

1 Replacement projects to replace the primary moisture separators on all four steam
2 generators in Unit 2 (compared to primary moisture separators replacement on two steam
3 generators in Unit 3 in 2026) and the Unit 2 Turbine Control and Auxiliary Systems Upgrade
4 project, in addition to the Darlington Vacuum Building Outage (“VBO”), as compared to one
5 regular PO, Unit 4 refurbishment cyclical outage work and one post-refurbishment outage
6 in 2026, (Darlington station \$62.7M or 50.7% increase and related Operations and Project
7 Support \$5.1M or 15.8% increase).

- 8 • Pickering PO costs are lower due to the completion of PO scope on one unit in 2026 and
9 Pickering Units 5-8 entering into refurbishment in 2027 (Pickering station \$39.9M or
10 100.0% decrease and related Operations and Project Support \$13.5M or 100.0%
11 decrease).

12 13 *Pickering Cyclical Maintenance OM&A*

14 Planned Cyclical Maintenance OM&A in 2027 is \$168.4M, which is \$143.4M or 573.4% higher
15 than the 2026 Budget of \$25.0M. The variance is attributable to Pickering station (\$133.3M or
16 533.4% increase) and related Operations and Project Support (\$10.0M or 100.0% increase).

17
18 The reportable variance is attributable to Pickering Units 5-8 being in the refurbishment outage
19 for the full year in 2027 compared to the last three months in 2026. The increase in Pickering
20 Cyclical Maintenance OM&A is offset by the year-over-year reduction in station level Base
21 OM&A costs (Ex. F2-2-1, Table 1a, line 2).

22 23 **2028 Plan versus 2027 Plan**

24 *OPG Nuclear Facilities Outage OM&A*

25 Planned outage OM&A in 2028 is \$112.7M, which is \$111.0M or 49.6% lower than the 2027
26 planned amount of \$223.7M. The variance is attributable to Darlington outages (\$111.0M or
27 49.6% decrease).

1 The reportable variances are as follows:

- 2 • Darlington PO costs are lower due to one regular PO in 2028 as compared to an extended
3 outage and the Darlington VBO in 2027 (Darlington station \$104.6M or 56.1% decrease
4 and related Operations and Project Support \$6.4M or 17.2% decrease).

5

6 *Pickering Cyclical Maintenance OM&A*

7 Planned Cyclical Maintenance OM&A in 2028 is \$160.9M, which is \$7.4M or 4.4% lower than
8 the 2027 planned amount of \$168.4M. The variance is attributable to Pickering station (\$7.8M
9 or 4.9% decrease), partially offset by related Operations and Project Support (\$0.3M or 3.5%
10 increase).

11

12 There are no reportable variances during this timeframe.

13

14 **2029 Plan versus 2028 Plan**

15 *OPG Nuclear Facilities Outage OM&A*

16 Planned outage OM&A in 2029 is \$219.1M, which is \$106.4M or 94.3% higher than the 2028
17 planned amount of \$112.7M. The variance is attributable to Darlington outages (\$106.4M or
18 94.3% increase).

19

20 The reportable variances are as follows:

- 21 • Darlington PO costs are higher in 2029 due to two POs in 2029 as compared to one regular
22 PO in 2028 (Darlington station \$86.6M or 105.9% increase and related Operations and
23 Project Support \$19.7M or 63.7% increase).

24

25 *Pickering Cyclical Maintenance OM&A*

26 Planned Cyclical Maintenance OM&A in 2029 is \$168.9M, which is \$8.0M or 5.0% higher than
27 the 2028 planned amount of \$160.9M. The variance is attributable to Pickering station (\$7.4M
28 or 4.9% increase) and related Operations and Project Support (\$0.6M or 5.4% increase).

29

30 There are no reportable variances during this timeframe.

1 **2030 Plan versus 2029 Plan**

2 *OPG Nuclear Facilities Outage OM&A*

3 Planned outage OM&A in 2030 is \$121.6M, which is \$97.5M or 44.5% lower than the 2029
4 planned amount of \$219.1M. The variance is attributable to Darlington outages (\$97.5M or
5 44.5% decrease).

6 The reportable variances are as follows:

- 7 • Darlington PO costs are lower due to one regular PO in 2030 as compared to two POs in
8 2029 (Darlington station \$78.0M or 46.3% decrease and related Operations and Project
9 Support \$19.4M or 38.4% decrease).

10

11 *OPG Pickering Cyclical Maintenance OM&A*

12 Planned Cyclical Maintenance OM&A in 2030 is \$169.9M, which is \$1.0M or 0.6% higher than
13 the 2029 planned amount of \$168.9M. The variance is attributable to Pickering station (\$0.9M
14 or 0.6% increase) and related Operations and Project Support (\$0.2M or 1.5% increase).

