for the new building and adjoining lands.

<b>Deliverables:</b>		
<i>Deliverable Type</i>	<i>Associated Milestones (if any):</i>	<i>Target Date</i>
Site Inspection Complete	Site inspection and associated report(s) received	2022-09-30
BCS Approved	BCS approved by the appropriate OAR	2022-12-16
Purchase Negotiations Complete	Agreed-to sale and purchase agreement	2022-12-31
Closing of Purchase	Close of purchase	2023-01-31

<b>Alternative 2:</b>	<b>Base Case – No Purchase and Continue Leasing</b>
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Not proceeding with the building purchase would necessitate continuing with OPG's current leasing strategy, in our applicable current office buildings or new leases. In selecting this alternative, OPG would be foregoing the opportunity of substantial long-term cost savings, as compared to the preferred alternative. Additionally, it would be more difficult to achieve the same cultural identity without a centralized corporate head office and its associated benefits of increased collaboration, engagement and innovation as in the preferred alternative. Overall, this alternative is expected to continue to result in a more fragmented workspace footprint for the company.

**Pros:**

- Less significant up-front investment.
- Less disruption to employees.

**Cons:**

- The long-term cost of leasing is higher than purchasing and renovating an existing office building.
- Leasing costs have escalated as a result of high inflation. There is a risk that a volatile leasing market in the near future could further increase the cost of this alternative.
- Forgone opportunity to capitalize on the many benefits of having most employees physically located in one location (increased

innovation, collaboration, enhancing the One OPG mindset, etc.).

This alternative is **not recommended** due to the long-term costs of on-going leases and the missed opportunity of increased collaboration as a result of being co-located.

<b>Alternative 3:</b>	<b>Defer Purchase</b>
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This purchase is primarily driven by the availability of the freestanding GM office building for sale, forecasted cost savings and positive workplace cultural shifts. Deferring the initiative will forego the opportunity to purchase the office building and associated designated industrial land. In addition, an overall initiative deferral would require extensions of a number of our office leases, which would result in incrementally more costs to OPG.

**Pros:**

- Deferral of capital funds expenditure.

**Cons:**

- Purchase of the GM building will no longer be an option. It is uncertain if and when another building of similar size would present for sale in the same area.
- Additional real estate (leases) costs as compared to the Preferred Alternative.

This alternative is **not recommended**. There are not any substantial benefits from delaying the initiative. Existing leasing agreements would need to be extended, incurring additional costs.

<b>Alternative 4:</b>	<b>Build New Office Building in Clarington</b>
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A new corporate head office building could be constructed adjacent to the existing Darlington Energy Complex with a surface parking lot constructed immediate north of the site across Energy Drive. However, based on early engineering and design work of such construction, the overall project cost would be significantly higher than the cost of the Preferred Alternative. As a result, the Preferred Alternative better allows OPG to maximize potential long-term real-estate cost savings.

**Pros:**

- Closer proximity to the Darlington Energy Complex, resulting in increased opportunities for collaboration.
- Owning the head office building will help insulate OPG from leasing cost volatility / escalation.

**Cons:**

- Increased up-front investment as compared to the preferred alternative.
- The construction industry has experienced substantial cost escalation / inflation and equipment delivery delays due to the on-going COVID-19 pandemic and supply chain challenges. There is a risk that this trend will continue, resulting in higher cost and schedule risk as compared to purchasing an existing facility.
- New building site does not currently have access to public transit.
- Certain employees may be unwilling to move to the new corporate head office building location.

This alternative is **not recommended**. OPG will not maximize long-term real-estate cost savings by proceeding with this alternative.

Key Risk Assessment			
Risk Class	Description of Risk	Response Type / Actions / Final TCD	Residual Ranking
Cost	Post-purchase, the building is discovered to have significant structural concerns requiring immediate and costly repairs.	Mitigate: 1) Hire qualified engineers to perform a condition assessment of the structure to identify any issues of note prior to finalizing negotiations. 2) Any significant deficiencies will be discussion points during negotiations.  <b>TCD: 31/12/2022</b>	Low

Additional Risk Analysis
Not required at this time.

**Analysis of Financial Evaluation – Key Assumptions and Key Results:**

The table below summarizes the Net Present Value (NPV) calculations for the various alternatives:

\$M	Preferred Alternative (purchase GM building)	Base Case (no purchase)	Defer Purchase	Build New Office
<b>Net Present Value</b>	(\$330) + GM Building Renovation Cost	(\$447)	New Purchase Price + Additional Lease Costs Over the Preferred Alternative	(\$473)

In selecting the preferred alternative, OPG expects to realize an improvement in the Net Present Value as compared to the base case. While a specific cost estimate for renovating the new office building will be developed following the purchase, based on previous experience with renovating OPG's 700 University Avenue office, current market trends and a due diligence inspection of the new building, OPG expects the cost of such necessary renovations to be within approximately \$100M on a net present value basis. The funding release for the renovation work will be managed through a separate Business Case Summary as per OPG's project management governance.

The cost of building a new office has increased substantially as a result of escalation and inflationary pressures resulting from the on-going global pandemic and supply chain constraints. It is no longer the financially preferred option.

**Key Assumptions Used for the Financial Evaluation:**

- The Preferred Alternative includes the following office spaces for on-going O&M accounting: the new corporate head office building, Darlington Energy Complex, 1549 Victoria Street, a reduced footprint at 700 University Avenue.
- The Base Case includes the following office spaces for on-going O&M accounting: consolidate to 700 University Avenue (current leased footprint), 889 Brock Road, 800 Kipling Avenue lease or equivalent in the same area, Darlington Energy Complex, 1549 Victoria Street. The forecast lease rates for these locations are considered to be representative of comparable properties.
- 40 year time horizon.
- Office refresh costs have been included for 800 Kipling Avenue / the equivalent office space in the same geographic area, and 889 Brock Road in the base case.
- An estimate of reductions in on-going intra-site travel and other costs, as well as assumed impacts on one-time employee costs, such as household moves, have been included in the financial model.
- Cost of Capital: 3.42%
- Lease escalation rate: 3%

**Qualitative Factors**

The Power with Purpose strategic direction of OPG is to provide low-cost power in a safe, clean, reliable and sustainable manner for the benefit of the customers and shareholder. This initiative aligns with OPG's strategic imperatives as follows:

- **Operational Excellence:** The initiative represents a long-term investment in OPG's workplace that will modernize our facilities and create workplace efficiencies, ultimately reduce on-going O&M costs.
- **Financial Strength:** Investing in the new corporate head office building provides value for our shareholder and customers, as there will be significant savings in long term real estate costs.
- **Social License** Aligns with our continued commitment to the local community, as well as providing sub-contracting opportunities to Indigenous and ED&I businesses.

**Definitions and Acronyms**

BCS	Business Case Summary
ED&I	Equity, Diversity & Inclusion
GM	General Motors
NPV	Net Present Value
O&M	Operations and Maintenance
OPG	Ontario Power Generation Inc.
PIR	Post Implementation Review

TCD	Target Completion Date
<b>APPENDICES</b>	

Appendix A1: Summary of Estimate – Notes			
Escalation Rate	2.00	Interest Rate (going-forward)	3.75

Prepared by:		Reviewed and Endorsed by:	
<b>Matt Sikstrom</b> Project Director RG Projects	<i>Matt Sikstrom</i>	<b>Tami Boulton</b> Director Facilities and Projects Real Estate	<i>Tami Boulton</i>

## Business Case Summary

<b>Project #</b>	87413	<b>BCS Document Number</b>	
<b>Project Title</b>	87413 - CORPORATE HEADQUARTERS RENOVATION		
<b>Facility</b>	COR - OPG CORPORATE	<b>Investment Classification</b>	Value Enhancing
<b>Project Level (Scalability)</b>	B	<b>Financial Classification</b>	17662 - CAPITAL - SERVICES BLDGS & FACILITIES
<b>Release: Gate and Project Phase</b>	G3 - Execution - (Full)	<b>Target Project Completion Date</b>	2025-Dec-31
<b>Estimate Class (Current Request)</b>	Class 3	<b>Estimate Class (Overall Project)</b>	Class 3

Recommendation	
<p>We recommend a release of \$124,297K, including \$20,600K of contingency. The current released-to-date amount is \$22,228K bringing the total requested-to-date amount including interest and contingency to \$146,525K.</p> <p>The estimated total project cost is \$146,525K including \$22,700K of contingency.</p> <p>This release is to complete the following execution and closeout activities of the building at 1908 Colonel Sam Drive, Oshawa:</p> <ol style="list-style-type: none"> <li>1. Project Management through execution</li> <li>2. Engineering contract administration and acceptance through the execution</li> <li>3. Vendor and OPG procurement including mechanical and electrical equipment, furniture and Audio-Visual equipment</li> <li>4. Renovation as per Detailed Design</li> <li>5. Commissioning and User Acceptance</li> <li>6. Close out costs</li> </ol>	

Investment Cash Flows										
Project Number	87413 - CORPORATE HEADQUARTERS RENOVATION					FAC	17662 - CAPITAL - SERVICES BLDGS & FACILITIES			
\$K	LT YE last year	2024	2025	2026	2027	2028	2029	Future	Total	
Previous releases	8,946	13,282							22,228	
Currently Requested	0	30,311	93,986						124,297	
<b>Total released to date</b>	8,946	43,593	93,986						146,525	
Future required	0								0	
<b>Total Project Cost</b>	8,946	43,593	93,986						146,525	
Ongoing Costs	0								0	

<b>Total OAR Approval</b>	146,525.0
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Approvals	Signatures	Date
The recommendation, including the identified ongoing costs, if any, represents the best option to meet the validated business need.		
<b>Recommended by: Direct Report of Line Approver :</b> <b>Aida Cipolla</b> <b>Chief Financial Officer</b> <b>SVP &amp; CFO Office</b>		27-April-2024
I concur with the business decision as documented in this BCS.		

