ScottMadden Evaluation of 2019 OPG Nuclear Benchmarking

Final

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1. EXECUTIVE SUMMARY

ScottMadden's review found that OPG's current benchmarking methods align with previous guidance and current leading practices in the industry. Our evaluation found no material issues with benchmarking report calculations or presentations of data. OPG's suite of benchmarked metrics provides a robust view of the Company's nuclear performance, and its choice of companies for comparison appropriately reflects its industry peers. However, ScottMadden recommends that OPG focus on site-level comparisons of performance for Pickering and Darlington rather than operator-level comparisons in the future. ScottMadden's 2015 review recommended minor modifications to the report and its supporting materials. We have found that OPG sufficiently implemented those recommendations. Lastly, ScottMadden's review of OPG's Nuclear Business Planning Procedure found that this governance remains consistent with industry leading practice.

Changes in Comparative Peer Panels

There have been no substantive changes to the peer panels for comparison in the benchmarking report since ScottMadden's evaluation in 2015, and these panels remain valid industry comparisons for OPG. There have been no additional CANDU interconnections worldwide and only one non-CANDU interconnection in North America, which has been included in the data.

OPG's choice of companies for comparison appropriately reflects its industry peers. However, ScottMadden recommends that OPG focus on site-level comparisons of performance for Pickering and Darlington rather than operator-level comparisons in the future. This represents an evolution in ScottMadden's guidance from 2009. Operator-level comparisons include companies of significantly different scales, particularly given consolidation in the industry over the last decade, and comprise many fewer data points. Variance in scale from one site to the next, while still significant, is less prominent than from one operator to the next. Site-to-site comparisons provide a larger data set resulting in a more robust and accurate view of OPG performance relative to the industry, which better informs the target-setting process.

Changes in Comparative Benchmark Metrics

We compared the metrics currently used by OPG to those used by OPG in the 2014 report. We also compared the metrics currently used by OPG to those currently used by other nuclear operators to benchmark their operational and financial performance.

Our review identified one primary difference between the 2014 and 2019 benchmarking reports, which was the replacement of All Injury Rate (AIR or AIF) with Total Recordable Injury Frequency (TRIF). We reviewed and are comfortable with the rationale for this change. The 2019 report contains additional detail regarding backlog metrics, which we support. ScottMadden also supports the inclusion of normalizing adjustments to some value for money metrics, which are presented in conjunction with unadjusted (i.e., not normalized) versions of those cost metrics. Additionally, in ScottMadden's 2015 review, we recommended that OPG note where metrics use different rolling averages for different stations, which has been implemented by OPG.

It is our opinion that OPG's suite of benchmarked metrics provides a sufficiently robust view of the Company's nuclear performance.

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Validation of Data Calculations and Reporting

We conducted a data validation exercise to ensure benchmarking data contained in the 2019 report was assessed, calculated, and reported accurately. Our evaluation found no material issues with OPG's assessments, calculations, or presentations of data in the benchmarking report. We provide additional context below for OPG's reporting of NPI, which differs from that reported by WANO but is nonetheless accurate and appropriate. In ScottMadden's 2015 review, we also recommended changes to the underlying data files, all of which have been implemented by OPG.

Use of Benchmarks in the Business Planning Process

ScottMadden reviewed OPG's Nuclear Business Planning Procedure. We found that this governance remains aligned with industry leading practice and ScottMadden's previous guidance.

ScottMadden is comfortable with the OPG plan to, beginning in 2020, set targets for three-year rolling averages for value for money metrics. We do not expect that the change from one-year targets to three-year targets will have any negative impact on the understanding of performance and associated goalsetting. We are also comfortable with OPG similarly setting targets for normalized value for money metrics, as long as these normalized targets are always presented and pursued in conjunction with unadjusted (i.e., not normalized) targets.

Changes in Report Format and Presentation

We compared the 2014 and 2019 benchmarking reports for consistency in report format and presentation. It is ScottMadden's view that any changes from 2014 to 2019 were appropriate or immaterial to the overall purpose of the benchmarking analysis.

2. BACKGROUND

In 2009, OPG retained ScottMadden to assist in formally benchmarking its nuclear financial and non-financial performance with industry peers. This initiative was undertaken consistent with shareholder mandate and pursuant to direction from the Ontario Energy Board (OEB). Since this time, nuclear benchmarking has been a standard part of OPG's annual business planning process. OPG has continued to publish annual benchmarking results, comparing OPG to the nuclear industry in terms of financial and non-financial performance metrics. Results are then used to inform target setting for business planning purposes.

