

## COMPARISON OF PROJECT OM&A – NUCLEAR

### 1.0 PURPOSE

This evidence presents period-over-period comparisons of Nuclear project OM&A expenditures for 2013-2021. Period-over-period variances are presented in Ex. F2-3-2 Table 1 and are explained below.

As defined in Ex F2-3-1, Nuclear Project OM&A is made up of the following:

#### i) Project OM&A (Portfolio):

- Nuclear “Portfolio Projects (Allocated)”, which is the sum of the AISC-approved budgets for all projects that have an approved business case summary (“BCS”).
- “Portfolio Projects (Unallocated)”, which is the remaining budget available to cover the cost of projects that are progressing through the review and approval process but do not have an AISC-approved budget or an approved BCS.
- “Infrastructure”, as defined in Ex. F2-3-1, and

#### ii) Project OM&A (Non-portfolio), which are projects listed separately from the Project OM&A (Portfolio) due to their extraordinary nature.

A description of the initiation, review and approval process for the nuclear project portfolio (Project OM&A and Capital) is provided in Ex. D2-1-1 section 3.0. As discussed in that exhibit, the AISC will manage funding to attempt to stay within the overall project portfolio annual budget. For example, a request for additional funding could be accommodated by re-allocating funding from other projects that are completed under budget or by delaying or deferring other projects.

More detailed project information is contained in Ex. F2-3-3.

### 2.0 PERIOD-OVER-PERIOD CHANGES - TEST YEARS

#### 2017 Plan versus 2016 Budget

1 The increase in planned spending from 2016 to 2017 (+\$15.4M) is due to an increase in  
2 Portfolio Projects (Unallocated) funding (+\$25.4M) and increased Infrastructure spending  
3 (+\$8.2M) offset by reduced Portfolio Projects (Allocated) spending on approved projects at  
4 Darlington (-\$5.0M), Pickering (-\$3.2M) and in the Nuclear Support Divisions (-\$4.7M).  
5 There is also reduced Non-portfolio spending on Pickering Extended Operations (-\$1.5M)  
6 and the Fuel Channel Life Management/Extension (-\$3.8M).

7  
8 Increases in Infrastructure spending are due to increased spending on minor modifications at  
9 Darlington (+\$5M) and Pickering (+\$5M) offset by reductions in Project Support (-\$1.5M) and  
10 Initiation Phase funding (-\$0.3M).

11  
12 Decreases in Darlington Portfolio Projects (Allocated) spending (-\$5.0M) are due mainly to  
13 approved projects entering the latter phases of their life cycle, notably project #80079  
14 Darlington Aging Management (-\$3.5M), project #80110 Darlington Aging Management  
15 Scope Defining Inspections (-\$2.6M), project #80016 Darlington Reduced Heat Transport  
16 System Pressure-Temperature Envelope Modifications (-\$1.8M) and project #80040  
17 Darlington Fuel Handling Reliability (-\$1.0M). These reductions are partly offset by increases  
18 in project #80112 Darlington X-750 Spacer Retrieval (+\$1.2M) and project #31514 Darlington  
19 Gaseous Fission Product Sample Delay and Alternative Primary Heat Transport Sampling  
20 Point (+\$1.2M).

21  
22 Decreases in Pickering Portfolio Projects (Allocated) spending (-\$3.2M) are due mainly to  
23 approved projects nearing completion or entering the latter phases of their life cycle, notably  
24 project #80060 Pickering Equipment Reliability Initiatives (-\$3.3M) and project #41024  
25 Pickering Instrumentation & Control Obsolescence (-\$1.1M), offset by execution of project  
26 #82839 Pickering A Low Pressure Feed Heater Tube Bundle Degradation (+\$2.8M).

27  
28 Decreases in Nuclear Support Divisions Portfolio Projects (Allocated) spending (-\$4.7M) are  
29 due mainly to approved projects nearing completion, notably project #62553 Digital Control  
30 Computer Aging Management (-\$2.7M) and various other smaller decreases.

1 Due to the number of Portfolio Projects (Allocated) approved projects in 2016, relative to the  
2 amount of funding available in the Project Portfolio (Allocated), it is expected that AISC will  
3 manage funding by either delaying some projects to 2017 or allocating funding from deferred  
4 projects. There is Portfolio Projects (Unallocated) funding available to AISC in 2017 and  
5 future years to fund these projects. Additionally, it is expected that new, but not yet defined  
6 Darlington and Pickering OM&A projects will be started in 2017 and to use the remainder of  
7 the Portfolio Projects (Unallocated) funding.