## Business Case Summary

<b>Finance Approval :</b> <b>Aida Cipolla</b> <b>Chief Financial Officer</b>		27-April-2024
I confirm that this investment/project, including the identified ongoing costs, if any, will address the business need, is of sufficient priority to proceed, and provides value for money.		
<b>Line Approval per OAR :</b> <b>OAR Element : 1.1</b> <b>Ken Hartwick</b> <b>President &amp; Chief Executive Officer</b>		27-April-2024

### EXECUTIVE SUMMARY – Project Overview

**Business Need / Objective:**

In 2019, OPG identified an opportunity to reduce on-going leasing and building maintenance costs and increase collaboration amongst employees by developing a new corporate head office, based on the long-term workforce needs identified at the time. Due to the substantial cost escalation experienced in the construction industry, OPG acquired the office building and associated property at 1908 Colonel Sam Drive, Oshawa in 2023, for renovation into the new corporate head office. The property met OPG's objectives for the new head office, and its purchase was determined to be preferable to an earlier plan to construct a new office building. The purchase price for the property, which includes the building and lands at 1908 Colonel Sam Drive was \$102 million. The purchased building is approximately 284,524 square feet.

**Summary of Preferred Alternative:**

Completing the required building improvements and interior renovations on the building at 1908 Colonel Sam Drive remains the preferred option to achieve the project's intended benefits, as set out below. The facility will be renovated to accommodate between approximately 2,000 and 2,300 employees, based on assessed in-office occupancy. OPG will continue to monitor and respond to changes in office space demand for potential new projects in support of Ontario's ongoing energy transition, which would be incremental to the current alternatives.

The benefits of the new corporate head office include:

- A reduction in OPG's overall real estate operating and maintenance costs over the next 40 years by exiting a number of leased locations and reducing the number of work locations (e.g., lower intra-site travel costs).
- Increased collaboration in support of OPG's corporate strategy and achievement of core company objectives.
- Demonstration of OPG's long-term commitment to the local community and stakeholders.
- Increased employee development by enabling easier movement across departments and access to technical professional development at local academic institutions.

The funding release for the acquisition of the property at 1908 Colonel Sam Drive was captured under a separate Business Case Summary. That analysis determined that the purchase of the property and the subsequent renovation of the office building into OPG's new corporate head office was the preferred alternative, based on an economic assessment and similar types of expected benefits as identified in this Business Case Summary.

### Business Need For Project Level A or B

OPG's non-plant-based staff are currently spread among different leased office locations around the Greater Toronto Area and Niagara region. There is an opportunity to reduce ongoing leasing and building maintenance costs by moving the non-plant based staff from these sites to the new corporate head office building. OPG previously purchased the property at 1908 Colonel Sam Drive, Oshawa for renovation into the new corporate head office. The consolidation of several leased office locations into the new head office and the close proximity of this office building to the Darlington Energy Complex (DEC) and Darlington Nuclear Generating Station support OPG's strategic goal of facilitating a more collaborative, innovative corporate culture. The financial modeling of this preferred alternative indicates a decrease in on-going operations and maintenance (O&M) costs as compared to the base case of the leasing strategy. Additionally, the new corporate head office building will leverage modern workplace design by incorporating technology that will further promote collaboration and innovation.

<b>Preferred Alternative:</b>	Renovation of the Building	For Project Level A, B or C
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### Description of Preferred Alternative

## Business Case Summary

The preferred alternative is to proceed with the proposed renovation project of the purchased building at 1908 Colonel Sam Drive to develop OPG's new corporate head office. The building has not been occupied since March 2020 by the previous landowner and as acquired was not occupiable by health & safety standards. The renovation will remediate these occupancy issues and modernize the building to accommodate between approximately 2,000 and 2,300 employees, based on assessed in-office occupancy.

The financial evaluation for this project indicates a net financial benefit of proceeding with the preferred alternative.

- Pros:
- The new head office will realize long-term real-estate cost savings by exiting a number of leased properties and reducing the number of work locations.
  - Given the long-term nature of OPG's operations, owning the head office building will help insulate OPG from leasing cost volatility / escalation.
  - The new head office will facilitate increased collaboration in support of OPG's corporate strategy and achievement of core company objectives
  - The building is located close to the existing DEC and Darlington Generating Station.
  - The new head office will reflect OPG's long-term commitment to the local community and stakeholders.
  - The new head office will facilitate increased employee development by enabling easier movement across departments and access to technical professional development at local academic institutions.
  - The environmental impact associated with retrofitting an existing building is more favourable as compared to constructing a new building (i.e. disruption to the land and habitat) when possible.
  - Lower cost and schedule risk relative to constructing a new building of this type.
  - The site is accessible by public transit.

- Cons:
- Certain employees may be unwilling to move to the new corporate head office location.

### Deliverables:

#### Previous Release:

Deliverable Type	Milestones	Associated Milestones (if any):	Target Date
Gate 2 Approval	Gate G2 Approval		2023-03-08
Schematic Design Complete	Preliminary Design Complete		2023-12-11
In-Service of Pilot Space	Report of Equipment in Service	Partial In-Service	2023-12-13
Design Development Complete	Detailed Design Complete		2024-03-15
Demolition Complete		Demolition Complete	2024-06-03
Construction Documents Complete	Detailed Design All Complete (All Detailed Design Per Project No)		2024-07-05

#### Current Release:

Deliverable Type	Milestones	Associated Milestones (if any):	Target Date
Gate 3 Funds Released	Gate G3 Approval		2024-06-01
Building Permit Issued	Building Permit Issued		2024-07-30
Contractor Mobilization	Construction Start		2024-08-07
Construction Substantial Performance	Construction Completion Declaration		2025-06-12
Available for Service Start	Report of Equipment in Service	Partial In-Service	2025-07-31
Final Equipment Install	Finish of Installation		2025-09-29
Available for Service	Available for Service and/or Ready For Service Completed	Full In-Service	2025-09-30
Project Closeout	Project Close Out Completed		2025-12-31
PIR Complete & Signed	Post Implementation Review		2026-12-31

## Business Case Summary

Future Release: N/A

<b>Alternative 2:</b>	<b>Base Case - No Project</b>	For Project Level A, B or Value-Enhancing
<p>Not proceeding with the proposed purchased building renovation would result in a sale of the property at 1908 Colonel Sam Drive and continuing with OPG's current leasing strategy, in applicable current office buildings or new leases. In selecting this alternative, OPG would be foregoing the opportunity of long-term cost savings, as compared to the preferred alternative. Additionally, it would be more difficult to advance the corporate strategy, including in support of energy transition, as well as achieve the same cultural identity without a centralized corporate head office and its associated benefits of increased collaboration, engagement, and innovation. Overall, this alternative is expected to continue to result in a more fragmented workspace footprint and higher overall cost for the company.</p> <p>Pros:</p> <ul style="list-style-type: none"> <li>- Less significant up-front investment.</li> <li>- Less disruption to employees.</li> </ul> <p>Cons:</p> <ul style="list-style-type: none"> <li>- The long-term cost of leasing is higher than retaining and renovating the existing office building.</li> <li>- Forgone opportunity to capitalize on the many benefits of having most non-plant employees physically located in one location (increased collaboration in support of OPG's corporate strategy and achievement of core company objectives, and increased employee development)</li> <li>- OPG would remain exposed to leasing cost volatility / escalation.</li> <li>- There would be an inherent uncertainty associated with the timing and proceeds of the sale of the 1908 Colonel Sam Drive property, which would require a basic renovation.</li> </ul> <p>This alternative is not recommended due to the long-term costs of on-going leasing and the missed opportunity of increased collaboration as a result of employees being co-located.</p>		
<b>Alternative 3:</b>	<b>Delay Work</b>	For Project Level A, B or Value-Enhancing
<p>This alternative was not analyzed in detail as there are no substantial benefits from delaying the project. In delaying renovations at the new office building, OPG would incur carrying and maintenance costs related to the property while continuing to incur leasing costs. It may also contribute to incremental disruption to employees by creating a period of uncertainty. This alternative is not recommended.</p>		
<b>Alternative 4:</b>	<b>Cancel Renovation, Sell Purchased Property and Build New Office Building in Clarington</b>	For Project Level A, B

**Business Case Summary**

OPG previously planned to construct a new office building and parking facility adjacent to the Darlington Energy Complex. Upon an assessment in 2022, it was determined that the construction of a new building would incur significantly higher costs than originally anticipated, due to substantial cost escalation experienced in the construction industry, and result in a more substantial environmental impact compared to the acquisition and renovation of an existing building.

