GROSS REVENUE CHARGE AND OTHER WATER AGREEMENT COSTS – REGULATED HYDROELECTRIC

1.0 PURPOSE

This evidence describes the gross revenue charges ("GRC") that OPG is required to pay the Province of Ontario pursuant to legislative and regulatory requirements. It also describes water rental charges and other water agreement costs payable to other governments, agencies, or companies (St. Lawrence Seaway Management Corporation, Parks Canada, Government of Québec, Hydro-Québec) and funding contributions to the Lake of the Woods Control Board and the Ottawa River Regulation Planning Board (Government of Canada).

2.0 OVERVIEW

Gross revenue charges refer to the taxes and charges that are required to be paid by owners of hydroelectric generating stations under Section 92.1 of the *Electricity Act, 1998*. Details pertaining to GRC are available in the legislation and *Ontario Regulation 124/02* ("O. Reg. 124/02"), and the calculation methodology is unchanged from EB-2013-0321. A description of GRC applicable to the regulated hydroelectric stations is provided in Section 3.0 below.

Water rental charges and other costs associated with leases, licenses, funding of Control Boards, or agreements with other governments, agencies, or companies are described in Section 4.0.

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. Exhibit F1-4-1, Table 1, presents the total of GRC and other water agreement costs for the years 2016-2027. Actual amounts are shown for the years 2016-2024 and forecasted amounts are shown for the bridge period (2025-2026), and test year (2027).[1] Year-over-year changes in GRC are discussed in Ex. F1-4-2.

---

[1] GRC figures reflect the final billed amounts for each respective year 2016-2024.

3.0 GROSS REVENUE CHARGE ON REGULATED HYDROELECTRIC GENERATING STATIONS

The GRC consists of a property tax component and a water rental component. All 54 of the regulated hydroelectric facilities are subject to the property component, payable to the Ontario Electricity Financial Corporation ("OEFC"). Only 35 of those facilities where water power leases are held with the Ontario Ministry of Natural Resources are subject to the water rental component, which is payable to the Ministry of Finance, with the exception of a portion[2] for the Sir Adam Beck Complex which is paid directly to the Niagara Parks Commission as required by Ontario Regulation 135/02 under the *Electricity Act, 1998*. The remaining 19 regulated hydroelectric facilities that are not subject to GRC water rentals are shown in Chart 1; payments related to any other applicable water rental agreements are detailed in Section 4.0 below.

Chart 1 – Regulated Hydroelectric Facilities Not Subject to GRC Water Rental Component

Region	Hydroelectric Facilities
Niagara Region	DeCew Falls 1 GS, DeCew Falls 2 GS
Eastern Region	Bingham Chute GS, Elliott Chute GS, Nipissing GS, Calabogie GS
Western Region	Eugenia Falls GS, Auburn GS, Frankford GS, Hagues Reach GS, High Falls GS, Lakefield GS, Merrickville GS, Meyersburg GS, Ranney Falls GS, Seymour GS, Sidney GS, Sills Island GS, Kakabeka Falls GS

The GRC is determined by multiplying the station's annual energy production by a fixed rate of $40,000 per GWh (as prescribed by O. Reg. 124/02 and extended by Ontario Regulation 09/10) and then applying the appropriate GRC property and water rental tax rates. Any applicable water transactions with another utility are also included in the determination of the station's annual energy production that is subject to the GRC according to the formulas prescribed in O. Reg. 124/02, Part II, s. 3(2-5) (see Ex. G1-1-1 for a discussion of Water Transactions). The GRC property tax rates are graduated through four tiers of production,

[2] In accordance with subsection 92.1 (5.1) of the *Electricity Act, 1998.*

increasing from 2.5% to 4.5%, 6.0%, and 26.5%, as shown in Chart 2. The GRC water rental rate is fixed at 9.5%.

Chart 2 – Gross Revenue Charge Components

Station Production (GWh/yr)	Water Rental Rate (%)	Property Graduated Rate (%)	Total GRC Rate (%)
0 – 50	9.5	2.5	12.0
50 – 400	9.5	4.5	14.0
400 – 700	9.5	6.0	15.5
> 700	9.5	26.5	36.0

Per O. Reg. 124/02, s. 3(2), a station's annual generation for the year includes the net energy associated with water transfers to and from another station. The GRC associated with forecast water transfers to and from New York Power Authority stations on the Niagara and St. Lawrence Rivers is included as a separate row in Ex. F1-4-1, Table 1.