15

16 There are no reportable variances during this timeframe.

17

18 **2031 Plan versus 2030 Plan**

19 *OPG Nuclear Facilities Outage OM&A*

20 Planned outage OM&A in 2031 is \$142.2M, which is \$20.6M or 16.9% higher than the 2030
21 planned amount of \$121.6M. The variance is attributable to Pickering outages (\$26.5M or
22 100.0% increase), partially offset by Darlington outages (\$5.9M or 4.8% decrease).

23

24 The reportable variance is as follows:

- 25 • Pickering PO costs are higher due to one post-refurbishment outage in 2031, as compared
26 to no regular PO in 2030 (Pickering station \$26.5M or 100.0% increase).

27

28 *Pickering Cyclical Maintenance OM&A*

29 Planned Cyclical Maintenance OM&A in 2031 is \$106.6M, which is \$63.3M or 37.3% lower
30 than the 2030 planned amount of \$169.9M. The variance is attributable to Pickering station

1 (\$58.5M or 36.8% decrease) and related Operations and Project Support (\$4.8M or 43.6%
2 decrease).

3

4 The reportable variance is attributable to the Unit 5 return to service planned in May 2031,
5 with the ongoing scope of preventative maintenance and other ongoing activities transitioning
6 in large part back to Base OM&A funding for operating units.

7

8 **4.0 PERIOD-OVER-PERIOD CHANGES – BRIDGE YEARS, OPG NUCLEAR**
9 **FACILITIES**

10 **2026 Budget versus 2026 OEB-Approved**

11 *OPG Nuclear Facilities Outage OM&A*

12 Planned outage OM&A in 2026 is \$209.4M, which is \$148.1M or 241.4% higher than the 2026
13 OEB-approved budget of \$61.3M. The variance is attributable to Darlington outages (\$94.6M
14 or 154.2% increase) and Pickering outages (\$53.5M or 100.0% increase).

15

16 The reportable variances are as follows:

- 17 • Darlington PO costs are higher due to moving the Unit 3 regular PO from 2027 to 2026,
18 partially offset by reduced Cyclical outage costs for Unit 4 due to the earlier than planned
19 return to service from refurbishment (Darlington station \$65.9M or 114.0% increase and
20 related Operations and Project Support \$28.7M or 810.4% increase).
- 21 • Pickering PO costs are higher due to the addition of a Unit 6 PO, related to the extension
22 of Units 5-8 operations into 2026 relative to the assumed shutdown of the station in EB-
23 2020-0290 (Pickering station \$39.9M or 100.0% increase and related Operations and
24 Project Support \$13.5M or 100.0% increase).

25

26 *Pickering Cyclical Maintenance OM&A*

27 Planned Cyclical Maintenance OM&A in 2026 is \$25.0M, which is \$25.0M or 100.0% higher
28 than the 2026 OEB-approved budget of \$0.0M. The variance is attributable to Pickering station
29 (\$25.0M or 100.0% increase).

1 The reportable variance is attributable to the refurbishment of Pickering Units 5-8 not being
2 assumed in EB-2020-0290 as the Pickering station was then planned to shut down in 2025.

3
4 **2026 Budget versus 2025 Budget**

5 *OPG Nuclear Facilities Outage OM&A*

6 Planned outage OM&A in 2026 is \$209.4M, which is \$82.4M or 64.9% higher than the 2025
7 budget amount of \$127.0M. The variance is attributable to Darlington outages (\$90.6M or
8 138.5% increase), partially offset by Pickering outages (\$8.2M or 13.3% decrease).

9
10 The reportable variances are as follows:

- 11 • Darlington PO costs are higher due to one regular PO in 2026 as compared to no regular
12 POs in 2025, partially offset by lower Cyclical outage costs for Unit 4 due to the earlier
13 return to service date (Darlington station \$69.0M or 126.3% increase and related
14 Operations and Project Support \$21.5M or 200.7% increase).
- 15 • Pickering PO related Operations and Project Support costs are \$6.7M or 33.1% lower due
16 to less inspection and maintenance support required for the Unit 6 PO.

17
18 *Pickering Cyclical Maintenance OM&A*

19 Planned Cyclical Maintenance OM&A in 2026 is \$25.0M, which is \$25.0M or 100.0% higher
20 than the 2025 planned amount of \$0.0M. The variance is attributable to Pickering station
21 (\$25.0M or 100.0% increase).

22
23 The reportable variance is attributable to the fact that Pickering Units 5-8 are planned to enter
24 the refurbishment outage in September 2026.

25
26 **2025 Budget versus 2025 OEB-Approved**

27 *OPG Nuclear Facilities Outage OM&A*

28 Planned outage OM&A in 2025 is \$127.0M, which is \$65.6M or 34.0% lower than the 2025
29 OEB-approved budget of \$192.6M. The variance is attributable to Darlington outages
30 (\$127.2M or 66.1% decrease), partially offset by Pickering Outages (\$61.6M or 100.0%
31 increase).