This alternative would result in a sale of the property at 1098 Colonel Same Drive and continuing OPG's current leasing strategy, in applicable current office buildings or new leases for the duration of time required to construct and occupy a new building in Clarington (assumed at the end of 2027).

**Pros:**

- Constructing a new building allows for complete customization of design, layout, and incorporation of the latest technologies and energy-efficient features.
- Closer proximity to the Darlington Energy Complex.
- New buildings generally require less immediate maintenance compared to older structures, reducing upkeep costs in the initial years.
- Given the long-term nature of OPG's operations, owning the head office building will help insulate OPG from leasing cost volatility / escalation.

**Cons:**

- Building a new office is more expensive than buying and renovating an existing structure due to construction costs and time.
- Constructing a new building will take longer than renovating an existing one, delaying off-leasing, occupancy, and operational commencement.
- Greater cost and schedule risk relative to renovating an existing building of this type. .
- When possible, renovating an existing building has a lesser environmental impact than constructing a new building.
- Smaller square footage available in Clarington compared to the purchased building, likely requiring additional sources of office space to accommodate the same number of employees.
- The new building site does not currently have access to public transit.
- There would be an inherent uncertainty associated with the timing and proceeds of the sale of the 1908 Colonel Sam Drive property, which would require a basic renovation.

This alternative is not recommended.

## Business Case Summary

Key Risk Assessment			For Project Level A, B or C
Risk Class	Description of Risk	Response Type / Actions / Final TCD	Residual Ranking
Commercial (Contract/Legal)	Renewal of Collective Agreements - April 2025	Accept	Medium
Commercial (Contract/Legal)	Generator Delivery, Installation, and Infrastructure Preparation	Accept	Medium
Commercial (Contract/Legal)	IT Equipment Commissioning	Mitigate 62760 - IT Equipment Commissioning  5/31/2024	Low
Project Management	Incomplete delivery of furniture required for fit out	Mitigate 62762 - Ensure schedule can accommodate issues with furniture order and delivery.  9/30/2024	Low
Quality	New Vendor Does Not Meet OPG Requirements and Specifications Requiring Re-Work.	Mitigate 64292 - New Vendor Does Not Meet OPG Requirements and Specifications Requiring Re-Work.  6/27/2025	Low
Commercial (Contract/Legal)	Changes in Design and Owner Requirements Driven by Stakeholder Input.	Mitigate 64293 - Changes in Design and Owner Requirements Driven by Stakeholder Input.  11/27/2025	Low
Commercial (Contract/Legal)	Due to OPG having to procure the furniture, storage may become the responsibility of OPG.	Accept	Low

Financial Evaluation		For Project Level A, B (with multiple feasible alternatives) or Value-Enhancing			
\$K	Alternative	Base Case (No Project)	Delay Work	Alternative 4	Alternative 5
NPV	(\$346000)	(\$386000)	(>346,000)	(\$434,000)	
<b>Analysis of Financial Evaluation – Key Assumptions and Key Results:</b>					

Qualitative Factors	For Project Level A or B
<p>Renovating an existing structure supports a reduction in carbon emissions produced through the construction of a new building, aligned with OPG's sustainability objectives. Additionally, this approach respects the sentiment of the local community by preserving existing architecture and minimizing disruptions inherently associated with new construction. The project will reflect OPG's ongoing commitment to the Reconciliation Action Plan and Equity, Diversity &amp; Inclusion within the building design, ensuring that cultural sensitivity, identity, and respect are woven into the new design. The interior workspace enhancements will also reflect OPG's strategy for office modernization, prioritizing flexibility, technological integration, and collaborative environments, with the goal of fostering enhanced innovation and productivity among the workforce.</p>	

## Business Case Summary

In selecting the preferred alternative, OPG expects to realize an improvement in the Net Present Value as compared to the base case.

### Key Assumptions Used for the Financial Evaluation:

- The Preferred Alternative includes the following office spaces for on-going O&M accounting: the new corporate head office building
- The Base Case includes the following office spaces for on-going O&M accounting: consolidate to 700 University Avenue (current leased footprint) or equivalent in the same geographic area, 889 Brock Road, 800 Kipling Avenue lease or equivalent in the same geographic area. The forecast lease rates for these locations are considered representative of comparable properties.
- Both the Base Case and the Preferred Alternative accommodate a substantially similar number of employees. For simplification, the Build New Office Alternative does not include the costs of additional office space that likely would be required to accommodate this number of employees in full.
- 40-year time horizon.
- Office refresh costs have been included for 800 Kipling Avenue / the equivalent office space in the same geographic area, and 889 Brock Road in the base case.
- An estimate of reductions in on-going intra-site travel and other costs, as well as assumed impacts on one-time employee costs, such as employee relocation, have been included in the financial model.
- The Base Case and the Build New Office in Clarington Alternative assume sales proceeds equivalent to the purchase price for 1908 Colonel Sam Drive
- Cost of Capital: 3.75%
- Lease escalation rate: 2%

### Post Implementation Review (PIR) Plan (refer to OPG-GUID-00120-0007)

Is PIR Required?	Yes			PIR Completion Date	2026-12-31
PIR KPI's	Current Baseline	Target Result	How to Measure?	Who will measure?	
Successful completion of commissioning specifications based on Owner's Requirements Document (ORD) and Scope of Work (SOW).	OPG purchased existing building requiring infrastructure and programmatic updates. ORD and SOW identifies required building improvements.	Building is occupied by staff and systems operate within building's requirements.	CHQ systems, structures, and components are successfully commissioned and remain available for service throughout PIR period.	Facilities Central Services	

### Definitions and Acronyms

DEC	Darlington Energy Complex
AFS	Available For Service
PIR	Post-Implementation Review
OPG	Ontario Power Generation
FOI	Finish of Installation

## Business Case Summary

### APPENDICES

#### Appendix A1: Summary of Estimate

Project Number	87413 - CORPORATE HEADQUARTERS RENOVATION						FAC	17662 - CAPITAL - SERVICES BLDGS & FACILITIES		
\$K	LT YE last year	2024	2025	2026	2027	2028	2029	Future	Total	%
0 - Cost Management										0
1 - Project Management	1,000	1,408	1,026						3,434	2
2 - Inspection										0
3 - Engineering	2,150	4,072	752						6,974	5
4 - Procurement	2,375	6,493	17,347						26,215	18
5 - Construction	3,246	28,955	51,277						83,478	57
6 - Commissioning										0
Closeout			361						361	0
Subtotal	8,771	40,928	70,763						120,462	82
Outside WBS	133								133	0
Contingency		2,078	20,622						22,700	15
Subtotal w/ Contingency	8,904	43,006	91,385						143,295	98
Interest	42	587	2,601						3,230	2
Other										0
Total	8,946	43,593	93,986						146,525	100
Removal Costs (incl. above)	1,000								1,000	1

#### Appendix A2: Summary of Estimate – Notes

Escalation Rate	2.30	Interest Rate (going-forward)	3.44
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#### Appendix A3: Summary of Estimate - In-Service Estimates

\$K	Only applicable to capital projects. In-Service amount shall include interest but exclude removal costs.			
Project#	Date	Description	Amount	%
87413	2023-12-15	Partial In Service	3,200	3.0
87413	2025-09-30	Full In Service	118,625	97.0
<b>Total:</b>			<b>121,825</b>	<b>100</b>

Prepared by	Reviewed and Endorsed by (Execution Authority)
Mala Singh Senior Manager Projects Campus Project	Aida Cipolla Chief Financial Officer Finance

**Business Case Summary**

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Numbers may not add due to rounding.

