COMPARISON OF PROJECT OM&A COSTS – REGULATED HYDROELECTRIC

1.0 PURPOSE

This evidence presents term-over-term comparisons of Project OM&A expenditures within the regulated hydroelectric portfolio.

Consistent with the OEB's letter dated September 17, 2024, issued in EB-2024-0136, OPG has included nine years of historical data for its hydroelectric business below, for the period 2016-2024. As there is no OEB-approved Project OM&A information for 2015 onwards, OPG has only provided term-over-term variance analyses for the following periods: 2017-2021 actuals versus 2022-2026,[1] and the annual average of 2022-2026[2] versus the 2027 test year forecast.

As discussed in Ex. F1-3-1, the increase in Project OM&A expenditures over the historical period reflects the increased Project OM&A portfolio necessary to maintain aging assets, as described in Ex. F1-1-1.

2.0 TERM-OVER-TERM CHANGES – 2022-2026 ANNUAL AVERAGE VERSUS 2027

OPG is requesting the approval of forecasted regulated hydroelectric Project OM&A expenditures of $127.0M for the 2027 test year. This represents an increase of $46.8M from the previous period's average annual expenditure of $80.2M between 2022-2026. The increase in Project OM&A expenditures is primarily due to an increase of $28.6M for Portfolio Projects, and an increase of $15.9M for infrastructure costs. A summary of the regulated hydroelectric Project OM&A expenditures for the historical period (2017-2021), bridge period (2022-2026), and test year (2027) can be found in Ex. F1-3-1, Table 1 and Ex. F1-3-2, Table 1.

[1] 2022-2024 actuals, 2025-2026 forecast.
[2] *Ibid*.

2.1 Portfolio Projects

In the 2027 test year, Portfolio Project OM&A expenditures are forecasted to total $90.7M, an increase of $28.6M from the previous period's average annual expenditure of $62.1M. This term-over-term change consists of increases in expenditures for Niagara Region (+$10.1M), Eastern Region (+$14.3M), and Western Region (+$4.2M).

<u>Niagara Region</u>

In the 2027 test year, OM&A Project expenditures for Niagara Region are forecasted to total $16.8M. This is an increase of $10.1M from the previous period's average annual expenditure of $6.7M. This change is driven primarily by increased Project OM&A spending for Niagara station overhauls, such as DeCew Falls 1 GS. Additional contributors to this increase include Niagara Region building rehabilitation programs as well as the rehabilitation of the Sir Adam Beck 1 GS powerhouse, screenhouse interior, and building envelope, which is necessary to accommodate the increased staffing levels required for the Sir Adam Beck 1 and Sir Adam Beck 2 GS refurbishment projects described in Ex. D1-1-2, Section 3.2.1.

<u>Eastern Region</u>

In the 2027 test year, OM&A Project expenditures for Eastern Region are forecasted to total $65.9M. This is an increase of $14.3M from the previous period's average annual expenditure of $51.6M. This change is driven by increased expenditures related to concrete repair and restoration projects, primarily those pertaining to concrete structures at the Des Joachims GS and R.H. Saunders GS.

<u>Western Region</u>

In the 2027 test year, OM&A project expenditures for Western Region are forecasted to total $8.1M. This is an increase of $4.2M from the previous period's average annual expenditure of $3.8M. This change is driven by increased expenditure related to concrete repair and restoration projects, notably those pertaining to the Auburn GS forebay and Tretheway Falls GS gravity walls.

2.2 Infrastructure Expenditures

In the 2027 test year, infrastructure Project OM&A expenditures are forecasted to total $32.7M, an increase of $15.9M from the previous period's average annual expenditure of $16.8M. This is driven by an increase in removal costs corresponding with increased refurbishment activity in the forecast period (refer to Ex. D1-1-1, Section 4.2).

3.0 TERM-OVER-TERM CHANGES: EXTENDED HISTORICAL YEARS – 2017-2021 VERSUS 2022-2026

Pursuant to the OEB's letter dated September 17, 2024, issued in EB-2024-0136, OPG has included an additional analysis of term-over-term historical data (2017-2021 versus 2022-2026) for its regulated hydroelectric business below. OPG expects to spend a total of $400.8M in Project OM&A expenditure during the 2022-2026 term, an increase of $115.7M from the 2017-2021 period's expenditures of $285.1M. The increase in Project OM&A expenditure is primarily due to an increase in expenditures for Portfolio Projects of $80.2M and an increase in infrastructure costs of $30.4M. A summary of the regulated hydroelectric Project OM&A expenditures for the 2017-2021 and 2022-2026 terms can be found in Ex. F1-3-2, Table 1.

3.1 Portfolio Projects

During the 2022-2026 term, Portfolio Project OM&A expenditures are forecasted to total $310.6M, an increase of $80.2M from the 2017-2021 term's expenditure of $230.5M. This term-over-term change mainly consists of an increase for Eastern Region (+$89.7M), and a $10.5M decrease for Western Region.