OPG previously retained ScottMadden for a similar review of its benchmarking methods. That review, submitted in April 2015 ("ScottMadden's 2015 review"), determined that OPG's benchmarking and target setting processes were responsive to the direction from the OEB. The 2015 review did not find any material errors in the content of the report. The review did recommend minor modifications to the report and its supporting materials.

Since ScottMadden's 2015 review, the OEB has issued an order regarding OPG's nuclear benchmarking methodologies. Issued on December 28, 2017, OEB Decision and Order EB-2016-0152, "Application for payment amounts for the period from January 1, 2017 to December 31, 2021" (Order), states that the OEB expects OPG to file a review by ScottMadden regarding OPG's nuclear benchmarking methodologies with its next cost-based application for the period 2022-2026.

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In an effort to ensure OPG's benchmarking and target setting processes are still responsive to the direction from the Ontario Energy Board (OEB), OPG retained ScottMadden, as an independent evaluator, to examine the current methods used by OPG to benchmark the Company's operational and financial performance against its peer companies in the industry.

3. OBJECTIVES AND SCOPE

Objectives

The purpose of the current evaluation is to confirm that the Company's benchmarking methods and approach are still responsive to the original direction from the OEB.

Scope

The benchmarking methods evaluated were those recently performed by OPG in support of its 2020-2026 planning cycle. The scope of our review includes the following:

- Identification of key performance metrics used for comparison
- Selection of companies to be included in the peer panels
- Preparation of supporting analyses and displays of data
- Use of benchmarks in the business planning cycle

The scope of the review compared the 2019 OPG Nuclear Benchmarking Report to the 2014 OPG Nuclear Benchmarking Report, which was reviewed by ScottMadden in 2015. The two documents were compared in terms of (1) use of appropriate peer companies for comparison, (2) use of industry standard metrics, (3) accuracy of assessments, calculations, and presentations of data, (4) application of the performance benchmarks to inform and guide management during the Company's business planning process, and (5) consistency in format and presentation.

This evaluation also validated normalization adjustments included by OPG for value for money metrics, which reflected methodologies presented in separate documents prepared by ScottMadden for OPG:

- "OPG Nuclear Cost Performance Benchmarking: A Study of Factors Impacting TGC / MWh Performance with Normalizing Adjustments to Facilitate Closer Comparison"
- "OPG Nuclear Cost Performance Benchmarking: Methodology to Adjust for Refurbishment and Validation of Implementation"[1]

[1] ScottMadden outlined the methodology for Refurbishment normalization for 2017 and subsequently validated the OPG calculations to ensure the methodology was applied correctly. For 2018, ScottMadden validated that the approach of OPG remained consistent with the methodology and assumed that OPG had also continued to accurately perform the calculations, as detailed in the appendix, consistent with OPG's current corporate cost allocation methodology and organizational structure.

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4. CHANGES IN COMPARATIVE PEER PANELS

Approach

To evaluate changes in comparative peer panels, ScottMadden reviewed summary tables as well as individual metrics to determine which peer groups were used for which metrics. This exercise was performed at the plant and unit level.

Key Changes and Justification

There have been no substantive changes to the peer panels for comparison in the benchmarking report since ScottMadden's evaluation in 2015.

ScottMadden's Evaluation

The peer panels for comparison remain valid industry comparisons for OPG. There have been no additional CANDU interconnections worldwide and only one non-CANDU interconnection in North America (Watts Bar 2), which has been included in the data.

OPG's choice of companies for comparison appropriately reflects its industry peers. However, ScottMadden recommends that OPG focus on site-level comparisons of performance for Pickering and Darlington rather than operator-level comparisons in the future. This represents an evolution in ScottMadden's guidance from 2009. Operator-level comparisons include companies of significantly different scales, particularly given consolidation in the industry over the last decade and comprise many fewer data points. Variance in scale from one site to the next, while still significant, is less prominent than from one operator to the next. Site-to-site comparisons provide a larger and more comparable data set resulting in a more robust and accurate view of OPG performance relative to the industry which better informs the target-setting process.

5. CHANGES IN COMPARATIVE BENCHMARK METRICS

Approach

We compared the metrics currently used by OPG to those used by OPG in 2014. We also compared the metrics currently used by OPG to those currently used by other nuclear operators to benchmark their operational and financial performance.