1 The reportable variances are as follows:

- 2 • Darlington PO costs are lower primarily due to shifting the Darlington Unit 2 Turbine Control
3 and Auxiliary Systems Upgrade project from 2025 to 2027 to support grid reliability and
4 manage resource constraints during concurrent nuclear outages, and also not requiring
5 one of the planned post-refurbishment outages, partially offset by increased routine station
6 inspection and maintenance work for Unit 4 during the refurbishment cyclical outage
7 (Darlington station \$102.3M or 65.2% decrease and related Operations and Project
8 Support \$24.9M or 69.9% decrease).
- 9 • Pickering PO costs are higher due to the added Unit 5 PO to enable the extension of Unit
10 5 operations into 2026 relative to the assumed shutdown of the station in EB-2020-0290.
11 (Pickering station \$41.4M or 100.0% increase and related Operations and Project Support
12 \$20.2M or 100.0% increase).

13

14 *Pickering Cyclical Maintenance OM&A*

15 There are no costs planned or incurred during this timeframe.

16

17 **2025 Budget versus 2024 Actual**

18 *OPG Nuclear Facilities Outage OM&A*

19 Planned outage OM&A in 2025 is \$127.0M, which was \$231.1M or 64.5% lower than the 2024
20 actual amount of \$358.1M. The variance is mainly attributable to Darlington outages (\$139.3M
21 or 68.1% decrease) and Pickering outages (\$78.7M or 56.1% decrease) and CRVA eligible
22 costs (\$13.1M or 100.0% decrease).

23

24 The reportable variances are as follows:

- 25 • Darlington PO costs are lower due to no regular POs in 2025, as compared to one PO in
26 2024 (Darlington station \$104.7M or 65.7% decrease and related Operations and Project
27 Support \$34.6M or 76.3% decrease).
- 28 • Pickering PO costs are lower due to one regular PO in 2025, as compared to two regular
29 POs in 2024 (Pickering station \$50.2M or 54.8% decrease and related Operations and
30 Project Support \$28.5M or 58.5% decrease).

- 1 • Fuel Channel Life Extension (“FCLE”) Related Ongoing Costs are \$1.3M or 100.0% lower
2 due to completion of the outage OM&A expenditures for this program in 2024.
- 3 • Optimization of Pickering Shutdown outage costs are \$11.8M or 100.0% lower due to
4 completion of the outage OM&A expenditures for this program in 2024.

5

6 *Pickering Cyclical Maintenance OM&A*

7 There are no costs planned or incurred during this timeframe.

8

9 **5.0 PERIOD-OVER-PERIOD CHANGES – HISTORICAL YEARS, OPG NUCLEAR**
10 **FACILITIES**

11 **2024 Actual versus 2024 OEB-Approved**

12 *OPG Nuclear Facilities Outage OM&A*

13 Actual outage OM&A in 2024 was \$358.1M, which was \$145.7M or 68.6% higher than the
14 2024 OEB-approved budget of \$212.4M. The variance is attributable to Darlington outages
15 (\$110.0M or 116.2% increase), Pickering outages (\$36.4M or 35.0% increase), partially offset
16 by CRVA Eligible Costs (\$0.6M or 4.7% decrease).

17

18 The reportable variances are as follows:

- 19 • Darlington PO costs are higher due to shifting the Unit 2 PO from 2023 to 2024 and an
20 increase in routine inspection and maintenance work for Unit 4 during the refurbishment
21 cyclical outage (Darlington station \$77.3M or 94.4% increase and related Operations and
22 Project Support \$32.6M or 256.8% increase).
- 23 • Pickering PO costs are higher primarily due to increased scope added to the POs to
24 support the extension of operations of Units 5-8 to September 2026 relative to the assumed
25 shutdown of the station in EB-2020-0290 (Pickering station \$14.6M or 19.0% increase and
26 related Operations and Project Support \$21.8M or 80.7% increase).
- 27 • FCLE Related Ongoing Costs are \$1.0M or 403.3% higher primarily attributable to the
28 manual tube plugging & locking tab scope for Pickering Unit 7.
- 29 • Pickering Optimized Shutdown PO costs are \$1.7M or 12.5% lower attributable to the Unit
30 5 and Unit 7 inspection scope.

1 *Pickering Cyclical Maintenance OM&A*

2 There are no costs planned or incurred during this timeframe.

3

4 **2024 Actual versus 2023 Actual**

5 *OPG Nuclear Facilities Outage OM&A*

6 Actual outage OM&A in 2024 was \$358.1M, which was \$40.0M or 12.6% higher than the 2023
7 Actual amount of \$318.1M. The variance is attributable to Darlington outages (\$98.9M or
8 93.5% increase), partially offset by Pickering outages (\$44.2M or 23.9% decrease) and CRVA
9 eligible costs (\$14.7M or 52.7% decrease).

