Business Case Summary

Project #	84640	**Controlled Doc #**	CCH-BCS-00120.03-0834408
Project Title	Clarington Corporate Campus		
Facility	CCH	**Investment Classification**	Value Enhancing
Project Level (Scalability)	A	**Financial Classification**	☐ OM&A ☒ Capital ☐ Capital Spare ☐ MFA ☐ CMFA ☐ Provision ☐ Others: [if applicable]
Release: Gate and Project Phase	☐ Choose an item. G0☐: Initiation ☒ Full G1☐: Planning		☐ Choose an item. G2☐: Definition ☐ Choose an item. G3☐: Execution
Estimate Class (overall project)	Class 5	**Target Project Completion Date**	**Substantial Comp.**: Jun-2024 **Project Close-out**: Dec-2025

Recommendation

We recommend a release of [redacted], including [redacted] of contingency.
The estimated total project cost is [redacted], including contingency.

This release will fund the following Planning Phase scope of work:

1. Engage Contractor.
2. Gather all OPG user requirements.
3. Create the functional program based on the user requirements.
4. Select a preferred concept to be approved by OPG senior leadership.
5. Conduct a permitting assessment and initiate required technical studies.
6. Advance the design sufficiently such that the project can confidently determine the costs, schedule and risks prior to moving into the Execution phase.

The quality of the estimate for the total project is Class 5. At the conclusion of the Planning Phase a Class 3 quality estimate will be provided for the Execution Phase Business Case Summary (BCS).

Investment Cash Flows

$K	LTD	2020	2021	2022	2023	2024	2025	Future	Total
Previous releases	[redacted]								
Current request									
Total released to d									
Future required									
Total Project Cost									
Ongoing Costs									
				Gate:	**G1**		**OAR Approval:**	[redacted]	

Approvals	Signatures	Date
The recommendation, including the identified ongoing costs, if any, represents the best option to meet the validated business need.		
Recommended by: ***Tami Boulton*** Senior Manager Projects	Tami Boulton	Aug 21, 2020
I concur with the business decision as documented in this BCS.		
Finance Approval: ***Suneethi Viswanathan*** Finance Controller	Suneethi	Aug 21, 2020
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.		
Line Approval per OAR 1.1: ***Connie Hergert*** VP Real-Estate	Connie Hergert	Aug 24, 2020

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

EXECUTIVE SUMMARY – Project Overview

Business Need / Objective:

OPG's workspace needs are evolving as the company approaches the end of commercial operations at Pickering. OPG is also currently leasing a large number of properties throughout the GTA and Durham. There is an opportunity for OPG to reduce on-going leasing and building maintenance costs, and leverage the changing workspace needs, by transforming its real estate footprint.

Summary of Preferred Alternative:

The preferred alternative is to construct a new office building across the street from the existing Darlington Energy Complex (DEC). The office will be designed to accommodate 1,250 employee workspaces and will function as OPG's new corporate head office. The benefits of this new, modern, office include:

- An estimated cost reduction of approximately $65M (present value) over the next 40 years by moving away from a lease strategy and reducing the number of work locations (e.g. lower travel costs).
- The creation of a corporate campus will facilitate increased collaboration and further enhance the One OPG cultural mindset.
- A safe, modern and long-term office space will help attract and retain talent.
- The project reflects our long-term commitment to the local community and stakeholders, in line with our social license business imperative.
- The new office will function as OPG's new corporate head office, supporting an industry leading image of our organization to the public.
- [redacted]

The Planning Phase will enable the project to finalize the building concept and advance the detailed design.

The overall purpose of the Planning Phase will be to gather the user requirements (Functional Program) from internal stakeholders, develop a number of campus concepts to be approved by the Enterprise Leadership Team (ELT) and then progress the detailed design sufficiently such that the project can confidently determine the costs, schedule and risks prior to moving into the Execution Phase.

Key Risks:

- As part of the on-going evolution of OPG's workplace needs, there is a risk that the assumed size of the new office building will need to be modified. Depending on the magnitude and timing of the change in scope, this could potentially require a re-baselining of project schedule and costs, as well as an extension to the duration of the Planning Phase. As part of risk mitigation efforts, the Project is proactively engaging with OPG's workforce and business planning functions and other internal stakeholders.
- A number of permits and connection agreements will be needed from external stakeholders. There is a risk that obtaining these permits could take longer than expected due to a back-log of requests resulting from the COVID-19 pandemic. There is also a risk that a future resurgence of the pandemic could negatively impact the permitting process and the overall project schedule.
- The Region of Durham may proceed with the construction of an Organic Digester near the campus site. This could negatively impact the workplace appeal of the new office building and the DEC. If OPG decides to change the campus site in the future, the project schedule and cost would be substantially impacted.