Ontario Regulation 124/02, s. 7, allows deductions to GRC for eligible capacity of new, redeveloped, or upgraded stations.[3] These deductions reduce the GRC payments of a station by a factor proportional to the upgraded capacity. Calabogie GS, which was redeveloped following a tornado in 2017, is currently operating with an approved GRC deduction. No other O. Reg. 124/02 GRC deductions are currently in effect or included in the GRC forecast. OPG expects to apply for GRC deductions for capacity expansions when eligible. As the eligibility for and magnitude of potential GRC deductions cannot be determined until projects are completed, OPG proposes to capture any future GRC deductions in the Gross Revenue Charge Variance Account. In order to do so, OPG is proposing to expand the existing Gross Revenue Charge Variance Account to apply to all of OPG's regulated hydroelectric facilities. OPG also proposes that the account capture the revenue requirement impact of any differences in GRC expenses that result from a legislative or regulatory charge to the GRC rates or rules. These proposals are as described in Ex. H1-1-1, Section 5.9.

[3] In accordance with O. Reg. 124/02, s. 7(2), in the case of a new or redeveloped station the deductions include all of the station's annual generation.

4.0 OTHER WATER AGREEMENT, WATER RENTAL, AND CONTROL BOARD COSTS

In addition to the GRC payable to the OEFC, Ontario Minister of Finance, and the Niagara Parks Commission, land rentals are paid to the Ontario Ministry of Natural Resources for Crown Leases or Licenses of Occupation associated with the regulated hydroelectric facilities. These nominal rentals are included in the GRC totals presented for each Operating Region in Ex. F1-4-1, Table 1.

Other water rental charges and costs are incurred pursuant to a number of agreements with other government agencies and companies, as well as legislative requirements related to control board funding. The main agreements are described below.

4.1 St. Lawrence Seaway Management Corporation Lease Agreement

OPG holds a lease agreement with the St. Lawrence Seaway Management Corporation ("SLSMC") pertaining to the conveyance of water from Lake Erie through the SLSMC's Welland Canal to intakes at Allanburg, where water is withdrawn and diverted to the DeCew Falls generating stations (Niagara Region) for power generation; water conveyance charges payable to SLSMC are determined based on the monthly average diversion flow. The current 30-year lease is in place until 2038, with rates subject to review every five years. The water conveyance payment terms are currently in legal arbitration. Pending the outcome of the arbitration, OPG has based the 2025-2027 amounts included in the Niagara Region GRC totals presented in Ex. F1-4-1, Table 1 on the existing rates.

4.2 Government of Québec Water Rentals

The Governments of Ontario and Québec ratified an Agreement dated January 2, 1943, pertaining to the development of water power on the Ottawa River.[4] Under the terms of this agreement, water rentals are paid to the Government of Québec based on one-half of station production from the upper three Ottawa River plants (Otto Holden GS, Des Joachims GS, and Chenaux GS). Rental rates prescribed by the 1943 Agreement were revised by subsequent agreement between the parties for the 25-year period from 1993-2017. The rental rate

[4] The Ottawa River Water Powers Act, 1943.

applicable for the years 2015-2017, inclusive, was $30 per average annual horsepower of energy. A rate agreement for the next 25-year period beginning in 2018 was finalized in 2019. The agreement sets a rental rate applicable for January 2018-March 2020, inclusive, at $30 per average annual horsepower of energy and a rental rate for April 2020-March 2023, inclusive, at $4.59 per each thousand kilowatt hours of energy (note that this change represents a unit conversion from yearly horsepower to kilowatt hours; the rental rate is effectively the same).[5] Beginning in April 2023 and continuing to January 1, 2043 the rental rate is indexed to the Consumer Price Index.[6] Water rental costs for the three Ottawa River plants are projected to be $10.7M in 2025 and increase to $12.6M by 2031. The Québec water rental costs have been included with the Eastern Region GRC totals presented in Ex. F1-4-1, Table 1.