10

11 The reportable variances are as follows:

- 12 • Darlington PO costs are higher in 2024 due to one regular PO, as compared to no such
13 outage in 2023, increased Unit 1 and 4 refurbishment cyclical outage work, offset by lower
14 Unit 3 refurbishment cyclical work (Darlington station \$67.3M or 73.1% increase and
15 related Operations and Project Support \$31.6M or 229.8% increase).
- 16 • Pickering PO costs decrease due to conducting two regular POs in 2024 as compared to
17 three such outages in 2023, partially offset by increased outage scope to support extension
18 of Units 5-8 operations into 2026 (Pickering station \$30.0M or 24.7% decrease and related
19 Operations and Project Support \$14.1M or 22.5% decrease).
- 20 • FCLE Related Ongoing Costs are \$19.3M or 93.7% lower due to continued winding down
21 of this program with Pickering Unit 6 and 8 scope completed in 2023.
- 22 • Pickering Optimized Shutdown PO costs are \$4.6M or 64.2% higher attributable to the Unit
23 5 and Unit 7 inspection scope.

24

25 *Pickering Cyclical Maintenance OM&A*

26 There are no costs planned or incurred during this timeframe.

27

28 **2023 Actual versus 2023 OEB-Approved**

29 *OPG Nuclear Facilities Outage OM&A*

30 Actual outage OM&A in 2023 was \$318.1M, which was \$43.1M or 11.9% lower than the 2023
31 OEB-approved budget of \$361.2M. The variance is attributable to Darlington outages (\$81.4M

1 or 43.5% decrease), partially offset by Pickering outages (\$27.2M or 17.3% increase) and
2 CRVA eligible costs (\$11.1M or 66.5% increase).

3
4 The reportable variances are as follows:

- 5 • Darlington PO costs are lower primarily due to shifting the Unit 2 PO from 2023 to 2024,
6 partially offset by increased costs for Units 1, 3, and 4 refurbishment cyclical outage work
7 (Darlington station \$67.0M or 42.1% decrease and related Operations and Project Support
8 \$14.3M or 51.1% decrease).
- 9 • Pickering PO costs are higher primarily due to costs incurred for spindle refurbishment,
10 and increased scope to support extension of Units 5-8 operations into 2026 relative to the
11 assumed shutdown of the station in EB-2020-0290 (Pickering station \$15.9M or 15.1%
12 increase and related Operations and Project Support \$11.3M or 21.8% increase).
- 13 • FCLE Related Ongoing Costs are \$6.1M or 42.4% higher attributable to Pickering Unit 6
14 and Unit 8 inspection scope.
- 15 • Pickering Optimized Shutdown PO costs are \$5.0M or 223.3% higher attributable to the
16 Unit 6 and Unit 8 inspection scope.

17
18 *Pickering Cyclical Maintenance OM&A*

19 There are no costs planned or incurred during this timeframe.

20
21 **2023 Actual versus 2022 Actual**

22 *OPG Nuclear Facilities Outage OM&A*

23 Actual outage OM&A in 2023 was \$318.1M, which was \$53.1M or 20.0% higher than the 2022
24 Actual amount of \$265.0M. The variance is attributable to Pickering outages (\$36.2M or 24.4%
25 increase), Darlington outages (\$16.2M or 18.0% increase), and CRVA eligible costs (\$0.7M or
26 2.7% increase).

27
28 The reportable variances are as follows:

- 29 • Darlington station PO costs are higher due to incurring pre-requisite costs for the 2024 Unit
30 2 regular PO along with increased Unit 1 and 4 refurbishment Cyclical Outage work,

1 partially offset by reduced Unit 3 refurbishment Cyclical Outage work (Darlington station
2 \$16.4M or 21.7% increase).

- 3 • Pickering PO costs increase due to conducting three regular PO in 2023 as compared to
4 two such outages in 2022 plus the Pickering VBO (Pickering station \$11.2M or 10.1%
5 increase, and related Operations and Project Support \$25.0M or 66.2% increase).
- 6 • Fuel Channel Life Extension Ongoing (consequential) PO costs are \$4.7M or 18.6% lower
7 primarily attributable to a Single Fuel Channel Replacement and other inspection scope in
8 2022 at Pickering.
- 9 • Pickering Optimized Shutdown PO costs are \$5.4M or 308.1% higher attributable to the
10 Unit 6 and Unit 8 inspection scope.

11
12 *Pickering Cyclical Maintenance OM&A*

13 There are no costs planned or incurred during this timeframe.
14

15 **2022 Actual versus 2022 OEB-Approved**

16 *OPG Nuclear Facilities Outage OM&A*

17 Actual outage OM&A in 2022 was \$265.0M, which was \$14.1M or 5.1% lower than the 2022
18 OEB-approved budget of \$279.1M. The variance is attributable to Pickering outages (\$9.0M
19 or 5.7% decrease) and CRVA eligible costs (\$5.3M or 16.4% decrease), partially offset by
20 Darlington outages (\$0.2M or 0.2% increase).
21

22 The reportable variances are as follows:

- 23 • Darlington PO related Operations and Project Support costs decrease \$1.8M or 11.5%
24 primarily due to no pre-requisite costs incurred for the Unit 2 outage that was moved to
25 2024, partially offset by increased Unit 1 and 3 refurbishment cyclical outage work.
- 26 • FCLE Related Ongoing Costs are \$4.5M or 15.2% lower attributable to the Pickering Unit
27 5 scope which included a Single Fuel Channel Replacement and Scrape.
- 28 • Pickering Optimized Shutdown PO costs are \$0.8M or 30.8% lower attributable to the Unit
29 5 and 6 inspection scope.