Filed: 2025-12-12  
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 Tab 1  
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 Table 1

Table 1  
 Capital Project Listing - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
 Projects ≥ \$30M Total Project Cost (Allocated)<sup>1</sup>

Line No.	Project Name	Project Summary	Project Category	Project Start Date	Final In-Service Date	Total Project Cost <sup>2</sup> (\$M)	Total Project Cost EB-2020-0290 (\$M)	1st Execution Business Case (\$M)	1st Execution Business Case- EB-2020-0290 <sup>3</sup> (\$M)	Total In-Service (\$M)	In-Service LTD <sup>4</sup> (\$M)	In-Service IR Term (\$M)	In-Service 2025	In-Service 2026	In-Service 2027	In-Service 2028	In-Service 2029	In-Service 2030	In-Service 2031
													(\$M)						
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	
<b>COMPLETED/DEFERRED PROJECTS FROM EB-2020-0290</b>																			
<b>IT - Asset Service Fee</b>																			
1	Asset Suite 9 Upgrade	84975	Sustaining	Jul-20	Dec-23	37.8	15.0	37.5	n/a	37.8	37.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	<b>Subtotal</b>					37.8	15.0	37.5	0.0	37.8	37.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>ONGOING PROJECTS FROM EB-2020-0290</b>																			
<b>IT - Nuclear Rate Base</b>																			
3	Cyber Security – CSA N290.7 Compliance <sup>5</sup>	82924 83690 83692 83800 86251 87895 87888 87893 87052	Regulatory	Jul-17	Dec-26	35.8	40.7	44.8	n/a	35.8	30.2	0.0	2.7	2.9	0.0	0.0	0.0	0.0	0.0
4	<b>Subtotal</b>					35.8	40.7	44.8	0.0	35.8	30.2	0.0	2.7	2.9	0.0	0.0	0.0	0.0	0.0
<b>NEW PROJECTS NOT LISTED IN EB-2020-0290</b>																			
<b>IT - DNNP Asset Service Fee</b>																			
5	DNNP Enterprise Asset Management	87188	Sustaining- DNNP Operational Readiness Technology Projects	Jan-25	Dec-32	68.7	n/a	68.7	n/a	68.7	0.0	56.0	0.0	0.0	0.0	0.0	0.0	50.8	5.3
6	<b>Subtotal</b>					68.7	0.0	68.7	0.0	68.7	0.0	56.0	0.0	0.0	0.0	0.0	0.0	50.8	5.3
<b>IT - Asset Service Fee</b>																			
7	Integrated HR Service Delivery <sup>6</sup>	83746	Sustaining	Jan-24	Apr-26	52.7	40.0	52.7	n/a	52.7	0.0	0.0	50.1	2.6	0.0	0.0	0.0	0.0	0.0
8	Finance ERP Solution	89273	Sustaining- Enterprise System Modernization Projects	Jun-25	Dec-31	118.6	n/a	n/a	n/a	118.6	0.0	114.6	0.0	4.0	0.0	89.1	18.7	2.8	4.0
9	<b>Subtotal</b>					171.3	40.0	52.7	0.0	171.3	0.0	114.6	50.1	6.6	0.0	89.1	18.7	2.8	4.0
<b>Real Estate - Asset Service Fee</b>																			
10	Corporate Headquarters <sup>7</sup>	87413 87414	Value Enhancing	Feb-23	Dec-25	190.8	n/a	205.2	n/a	190.8	7.7	0.0	183.1	0.0	0.0	0.0	0.0	0.0	0
	<b>Subtotal</b>					190.8	0.0	205.2	0.0	190.8	7.7	0.0	183.1	0.0	0.0	0.0	0.0	0.0	0
<b>Real Estate - Rate Base</b>																			
11	Security Project D <sup>8</sup>	90092	Sustaining	Oct-25	Dec-27	34.3	n/a	n/a	n/a	34.3	0.0	26.2	3.1	5.0	26.2	0.0	0.0	0.0	0
	<b>Subtotal</b>					34.3	0.0	0.0	0.0	34.3	0.0	26.2	3.1	5.0	26.2	0.0	0.0	0.0	0.0
<b>CANCELLED PROJECTS FROM EB-2020-0290</b>																			
12	SAP Payroll Upgrade <sup>9</sup>	n/a	Sustaining	n/a	n/a	0.0	27.0	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Clarington Corporate Campus	84640	Value Enhancing	n/a	n/a	0.0	200.0	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	<b>Subtotal</b>					0.0	227.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	<b>Total Projects</b>					538.7	322.7	408.9	0.0	538.7	75.7	196.8	238.9	14.6	26.2	89.1	18.7	53.5	9.3

Notes:  
 1 Projects with expenditures during IR term OR In-Service amounts in Bridge or IR term and Completed/Deferred projects (from EB-2020-0290 or subsequent).  
 2 Total Project Costs reflect BCS capital amounts (balance to be released) or the actual costs for completed projects, unless otherwise indicated.  
 3 The designation of "n/a" means the project has not advanced to a First Execution BCS or the information is not applicable due to project timing.  
 4 Life Time to Date (LTD) means in service amounts as of Dec 31, 2024.  
 5 Satisfaction of the CSA N290.7 cyber security standards is an ongoing compliance program comprised of nine distinct projects to address discrete requirements. The amount shown are the totals for all projects listed in this program. BCSs for these projects have not been provided as the total cost for each project is less than \$30M.  
 6 This project includes the SAP Payroll Upgrade project and the HR System Replacement project, which were listed as two separate projects in EB-2020-0290. Expenditures include cloud license costs, as applicable, consistent with OPG's capitalization policy (discussed further in Ex. D4-1-1).  
 7 Corporate Headquarters includes the cost to acquire the building and associated renovation. The acquisition cost excludes costs associated with undeveloped land.  
 8 Total Project Costs represent the current estimated amount to undertake the upgrade; the final cost will be reflected in a BCS upon commencement of detailed work.  
 9 SAP Payroll System project identified in EB-2020-0290 is now included in the Integrated HR Service Delivery project (line 7).

Table 2a  
 Capital Project Listing - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
 Projects \$10M - \$30M Total Project Cost (Allocated)<sup>1</sup>

Line No.	Project Name	Category	Project Description	Start Date	Final In-Service Date	Total Project Cost <sup>2</sup> (\$M)	In-Service IR Term (\$M)	In-Service 2025 (\$M)	In-Service 2026 (\$M)	In-Service 2027 (\$M)	In-Service 2028 (\$M)	In-Service 2029 (\$M)	In-Service 2030 (\$M)	In-Service 2031 (\$M)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
<b>COMPLETED/DEFERRED PROJECTS FROM EB-2020-0290</b>														
<b>IT - Asset Service Fee</b>														
1	Tempus Lifecycle Upgrade	Sustaining	The business objective for this project was to upgrade the Tempus time reporting system at the end of its lifecycle.	Dec-17	Dec-20	15.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Network Segmentation - Campus Switch Replacement Project	Sustaining	This project replaced obsolete Network Hardware. Its objective was to improve performance while meeting mobile workforce requirements, and meet wireless needs.	Feb-17	Dec-23	15.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Reimagine Program	Value Enhancing	This project uses an automation first approach to identifying opportunities that drive process efficiencies, effectiveness, and enhanced controls, with opportunities for savings to achieve the 2020 Business Plan in the short to mid-range timeframe across Shared Services, Finance and Supply Chain.	Mar-19	Apr-21	17.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	Reimagine Program 2.0	Value Enhancing	This Program aims to optimize cost and quality across corporate functions, establish an end state that requires fewer staff delivering and improved services.	Jun-20	Jun-23	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	Microsoft Enterprise Agreement <sup>3</sup> (EA)	Sustaining	This EA includes a robust Software Assurance program, and a comprehensive maintenance program that ensures OPG maximizes the benefits of the licensed products to help users save time and money while increasing productivity. These benefits support OPG's ability to plan, deploy, use, maintain, train and transition software solutions.	Sep-20	Mar-21	23.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>CANCELLED PROJECTS FROM EB-2020-0290</b>														
6	HR System Replacement <sup>4</sup>	Sustaining	Human Resources System Replacement project deploys an integrated suite of human capital management web-based applications supporting OPG's HR system of record including Talent Management, Workforce Analytics and Succession planning. This project will enable digitization of records and enable better management of OPG's human capital. The scope of this project was included in the new Integrated HR Service Delivery project.	Jan-22	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	<b>Subtotal</b>					87.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>IT - Nuclear Rate Base</b>														
8	Pickering Communication System Improvement Wi-Fi	Sustaining	This project replaces an existing aging end of life network in order to mitigate operational risk. The establishment of wireless network infrastructure will enable the latest technology to improve quality and timely completion of work flows for the work control process by field staff. Wi Fi will facilitate the ability for field staff to directly access data and applications required to perform work.	Jun-20	Dec-24	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>CANCELLED PROJECTS FROM EB-2020-0290</b>														
9	Nuclear Fleet Management Initiative - Pickering Wi-Fi - Power House Unit 1-5 <sup>5</sup>	Sustaining	Establishment of wireless network infrastructures will provide up to date technology to improve efficiency, quality and timeliness completion of work flows for the work control process by field staff. Wi Fi will facilitate the ability for field staff, direct access to data and applications required to perform work in the field.	Jan-18	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	<b>Subtotal</b>					29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:  
 1 Projects with expenditures during IR term OR In-Service amounts in Bridge or IR term AND Completed/Deferred projects (from EB-2020-0290 or subsequent).  
 2 Total Project Costs reflect BCS capital amounts (balance to be released) or the actual costs for completed projects, unless otherwise indicated.  
 3 Expenditures include a project with assumed cloud computing arrangements (Ex. D3-1-2, p. 3, footnote 1).  
 4 This project and the SAP Payroll Upgrade project were combined into the Integrated HR Service Delivery project (Ex. D3-1-2, Table 1, line 7).  
 5 This project was replaced by the Pickering Communication System Improvement Wi-Fi (line 8).