OPG does not pay water rentals to the Government of Québec for the fourth Ottawa River plant, Chats Falls GS, as ownership of Chats Falls GS is shared with Hydro-Québec. Water rentals payable to the Government of Québec are paid by Hydro-Québec, based on one-half of station production. OPG pays GRC (property and water rental components) to the OEFC and the Ontario Ministry of Finance based on one-half of Chats Falls GS annual production.

4.3 Hydro-Québec – Dozois Agreement and Cabonga Diversion Agreement

The *Ottawa River Water Powers Act, 1943*, prescribed that expenses for works that increase or regulate the flow of the Ottawa River are to be shared by the benefitting parties. Under an agreement with Hydro-Québec (the “Dozois Agreement”), OPG shares in operation, maintenance, and project refurbishment costs associated with Hydro-Québec’s Bourque Dam and the Dozois Reservoir. These facilities enable diversion of water from Québec to the Ottawa River basin (referred to as the “Cabonga diversion”) where benefits from this additional water are realized at OPG’s four generating stations on the Ottawa River. Annual costs pertaining to the Dozois Agreement are projected to be approximately $1.3M between 2025-2027. These

[5] The Ottawa River Water Powers Act, 1943.
[6] Statistics Canada. Table 18-10-0005-01. Consumer Price Index, annual average, not seasonally adjusted. <https://www150.statcan.gc.ca>.

costs have been included with the Eastern Region GRC totals presented in Ex. F1-4-1, Table 1.

One-half of the energy produced that is attributable to the Cabonga diversion water is returned to Hydro-Québec as per terms of the Cabonga Diversion Agreement. This "Cabonga diversion payback" is forecast to be approximately 42 GWh in 2027 and is settled by scheduled transfers of energy via the R.H. Saunders interconnection. This payback is considered to be energy that belongs to Hydro-Québec and is not subject to GRC.

4.4 Other Agreements and Control Boards

Water rental charges and costs are also incurred pursuant to the following agreements and requirements, totaling less than $1M annually:

- Parks Canada: Annual water rentals prescribed by Parks Canada licenses for hydroelectric facilities located on the Trent River or Rideau Canal. All Parks Canada licenses were renewed in 2020 for a period of 40 years;
- Ottawa River Water Powers Act: An annual rental payable to the Department of Natural Resources in Québec;
- Hydro-Québec: Annual payments to Hydro-Québec for production losses for a facility located upstream of OPG's Chenaux GS;
- H2O Power LP Settlement Agreement: Amortized cost of previous lump-sum payment to private dam owners for production losses caused by OPG's Whitedog Falls GS;
- Ottawa River Regulation Planning Board: Annual cost share funding requirements; and
- Lake of the Woods Control Board: Annual cost share funding requirements.

Numbers may not add due to rounding.

Table 1
Gross Revenue Charge - Regulated Hydroelectric ($M)

Line No.	Operating Region[1,2]	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Actual
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	**Niagara Region**	n/a	n/a	n/a	n/a	156.4	162.7	163.1	172.0	180.4
2	**Eastern Region**	n/a	n/a	n/a	n/a	151.4	140.1	148.9	148.9	150.6
3	**Western Region**	n/a	n/a	n/a	n/a	15.7	12.9	18.3	15.9	17.7
4	**Total**	312.7	319.7	319.2	324.5	323.4	315.7	330.3	336.7	348.6
5	**NYPA Water Transactions[2]**	0.6	0.3	(0.6)	(0.5)	0.1	0.0	0.2	0.8	1.9

Line No.	Operating Region[1,2]	2025 Budget	2026 Budget	2027 Plan
		(a)	(b)	(c)
6	**Niagara Region**	189.0	184.8	182.8
7	**Eastern Region**	145.9	147.2	148.1
8	**Western Region**	22.3	22.3	21.3
9	**Total**	357.2	354.3	352.2
10	**NYPA Water Transactions[2]**	1.4	1.1	2.2

1 Operating Region descriptions effective 2021 (see Ex. A1-4-2).
2 Consistent with OPG's letter dated June 11, 2024, issued in EB-2024-0136, data is provided at the regulated hydroelectric level for 2016-2019.
3 GRC amounts associated with NYPA Water Transactions are not included in the totals presented above.