Business Need

For Project Level A or B

OPG's workspace needs are changing (decreasing) as the company approaches the end of commercial operations at Pickering. OPG is also currently leasing a large number of properties throughout the GTA and Durham. There is an opportunity for OPG to reduce on going leasing and building maintenance costs, and leverage the changing workspace needs, by constructing a new corporate campus building in Clarington.

Issue Background:

The new corporate campus building would be near the current DEC to accommodate all non-plant staff. Based on current staffing forecasts, the new campus will be designed to accommodate at least 2,400 employees (all non-plant based staff in the GTA and Niagara). As a result, based on anticipated in-office occupancy rates, the new office building and the DEC will

Business Need For Project Level A or B

need a combined total of at least 1,680 workspaces. The DEC is expected to be renovated (outside the scope of this project) to accommodate approximately 440 workspaces, with the remainder to be accommodated in the new office building. To meet these needs, the new building and associated parking will be constructed with the capacity to host 1,250 individuals at any one time, on property that OPG already owns, across the street from the DEC.

Consolidation of workspace through the construction of a corporate campus 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 5-7 years, coordinated with the construction of the new building and the workplace transformation at the DEC. Additionally, corporate campus structures are recognized as a strategic asset to strengthen employees' sense of corporate identify and encourage collaborative, innovative work.

Investment in the campus will support the four OPG Business Imperatives:

- Project Excellence (consistently exemplify prudent Project Management processes)
- Financial Strength (focused on providing value for shareholder and customers)
- Operational Excellence (modernized facilities, reduced O&M costs)
- Social License (continued commitment to the local community)

Key Assumptions:

- Pickering End of Commercial Operations will occur in 2025.
- Darlington Refurbishment will be completed in 2026.
- Certain training facilities and specialized lab / testing equipment will not be located in the new building.
- OPG will be the sole occupant of the building.
- OPG will build and own the building.
- Parking facilities will only need to accommodate the office staff / visitors.
- The new office will utilize an agile / free address work space arrangement.
- The DEC will be renovated (outside the scope of this project) to accommodate 440 workspaces.
- 30% of staff of will be out of the office at any point in time.
- 1,250 office spaces in the new building will be sufficient to meet OPG's workplace requirements by 2025.
- [redacted]
- [redacted].

Project Constraints:

- Site of the new campus is fixed (the property that we already own).
- The campus is restricted by the local zoning requirements.
- The project will need to conform to external stakeholder processes to obtain appropriate permits, agreements, etc.

Preferred Alternative: **New Office Building** For Project Level A, B or C

Description of Preferred Alternative

The preferred alternative is to construct a new office building across from the existing DEC. The office will be designed to accommodate 1,250 employee workspaces and will function as OPG's new corporate head office.

OPG's non-plant based staff are currently spread among 12 different leased office locations around the Greater Toronto Area (GTA), the OPG-owned Kipling Ave office 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 campus, which will consist of the DEC and the new office building to be constructed as part of this project. The financial modeling of this preferred alternative has shown a decrease in on-going Operations and Maintenance (O&M) costs as compared to the base case. Additionally, the new office will leverage modern workplace design to promote innovation, provide flexibility to handle growth and will be technology focused.

The estimated cost of the Planning Phase is [redacted] and includes hiring the necessary Planning Phase contractors, gathering user requirements, developing the office concept and advancing the detailed design until a Class 3 project estimate can be established.

The preliminary financial evaluation for this project suggests that the net financial benefit of proceeding with the preferred alternative is approximately $65M (PV) of reduced costs over the next 40 years. [redacted]

Preferred Alternative:	**New Office Building**	For Project Level A, B or C

Description of Preferred Alternative

[redacted]

Pros:

- The project will realize real-estate cost savings by moving away from a lease strategy and reducing the number of work locations (e.g., lower travel costs).
- The creation of a corporate campus will facilitate increased collaboration and further enhance the One OPG cultural mindset.
- A safe, modern and long-term office space will help attract and retain talent.
- The project reflects our long-term commitment to the local community and stakeholders, in line with our social license business imperative.
- The new office will function as OPG's new corporate head office, supporting an industry leading image of our organization to the public.

Cons:

- Certain employees may be unwilling to move to the new office location.
- Inability to attract a segment of new talent given the new office location.

Key Risk:
Given the very early stage of the project, there is a risk, through detailed design, that the estimated cost of the new office vision could increase from the current forecast.