8  
9 The reduction in Pickering Extended Operations (-\$1.5M) spending is due to a planned  
10 reduction in fuel channel life assurance studies. The reduction in Fuel Channel Life  
11 Management/Extension is due to the completion of project #62444 Fuel Channel Life  
12 Management (-\$0.4M) and reduced spending on project #80014 Fuel Channel Life Extension  
13 (-\$3.4M).

#### 14 15 **2018 Plan versus 2017 Plan**

16 The decrease in spending in 2018 compared to 2017 (-\$4.5M) is due to Portfolio Projects  
17 (Allocated) reductions in allocated project spending at Darlington (-\$1.2M) and in the Nuclear  
18 Support Divisions (-\$4.4M), reduced Infrastructure spending (-\$7.0M), and reduced Non-  
19 portfolio spending on Fuel Channel Life Management/Extension (-\$11.6M). This is offset by  
20 increased Portfolio Projects (Allocated) project spending at Pickering (+\$1.7M), an increase  
21 in planned Non-portfolio spending on Pickering Extended Operations (+\$15.5M) and an  
22 increase in Portfolio Projects (Unallocated) funding (+\$2.4M).

23  
24 The decrease in Darlington Portfolio Projects (Allocated) spending (-\$1.2M) is due mainly to  
25 approved projects either entering the latter phases of their life cycle or in close-out, notably  
26 project #80062 Darlington Phase 2 Station Battery Replacement (-\$2.5M), project #80112  
27 Darlington X-750 Spacer Retrieval (-\$2.3M), project #31506 Darlington Boiler Blowdown  
28 Piping Refurbishment (-\$2.1M) and project #31514 Darlington Gaseous Fission Product  
29 Sample Delay and Alternative Primary Heat Transport Sampling Point (-\$1.4M). These  
30 reductions are partly offset by increases in project #38933 DN Primary Heat Transport Liquid  
31 Relief Valve Modifications (+\$3.6M), project #80071 Darlington New Heat Transport Pump

1 Seals (+\$3.3M), and project #80110 Darlington Aging Management Scope Defining  
2 Inspections (+\$1.8M). It is expected that new, but not yet defined Darlington OM&A projects  
3 will be started in 2018 and use a portion of the Portfolio Projects (Unallocated) funding.  
4

5 The increase in Pickering Portfolio Projects (Allocated) spending (+1.7M) is due to project  
6 #49248 Locking Tabs - Boiler Divider Plate (U1 &U4) (+\$8.2M). This is offset by reductions in  
7 projects entering either the last phases of their life cycle or in close-out, notably project  
8 #80060 Pickering Equipment Reliability Initiatives (-\$3.1M) and project #82839 Pickering A  
9 Low Pressure Feed Heater Tube Bundle Degradation (-\$2.8M). It is expected that new, but  
10 not yet defined Pickering OM&A projects will be started in 2018 and use a portion of the  
11 Portfolio Projects (Unallocated) funding.  
12

13 The decrease in Nuclear Support Division Portfolio Projects (Allocated) spending is due to  
14 project completions in 2017 and 2018, notably project #80072 Nuclear Fleet Safety Systems  
15 Functional Assessment (-\$1.6M) and project #66105 Inspection Qualification (-\$1.5M).  
16

17 The reduction in Infrastructure spending (-\$7.0M) is due to a reduced allocation for minor  
18 modifications at Pickering.  
19

20 The increase in Non-portfolio planned spending on Pickering Extended Operations  
21 (+\$15.5M) is expected to cover the cost of modifications to address issues identified in the  
22 component condition assessments and safety assessments to be completed in 2017.  
23

#### 24 **2019 Plan versus 2018 Plan**

25 The decrease in spending in 2019 compared to 2018 (-\$9.0M) is due to Portfolio Projects  
26 (Allocated) reductions in allocated project spending at Darlington (-\$17.6M), Pickering  
27 (-\$11.9M) and in the Nuclear Support Divisions (-\$0.3M), and reduced Non-portfolio  
28 spending on Fuel Channel Life Extension (-\$0.7M). This is offset by an increase in Non-  
29 portfolio planned spending on Pickering Extended Operations (+\$0.4M) and an increase in  
30 Portfolio Projects (Unallocated) funding (+\$21.1M).  
31

