DARLINGTON REFURBISHMENT PROGRAM
OM&A

1.0 PURPOSE

This section identifies the OM&A costs associated with the Darlington Refurbishment Program ("DRP" or "Program").

2.0 OVERVIEW

The Program is described in Ex. D2-2-1 to Ex. D2-2-10. The DRP is primarily a capital project but includes OM&A expenses for removal costs and low & intermediate level waste ("L&ILW") variable expenses related to disposal costs. These costs are also referred to as tipping fees, as they are determined and charged to the DRP based on the volume of waste. OPG is seeking OEB approval for DRP OM&A expenses of $24.2M for 2022, $23.6M for 2023, $29.3M for 2024, $25.0M for 2025, and $8.4M for 2026. A summary of DRP OM&A expenses is provided in Ex. F2-7-1, Table 1, for 2016-2026.

3.0 2016-2021 EXPENDITURES

OPG budgeted DRP OM&A expenditures of $1.3M for 2016 and in EB-2016-0152, the OEB approved DRP OM&A expenditures of $41.5M for 2017, $13.8M for 2018, $3.5M for 2019, $48.4M for 2020 and $19.7M for 2021. Actual costs were $3.1M for 2016, $36.1M for 2017, $31.3M for 2018 and $1.7M for 2019. OPG has forecasted $12.3M for 2020 and $42.9M for 2021.

Across the period of 2016-2021, OM&A costs are slightly below plan by $0.8M. Overall, the OM&A cost variance is primarily due to lower net removal costs of -$9.9M (mainly driven by lower Fuel Handling offset by higher Retube and Feeder Replacement ("RFR") and Pre-requisite Projects), partially offset by increased L&ILW variable expenses of $3.3M and a write-off of $6.4M for the Steam Generator strainer project ("Strainer Project") in 2020. This write-off resulted from OPG's decision not to continue the project, which had the primary purpose of excluding foreign material during unit startup in order to prevent damage to the primary heat transport system. OPG successfully implemented an alternative program to mitigate this risk.

3.1 2016 OM&A Variance

The OM&A cost variance for 2016 of +$1.8M (Ex. F2-7-1, Table 2) is primarily due to removal costs related to the Water and Sewer project.

3.2 2017 OM&A Variance

The OM&A cost variance for 2017 of -$5.4M (Ex. F2-7-1, Table 2) is due to lower Fuel Handling removal costs of -$10.4M, partly offset by +$4.1M higher L&ILW variable expenses.

3.3 2018 OM&A Variance

The OM&A cost variance for 2018 of +$17.6M (Ex. F2-7-1, Table 2) is due to higher overall removal costs related to RFR of +$21.0M, Balance of Plant of +$3.3M, and Fuel Handing of $7.6M.

3.4 2019 OM&A Variance

The OM&A cost variance for 2019 of -$1.8M (Ex. F2-7-1, Table 2) is due to lower L&ILW variable expenses.

3.5 2020 OM&A Forecast Variance

The forecasted OM&A cost variance for 2020 of -$36.0M (Ex. F2-7-1, Table 2) is due to the Unit 3 schedule shift (from previous application) deferring RFR & Balance of Plant removal costs of -$29.8M, lower Fuel Handling removal activities of -$11.1M, and lower L&ILW variable expenses of -$1.5M, partially offset by the Strainer Project write-off of +$6.4M.

3.6 2021 OM&A Forecast Variance

The forecasted OM&A cost variance for 2021 of +$23.1M (Ex. F2-7-1, Table 2) is due to the Unit 3 and Unit 1 schedule shifts moving RFR removal costs of +$22.1M into 2021 from 2020, as well as +$1.7M for L&ILW variable expenses.

4.0 2022-2026 OM&A EXPENDITURES

OPG is seeking OEB approval for DRP OM&A expenses of $24.2M for 2022, $23.6M for 2023, $29.3M for 2024, $25.0M for 2025, and $8.4M for 2026. The majority of these costs are for

removal activities associated with the replacement of existing assets totalling $83.1M, as well as L&ILW variable expenses of $27.4M.

4.1 2022 OM&A Expenses

The $24.2M of OM&A expenses forecast in 2022 are mainly for Unit 3 and Unit 1 removal activities including $15.9M for RFR, and $1.9M for other project bundles, as well as $6.4M L&ILW variable expenses.

4.2 2023 OM&A Expenses

The $23.6M of OM&A expenses forecast for 2023 are mainly for removal activities across Units 3, 1, and 4 including $10.8M for RFR, and $4.1M for other project bundles, as well as $8.7M L&ILW variable expenses.

4.3 2024 OM&A Expenses

The $29.3M of OM&A expenses forecast for 2024 are mainly for Unit 1 and Unit 4 removal activities, $18.7M related to RFR for Unit 1 and Unit 4, $2.3M for other project bundles, as well as $8.3M L&ILW variable expenses.

4.4 2025 OM&A Expenses

The $25.0M of OM&A expenses forecast for 2025 are mainly for Unit 4 removal activities, $19.6M related to RFR, $2.2M for other project bundles, and $3.3M of L&ILW variable expenses.

4.5 2026 OM&A Expenses

The $8.4M of OM&A expenses forecast for 2026 are mainly removal costs, $7.6M related to RFR for Unit 4, and $0.8M of L&ILW variable expenses.