Deliverables:	**Associated Milestones (if any):**	**Target Date:**
Current release:		
Planning Phase BCS Approved	BCS approved by the appropriate OAR	2020-Aug
Gate 1 Approved	Gate 1 committee approves the project to proceed into the Planning phase	2020-Aug
Owner's Representative Contract Awarded	Execute contract with preferred vendor to advance the Planning Phase deliverables	2020-Nov
User Requirements Assessment Complete	Programming Document from CM vendor finalized	2021-Mar
Project Concept Frozen	ELT selects the preferred concept for the new campus building	2021-May
Contractor Provides Execution Phase Estimates	Vendor provides a detailed cost and schedule estimate for the Execution Phase	2021-Oct
Gate 3 Approved	Gate 3 committee approves the project to proceed into the Execution phase	2021-Nov
Execution Phase BCS Approved	Execution phase BCS approved by the appropriate OAR	2021-Dec
*Future release: *Subject to change once the concept has been finalized*		
Substructure Complete	Excavation and foundation work complete	2022-Jun
Exterior Cladding and Curtain Walls Complete	The building is fully enclosed	2023-Apr
Fit Out Start	Contractor has started the interior completion work	2023-Oct
Utilities Connected	All gas, water, hydro, etc. connections are complete	2023-Nov
Substantial Completion	The construction works are substantially complete as per the terms of the vendor contract	2024-Jun
Project Completion	Project Close-out	2025-Dec

Alternative 2:	**Base Case – No Project and Continue Leasing**	For Project Level A, B or Value-Enhancing

Not proceeding with the project would necessitate continuing with a leasing approach, in our applicable current office buildings or new leases. The net present value of this alternative, assuming a 40 year outlook, is estimated to be approximately [redacted]. In selecting this alternative, OPG would be foregoing the opportunity for cost savings of approximately $65M (PV) as estimated in the financial analysis. Additionally, it would be significantly more difficult to achieve the same sense of a 'One OPG' campus and its associated benefits of increased collaboration, engagement and innovation as in the preferred alternative, as there is currently no available office space for lease next to the DEC. Hence, even if OPG decided to move all non-plant based staff to Clarington, their office locations would not be within a walkable distance of one another. Overall, this alternative is expected to continue to result in a more fragmented workspace footprint for the company.

Pros:

- No significant up front investment.
- OPG may be less likely to move as many employees, reducing the risk of not being able to retain employees who may be unwilling to change work locations to Clarington.

Cons:

- The long term cost of leasing is higher than building a new office building.
- OPG would fail to capitalize on the many benefits of having most of its 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.

Alternative 3:	**Delay Work – Defer Project**	For Project Level A or B or Value-Enhancing

This project is primarily driven by cost savings and positive workplace cultural shifts. Reasonable delays within the overall project schedule may be justifiable, such as a delay in obtaining appropriate permitting or unanticipated geotechnical features. However, an overall project deferral would require extensions of a number of our office leases, which would result incremental costs to OPG and erode the value of the savings.

Pros:

- Deferral of capital funds expenditures.

Cons:

- Additional real estate (leases) costs as compared to the Preferred Alternative.
- Significant delay would result in misalignment with the planned end of Pickering commercial operations.

This alternative is **not recommended**. There are not any substantial benefits from delaying the campus project. OPG would be subject to additional leasing costs.

Alternative 4:	**New Office Building Not in Clarington**	For Project Level A or B or Value-Enhancing

The campus could be located at an alternative location (other than Clarington). However, the current site leverages property that OPG already owns, and synergizes with the nearby location of the existing DEC building. Selecting a different site for the new office would increase the cost of the project, as new land would need to be purchased. Additionally, to achieve the vision of a single corporate campus at a different location, the new building would need to accommodate more workspaces given forgone DEC synergies.

Pros:

- Potentially better ability to attract a segment of new talent who may be uninterested in the Clarington location.

Cons:

- Increased project cost and potential schedule impact associated with the purchase of new land and larger footprint.

Alternative 4:	**New Office Building Not in Clarington**	For Project Level A or B or Value-Enhancing

This alternative has not been assessed in detail and is **not recommended** on the basis of incremental costs relative to the preferred alternative.

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
Cost	Changes in assumptions, dependencies and scope (outside the control of the project team) could increase the cost of the project. An example would include the requirement for additional workspaces beyond what has been assumed in this BCS.	Accept: • The project team will continue to engage with ELT, the workforce and business planning functions, and other SPOCs throughout the organization, to ensure continued alignment on OPG's future business needs. **Final TCD: -**	No	Medium
Schedule	COVID-19 resurgence may negatively impact industry productivity, up to and including a site work shutdown and permit applications being put on hold.	Accept: • The project will leverage the pandemic experiences in 2020 to mitigate project impacts to the extent possible if COVID-19 risks increase, with due regard to employee and contractor safety. **Final TCD: -**	No	Medium
Schedule	Permitting and approvals could take longer than anticipated, resulting in project schedule delays.	Mitigate: • Early engagement with the relevant stakeholders to ensure alignment on permitting requirements. • Sufficient schedule contingency built into the project schedule to mitigate delays. **Final TCD: Jun-2022**	Yes	Medium
Social Licence	The region of Durham may construct an Organic Digester nearby. If OPG decides to relocate the campus, there will be significant cost and schedule impacts to the project.	Mitigate: • OPG is engaging with the Region of Durham and the Municipality of Clarington to address OPG's concerns with the location of the Organic Digester. **Final TCD: Dec-2021**	No	Low

Additional Risk Analysis — For Project Level A or B

Not required at this time.