Numbers may not add due to rounding.

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 Exhibit D3  
 Tab 1  
 Schedule 2  
 Table 2b

Table 2b  
 Capital Project Listing - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
 Projects \$10M - \$30M Total Project Cost (Allocated)<sup>1</sup>

Line No.	Project Name	Category	Project Description	Start Date	Final In-Service Date	Total Project Cost <sup>2</sup> (\$M)	In-Service IR Term (\$M)	In-Service 2025 (\$M)	In-Service 2026 (\$M)	In-Service 2027 (\$M)	In-Service 2028 (\$M)	In-Service 2029 (\$M)	In-Service 2030 (\$M)	In-Service 2031 (\$M)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	
<b>ONGOING PROJECTS FROM EB-2020-0290</b>														
<b>IT - Asset Service Fee</b>														
11	Energy Market Application Refresh Program	Regulatory	This project updates OPG's Energy Markets systems to be compliant with the changes being implemented under the IESO's Market Renewal Program. This project addresses updating OPG's current Energy Trading and Risk Management (ETRM) system, identifying impacted business processes and related IT systems in detail, and documenting business/technical requirements, completing the technical upgrade of the Settlements system.	Jan-20	Dec-25	21.2	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
12	<b>Subtotal</b>					21.2	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
<b>Real Estate - Nuclear Rate Base</b>														
13	Workplace Transformation of Darlington Energy Complex 2nd Floor <sup>3</sup>	Sustaining	Reconfigure the floor to construct agile workspaces and remove obsolete equipment to increase accessibility and usage, while aligning with the new office standard.	Jan-25	Dec-27	11.1	4.4	0.0	6.7	4.4	0.0	0.0	0.0	0.0
14	<b>Subtotal</b>					11.1	4.4	0.0	6.7	4.4	0.0	0.0	0.0	0.0

Notes:

- Projects with expenditures during IR term OR In-Service amounts in Bridge or IR term AND Completed/Deferred projects (from EB-2020-0290 or subsequent).
- Total Project Costs reflect BCS capital amounts (balance to be released) or the actual costs for completed projects, unless otherwise indicated.
- This project's name changed from Overhaul of the Darlington Energy Complex 2nd Floor as shown in EB-2020-0290.

Numbers may not add due to rounding.

Table 2c  
 Capital Project Listing - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
 Projects \$10M - \$30M Total Project Cost (Allocated)<sup>1</sup>

Line No.	Project Name	Category	Project Description	Start Date	Final In-Service Date	Total Project Cost <sup>2</sup> (\$M)	In-Service IR Term (\$M)	In-Service 2025 (\$M)	In-Service 2026 (\$M)	In-Service 2027 (\$M)	In-Service 2028 (\$M)	In-Service 2029 (\$M)	In-Service 2030 (\$M)	In-Service 2031 (\$M)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	
<b>NEW PROJECTS NOT IN EB-2020-0290</b>														
<b>IT - Asset Service Fee</b>														
15	Equipment Status Monitoring II Lifecycle	Sustaining	This project is a lifecycle upgrade for obsolete operations and maintenance system that manages Work Protection, Plant Status and Flowsheet changes for the Nuclear and Renewable Generation fleet.	Jan-21	Sep-25	11.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
16	Data Center Migration	Sustaining	This project will enable migration of data centres to OPG owned facilities, aligned with the cloud computing strategy to migrate to Azure and minimize the on-premise footprint.	Oct-20	Dec-25	17.6	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
17	Enterprise Data Lake Deployment	Sustaining	This project establishes a central repository for storing data of various systems like AS9 and SAP. It will enable business units across OPG to run data analytics including dashboards, big data processing, on-demand analytics, and machine learning to support decision making.	Sep-21	Sep-25	13.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
18	Enterprise Service Management	Sustaining	This project replaces an end of life legacy service management system. The new platform is ServiceNow software which consolidates and integrates user experience by eliminating the need to go into individual systems for OPG's business needs.	Jun-23	Dec-25	17.6	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0
19	<b>Subtotal</b>					60.3	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0
<b>IT - Nuclear Rate Base</b>														
20	Intelligent Search Tool	Sustaining	This project enables staff to efficiently access information relevant to their role across various repositories and data sources that are currently not included in existing organizational search tools. The proposed solution will leverage enhanced search and employ Artificial Intelligence, Machine Learning and Natural Language Processing technologies.	Nov-20	Dec-25	14.6	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
21	Pickering Network Upgrade	Sustaining	This project is intended to deliver a reliable, secure, high-speed network that will support ongoing campus operations. The network design will include campus cores and edge switches and feature enhanced resiliency and redundancy, minimizing downtime and disruptions. The upgraded infrastructure (including wired and wireless) will be scalable, capable of accommodating future growth and the adoption of emerging technologies.	Aug-25	Dec-28	12.0	12.0	0.0	0.0	2.6	9.4	0.0	0.0	0.0
22	<b>Subtotal</b>					26.6	12.0	0.4	0.0	2.6	9.4	0.0	0.0	0.0

Notes:

- Projects with expenditures during IR term OR In-Service amounts in Bridge or IR term AND Completed/Deferred projects (from EB-2020-0290 or subsequent).
- Total Project Costs reflect BCS capital amounts (balance to be released) or the actual costs for completed projects, unless otherwise indicated.

Numbers may not add due to rounding.

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 Exhibit D3  
 Tab 1  
 Schedule 2  
 Table 2d

Table 2d  
 Capital Project Listing - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
 Projects \$10M - \$30M Total Project Cost (Allocated)<sup>1</sup>

Line No.	Project Name	Category	Project Description	Start Date	Final In-Service Date	Total Project Cost <sup>2</sup> (\$M)	In-Service IR Term (\$M)	In-Service 2025 (\$M)	In-Service 2026 (\$M)	In-Service 2027 (\$M)	In-Service 2028 (\$M)	In-Service 2029 (\$M)	In-Service 2030 (\$M)	In-Service 2031 (\$M)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
<b>NEW PROJECTS NOT IN EB-2020-0290 continued</b>														
<b>Real Estate - Nuclear Rate Base</b>														
23	Electric Service Distribution Analysis	Sustaining	Engineering, procurement and construction of electrical infrastructure at the East Complex Electrical System at Pickering, which includes Emergency Mitigation Buildings.	Aug-19	Dec-25	10.4	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
24	Upgrade Darlington Holt Road access to Auxiliary Security Building	Sustaining	Carry out road widening, relocation of parts of Holt road along with shifting existing storm water drainage and construct a new outfall to Lake Ontario.	Feb-22	Mar-24	14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	Workplace Transformation of Pickering Learning Center 1st Floor	Sustaining	Reconfigure the floor to construct agile workspaces and remove obsolete equipment to increase accessibility and usage, while aligning with the new office standard.	Jan-29	Dec-30	13.0	13.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
26	Workplace Transformation of Pickering Learning Center 2nd Floor	Sustaining	Reconfigure the floor to construct agile workspaces and remove obsolete equipment to increase accessibility and usage, while aligning with the new office standard.	Jan-29	Dec-30	13.0	13.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
27	Central Warehouse	Sustaining	Increasing capacity of warehouse to accommodate increased inventory needs for the Nuclear Fleet	Mar-26	Dec-27	29.4	29.4	0.0	0.0	29.4	0.0	0.0	0.0	0.0
28	Workplace Transformation of Darlington Energy Complex 3rd Floor	Sustaining	Reconfigure the floor to construct agile workspaces and remove obsolete equipment to increase accessibility and usage, while aligning with the new office standard.	Jan-26	Dec-27	10.1	10.1	0.0	0.0	10.1	0.0	0.0	0.0	0.0
29	<b>Subtotal</b>					90.7	65.6	4.5	0.0	39.6	0.0	0.0	26.0	0.0
<b>Real Estate - Asset Service Fee</b>														
30	Corporate Headquarters Parking	Sustaining	Create additional parking space at new Corporate Headquarters to accommodate the expected combined full occupancy and visitor spaces required for the building. Construction is currently on hold pending the completion of soil screening activities, which are included in the cost estimates.	Sep-24	Dec-27	27.2	27.2	0.0	0.0	27.2	0.0	0.0	0.0	0.0
31	<b>Subtotal</b>					27.2	27.2	0.0	0.0	27.2	0.0	0.0	0.0	0.0

Notes:

- Projects with expenditures during IR term OR In-Service amounts in Bridge or IR term AND Completed/Deferred projects (from EB-2020-0190 or subsequent).
- Total Project Costs reflect BCS capital amounts (balance to be released) or the actual costs for completed projects, unless otherwise indicated.