Key Changes and Justification

Our review identified one primary difference between the 2014 and 2019 benchmarking reports, which was the replacement of All Injury Rate (AIR or AIF) with Total Recordable Injury Frequency (TRIF).

The Canadian Electricity Association (CEA), which administers the metric, recommended the change, noting:

> *"The key difference is that AIF covers lost-time, fatalities and medical treatment injuries; while the TRIF is based on the total number of recordable injuries. TRIF will likely capture a larger number of injuries, as some injuries are recordable, but do not result in lost time or medical treatment. This metric was chosen as a better representation of the rate at which employees are being meaningfully injured on the job."*

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Our review also identified additional detail provided for 1-Year On-Line Deficient Maintenance Backlog and 1-Year On-Line Corrective Maintenance Backlog. The 2019 report quantifies work orders per operating unit classified as Deficient Critical (DC) and Corrective Critical (CC). The 2014 report contains 1-Year On-Line Deficient Maintenance Backlog and 1-Year On-Line Corrective Maintenance Backlog, but does not quantify DC and CC work orders, as the 2019 report does.

OPG has added Total Generating Cost per Unit (TGC per Unit) and Normalized TGC per Unit to a plant-level performance summary table located in the executive summary of the 2019 benchmarking report. Added to the same table are Normalized Total Generating Cost per Megawatt-Hour (TGC per MWh) and Normalized Non-Fuel Operating Cost per MWh (NFOC per MWh). These latter two measures, along with Normalized Capital Cost per Megawatt Design Electrical Rating (Capital Cost per MW DER), are also included in the graphs and analysis for TGC per MWh, NFOC per MWh, and Capital Cost per MWh, respectively, located in the value for money section of the benchmarking report.

Additionally, in ScottMadden's 2015 review, we recommended that OPG note where metrics use different rolling averages for different stations, which has been implemented by OPG.

ScottMadden's Evaluation

We reviewed and are comfortable with the rationale for the change from AIR/AIF to TRIF. We also support the additional level of detail regarding backlog metrics that OPG now provides.

OPG has significantly increased its analysis of value for money performance since our 2015 review. The below three metrics are consistent with analytical methodologies presented in separate documents that were prepared by ScottMadden for OPG. These are:

- Normalized TGC per MWh, which includes normalization both for Refurbishment costs (impacting TGC) and for factors derived from an in-depth econometric analysis (impacting TGC) and an outage study (impacting MWh)
- Normalized NFOC per MWh and Normalized 3-Year Capital Cost per MW DER, which include normalization for Refurbishment costs (impacting TGC) but not for factors derived from the outage study or the econometric analysis (see explanation below)

OPG calculates Normalized NFOC per MWh and Normalized Capital Cost per MW DER consistent with the ScottMadden Methodology to Adjust for Refurbishment, which excludes costs which can reasonably be attributed to Darlington unit(s) in Refurbishment. As noted above, these two metrics are not adjusted for the outage study or the econometric analysis because the analytical methodology used to quantify the normalizing adjustments was not performed for NFOC or Capital Cost.

OPG also calculates TGC per Unit and Normalized TGC per Unit, which divide cost values by number of units to provide an additional comparative view of costs for OPG and only appear in the plant-level performance summary table. OPG continues to report an unadjusted (i.e., not normalized) version of cost metrics in conjunction with any normalized version, which ScottMadden supports to ensure a complete understanding of performance.

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The 2019 Nuclear Benchmarking Report contains performance benchmarks which are similar or identical to five metrics the WANO Governing Board deems as key[2]: Forced Loss Rate, Collective Radiation Exposure, Total Industrial Safety Accident Rate (OPG tracks TRIF and ISAR, which are similar), Safety System Performance Indicator (SSPI) (this is a composite indicator composed of availability metrics which are present in OPG's benchmarking report), and Unplanned Total Scrams per 7,000 Hours (OPG calls this metric Unplanned Automatic Reactor Trips and calculates it as a two-year rolling average).

It is our opinion that OPG's suite of benchmarked metrics provides a sufficiently robust view of the Company's nuclear performance.