1 *Pickering Cyclical Maintenance OM&A*

2 There are no costs planned or incurred during this timeframe.

3

4 **2022 Actual versus 2021 Actual**

5 *OPG Nuclear Facilities Outage OM&A*

6 Actual outage OM&A in 2022 was \$265.0M, which was \$117.8M or 30.8% lower than the 2021
7 Actual amount of \$382.8M. The variance is attributable to Darlington outages (\$101.7M or
8 53.1% decrease), CRVA eligible costs (\$26.5M or 49.5% decrease), partially offset by
9 Pickering outages (\$10.3M or 7.5% increase).

10

11 The reportable variances are as follows:

- 12 • Darlington PO costs are lower due to one post-refurbishment outage in 2022 as compared
13 to two regular POs, partially offset by an increase in routine station inspection and
14 maintenance work for Unit 1 during the refurbishment cyclical outages (Darlington station
15 \$83.4M or 52.4% decrease and related Operations and Project Support \$18.3M or 56.6%
16 decrease).
- 17 • Pickering PO related Operations and Project Support costs increase \$8.5M or 29.1%
18 primarily due to the Pickering VBO scheduled in 2022, partially offset by a planned
19 unbudgeted outage for Unit 5 in 2021.
- 20 • Pickering Extended Operations PO costs are \$26.1M lower or 100% due to the completion
21 of outage OM&A expenditures for this program in 2021.

22

23 *Pickering Cyclical Maintenance OM&A*

24 There are no costs planned or incurred during this timeframe.

25

26 **2021 Actual versus 2021 OEB-Approved**

27 *OPG Nuclear Facilities Outage OM&A*

28 Actual outage OM&A in 2021 was \$382.8M, which was \$74.3M or 24.1% higher than the 2021
29 OEB-approved amount of \$308.5M. The variance is primarily attributable to Darlington outages

1 (\$127.0M or 197.3% increase), CRVA eligible costs (\$52.0M increase), partially offset by
2 Pickering outages (\$104.7M or 43.1% decrease).

3
4 The reportable variances are as follows:

- 5 • Darlington PO costs are higher due to moving the Unit 1 regular PO from 2020 to 2021 and
6 adding a Unit 4 regular PO as a result of the deferred Darlington Refurbishment Program
7 schedule. (Darlington station \$104.9M or 193.7% increase and related Operations and
8 Project Support \$22.1M or 216.5% increase).
- 9 • Pickering PO costs are lower primarily due to moving the Pickering VBO from 2021 to 2022
10 and reducing regular POs from three to two in line with the 30-month outage cycle
11 (Pickering station \$60.5M or 35.8% decrease and related Operations and Project Support
12 \$44.2M or 60.1% decrease).
- 13 • FCLE Related Ongoing Costs are \$24.0M higher primarily attributable to the addition of
14 Waterlancing and Scrape Sample Analysis for Darlington Unit 4 and Pickering Unit 7 and
15 Unit 8 as well as moving the Darlington Unit 1 regular PO from 2020 to 2021.
- 16 • Pickering Extended Operations PO costs are \$26.1M higher primarily due to Unit 7 and
17 Unit 8 inspection work moved from 2020 to 2021 (there were no outage OM&A costs
18 forecast in 2021 OEB-approved). Overall Pickering Extended Operations initiative was
19 completed within budget.
- 20 • Pickering Optimized Shutdown PO costs are \$1.9M higher primarily attributable to the
21 introduction of this work program for Unit 7 and Unit 8 inspection work.

22
23 *Pickering Cyclical Maintenance OM&A*

24 There are no costs planned or incurred during this timeframe.

25
26 **2021 Actual versus 2020 Actual**

27 *OPG Nuclear Facilities Outage OM&A*

28 Actual outage OM&A in 2021 was \$382.8M, which was \$89.0M or 30.3% higher than the 2020
29 Actual amount of \$293.9M. The variance is attributable to Darlington outages (\$141.4M or
30 283.4% increase), partially offset by Pickering outages (\$38.4M or 21.8% decrease) and CRVA
31 eligible costs (\$14.1M or 20.8% decrease).