Numbers may not add due to rounding.

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 Exhibit D3  
 Tab 1  
 Schedule 2  
 Table 2e

Table 2e  
 Capital Project Listing - Support Services - Regulated Hydroelectric  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
 Projects \$10M - \$30M Total Project Cost (Allocated)<sup>1</sup>

Line No.	Project Name	Category	Project Description	Start Date	Final In-Service Date	Total Project Cost <sup>2</sup> (\$M)	In-Service IR Term (\$M)	In-Service 2025 (\$M)	In-Service 2026 (\$M)	In-Service 2027 (\$M)	In-Service 2028 (\$M)	In-Service 2029 (\$M)	In-Service 2030 (\$M)	In-Service 2031 (\$M)	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	
<b>NEW PROJECTS NOT IN EB-2020-0290</b>															
<b>Real Estate - Hydroelectric Joint Use Assets</b>															
31	Renewable Generation Training Center	Sustaining	Costs associated with setting up a new training facility subsequent to move from 800 Kipling Avenue.	Mar-26	Dec-27	27.9	27.9	0.0	0.0	27.9	0.0	0.0	0.0	0.0	
32	EV Chargers	Sustaining	Install Electric vehicle charging infrastructure across Renewable Generation sites	Jan-27	Dec-31	11.0	11.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	
33	<b>Subtotal</b>					<b>38.9</b>	<b>38.9</b>	<b>0.0</b>	<b>0.0</b>	<b>30.1</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>	
<b>Total Projects</b>							<b>392.3</b>	<b>148.0</b>	<b>24.1</b>	<b>6.7</b>	<b>103.8</b>	<b>11.6</b>	<b>2.2</b>	<b>28.2</b>	<b>2.2</b>

- Notes:
- Projects with expenditures during IR term OR In-Service amounts in Bridge or IR term AND Completed/Deferred projects (from EB-2020-0290 or subsequent).
  - Total Project Costs reflect BCS capital amounts (balance to be released) or the actual costs for completed projects, unless otherwise indicated.

Numbers may not add due to rounding.

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Table 3a  
 Capital Project Listing - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
 Projects < \$10M Total Project Cost<sup>1</sup>

Line No.	Project Description	Number of Projects	Total Project Cost (\$M)	Average Cost Of All Projects (\$M)	In-Service IR Term (\$M)	In-Service 2025 (\$M)	In-Service 2026 (\$M)	In-Service 2027 (\$M)	In-Service 2028 (\$M)	In-Service 2029 (\$M)	In-Service 2030 (\$M)	In-Service 2031 (\$M)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	IT - Nuclear Rate Base	105	98.4	0.9	1.1	16.2	1.1	1.1	0.0	0.0	0.0	0.0
2	IT - Regulated Hydroelectric Rate Base	2	2.1	1.1	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
3	IT - Renewable Generation Joint Use Assets	30	26.9	0.9	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
4	IT - Asset Service Fee	271	213.4	0.8	17.5	15.7	15.0	2.2	4.1	7.2	2.0	2.0
5	Real Estate - Nuclear Rate Base	138	262.2	1.9	153.9	4.0	3.4	37.4	36.0	32.7	24.1	23.7
6	Real Estate - Asset Service Fee	43	21.6	0.5	7.0	4.7	0.2	0.4	1.4	4.4	0.4	0.4
7	<b>Total</b>	589	624.7	1.1	179.4	45.7	19.7	41.0	41.5	44.3	26.5	26.1

Notes:

- 1 Projects with expenditures during IR term OR In-Service Amounts in Bridge or IR term. Refer to Table 3b for further notes

Numbers may not add due to rounding.

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Table 3b  
 Notes to Table 3a  
 Capital Project Listing - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)

Notes:

2 Capital Project Listing - Support Services for 2016 - 2019 period

Line No.	Project Description	Capital 2016 (\$M)	Capital 2017 (\$M)	Capital 2018 (\$M)	Capital 2019 (\$M)	In-Service 2016 (\$M)	In-Service 2017 (\$M)	In-Service 2018 (\$M)	In-Service 2019 (\$M)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	IT - Regulated Hydroelectric Rate Base	0.7	1.0	0.2	0.0	3.2	0.0	1.5	0.0
2	IT - Renewable Generation Joint Use Assets	3.2	5.0	5.2	7.0	3.7	0.6	0.6	5.4
3	Total	4.0	6.0	5.5	7.0	6.9	0.6	2.1	5.4

Numbers may not add due to rounding.

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 Table 4

Table 4  
 Capital In-Service Additions - Support Services  
 (Capital In-Service Impacting Rate Base or Asset Service Fees)  
 In-Service Summary - All Capital

Line No.	Capital In-Service Description	Reference	In-Service 2020 (\$M)	In-Service 2021 (\$M)	In-Service 2022 (\$M)	In-Service 2023 (\$M)	In-Service 2024 (\$M)	In-Service 2025 (\$M)	In-Service 2026 (\$M)	In-Service 2027 (\$M)	In-Service 2028 (\$M)	In-Service 2029 (\$M)	In-Service 2030 (\$M)	In-Service 2031 (\$M)
			(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	<b>In-Service</b>													
	<b>Projects ≥ \$30 M - Rate Base</b>													
1	IT - Nuclear	D3-1-2 Table 1	2.1	3.1	3.8	4.1	4.9	2.7	2.9	0.0	0.0	0.0	0.0	0.0
2	Real Estate- Nuclear	D3-1-2 Table 1	0.0	0.0	0.0	0.0	0.0	3.1	5.0	26.2	0.0	0.0	0.0	0.0
	<b>Projects ≥ \$30 M - Asset Service Fee</b>													
3	IT	D3-1-2 Table 1	0.0	9.7	21.8	6.3	0.0	50.1	2.6	0.0	0.0	0.0	0.0	0.0
4	Enterprise System Modernization	D3-1-2 Table 1	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	89.1	18.7	2.8	4.0
5	Real Estate	D3-1-2 Table 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Corporate Headquarters	D3-1-2 Table 1	0.0	0.0	0.0	7.7	0.0	183.1	0.0	0.0	0.0	0.0	0.0	0.0
7	IT DNNP	D3-1-2 Table 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.8	5.3
	<b>Projects \$10M - \$30M - Rate Base</b>													
8	IT - Nuclear	D3-1-2 Table 2a/c	9.3	7.9	13.1	5.9	7.0	0.4	0.0	2.6	9.4	0.0	0.0	0.0
9	Real Estate	D3-1-2 Table 2b/d	1.6	1.5	2.3	15.3	0.0	4.5	6.7	43.9	0.0	0.0	26.0	0.0
	<b>Projects \$10M - \$30M - Asset Service Fee</b>													
10	IT	D3-1-2 Table 2a/b/c	35.4	30.2	20.2	9.7	20.1	19.2	0.0	0.0	0.0	0.0	0.0	0.0
11	Real Estate	D3-1-2 Table 2d	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.2	0.0	0.0	0.0	0.0
12	Real Estate - Renewable Generation Joint Use Assets	D3-1-2 Table 2e	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.1	2.2	2.2	2.2	2.2
	<b>Projects &lt; \$10M - Rate Base</b>													
13	IT - Nuclear	D3-1-2 Table 3a	10.3	28.9	9.7	13.2	17.9	16.2	1.1	1.1	0.0	0.0	0.0	0.0
14	IT - Regulated Hydroelectric	D3-1-2 Table 3a	0.0	0.0	0.0	0.0	0.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Real Estate	D3-1-2 Table 3a	10.9	19.8	20.6	20.6	29.1	4.0	3.4	37.4	36.0	32.7	24.1	23.7
	<b>Projects &lt; \$10M - Asset Service Fee</b>													
16	IT	D3-1-2 Table 3a	33.2	25.1	35.6	41.8	29.5	15.7	15.0	2.2	4.1	7.2	2.0	2.0
17	IT - Renewable Generation Joint Use Assets	D3-1-2 Table 3a	12.9	6.1	2.0	2.3	0.7	3.0	0.0	0.0	0.0	0.0	0.0	0.0
18	Real Estate	D3-1-2 Table 3a	3.5	2.4	1.1	2.3	0.5	4.7	0.2	0.4	1.4	4.4	0.4	0.4
	<b>Unallocated Projects</b>													
19	IT - Nuclear Rate Base		0.0	0.0	0.0	0.0	0.0	1.5	17.5	22.7	16.8	34.4	21.3	16.0
20	IT - Asset Service Fee		0.0	0.0	0.0	0.0	0.0	21.5	32.0	63.9	49.5	40.3	39.1	44.3
21	IT - Regulated Hydroelectric Rate Base		0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	1.5	1.5	1.5	1.5
22	IT - Renewable Generation Joint Use Assets		0.0	0.0	0.0	0.0	0.0	1.0	1.4	1.1	4.1	4.1	5.1	7.1
23	Enterprise System Modernization Projects- Asset Service Fee		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	71.3	28.9	116.5
24	Enterprise System Modernization Projects- Renewable Generation Joint Use Assets		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
25	DNNP Operational Readiness Technology Projects- DNNP Asset Service Fee		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.9	1.3
	<b>Non-Project Related In-Service List</b>													
26	Microsoft Enterprise Agreement <sup>1</sup> - IT Asset Service Fee	D3-1-2 Table 2a	22.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	Minor Fixed Assets		3.6	3.2	4.8	3.9	4.5	6.0	7.0	9.0	9.0	9.0	9.0	9.0
28	<b>Total In-Service Amounts</b>		<b>145.7</b>	<b>137.9</b>	<b>134.9</b>	<b>133.2</b>	<b>114.3</b>	<b>338.8</b>	<b>99.2</b>	<b>269.3</b>	<b>223.1</b>	<b>256.3</b>	<b>295.0</b>	<b>233.2</b>