1 The decrease in Darlington Portfolio Projects (Allocated) spending (-\$17.6M) is due mainly to  
2 approved projects either entering the latter phases of their life cycle or in close-out in 2019,  
3 notably project #80071 Darlington New Heat Transport Pump Seals (-\$6.4M), project #80110  
4 Darlington Aging Management Scope Defining Inspections (-\$1.8M), project #31506  
5 Darlington Boiler Blowdown Piping Refurbishment (-\$1.7M), project #31514 Darlington  
6 Gaseous Fission Product Sample Delay and Alternative Primary Heat Transport Sampling  
7 Point (-\$1.1M), and, project #80112 Darlington X-750 Spacer Retrieval (-\$1.1M). Project  
8 #38933 - DN Primary Heat Transport Liquid Relief Valve Modifications (-\$3.7M) can only be  
9 executed in parallel with a unit refurbishment and, consequently, is on hold until the next  
10 refurbishment begins. These reductions are partly offset by project #80028 Darlington RD-  
11 310 Safety Analysis Improvement (+\$1.1M). It is expected that new, but not yet defined  
12 Darlington OM&A projects will be started in 2019 and use a portion of the Portfolio Projects  
13 (Unallocated) funding.

14  
15 The decrease in Pickering Portfolio Projects (Allocated) spending (-\$11.9M) is due mainly to  
16 the completion of project #49248 Locking Tabs - Boiler Divider Plate (U1 &U4) (+\$8.2M) and  
17 project #82839 Pickering A Low Pressure Feed Heater Tube Bundle Degradation (-\$3.0M) in  
18 2018. It is expected that new, but not yet defined Pickering OM&A projects will use a portion  
19 of the Portfolio Projects (Unallocated) funding.

20  
21 **2020 Plan versus 2019 Plan**

22 The increase in spending in 2020 compared to 2019 (+\$0.1M) is due to an increase in  
23 Portfolio Projects (Unallocated) funding (+\$10.6M) and an increase in planned spending on  
24 Pickering Extended Operations (+\$0.3M). This is offset by reductions in allocated project  
25 spending at Darlington (-\$6.8M) and Infrastructure (-\$4.0M).

26  
27 The decrease in Darlington Portfolio Projects (Allocated) spending (-\$6.8M) is due mainly to  
28 approved projects completed in 2019 and in close out in 2020, notably project #80067  
29 Darlington Irradiated Fuel Bay Stacking Frame Replacement (-\$3.2M) and #80028 Darlington  
30 RD-310 Safety Analysis Improvement (-\$2.8M). It is expected that new, but not yet defined  
31 Darlington OM&A projects will be started in 2020 and use a portion of the Portfolio Projects

1 (Unallocated) funding.

2

3 It is expected that new, but not yet defined Pickering OM&A projects will use a portion of the  
4 Portfolio Projects (Unallocated) funding.

5

6 Infrastructure reductions (-\$4.0M) are due to a reduced minor modifications allocation at  
7 Pickering. Planned spending on Pickering Extended Operations increases marginally  
8 (+\$0.3M) as projects identified in the component condition and safety assessments are  
9 completed.

10

### 11 **2021 Plan versus 2020 Plan**

12 The decrease in spending in 2021 compared to 2020 (-\$13.4M) is due to anticipated  
13 completion of the Pickering Extended Operations projects (-\$18.7M) and completion of  
14 Portfolio Projects (Allocated) projects at Darlington in 2020 (-\$0.8M) as well as further  
15 reductions in Infrastructure (-\$4.0M) resulting from reduced minor modifications at Pickering.

16

### 17 **3.0 PERIOD-OVER-PERIOD CHANGES – BRIDGE YEAR**

18 Period-over-period variances are presented in Ex. F2-3-2, Table 1 and explained below.

19

### 20 **2016 Budget versus 2015 Actual**

21 The decrease in 2016 Budget compared to 2015 Actual (-\$16.9M) is due mainly to  
22 reductions in Infrastructure (-\$29.0M) and Portfolio Projects (Unallocated) funding (-\$11.7M)  
23 as well as the completion of Pickering Continued Operations work in 2015 (-\$2.2M). This is  
24 offset by increased Portfolio Projects (Allocated) project spending at Darlington (+\$11.7M),  
25 Pickering (+\$6.3M) and in the Nuclear Support Divisions (+\$0.3M) as well as Non-portfolio  
26 spending on Pickering Extended Operations (+\$4.0M) and increased spending on Fuel  
27 Channel Life Management/Extension (+\$3.8M).