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

$M	Preferred Alternative	Base Case (No Project)	Delay work	New Office Not in Clarington
Project Cost	[redacted]			
NPV				
Other: (e.g., IRR)				

Analysis of Financial Evaluation – Key Assumptions and Key Results:

The quality of the estimate for the total project is Class 5. The project cost is a parametric estimate for a typical curtain wall office building. The project team also reviewed cost data for similar projects completed by large construction firms to calibrate the estimate. An updated project cost estimate (AACE Class 3 along with a higher confidence level) will be provided in the Execution Phase BCS once the Planning Phase work has been substantially complete.

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

In selecting the preferred alternative, OPG is estimated to realize a Present Value cost reduction of approximately $65M. This is a preliminary financial evaluation which will be updated prior to the Execution Phase BCS when higher confidence project cost and other information is available.

Key Assumptions Used for the Financial Evaluation:

- The Preferred Alternative includes the following office spaces for on-going O&M accounting:
  New campus building, DEC, 1549 Victoria St.
- The Base Case includes the following office spaces for on-going O&M accounting:
  Consolidate to 700 University Ave, 889 Brock Rd, 800 Kipling Ave, DEC, 1549 Victoria St.
  The lease rates for these locations are considered to be representative of comparable properties.
- 40 year time horizon.
- DEC renovation costs not included as part of this project, as they are expected to proceed in both the base case and the preferred alternative.
- Office refresh costs have been included for 800 Kipling Ave. and 889 Brock Rd. in the base case.
- An estimate of reductions in ongoing 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: 3.5%
- Lease escalation rate: 3%
- [redacted]

Qualitative Factors	For Project Level A or B

The *Power With Purpose* strategic direction of OPG is to provide low cost power in safe, clean, reliable and sustainable manner for the benefit of the customers and shareholder. Four strategic imperatives are defined as part of this direction, and the project aligns with each of them as follows:

- *Operational Excellence*: The project represents a long-term investment in OPG's workplace that will modernize our facilities and reduce on-going O&M costs.
- *Project Excellence*: To ensure project excellence, a detailed scope of work will be developed by a highly qualified external contractor who has expertise in commercial office building construction. The project management will be aligned with OPG's Project Management governance.
- *Financial Strength*: Investing in the campus provides value for our shareholder and customers, as there will be significant savings in long term real estate costs.
- *Social License*: Execution of this project will demonstrate support to our local host communities by contributing incremental economic benefits to the region.

Post Implementation Review (PIR) Plan (refer to OPG-PROC-0056)

Type of PIR Report	Simplified/Standard PIR	**PIR Completion Date**	12 months after project substantial completion

☒ Detailed PIR KPIs will be provided in future BCS(s) when Execution Phase BCS release is requested.

Definitions and Acronyms

DEC – Darlington Energy Complex
ELT – Enterprise Leadership Team
GTA – Greater Toronto Area
NPV – Net Present Value
SPOC – Single Point Of Contact
TCD – Target Completion Date

Project #: 84640
Project Title: Clarington Corporate Campus
Document #: CCH-BCS-00120.03-0834408

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OPG-FORM-0076-R006
Business Case Summary

APPENDICES

Appendix A1: Summary of Estimate										
Project Number:	**84640**									
Project Title:	**Clarington Corporate Campus Project**									
$K	**LTD**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**Future**	**Total**	**%**
Project Management	[redacted]									
Procurement										
Eng. and Construction (CM Contractor)										
Cost Only										
Execution Phase*										
Subtotal										
Contingency										
Subtotal w/ Contingency										
Interest										
Other										
Total										

*Execution Phase costs are not part of this BCS. They are included here for reference only.

Appendix A2: Summary of Estimate – Notes			
Escalation Rate	2.00%	**Interest Rate (going-forward)**	3.5%

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 (YYYY-MM-DD)**	**Description**	**Amount**	**%**
		To Be Determined		0%
Total			-	0%

Prepared by:	Reviewed and Endorsed by:
Matt Sikstrom **Matt Sikstrom** Project Manager, RG PMO Aug 21, 2020	Tami Boulton **Tami Boulton** Senior Manager Projects, Real Estate Aug 21, 2020