1 The reportable variances are as follows:

- 2 • Darlington PO costs are higher due to two regular POs in 2021, as compared to no regular
3 POs in 2020 (Darlington station \$117.2M or 280.6% increase and related Operations and
4 Project Support \$24.2M or 297.6% increase).
- 5 • Pickering planned outage costs decrease \$37.8M or 25.8% due to conducting two regular
6 POs in 2021 as compared to three such outages in 2020, partially offset by Unit 8 Single
7 Fuel Channel Replacement and an unbudgeted outage for Unit 5 in 2021.
- 8 • FCLE Related Ongoing Costs are \$5.2M higher or 25.6% primarily attributable to Pickering
9 for Unit 5 Fuel Channel Replacement pre-requisites for the 2022 outage and Unit 7
10 Waterlancing and Scrape Analysis.
- 11 • Pickering Extended Operations PO costs are \$21.1M lower or 44.7% primarily due to
12 conducting two regular POs in 2021 as compared to three such outages in 2020.
- 13 • Pickering Optimized Shutdown PO costs are \$1.9M higher primarily attributable to the
14 introduction of this work program in 2021 for Unit 7 and Unit 8 inspection work.

15

16 *Pickering Cyclical Maintenance OM&A*

17 There are no costs planned or incurred during this timeframe.

18

19 **2020 Actual versus 2020 OEB-Approved**

20 *OPG Nuclear Facilities Outage OM&A*

21 Actual outage OM&A in 2020 was \$293.9M, which was \$100.6M or 25.5% lower than the 2020
22 OEB-approved amount of \$394.4M. The variance is primarily attributable to Darlington outages
23 (\$128.7M or 72.1% decrease), CRVA eligible costs (\$26.3M or 28.0% decrease), partially
24 offset by Pickering outages (\$54.4M or 44.6% increase).

25

26 The reportable variances are as follows:

- 27 • Darlington PO costs are lower primarily due to moving the Unit 1 regular PO from 2020 to
28 2021, as discussed above (Darlington station \$108.9M or 72.3% decrease and related
29 Operations and Project Support \$19.8M or 70.9% decrease).
- 30 • Pickering PO costs are higher primarily due to increasing regular POs from two to three in
31 line with the 30-month outage cycle and higher costs incurred for spindle refurbishment

32

- 1 • (Pickering station \$46.2M or 46.1% increase and related Operations and Project Support
2 \$8.2M or 37.8% increase).
- 3 • FCLE Related Ongoing Costs are \$11.9M or 141.2% higher primarily attributable to higher
4 Single Fuel Channel Replacement costs for Darlington Unit 3 than originally planned for
5 Darlington Unit 1.
- 6 • Pickering Extended Operations Enabling PO costs are \$38.3M or 44.7% lower primarily
7 due to the further definition post-2016 of scope, which resulted in a decrease in Pickering
8 Extended Operations outage OM&A partially offset by increases in Pickering Extended
9 Operations Base OM&A and Pickering Extended Operations Capital in 2020, and timing of
10 expenditures as Unit 7 and Unit 8 inspection work was moved from 2020 to 2021.

11
12 *Pickering Cyclical Maintenance OM&A*

13 There are no costs planned or incurred during this timeframe.
14

15 **6.0 PERIOD-OVER-PERIOD CHANGES – IR TERM, DNNP FACILITIES**

16 There are no reportable variances for DNNP Facilities Outage OM&A over the 2026-2029
17 period.
18

19 **2030 Plan versus 2029 Plan**

20 *DNNP Facilities Outage OM&A*

21 Planned outage OM&A in 2030 is \$0.1M, which is \$0.1M or 100.0% higher than the 2029
22 planned amount of \$0.0M. The variance is attributable to the DNNP facilities outages (\$0.1M
23 or 100.0% increase).
24

25 There are no reportable variances during this timeframe.
26

27 **2031 Plan versus 2030 Plan**

28 *DNNP Facilities Outage OM&A*

29 Planned outage OM&A in 2031 is \$48.6M, which is \$48.6M or 100.0% higher than the 2030
30 planned amount of \$0.1M. The variance is attributable to the DNNP facilities outages (\$48.6M
31 or 100.0% increase).

1 The reportable variance is as follows:

- 2 • DNNP facilities PO costs are higher due to the first refuelling outage which is planned to
3 occur 12 months after the commercial in-service date, as compared to no regular PO in
4 2030 (DNNP facilities \$48.6M or 100.0% increase).

Table 1a
 Comparison of Outage OM&A and Pickering Cyclical Maintenance OM&A - Combined Nuclear (\$M)^{1,2}