28

29 The reduction in Infrastructure is due mainly to reductions in the amount of capital project  
30 write-offs (-\$26.8M) and removals (-\$6.0M) budgeted for 2016 compared to the actual  
31 performance in 2015. Discussion of the write-offs and removal costs in 2015 is set out below

1 in the discussion of 2015 Actual versus 2014 Actual period-over-period changes. These  
2 reductions are offset by increases in the minor modification allocation for Darlington (+\$1.9M)  
3 and initiation phase funding (+\$1.5M).

4  
5 The change in Portfolio Projects (Unallocated) funding is due to an adjustment to the 2016  
6 budget to bring it within the approved limit. Increased demand for projects as well as delays  
7 in execution, moving funding needs from prior years into 2016, resulted in an over-allocated  
8 position. The AISC is actively working to defer projects to bring the portfolio demand in  
9 balance with the approved funding envelope.

10  
11 The increase in Portfolio Projects (Allocated) funding at Darlington (+\$11.7M) is due to  
12 increased demand for projects to replace obsolete or life-expired components, update safety  
13 analyses and complete prerequisite work for the Unit 2 refurbishment. Notable period-over-  
14 period increases include #80062 Darlington Phase 2 Station Battery Replacement (+\$3.5M),  
15 #80071 Darlington New Heat Transport Pump Seals (+\$3.1M), #31506 Darlington Boiler  
16 Blowdown Piping Refurbishment (+\$1.9M), #80110 Darlington Aging Management Scope  
17 Defining Inspections (+\$1.9M), #80079 Darlington Aging Management (+\$1.9M), #80028  
18 Darlington RD-310 Safety Analysis Improvement (+\$1.4M) and #80067 Darlington Irradiated  
19 Fuel Bay Stacking Frame Replacement (+\$1.0M). Notable period-over-period reductions  
20 include project #38933 DN Primary Heat Transport Liquid Relief Valve Modifications (-  
21 \$2.3M), which is on hold until the first installation window during the Unit 2 refurbishment,  
22 and project #31514 Darlington Gaseous Fission Product Sample Delay and Alternative  
23 Primary Heat Transport Sampling Point (-\$1.0M).

24  
25 The increase in Portfolio Projects (Allocated) funding at Pickering (+\$6.3M) is due to  
26 increased demand for projects to replace obsolete or life-expired components, notably  
27 project #82839 Pickering A Low Pressure Feed Heater Tube Bundle Degradation (+\$3.0M)  
28 and project #80060 Pickering Equipment Reliability Initiatives (+\$3.0M).

29  
30 The increase in Portfolio Projects (Allocated) funding in the Nuclear Support Divisions  
31 (\$0.3M) is due to increased engineering analysis funding and obsolete equipment

1 replacement, notably project #62553 Digital Control Computer Aging Management (+\$2.0M)  
2 and project #80072 Nuclear Fleet Safety Systems Functional Assessment (+\$1.2M). These  
3 increases are offset by the completion of project #62449 Severe Accident Management  
4 Guidelines Implementation Improvements (-\$2.6M) and project #62447 Power Operated  
5 Valve Program Recovery (-\$1.3M).

6  
7 The increase in Non-portfolio spending on Fuel Channel Life Management/Extension  
8 (+\$3.8M) is due mainly to increased spending on project #80014 Fuel Channel Life  
9 Extension (+\$5.7M) and completion of the execution phase of project #62444 Fuel Channel  
10 Life Management (-\$1.9M) in 2015.

11  
12 The increase in planned spending for Pickering Extended Operations (+\$4.0M) is due to  
13 engineering analysis of other factors than those studied in Fuel Channel Life  
14 Management/Extension to assure that the fuel channels will operate safely to 2024.

#### 15 16 **4.0 PERIOD-OVER-PERIOD CHANGES – HISTORICAL YEARS**

17 Period-over-period variances are presented in Ex. F2-3-2, Table 1 and are explained below.

#### 18 19 **2015 Actual versus 2015 OEB Approved<sup>1</sup>**

20 The increase in spending in 2015 compared to 2015 OEB Approved (+\$8.8M) is due to  
21 increased spending on Infrastructure (+\$35.1M), Portfolio Projects (Allocated) projects at  
22 Darlington (+\$9.0M), Pickering (+\$1.8M), and Nuclear Support Divisions (+\$4.3M), as well  
23 as increased Non-portfolio spending on Pickering Continued Operations (+\$2.2M) and Fuel  
24 Channel Life Management/Extension (+\$11.7M), offset by a reduction in Portfolio Projects  
25 (Unallocated) funding (-\$55.2M).