Numbers may not add due to rounding.

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 Table 5a

Table 5a  
 Comparison of In-Service Capital Additions - Support Services (\$M) 2020-2028

Line No.	Business Unit	2020	(c)-(a)	2020	2021	(f)-(d)	2021	2022	(i)-(g)	2022	2023	(l)-(j)	2023
		OEB Approved <sup>1</sup>	Change	Actual	OEB Approved <sup>2</sup>	Change	Actual	OEB Approved <sup>1</sup>	Change	Actual	OEB Approved <sup>1</sup>	Change	Actual
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
1	IT - Nuclear Rate Base	3.7	18.0	21.7	2.2	37.7	39.9	36.9	(10.3)	26.6	34.8	(11.7)	23.1
2	IT - Regulated Hydroelectric Rate Base	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	IT - Renewable Generation Joint Use Assets	0.0	12.9	12.9	0.0	6.1	6.1	0.0	2.0	2.0	0.0	2.3	2.3
4	IT - Asset Service Fee	17.0	51.6	68.6	17.0	48.0	65.0	39.1	38.6	77.7	41.6	16.3	57.9
5	Subtotal	20.7	82.4	103.1	19.2	91.8	111.0	76.0	30.2	106.2	76.4	6.8	83.3
6	Real Estate - Nuclear Rate Base	1.0	11.5	12.5	1.0	20.3	21.3	31.3	(8.5)	22.8	3.2	32.7	35.9
7	Real Estate - Asset Service Fee	3.0	0.5	3.5	3.0	(0.6)	2.4	1.0	0.1	1.1	1.0	1.3	2.3
8	Real Estate - Renewable Generation Joint Use Assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Subtotal	4.0	12.0	16.0	4.0	19.6	23.6	32.3	(8.5)	23.9	4.2	34.1	38.2
10	Microsoft Enterprise Agreement <sup>1</sup>	0.0	22.9	22.9	0.0	0.1	0.1	0.0	0.0	0.0	23.0	(23.0)	0.0
11	Clarington Corporate Campus <sup>2</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Corporate Headquarters <sup>3</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	7.7
13	Subtotal	0.0	22.9	22.9	0.0	0.1	0.1	0.0	0.0	0.0	23.0	(15.3)	7.7
14	Enterprise System Modernization Projects- ASF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Enterprise System Modernization Projects- Renewable Generation Joint Use Assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	DNNP Operational Readiness Technology Projects- DNNP Asset Service Fee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	Minor Fixed Assets	1.2	2.4	3.6	1.2	2.0	3.2	3.2	1.6	4.8	3.2	0.7	3.9
19	In-Service Capital Additions Before Adjustments	25.9	119.8	145.7	24.4	113.5	137.9	111.6	23.4	134.9	106.8	26.4	133.2
20	OEB/Settlement Adjustment <sup>4</sup>	0.0	0.0	0.0	0.0	0.0	0.0	(3.4)	3.4	0.0	(1.9)	1.9	0.0
21	Total In-Service Capital Additions Including Adjustments	25.9	119.8	145.7	24.4	113.5	137.9	108.2	26.8	134.9	104.9	28.3	133.2

Line No.	Business Unit	2024	(c)-(a)	2024	2025	(f)-(d)	2025	2026	(i)-(g)	2026	2027	(l)-(j)	2028
		OEB Approved <sup>1</sup>	Change	Actual	OEB Approved <sup>2</sup>	Change	Budget	OEB Approved <sup>1</sup>	Change	Budget	Plan	Change	Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
22	IT - Nuclear Rate Base	31.9	(2.1)	29.8	27.9	(7.1)	20.8	26.9	(5.4)	21.5	26.4	(0.2)	26.2
23	IT - Regulated Hydroelectric Rate Base	0.0	0.1	0.1	0.0	2.0	2.0	0.0	0.5	0.5	1.5	0.0	1.5
24	IT - Renewable Generation Joint Use Assets	0.0	0.7	0.7	0.0	4.0	4.0	0.0	1.4	1.4	1.1	3.0	4.1
25	IT - Asset Service Fee	39.9	9.7	49.6	45.9	60.6	106.4	46.9	2.7	49.6	66.1	(12.5)	53.6
26	Subtotal	71.8	8.4	80.3	73.8	59.5	133.3	73.8	(0.9)	73.0	95.1	(9.7)	85.4
27	Real Estate - Nuclear Rate Base	2.5	26.6	29.1	19.9	(8.2)	11.6	4.0	11.0	15.0	107.5	(71.5)	36.0
28	Real Estate - Asset Service Fee	1.0	(0.5)	0.5	1.0	3.7	4.7	0.0	0.2	0.2	27.6	(26.2)	1.4
29	Real Estate - Renewable Generation Joint Use Assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.1	0.0	2.2
30	Subtotal	3.5	26.1	29.6	20.9	(4.5)	16.4	4.0	11.2	15.2	165.2	(97.7)	39.6
31	Microsoft Enterprise Agreement <sup>1</sup>	0.0	0.0	0.0	0.0	0.0	0.0	23.0	(23.0)	0.0	0.0	0.0	0.0
32	Clarington Corporate Campus <sup>2</sup>	197.5	(197.5)	0.0	2.5	(2.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33	Corporate Headquarters <sup>3</sup>	0.0	0.0	0.0	0.0	183.1	183.1	0.0	0.0	0.0	0.0	0.0	0.0
34	Subtotal	197.5	(197.5)	0.0	2.5	180.6	183.1	23.0	(23.0)	0.0	0.0	0.0	0.0
35	Enterprise System Modernization Projects- ASF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	0.0	89.1	89.1
36	Enterprise System Modernization Projects- Renewable Generation Joint Use Assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	0.0	89.1	89.1
38	DNNP Operational Readiness Technology Projects- DNNP Asset Service Fee	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	Minor Fixed Assets	3.2	1.3	4.5	3.2	2.8	6.0	3.2	3.8	7.0	9.0	0.0	9.0
40	In-Service Capital Additions Before Adjustments	276.0	(161.7)	114.3	100.4	238.4	338.8	104.0	(4.8)	99.2	269.3	(18.3)	223.1
41	OEB/Settlement Adjustment <sup>4</sup>	(1.7)	1.7	0.0	(2.4)	2.4	0.0	(1.5)	1.5	0.0	0.0	0.0	0.0
42	Total In-Service Capital Additions Including Adjustments	274.3	(160.0)	114.3	98.0	240.8	338.8	102.5	(3.3)	99.2	269.3	(46.2)	223.1

Notes:

- 1 Variance in 2023 and 2026 due to updated accounting treatment of these costs as OM&A (Ex. D3-1-1)
- 2 Corporate Headquarters includes the cost to acquire the building and associated renovation. The acquisition cost excludes costs associated with undeveloped land.
- 3 For comparison with the Corporate Headquarters project, the "OEB Approved" column includes the Clarington Corporate Campus project In-service additions planned EB-2020-0290. A deferral account for the Clarington Corporate Campus project was established in EB-2020-0290 (PAO, page 7), and associated impacts were excluded from the EB-2020-0290 final PAO.
- 4 See EB-2020-0290, Ex. O, Tab 1, Sch. 1, Pg. 22 of 51, Table 14.

