UNDERTAKING JT1.24

Undertaking

TO SHOW THE DERIVATION OF THE VALUE-FOR-MONEY METRICS FOR 2022 CAPITAL COSTS PER MEGAWATT-HOUR AT DARLINGTON AND PICKERING.

Response

OPG understands that this undertaking applies to the derivation of the non-normalized calculations for 2022 total generating cost per megawatt-hour ("TGC/MWh"), non-fuel operating cost per megawatt-hour ("NFOC/MWh"), fuel cost per megawatt-hour ("fuel cost/MWh") and capital cost per megawatt design energy rating ("capital cost per MW DER") for Darlington and Pickering.

Chart 1 below shows the derivation of these calculations, including amounts reflected in evidence and adjustments applied to arrive at the 2022 value for money metrics shown in Ex. L-F2-01-Staff-196, Chart 3 and Chart 4.

1

Chart 1: Derivation of 2022 Value for Money Metrics for Darlington and Pickering

JT1.24 - Value for Money

Line #	2022 - Plan ($M unless otherwise noted)	Darl	Pick	Total	Source
1	Generation (TWh)	13.4	19.8	33.2	Ex. E2-1-1 - Table 1, col. (g)
2	Capacity (MW DER)	1,866	3,094	4,960	Ex. A1-4-3 Chart 1; Darlington: 3,512 adjusted to remove capacity undergoing refurbishment [Unit 3: 12 months & Unit 1: 10.5 months = 22.5 months / 48 months (all 4 units) = 46.88%]
3	Base OM&A	575	748	1,323	Ex. F2-2-1 - Table 9, line 13
4	Outage OM&A	90	189	279	Ex. F2-4-1 - Table 1, col. (g)
5	Project OM&A	61.7	27.4	89	Ex. F2-3-1 - Table 1, col. (g) & Note 4
6	Corporate Support OM&A	199	189	388	Ex. F3-1-1 - Table 3a & 3b, line 11
7	Centrally Held Costs	87	97	185	Ex. F4-4-1 - Table 3, col. (g)
8	Total - OM&A Prior to Value for Money Metric Adjustments	1,013	1,250	2,263	Sum of lines 3 to 7
	Adjustments for Value for Money Metric Purposes:				
9	Cost Allocations	(21)	35	14	Cost allocation adjustments (e.g., inter-site allocations such as Pickering utilization of Tritium Removal Facility, costs excluded from recovery and support cost adjustments)
10	Exclusions per EUCG governance[1]	(52)	(58)	(110)	Exclusions from TGC/MWh calculation (IESO Non-Energy Charges, Pension/OPEB Related Accruals Costs)
11	Total Adjustments	(73)	(23)	(95)	Sum of lines 9 and 10
12	Total OM&A for Value for Money Metrics	940	1,228	2,168	Sum of lines 8 and 11
13	Nuclear Operations Capital	390	22	413	Ex. D2-1-2 - Table 2, col. (g)
14	Corporate Support Capital	70	51	121	Ex. D3-1-1 - Table 1 - line 1 & 2, col. (g)
15	Common Corporate Support Services Capital (Asset Service Fee)	(36)	(20)	(56)	Exclusion from TGC/MWh calculation per EUCG Governance
16	Net Corporate Allocated Capital	34	32	65	Sum of lines 14 and 15
17	Total Capital for Value for Money Metrics	424	54	478	Sum of lines 13 and 16
18	Fuel-Uranium	54	74	127	Ex. F2-5-1 - Table 1, line 1 &2, col. (g)
19	Fuel-Fuel Oil	1	3	5	Ex. F2-5-1 - Table 1, line 6, col. (g)
20	Total Fuel for Value for Money Metrics	55	77	132	Sum of lines 18 and 19; Used Fuel Storage & Disposal is excluded from TGC/MWh calculation per EUCG Governance
21	Total Generating Costs for Value for Money Metrics	1,419	1,359	2,778	Sum of lines 12, 17 and 20
	Value for Money Metrics - 1 Year (2022)				Ex. L-F2-01-Staff-196 Chart 3 and Chart 4
22	Total Generating Costs per MWh ($/MWh)	105.67	68.72		Line 21 / Line 1
23	Non-Fuel Operating Costs per MWh ($/MWh)	70.02	62.09		Line 12 / Line 1
24	Fuel per MWh ($/MWh)	4.10	3.90		Line 20 / Line 1
25	Capital per MW DER (k$/MW)	227.16	17.45		Line 17 / Line 2

2

1: See EB-2020-0290 Ex. L-F2-01-ED-012 and EB-2016-0152 Ex. L-6.2-1-Staff-104