UNDERTAKING JT1.21

Undertaking

TO PROVIDE THE COMBINED 2020-2021 AS WELL AS IN THE 2022 TO 2026 IMPACT ON DARLINGTON AND PICKERING AS A RESULT OF COVID-19, SO THE TERAWATT IN EACH OF THOSE YEARS, AS WELL AS THE REVENUE IMPACT IN EACH OF THOSE YEARS. SO ACTUAL AND FORECAST BASED ON YOUR PAYMENT AMOUNTS YOU'RE SEEKING FROM 2022 TO 2026.

Response

The production impact for 2020-2026 of OPG's response to COVID-19, by nuclear station, is shown in Chart 1 below. This combines information previously presented in Ex. L-E2-01-SEC-114 and Ex. L-A2-02-CCC-013, Attachment 1, Note 3 (2020-2021) and Ex. L-E2-01-Staff-187 (2022-2026).[1]

The Darlington production impacts are due to the deferred start of the Unit 3 refurbishment in 2020, the cascading effects on the refurbishment start dates for Units 1 and 4, and the associated changes in other planned outages during 2020-2021 to support these adjustments to the refurbishment schedule (Ex. D2-2-5). OPG has not forecasted any additional generation impacts due to COVID-19 for the 2022-2026 period; as such, the entirety of the 2022-2026 production impacts shown is due to changes in timing of refurbishment outages relative to the 2020-2021 period.

Chart 1: COVID-19 Production Impacts 2020-2026 (TWh)

	2020	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**
Darlington NGS	4.3	-2.1	0.9	0.1	-0.3	-2.3	-2.6
Pickering NGS	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Production Impact	**4.2**	**-2.1**	**0.9**	**0.1**	**-0.3**	**-2.3**	**-2.6**

For the 2022-2026 period, Chart 2 below provides the impacts on fuel costs, estimated direct base OM&A costs for operating Darlington Units 1 and 4 and certain Darlington Cyclical Outage OM&A costs, all of which arise due to the change in timing of refurbishment outages relative to the 2020-2021 period and therefore offset the corresponding impacts in the 2020-2021 period.

[1] Forecast years 2022-2026 shown before forced loss rate assumptions.

Chart 2: COVID-19 Production-Related Revenue Requirement Impacts ($M)

	2022	2023	2024	2025	2026
Fuel Costs	$4.8	$0.6	$(1.9)	$(12.5)	$(15.2)
Direct Operating Costs-Base OM&A	$1.0	$0.0	$(0.4)	$(2.5)	$(2.8)
Darlington Cyclical Outage OM&A	$(3.8)	$13.0	$2.4	$0.8	-
Revenue Requirement Impact	$2.0	$13.6	$0.1	$(14.2)	$(18.0)

The calculation of the net revenue related impacts in 2020-2021 associated with COVID-19 is shown in Ex. L-A2-01-CCC-013, Attachment 1, line 7 and totals a net increase of $80.9M over the period.[2] This comprises revenue-related impacts at approved nuclear payment amounts due to variances in production in Chart 1 and associated direct base and outage OM&A and fuel costs.

The forecasted net impact on the 2022-2026 revenues arising from the COVID-19 production impacts in Chart 1 and corresponding forced loss rate assumptions, as well as from the revenue requirement impacts in Chart 2, is provided in Chart 3 below (i.e., the loss in revenue that would occur if payment amounts were based on a production forecast and revenue requirements that did not reflect these impacts). This calculation is based on the proposed weighed average payment amounts in this application.[3]

Chart 3: Revenue Impacts of COVID-19 Production-Related Impacts ($M)

	2022	2023	2024	2025	2026	Total
Revenue Impact	$90.1	$(3.1)	($31.4)	$(194.9)	$(237.3)	$(376.4)

[2] Partly offsetting this impact are the incremental OM&A costs of $33.3M incurred by OPG over 2020-2021 in response to the COVID-19 pandemic, as set out at Ex. L-A2-01-CCC-013, Attachment 1, line 10.

[3] In this scenario, there would be some impacts on the proposed smoothed nuclear payment amounts in connection with the COVID-19 production impacts, which have been factored into the calculation in Chart 3. The recalculated payment amounts would be: $102.33/MWh in 2022, $105.23/MWh in 2023, $104.15/MWh in 2024, $104.50/MWh in 2025 and $115.96/MWh in 2026.