Line No.	Business Unit	2020 OEB Approved (a)	(c)-(a) Change (b)	2020 Actual (c)	(g)-(c) Change (d)	2021 OEB Approved (e)	(g)-(e) Change (f)	2021 Actual (g)	(k)-(g) Change (h)	2022 OEB Approved (i)	(k)-(i) Change (j)	2022 Actual (k)
Darlington Outages												
1	Darlington NGS	150.7	(108.9)	41.8	117.2	54.1	104.9	159.0	(83.4)	73.6	2.0	75.6
2	Operations and Project Support	27.9	(19.8)	8.1	24.2	10.2	22.1	32.3	(18.3)	15.8	(1.8)	14.0
3	Total Darlington Outages	178.6	(128.7)	49.9	141.4	64.3	127.0	191.3	(101.7)	89.4	0.2	89.6
Pickering Outages												
4	Pickering NGS	100.2	46.2	146.4	(37.8)	169.2	(60.5)	108.7	1.8	118.8	(8.3)	110.5
5	Operations and Project Support	21.7	8.2	29.9	(0.6)	73.5	(44.2)	29.3	8.5	38.5	(0.7)	37.8
6	Total Pickering Outages	121.9	54.4	176.4	(38.4)	242.7	(104.7)	138.0	10.3	157.3	(9.0)	148.3
CRVA Eligible Costs												
7	FCLE Related Ongoing Costs	8.4	11.9	20.3	5.2	1.5	24.0	25.5	(0.2)	29.8	(4.5)	25.3
8	Pickering Extended Operations	85.5	(38.3)	47.3	(21.1)	0.0	26.1	26.1	(26.1)	(0.0)	0.0	0.0
9	Optimization of Pickering Shutdown	0.0	0.1	0.1	1.9	0.0	1.9	1.9	(0.2)	2.6	(0.8)	1.8
10	Total CRVA Eligible Costs	93.9	(26.3)	67.6	7.9	1.5	52.0	53.5	(26.5)	32.4	(5.3)	27.0
11	Total OPG Nuclear Facilities Outage OM&A Before Adjustments	394.4	(100.6)	293.9	89.0	308.5	74.3	382.8	(117.8)	279.1	(14.1)	265.0
12	OEB/Settlement Adjustments		0.0		0.0		0.0		0.0	(8.4)	8.4	
13	Total OPG Nuclear Facilities Outage OM&A Including Adjustments	394.4	(100.6)	293.9	89.0	308.5	74.3	382.8	(117.8)	270.7	(5.7)	265.0
Pickering Cyclical Maintenance												
14	Pickering NGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Operations and Project Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Total Pickering Cyclical Maintenance OM&A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DNNP Facilities Outages												
17	DNNP Facilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	Operations and Project Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	Total DNNP Facilities Outage OM&A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Line No.	Business Unit	2022 Actual (a)	(e)-(a) Change (b)	2023 OEB Approved (c)	(e)-(c) Change (d)	2023 Actual (e)	(i)-(e) Change (f)	2024 OEB Approved (g)	(i)-(g) Change (h)	2024 Actual (i)	(k)-(i) Change (j)	2025 Budget (k)
Darlington Outages												
20	Darlington NGS	75.6	16.4	159.1	(67.0)	92.0	67.3	81.9	77.3	159.3	(104.7)	54.6
21	Operations and Project Support	14.0	(0.3)	28.1	(14.3)	13.8	31.6	12.7	32.6	45.4	(34.6)	10.7
22	Total Darlington Outages	89.6	16.2	187.2	(81.4)	105.8	98.9	94.7	110.0	204.6	(139.3)	65.4
Pickering Outages												
23	Pickering NGS	110.5	11.2	105.8	15.9	121.7	(30.0)	77.0	14.6	91.6	(50.2)	41.4
24	Operations and Project Support	37.8	25.0	51.6	11.3	62.9	(14.1)	27.0	21.8	48.7	(28.5)	20.2
25	Total Pickering Outages	148.3	36.2	157.4	27.2	184.5	(44.2)	104.0	36.4	140.4	(78.7)	61.6
CRVA Eligible Costs												
26	FCLE Related Ongoing Costs	25.3	(4.7)	14.5	6.1	20.6	(19.3)	0.3	1.0	1.3	(1.3)	0.0
27	Pickering Extended Operations	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	Optimization of Pickering Shutdown	1.8	5.4	2.2	5.0	7.2	4.6	13.5	(1.7)	11.8	(11.8)	0.0
29	Total CRVA Eligible Costs	27.0	0.7	16.7	11.1	27.8	(14.7)	13.8	(0.6)	13.1	(13.1)	0.0
30	Total OPG Nuclear Facilities Outage OM&A Before Adjustments	265.0	53.1	361.2	(43.1)	318.1	40.0	212.4	145.7	358.1	(231.1)	127.0
31	OEB/Settlement Adjustments		0.0	(10.8)	10.8		0.0	(6.4)	6.4		0.0	
32	Total OPG Nuclear Facilities Outage OM&A Including Adjustments	265.0	53.1	350.4	(32.3)	318.1	40.0	206.0	152.1	358.1	(231.1)	127.0
Pickering Cyclical Maintenance												
33	Pickering NGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34	Operations and Project Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35	Total Pickering Cyclical Maintenance OM&A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DNNP Facilities Outages												
36	DNNP Facilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37	Operations and Project Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	Total DNNP Facilities Outage OM&A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:
 1 2020-2026 values have been restated for Nuclear organizational changes and transfers from Corporate Support (See Ex. A1-4-1 Attachment 2 and Ex. F2-2-1, Attachment 1).
 2 Per EB-2020-0290 OEB Decision and Order, Schedule A, p. 25, nuclear Outage OM&A costs are reduced by 3% per year over the 2022-2026 period.