<u>Eastern Region</u>

Project OM&A expenditures for Eastern Region are forecasted to total $257.8M in the 2022-2026 term. This is an increase of $89.6M from the 2017-2021 term's expenditure of $168.2M. This is driven by an increase in turbine-generator overhaul projects within the Eastern Region, including the following Tier 2 projects:

- Otter Rapids GS Unit G1 (project #82515 Otter Rapids GS G1 Overhaul)
- Otter Rapids GS Unit G2 (project #82521 Otter Rapids GS G2 Overhaul)
- Otto Holden GS Unit G8 (project #86476 Otto Rapids GS G8 Overhaul)

- R.H. Saunders GS Unit G9 (project #83371 R.H. Saunders GS G9 Overhaul)
- R.H. Saunders GS Units G12 (project #86593 R.H. Saunders GS G12 Overhaul)

Further details on these projects are provided in Ex. F1-3-3, Table 2.

Western Region

Project OM&A expenditures for Western Region are forecasted to total $19.1M in the 2022-2026 term. This is a decrease of $10.5M from the 2017-2021 term's expenditure of $29.6M. The 2017-2021 term saw higher Project OM&A expenditures due to a provision of $9.5M in connection with a Final Settlement Agreement with a First Nation to perform remediation work to address shoreline erosion impacts related to work performed by the Hydro-Electric Power Commission of Ontario (Ontario Hydro) at Lake Nipigon in 1925.

3.2 Infrastructure Expenditures

Infrastructure Project OM&A expenditures are forecasted to total $84.0M in the 2022-2026 term, an increase of $30.4M from the 2017-2021 term's expenditure of $53.6M. The term-over-term increase was driven by an increase in removal costs corresponding with a greater number of capital refurbishment projects (refer to Ex. D1-1-1, Section 5.2).

Numbers may not add due to rounding.

Table 1
Comparison of Project OM&A - Regulated Hydroelectric ($M)

Line No.	Business Unit[1]	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Actual	2025 Budget	2026 Budget
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	Portoflio Projects (Allocated)											
1	**Niagara Region**	11.9	6.5	6.1	7.4	7.7	5.0	3.9	11.7	6.5	3.0	3.6
2	**Eastern Region**	16.5	24.3	34.6	34.7	26.7	47.9	58.1	51.4	43.8	47.4	35.2
3	**Western Region[2]**	9.3	7.3	2.9	1.7	2.9	14.8	4.1	2.0	2.7	3.6	2.9
4	**Subtotal Portfolio Projects (Allocated)**	37.7	38.1	43.6	43.8	37.3	67.7	66.1	65.1	53.0	53.9	41.7
5	**Infrastructure[3,4]**	0.7	4.1	10.1	10.5	15.5	13.4	7.9	10.0	14.9	29.1	22.1
	Portfolio Projects (Unallocated)											
6	**Niagara Region**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.4
7	**Eastern Region**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	19.3
8	**Western Region**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	1.3
9	**Subtotal Portfolio Projects (Unallocated)**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	22.9
10	**Small Hydro Redevelopment[5]**	0.7	0.1	0.0	0.1	0.8	0.0	0.1	0.2	1.8	1.7	3.8
11	**Total**	39.0	42.3	53.8	54.3	53.6	81.1	74.1	75.3	69.7	92.6	90.5

Line No.	Business Unit[1]	2017-2021 Actuals Total	(c)-(a) Change	2022-2026 Actuals & Budget Total	2022-2026 Actuals & Budget Average	(f)-(d) Change	2027 Plan
		(a)	(b)	(c)	(d)	(e)	(f)
	Portoflio Projects (Allocated)						
12	**Niagara Region**	32.7	(4.0)	28.7	5.7	(2.4)	3.3
13	**Eastern Region**	168.2	67.7	235.8	47.2	(29.2)	18.0
14	**Western Region[2]**	29.6	(14.4)	15.2	3.0	(2.4)	0.7
15	**Subtotal Portfolio Projects (Allocated)**	230.5	49.3	279.7	55.9	(34.0)	21.9
16	**Infrastructure[3,4]**	53.6	30.4	84.0	16.8	15.9	32.7
	Portfolio Projects (Unallocated)						
17	**Niagara Region**	0.0	5.0	5.0	1.0	12.5	13.5
18	**Eastern Region**	0.0	22.0	22.0	4.4	43.5	47.9
19	**Western Region**	0.0	3.9	3.9	0.8	6.6	7.4
20	**Subtotal Portfolio Projects (Unallocated)**	0.0	30.9	30.9	6.2	62.6	68.8
21	**Small Hydro Redevelopment[5]**	1.0	6.6	7.5	1.5	2.1	3.7
22	**Total**	285.1	117.1	402.2	80.4	46.5	127.0

Notes:

1 Operating Region descriptions effective 2021 (see Ex. A1-4-2).

2 Western Region 2021 total includes recognition of a provision of $9.5M in connection with a Final Settlement Agreement with a First Nation to perform remediation work to address shoreline erosion impacts related to work performed by the Hydro-Electric Power Commission of Ontario (Ontario Hydro) at Lake Nipigon in 1925.

3 Reflects all removal costs regardless of related capital project CRVA eligibility.

4 2027 amounts include $25.3M of non-capital costs related to CRVA-eligible projects.

5 Conceptual work to assess the viability of proposed regulated hydroelectric development projects. See F1-3-1, Section 3.2.