CONSUMER IMPACT

1.0 PURPOSE

This evidence describes the impact of the proposed payment amounts and payment rider changes on a residential electricity consumer consuming at the 700 kWh per month level (the "typical consumer").

2.0 CONSUMER IMPACT

OPG has calculated the weighted average of regulated hydroelectric and smoothed nuclear payment amounts and payment amount riders, weighted by forecast production to be $74.63/MWh for 2022, $75.38/MWh for 2023, $76.13/MWh for 2024, $76.89/MWh for 2025, and $77.66/MWh for 2026.[1]

OPG has applied the annual changes in weighted average payment amounts and riders to the typical consumer's usage of OPG generation, after adjusting for line losses and accounting for OPG's share of the province's generation. Typical consumer data is based on the average electricity distributor bill information provided on the OEB's website at: https://www.oeb.ca/consumer-protection/energy-contracts/bill-calculator

The estimated monthly consumer bill impacts associated with the revenue requirement and OPG's deferral and variance account proposals are reflected in Chart 1, as calculated in Ex. I1-1-2, Table 1.

Chart 1
Annualized Residential Consumer Impact

	2022	2023	2024	2025	2026
Typical Bill ($/Month)	$115.11	$115.11	$115.11	$115.11	$115.11
Typical Bill Impact ($/Month)	$1.04	$0.26	$0.27	$0.26	$0.23
Typical Bill Impact (%)	0.9%	0.2%	0.2%	0.2%	0.2%

[1] Includes smoothed 2022-2026 rates for nuclear payment amounts, as illustrated in Ex. I1-3-1, Table 1.

Numbers may not add due to rounding.

Table 1
Annualized Residential Consumer Impact
EB-2016-0152 to EB-2020-0290

Line No.	Description	2022 Amount	2023 Amount	2024 Amount	2025 Amount	2026 Amount
		(a)	(b)	(c)	(d)	(e)
1	**Typical Consumption[1] (kWh/Month)**	737	737	737	737	737
2	**Typical Usage of OPG Generation (kWh/Month)** (line 1 x line 11)	363	350	364	347	299
3	**Typical Bill[1] ($/Month)**	115.11	115.11	115.11	115.11	115.11
4	**Typical Bill Impact ($/Month)** (line 2 x line 8 / 1000)	**1.04**	**0.26**	**0.27**	**0.26**	**0.23**
5	**Typical Bill Impact (%)** (line 4 / line 3)	**0.9%**	**0.2%**	**0.2%**	**0.2%**	**0.2%**
6	Prior Year weighted average rate with proposed payment amounts and riders[2,3] ($/MWh)	71.76	74.63	75.38	76.13	76.89
7	Current Year weighted average rate with proposed payment amounts and riders[2,3] ($/MWh)	74.63	75.38	76.13	76.89	77.66
8	Change in OPG weighted average rate ($/MWh) (line 7 - line 6)	2.87	0.75	0.75	0.76	0.77
9	Total OPG Regulated Production[4] (TWh)	66.2	63.8	66.3	63.2	54.5
10	Forecast of 2021 Provincial Demand[5] (TWh)	134.3	134.3	134.3	134.3	134.3
11	OPG Proportion of Consumer Usage (line 9 / line 10)	49.3%	47.5%	49.3%	47.0%	40.6%

Notes:

1 Typical monthly consumption (700 kWh) and typical monthly bill are based on the OEB "Bill Calculator" for estimating monthly electricity bills (using Time of Use pricing), available at: http://www.ontarioenergyboard.ca/OEB/Consumers/Electricity/Your+Electricity+Utility, accessed December 1, 2020
Typical Consumption includes line losses (Assumed loss factor of 1.0525)

2 From Ex. I1-1-2 Table 2, line 9

3 Uses Nuclear smoothed rate per Ex. I1-3-1 Table 1

4 From Ex. I1-1-2 Table 2, line 3 + line 6.

5 Based on forecast demand for 2021 (134.3 TWh) from Table 3-1 of IESO Reliability Outlook Update from July 2020 to December 2021, released June 2020.

Numbers may not add due to rounding.

Table 2
Computation of Percent Change in Payment Amounts
EB-2016-0152/EB-2018-0243/EB-2020-0210 to EB-2020-0290

Line No.	Description	Note	2021	2022	2023	2024	2025	2026
			(a)	(b)	(c)	(d)	(e)	(f)
			Note 1	Note 2	Note 2	Note 2	Note 2	Note 2
1	**Hydroelectric Payment Amount (HPA) ($/MWh)**	1	43.88	43.88	43.88	43.88	43.88	43.88
2	**Hydroelectric Payment Rider (HPR) ($/MWh)**	2	2.05	1.33	1.33	1.33	0.69	0.69
3	**Hydroelectric Production Forecast (HPF) TWh**	3	33.0	33.0	33.0	33.0	33.0	33.0
4	**Nuclear Payment Amount (NPA) ($/MWh)**		89.70	101.51	105.13	104.42	106.70	120.67
5	**Nuclear Payment Rider (NPR) ($/MWh)**		6.13	2.34	2.52	2.33	5.50	7.72
6	**Nuclear Production Forecast (NPF) TWh**	4	35.4	33.2	30.8	33.3	30.2	21.5
7	**Regulated Hydroelectric Portion of Weighted Average Payment Amount ($/MWh)** (HPA + HPR) x HPF / (NPF+HPF)		22.15	22.53	23.37	22.49	23.27	26.97
8	**Nuclear Portion of Weighted Average Payment Amount ($/MWh)** (NPA + NPR) x NPF / (NPF+HPF)		49.61	52.10	52.01	53.64	53.62	50.69
9	**Weighted Average Payment Amount ($/MWh)** **(((NPA + NPR) x NPF) + (HPA + HPR) x HPF) / (NPF + HPF)**		71.76	74.63	75.38	76.13	76.89	77.66
10	**Percentage Change in Weighted Average Payment Amount (Year over Year)**			4%	1%	1%	1%	1%

Notes:

1 Per EB-2016-0152 / EB-2020-0210 Payment Amounts Orders plus EB-2018-0243 Riders
2 Per payment amounts and riders proposed in this application. Per O. Reg. 53/05 amendment, hydro rates frozen at 2021 amount approved in EB-2020-0210 for the 2022-2026 period.
3 Regulated Hydroelectric production is the 2014 and 2015 average OEB approved hydroelectric production per EB-2013-0321 Decision and Order P. 9, and EB-2016-0152 PAO, App. I, Table 2, line 3.
4 2021 per OEB-approved nuclear production amounts per EB-2016-0152 PAO App. C, Table 1, line 2. 2022-2026 Per Ex. E2-1-1 Table 1, line 3.