26  
27 The increase in Infrastructure spending (+\$35.1M) was due mainly to project write-offs  
28 (+\$26.8M) and removal costs (+\$6.0M) as detailed below in 2015 Actual versus 2014 Actual  
29 as well as increased minor modification allocations at Darlington (+\$2.2M) and Pickering

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<sup>1</sup> As OEB Approved adjustments shown on Ex. F2-1-1 Table 2 were made at the aggregate Nuclear OM&A level, the figures presented here are 2015 Plan (from EB-2013-0321) rather than 2015 OEB Approved.

1 (+\$2.1M). These increases were offset by reduced initiation phase spending (-\$1.5M).

2  
3 Increases in Portfolio Projects (Allocated) spending at Darlington (+\$9.0M) were due to new  
4 projects to address issues identified by the Fuel Channel Life Management/Extension  
5 program as well as the aging of plant components. Notable period-over-period changes  
6 include project #80112 Darlington X-750 Spacer Retrieval (+\$3.1M), #80067 Darlington  
7 Irradiated Fuel Bay Stacking Frame Replacement (+\$2.5M), #80016 Darlington Reduced  
8 Heat Transport System Pressure-Temperature Envelope Modifications (+\$2.4M), and  
9 #31514 Darlington Gaseous Fission Product Sample Delay and Alternative Primary Heat  
10 Transport Sampling Point (+\$2.3M).

11  
12 The increase in Portfolio Projects (Allocated) spending at Pickering (+\$1.8M) is due to new  
13 projects to address equipment reliability, notably project #80060 Pickering Equipment  
14 Reliability Initiatives (+\$3.4M) offset by deferral of project #25010 Pickering B Life Expired  
15 Building Demolition (-\$1.3M) and completion of project #40547 Pickering Unit 8 Moderator  
16 Annubar Retrieval (-\$1.2M).

17  
18 The increase in Nuclear Support Division Portfolio Projects (Allocated) spending (+\$4.3M) is  
19 due to new engineering analysis projects, notably project #62447 Power Operated Valve  
20 Program Recovery (+\$1.3M) and project #80072 Nuclear Fleet Safety Systems Functional  
21 Assessment (+\$1.3M).

22  
23 Pickering Continued Operations spending increased (+\$2.2M) over the 2015 OEB approved  
24 amount due to delays in completing the scope of work planned for completion in 2014.

25  
26 Fuel Channel Life Management/Extension spending increased (+\$11.7M) as work on project  
27 #62444 Fuel Channel Life Management (+\$1.7M) was delayed from 2014 and work on  
28 project #80014 Fuel Channel Life Extension (+\$10.0M) ramped up following its approval late  
29 in 2013.

30  
31 **2015 Actual versus 2014 Actual**

1 The increase in spending in 2015 compared to 2014 (+\$13.3M) is due mainly to increased  
2 Infrastructure spending (+\$26.7M) and Portfolio Projects (Allocated) project spending at  
3 Darlington (+\$10.5M) offset by reduced spending on Portfolio Projects (Allocated) projects at  
4 Pickering (-\$8.8M) and in the Nuclear Support Divisions (-\$8.5M) as well as Pickering  
5 Continued Operations (-\$5.6M) and Fuel Channel Life Management/Extension (-\$0.9M).

6  
7 The increase in Infrastructure spending (+\$26.7M) is due mainly to increased capital project  
8 write-offs (+\$23.7M) and removals (+\$3.9M) as well as increased Darlington minor  
9 modifications (+\$2.9M). Write-offs are not normally planned and budgeted. When they are  
10 identified, they are usually offset by reduced spending in allocated projects or utilization of  
11 the Portfolio Projects (Unallocated) funding. In 2015, three significant write-offs were  
12 approved that exceeded the ability of the normal offset processes to absorb, as follows:

- 13
- 14 • Project #41013 Pickering A Turbine Governor System Upgrade was cancelled  
15 following a review of the cost to complete the project. The project objective was to  
16 replace obsolete and life-expired governor system components but OPG was able to  
17 establish that replacement parts and technical support would be available when  
18 required. Since the cost to complete the project was expected to double and the  
19 governor system components were assessed as sufficient to end of life, the decision  
20 was made to cancel the project. A total of \$17.5M was written down to operating  
21 costs.
  - 22 • Project #73399 Darlington Buss 55 and 56 Maintenance was transferred to Nuclear  
23 Operations from Darlington Refurbishment at the end of 2014 as a capital project.  
24 The project was executed during the Vacuum Building Outage, following which it was  
25 determined by Controllershship that the scope of the work completed did not meet the  
26 criteria for capitalization. Following subsequent review to determine if any portion of  
27 the work could be capitalized, a total of \$3.7M was written down to operating costs.
  - 28 • The original scope of project #31518 Darlington Restore Emergency Service Water  
29 and Fire Water Margins included the installation of diesel-powered fire pumps. A  
30 review of the cost to install the new fire pumps prompted a review of the scope. An  
31 alternative to the diesel pumps was identified and approved, which prompted the

1 write down of \$2.9M of costs incurred to date on the diesel pump alternative.

2  
3 An increase in removal costs (+\$3.9M) partially as a result of an increased focus on project  
4 cost classification.

5  
6 Increases in Portfolio Projects (Allocated) spending at Darlington (+\$10.5M) were due to new  
7 projects to address issues identified by the Fuel Channel Life Management/Extension  
8 program as well as the aging of plant components and prerequisites for Unit 2 refurbishment.  
9 Notable period-over-period changes include project #80112 Darlington X-750 Spacer  
10 Retrieval (+\$3.1M), #80067 Darlington Irradiated Fuel Bay Stacking Frame Replacement  
11 (+\$2.5M), #31514 Darlington Gaseous Fission Product Sample Delay and Alternative  
12 Primary Heat Transport Sampling Point (+\$2.2M), #80079 Darlington Aging Management  
13 (+\$1.9M), and project #80016 Darlington Reduced Heat Transport System Pressure-  
14 Temperature Envelope Modifications (+\$1.0M), partly offset by project #25057 Darlington  
15 Security Revolving Door Replacement (-\$1.2M).

16  
17 Decreases in Pickering Portfolio Projects (Allocated) spending (-\$8.8M) are due mainly to  
18 completion of existing projects, notably project #40547 Pickering Unit 8 Moderator Annubar  
19 Retrieval (-\$2.1M), project #49234 Pickering A Primary Heat Transport D<sub>2</sub>O Storage Tank  
20 Pressure Control Improvement (-\$1.3M) and project #40683 Pickering B Boiler Blowdown  
21 Pipe Support Improvements (-\$1.3M) as well as reduced spending on project #80060  
22 Pickering Equipment Reliability Initiatives (-\$2.1M).

23  
24 Decreases in Nuclear Support Division Portfolio Projects (Allocated) spending (-\$8.5M) are  
25 due mainly to completion of project #62440 Probabilistic Risk Assessment Upgrade (-\$3.8M)  
26 and project #28421 Security & Emergency Services Multi-Unit Beyond Design Basis  
27 Exercise (-\$1.2M).

28  
29 Non-portfolio spending on Pickering Continued Operations (-\$5.6M) decreased period-over-  
30 period as the work progressed to completion in 2015.

31

1 Fuel Channel Life Management/Extension spending decreased slightly (-\$0.9M) as work on  
2 project #62444 Fuel Channel Life Management (-\$6.0M) wound down and work on project  
3 #80014 Fuel Channel Life Extension (+\$5.1M) began to ramp up.

4

5 **2014 Actual versus 2014 OEB Approved<sup>2</sup>**

6 Actual 2014 project OM&A was lower than the 2014 OEB Approved level (-\$12.0M) primarily  
7 due to the decision to reduce overall project portfolio OM&A spending (-\$20.2M), partly offset  
8 by increased Non-portfolio project spending on Pickering Continued Operations (+\$1.9M)  
9 and Fuel Channel Life Cycle Management (+\$6.4M).