Numbers may not add due to rounding.

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Table 5b  
 Comparison of In-Service Capital Additions - Support Services (\$M) 2028-2031

Line No.	Business Unit	2028 Plan	(c)-(a) Change	2029 Plan	(e)-(c) Change	2030 Plan	(g)-(e) Change	2031 Plan	2022-2026 Actuals & Budget	(j)-(h) Change	2027-2031 Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	IT - Nuclear Rate Base	26.2	8.2	34.4	(13.1)	21.3	(5.3)	16.0	121.9	2.4	124.3
2	IT - Regulated Hydroelectric Rate Base	1.5	0.0	1.5	0.0	1.5	0.0	1.5	2.6	4.9	7.5
3	IT - Renewable Generation Joint Use Assets	4.1	0.0	4.1	1.0	5.1	2.0	7.1	10.4	11.1	21.5
4	IT - Asset Service Fee	53.6	(6.2)	47.5	(6.4)	41.1	5.2	46.3	341.2	(86.6)	254.6
5	<b>Subtotal</b>	<b>85.4</b>	<b>2.0</b>	<b>87.4</b>	<b>(18.4)</b>	<b>69.0</b>	<b>1.9</b>	<b>70.9</b>	<b>476.0</b>	<b>(68.2)</b>	<b>407.8</b>
6	Real Estate - Nuclear Rate Base	36.0	(3.2)	32.7	17.3	50.1	(26.4)	23.7	114.5	135.5	250.0
7	Real Estate - Asset Service Fee	1.4	3.0	4.4	(4.0)	0.4	0.0	0.4	8.8	25.4	34.2
8	Real Estate - Renewable Generation Joint Use Assets	2.2	0.0	2.2	0.0	2.2	0.0	2.2	0.0	38.9	38.9
9	<b>Subtotal</b>	<b>39.6</b>	<b>(0.2)</b>	<b>39.3</b>	<b>13.3</b>	<b>52.7</b>	<b>(26.4)</b>	<b>26.3</b>	<b>123.3</b>	<b>199.8</b>	<b>323.1</b>
10	Microsoft Enterprise Agreement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0
11	Clarrington Corporate Campus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Corporate Headquarters	0.0	0.0	0.0	0.0	0.0	0.0	0.0	190.8	(190.8)	0.0
13	<b>Subtotal</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>190.8</b>	<b>(190.8)</b>	<b>0.0</b>
14	Enterprise System Modernization Projects- ASF	89.1	0.9	90.0	(58.3)	31.7	88.8	120.5	4.0	327.3	331.3
15	Enterprise System Modernization Projects- Renewable Generation Joint Use Assets	0.0	30.5	30.5	(30.5)	0.0	0.0	0.0	0.0	30.5	30.5
16	<b>Subtotal</b>	<b>89.1</b>	<b>31.4</b>	<b>120.5</b>	<b>(88.8)</b>	<b>31.7</b>	<b>88.8</b>	<b>120.5</b>	<b>4.0</b>	<b>357.8</b>	<b>361.8</b>
17	DNNP Operational Readiness Technology Projects- DNNP Asset Service Fee	0.0	0.0	0.0	132.6	132.6	(126.1)	6.5	0.0	139.2	139.2
18	Minor Fixed Assets	9.0	0.0	9.0	0.0	9.0	0.0	9.0	26.2	18.8	45.0
19	<b>In-Service Capital Additions Before Adjustments</b>	<b>223.1</b>	<b>33.2</b>	<b>256.3</b>	<b>38.7</b>	<b>295.0</b>	<b>(61.8)</b>	<b>233.2</b>	<b>820.4</b>	<b>456.5</b>	<b>1,276.9</b>
20	OEB/Settlement Adjustments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	<b>Total In-Service Capital Additions Including Adjustments</b>	<b>223.1</b>	<b>33.2</b>	<b>256.3</b>	<b>38.7</b>	<b>295.0</b>	<b>(61.8)</b>	<b>233.2</b>	<b>820.4</b>	<b>456.5</b>	<b>1,276.9</b>

Table 6  
 Capital Project Listing - Support Services  
Portfolio Projects (Unallocated)<sup>1</sup>

Line No.	Project Name	Category	Potential Start Date
	(a)	(b)	(c)
	<b>Projects With Potential Cost &gt;\$10M and &lt; \$30M</b>		
1	89331 - Energy Markets - Technology Rationalization	Sustaining	2026
2	89635 - SC DNNP Enterprise Resource Planning	Sustaining	2025
	<b>Projects With Potential Cost ≥ \$30M</b>		
3	87768 - Enterprise Asset Management	Sustaining	2026
4	89629 - Supply Chain Enterprise Resource Planning	Sustaining	2026

Notes:

- 1 Projects with potential capital expenditures during IR term with an estimated total project cost of \$10M or greater.

Table 7  
 Capital Projects - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
Listing of Business Case Summaries Filed

Line No.	Project Number	Business Case Summary (BCS) Title	BCS Approval Date	Project Stage	BCS Status	BCS Status in EB-2020-0290
	(a)	(b)	(c)	(d)	(e)	(f)
1	84975	Asset Suite 9 Upgrade	5/4/2021	Completed	Complete	n/a
2	87188	DNNP Enterprise Asset Management	4/30/2025	Execution	Execution	n/a
3	83746	Integrated HR Service Delivery	5/9/2025	Execution	Execution	n/a
4	89273	Finance ERP Solution	10/1/2025	Planning	Development	n/a
5	87413	Corporate Headquarters Renovation	7/11/2024	Execution	Execution	n/a
6	87414 <sup>1</sup>	Corporate Headquarters Acquisition	1/20/2023	Complete	Complete	n/a
7	90092	Security Project D	n/a	n/a	n/a	n/a

Notes:

- BCS does not reflect a project number as it was not assigned at the time of BCS drafting due to confidentiality. Project numbers were assigned in no particular order.

Table 8  
 Capital Projects - Support Services  
 (Capital Projects Impacting Rate Base or IR Term Asset Service Fees)  
 Status of Projects > \$10M with 2020-2026 Final In-Service Dates in EB-2020-0290

Line No.	Project Number	Project Name	In-Service Date at Time of EB-2020-0290 Application	Project Stage at Time of EB-2020-0290 Application	Current Project Status	
					Project Status	Projected/Actual In-Service Date
	(a)	(b)	(c)	(d)	(e)	(f)
1	84975	Asset Suite Upgrade	Dec-22	Ongoing	Completed	Dec-23
2	82856	Tempus Lifecycle Upgrade	Dec-20	Closeout	Completed	Dec-20
3	82134	Network Segmentation - Campus Switch Replacement Project	Jun-23	Execution	Completed	Dec-23
4	84397	Reimagine Program	Apr-20	Execution	Completed	Apr-21
5	86070	Reimagine Program 2.0	Jun-22	Planning	Completed	Jun-23
6	86018	Microsoft Enterprise Agreement (EA)	Dec-20	Execution	Completed	Mar-21
7	84230	Pickering Communication System Improvement Wi-Fi	Dec-23	Execution	Completed	Dec-24
8	82924, 83690, 83692, 83800	Cyber Security - CSA N290.7 Compliance <sup>1</sup>	Dec-20	Closeout	Completed	Dec-20
9	84772	Energy Market Application Refresh Program	Dec-23	Ongoing	Ongoing	Dec-25
10	83746	Integrated HR Service Delivery <sup>2</sup>	Dec-25	Execution	Completed	Dec-25
11	84696	Workplace Transformation of Darlington Energy Center 2nd Floor	Dec-25	Planning	Ongoing	Dec-27

Notes:

- 1 Satisfaction of the CSA N290.7 cyber security standards is an ongoing compliance program comprised of nine distinct projects to address discrete requirements. The applicable projects of this program are provided on this table.
- 2 Integrated HR Service Delivery combines SAP Payroll and HR System Replacement that were listed as separate projects in EB-2020-0290. Final in-service date used is the latter of the 2 replaced projects.