Table 1b
 Comparison of Outage OM&A and Pickering Cyclical Maintenance OM&A - Combined Nuclear (\$M)^{1,2}

Line No.	Business Unit	2025	(c)-(a)	2025	(g)-(c)	2026	(g)-(e)	2026	(i)-(g)	2027	(k)-(i)	2028
		OEB Approved	Change	Budget	Change	OEB Approved	Change	Budget	Change	Plan	Change	Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Darlington Outages												
1	Darlington NGS	156.9	(102.3)	54.6	69.0	57.8	65.9	123.7	62.7	186.4	(104.6)	81.8
2	Operations and Project Support	35.7	(24.9)	10.7	21.5	3.5	28.7	32.3	5.1	37.4	(6.4)	30.9
3	Total Darlington Outages	192.6	(127.2)	65.4	90.6	61.3	94.6	155.9	67.8	223.7	(111.0)	112.7
Pickering Outages												
4	Pickering NGS	0.0	41.4	41.4	(1.5)	0.0	39.9	39.9	(39.9)	0.0	0.0	0.0
5	Operations and Project Support	0.0	20.2	20.2	(6.7)	0.0	13.5	13.5	(13.5)	0.0	0.0	0.0
6	Total Pickering Outages	0.0	61.6	61.6	(8.2)	0.0	53.5	53.5	(53.5)	0.0	0.0	0.0
CRVA Eligible Costs												
7	FCLE Related Ongoing Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Pickering Extended Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Optimization of Pickering Shutdown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Total CRVA Eligible Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Total OPG Nuclear Facilities Outage OM&A Before Adjustments	192.6	(65.6)	127.0	82.4	61.3	148.1	209.4	14.4	223.7	(111.0)	112.7
12	OEB/Settlement Adjustments	(5.8)	5.8		0.0	(1.8)	1.8		0.0		0.0	
13	Total OPG Nuclear Facilities Outage OM&A Including Adjustments	186.8	(59.8)	127.0	82.4	59.5	149.9	209.4	14.4	223.7	(111.0)	112.7
Pickering Cyclical Maintenance												
14	Pickering NGS	0.0	0.0	0.0	25.0	0.0	25.0	25.0	133.3	158.3	(7.8)	150.6
15	Operations and Project Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	10.0	0.3	10.4
16	Total Pickering Cyclical Maintenance OM&A	0.0	0.0	0.0	25.0	0.0	25.0	25.0	143.4	168.4	(7.4)	160.9
DNNP Facilities Outages												
17	DNNP Facilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	Operations and Project Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	Total DNNP Facilities Outage OM&A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Line No.	Business Unit	2028	(c)-(a)	2029	(e)-(c)	2030	(g)-(e)	2031
		Plan	Change	Plan	Change	Plan	Change	Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
Darlington Outages								
20	Darlington NGS	81.8	86.6	168.5	(78.0)	90.4	(3.5)	86.9
21	Operations and Project Support	30.9	19.7	50.6	(19.4)	31.2	(2.4)	28.8
22	Total Darlington Outages	112.7	106.4	219.1	(97.5)	121.6	(5.9)	115.8
Pickering Outages								
23	Pickering NGS	0.0	0.0	0.0	0.0	0.0	26.5	26.5
24	Operations and Project Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	Total Pickering Outages	0.0	0.0	0.0	0.0	0.0	26.5	26.5
CRVA Eligible Costs								
26	FCLE Related Ongoing Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	Pickering Extended Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	Optimization of Pickering Shutdown	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	Total CRVA Eligible Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	Total OPG Nuclear Facilities Outage OM&A	112.7	106.4	219.1	(97.5)	121.6	20.6	142.2
Pickering Cyclical Maintenance								
31	Pickering NGS	150.6	7.4	158.0	0.9	158.9	(58.5)	100.4
32	Operations and Project Support	10.4	0.6	10.9	0.2	11.1	(4.8)	6.3
33	Total Pickering Cyclical Maintenance OM&A	160.9	8.0	168.9	1.0	169.9	(63.3)	106.6
DNNP Facilities Outages								
34	DNNP Facilities	0.0	0.0	0.0	0.1	0.1	48.6	48.6
35	Operations and Project Support	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36	Total DNNP Facilities Outage OM&A	0.0	0.0	0.0	0.1	0.1	48.6	48.6

Notes:
 1 2020-2026 values have been restated for Nuclear organizational changes and transfers from Corporate Support (See Ex. A1-4-1, Att.2 and Ex. F2-2-1, Att. 1).
 2 Per EB-2020-0290 OEB Decision and Order, Schedule A, p. 25, nuclear Outage OM&A costs are reduced by 3% per year over the 2022-2026 period.