10

11 **2014 Actual versus 2013 Actual**

12 Actual project OM&A in 2014 was lower than 2013 actual spending (-\$3.8M) primarily due to  
13 lower Portfolio Projects (Allocated) spending (-\$6.5M) and Non-Portfolio spending on  
14 Pickering Continued Operations (-\$1.3M) offset by higher spending on Fuel Channel Life  
15 Cycle Management (+\$4.0M). The lower Portfolio Projects (Allocated) portfolio spending was  
16 mainly due to:

- 17 • #62440, Probabilistic Risk Assessment Upgrade (-\$4.8M), which was completed in  
18 2014.
- 19 • #62449, Severe Accident Management Guidelines (SAMG) Implementation  
20 Improvements (-\$4.3M).
- 21 • #80013, Pickering A P1341 Unit 4 BO8 Hot Particle Removal (-\$2.0M) which was an  
22 emergent project completed in 2013.
- 23 • #80060, Pickering Equipment Reliability Initiatives (+\$5.5M).

24

25 **2013 Actual versus 2013 Budget**

26 Actual project OM&A was slightly higher than budget (+\$0.8M) in 2013. This was due to  
27 higher Portfolio Projects (Allocated) spending (+\$3.1M) and Non-portfolio spending on  
28 Pickering Continued Operations (+\$3.2M) offset by lower Fuel Channel Life Cycle  
29 Management (-\$5.5M) spending. Infrastructure spending was over budget (+\$6.1M) primarily

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<sup>2</sup> As OEB Approved adjustments shown on Ex. F2-1-1 Table 2 were made at the aggregate Nuclear OM&A level, the figures presented here are 2014 Plan (from EB-2013-0321) rather than 2014 OEB Approved.

1 due to unbudgeted project write-offs (+\$5.9M). This was offset by lower than planned project  
2 spending (-\$1.6M) and release of new projects that eliminated the Portfolio Projects  
3 (Unallocated) funding (-\$1.4M).  
4

Table 1  
 Comparison of Project OM&A - Nuclear (\$M)

Line No.	Business Unit	2013 Budget	(c)-(a) Change	2013 Actual	(g)-(c) Change	2014 OEB Approved <sup>1</sup>	(g)-(e) Change	2014 Actual	(k)-(g) Change	2015 OEB Approved <sup>1</sup>	(k)-(i) Change	2015 Actual
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	<b>Portfolio Projects (Allocated)</b>											
1	Darlington NGS	9.5	(2.3)	7.2	2.0	2.4	6.7	9.1	10.5	10.6	9.0	19.6
2	Pickering NGS	13.1	(1.6)	11.4	4.6	9.9	6.1	16.0	(8.8)	5.4	1.8	7.2
3	Nuclear Support Divisions	28.0	2.3	30.3	(12.7)	8.4	9.2	17.6	(8.5)	4.8	4.3	9.1
4	<b>Subtotal Portfolio Projects (Allocated)</b>	<b>50.5</b>	<b>(1.6)</b>	<b>48.9</b>	<b>(6.2)</b>	<b>20.8</b>	<b>21.9</b>	<b>42.7</b>	<b>(6.8)</b>	<b>20.8</b>	<b>15.0</b>	<b>35.9</b>
5	Infrastructure	32.3	6.1	38.4	(0.3)	28.2	9.9	38.1	26.7	29.7	35.1	64.8
6	<b>Portfolio Projects (Unallocated)</b>	<b>1.4</b>	<b>(1.4)</b>	<b>0.0</b>	<b>0.0</b>	<b>52.1</b>	<b>(52.1)</b>	<b>0.0</b>	<b>0.0</b>	<b>55.2</b>	<b>(55.2)</b>	<b>0.0</b>
7	<b>Subtotal Project OM&amp;A (Portfolio)</b>	<b>84.2</b>	<b>3.1</b>	<b>87.4</b>	<b>(6.5)</b>	<b>101.1</b>	<b>(20.2)</b>	<b>80.8</b>	<b>19.8</b>	<b>105.8</b>	<b>(5.1)</b>	<b>100.7</b>
8	Pickering Continued Operations	6.0	3.2	9.2	(1.3)	6.0	1.9	7.9	(5.6)	0.0	2.2	2.2
9	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
10	Fuel Channel Life Cycle Mgmt Project	14.7	(5.5)	9.2	(0.9)	6.8	1.5	8.3	(6.0)	0.6	1.7	2.3
11	Fuel Channel Life Extension Project	0.0	0.0	0.0	4.9	0.0	4.9	4.9	5.1	0.0	10.0	10.0
12	<b>Total Project OM&amp;A</b>	<b>104.9</b>	<b>0.8</b>	<b>105.7</b>	<b>(3.8)</b>	<b>113.9</b>	<b>(12.0)</b>	<b>101.9</b>	<b>13.3</b>	<b>106.4</b>	<b>8.8</b>	<b>115.2</b>

Line No.	Business Unit	2015 Actual	(c)-(a) Change	2016 Budget	(e)-(c) Change	2017 Plan	(g)-(e) Change	2018 Plan	(i)-(g) Change	2019 Plan	(k)-(i) Change	2020 Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	<b>Portfolio Projects (Allocated)</b>											
13	Darlington NGS	19.6	11.7	31.3	(5.0)	26.4	(1.2)	25.2	(17.6)	7.6	(6.8)	0.8
14	Pickering NGS	7.2	6.3	13.4	(3.2)	10.3	1.7	11.9	(11.9)	0.0	0.0	0.0
15	Nuclear Support Divisions	9.1	0.3	9.4	(4.7)	4.7	(4.4)	0.3	(0.3)	0.0	0.0	0.0
16	<b>Subtotal Portfolio Projects (Allocated)</b>	<b>35.9</b>	<b>18.3</b>	<b>54.1</b>	<b>(12.8)</b>	<b>41.3</b>	<b>(3.9)</b>	<b>37.4</b>	<b>(29.8)</b>	<b>7.6</b>	<b>(6.8)</b>	<b>0.8</b>
17	Infrastructure	64.8	(29.0)	35.8	8.2	44.0	(7.0)	37.0	0.0	37.0	(4.0)	33.0
18	<b>Portfolio Projects (Unallocated)</b>	<b>0.0</b>	<b>(11.7)</b>	<b>(11.7)</b>	<b>25.4</b>	<b>13.7</b>	<b>2.4</b>	<b>16.1</b>	<b>21.1</b>	<b>37.2</b>	<b>10.6</b>	<b>47.8</b>
19	<b>Subtotal Project OM&amp;A (Portfolio)</b>	<b>100.7</b>	<b>(22.5)</b>	<b>78.2</b>	<b>20.7</b>	<b>98.9</b>	<b>(8.5)</b>	<b>90.4</b>	<b>(8.7)</b>	<b>81.7</b>	<b>(0.2)</b>	<b>81.5</b>
20	Pickering Continued Operations	2.2	(2.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	Pickering Extended Operations	0.0	4.0	4.0	(1.5)	2.5	15.5	18.0	0.4	18.4	0.3	18.7
22	Fuel Channel Life Cycle Mgmt Project	2.3	(1.9)	0.4	(0.4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	Fuel Channel Life Extension Project	10.0	5.7	15.6	(3.4)	12.3	(11.6)	0.7	(0.7)	0.0	0.0	0.0
24	<b>Total Project OM&amp;A</b>	<b>115.2</b>	<b>(16.9)</b>	<b>98.2</b>	<b>15.4</b>	<b>113.7</b>	<b>(4.5)</b>	<b>109.1</b>	<b>(9.0)</b>	<b>100.1</b>	<b>0.1</b>	<b>100.2</b>

Line No.	Business Unit	2020 Plan	(c)-(a) Change	2021 Plan
		(a)	(b)	(c)
	<b>Portfolio Projects (Allocated)</b>			
25	Darlington NGS	0.8	(0.8)	0.0
26	Pickering NGS	0.0	0.0	0.0
27	Nuclear Support Divisions	0.0	0.0	0.0
28	<b>Subtotal Portfolio Projects (Allocated)</b>	<b>0.8</b>	<b>(0.8)</b>	<b>0.0</b>
29	Infrastructure	33.0	(4.0)	29.0
30	<b>Portfolio Projects (Unallocated)</b>	<b>47.8</b>	<b>10.1</b>	<b>57.9</b>
31	<b>Subtotal Project OM&amp;A (Portfolio)</b>	<b>81.5</b>	<b>5.3</b>	<b>86.8</b>
32	Pickering Extended Operations	18.7	(18.7)	0.0
33	Fuel Channel Life Cycle Mgmt Project	0.0	0.0	0.0
34	Fuel Channel Life Extension Project	0.0	0.0	0.0
35	<b>Total Project OM&amp;A</b>	<b>100.2</b>	<b>(13.4)</b>	<b>86.8</b>

Notes:

1 As OEB Approved adjustments shown on Ex. F2-1-1 Table 2 were made at the aggregate Nuclear OM&A level, the figures presented here are 2014 Plan and 2015 Plan (from EB-2013-0321) rather than 2014 OEB Approved and 2015 OEB Approved, respectively.