6. VALIDATION OF DATA CALCULATIONS AND REPORTING

Approach

We conducted a data validation exercise to ensure benchmarking data contained in the 2019 report was assessed, calculated, and reported accurately. Data capture for the benchmarking report occurs in three principal steps:

- Receipt of the data from the reporting agencies (e.g., WANO, INPO, COG, EUCG, etc.) and posting of this data to OPG-consolidated spreadsheets
- Custom calculations of the data as needed (e.g., development of two- or three-year rolling averages if not directly reported as such)
- Development of tables and charts comparing OPG performance to that of associated peer panels

ScottMadden independently validated steps 2 and 3 for available data. We were unable to directly validate step 1 insofar as ScottMadden is not a member utility and does not have direct access to the underlying reports provided by these organizations. Membership rules restrict distribution to third parties. In validating step 2, OPG data and associated calculations were examined cell-by-cell. Data and calculations for other comparators were examined and validated in aggregate. Aggregate discrepancies could then be followed up by cell-by-cell examination to identify the source of the discrepancy. Where applicable, ScottMadden recreated custom data calculations from scratch.

Normalization Summary

The table below shows a summary of normalizing adjustments applied to TGC per MWh reflecting the application of normalizing adjustments for Refurbishment costs as well as adjustments for reactor type and unit age. A breakdown of Refurbishment normalizing adjustments for 2018 is shown in the Appendix.

[2] WANO Performance Indicators, 2018

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Normalization Summary - TGC/MWh		
3-Year (2016-2018)	**Darlington**	**Pickering**
TGC/MWh - Non-Normalized	59.06	67.76
Total Generating Costs [TGC] (C $K)		
Non-Normalized TGC	3,847,416	4,215,170
Refurbishment Adjustment	(512,734)	-
Reactor Type Adjustment	(852,100)	(852,100)
Unit Age Adjustment	93,935	(55,131)
Normalized TGC	2,576,517	3,307,938
Generation (GWh)		
Non-Normalized Generation	65,147	62,210
Outage Adjustment	3,287	4,901
Normalized Generation	68,434	67,111
TGC/MWh - Fully Normalized	37.65	49.29

ScottMadden's Evaluation

Our evaluation found no material issues with OPG's assessments, calculations, or presentations of data in the benchmarking report. We provide additional context below for OPG's reporting of NPI, which differs from that reported by WANO but is nonetheless accurate and appropriate. In ScottMadden's 2015 review, we also recommended changes to the underlying data files, all of which have been implemented by OPG.

WANO NPI

ScottMadden made two observations of differences between OPG-calculated NPI scores and WANO output provided by OPG. We believe the differences are justified, accurate, and appropriate.

- OPG's calculation of DNGS's NPI performance in 2016 is 1.93 points higher than WANO's figure for the same period. This difference relates to Darlington Unit 2 Refurbishment. OPG pro-rated potential generation for the fourth quarter of 2016 to reflect the beginning of Darlington Unit 2 Refurbishment in October. The effect of the generation adjustment resulted in a higher Unit Capability Factor for Darlington Unit 2, and an increase in overall NPI performance. This better reflects operating reality for DNGS, which shut down only 16 days into the fourth quarter of 2016 rather than at the end of the quarter, which had 92 days.
- Other NPI scores for both DNGS and PNGS differ slightly from WANO's scores for 2016, 2017, and 2018. The differences relate to rounding: for each of the 10 metrics in the NPI calculation, a raw, or "indicator" value is multiplied by the metric's weighting to arrive at a point total. The point total for each metric is then added together to arrive at a total NPI score. WANO adds point totals for each metric rounded to the nearest tenth. OPG adds un-rounded, more precise point totals calculated in an Excel spreadsheet. The net differences of this slight arithmetic variation are not more than +/- 0.08 NPI points and are immaterial to OPG's quartile performance.

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7. USE OF BENCHMARKS IN THE BUSINESS PLANNING PROCESS

Approach

ScottMadden reviewed OPG's Nuclear Business Planning Procedure (N-PROC-AS-0080) against previous ScottMadden guidance and current industry leading practice.

Summary of Business Planning Process

OPG's nuclear business planning framework consists of five phases: (1) Performance Review, (2) Setting Strategic Direction, (3) Gap Closure Proposal, (4) Developing Detailed Business Plans, and (5) Performance Reporting. Over the course of this business planning cycle, nuclear performance is compared against the targets in the last business plan, new targets are set, and fleet-wide improvement initiatives to address performance gaps are formulated. Based on the approved strategic direction, generation, cost, and staffing plans are developed. Finally, performance is reported and monitored.

OPG has informed ScottMadden that during the 2020 business planning cycle, OPG plans to use three-year rolling average targets and normalized three-year rolling average targets for value for money metrics. The change is intended to better align with the metrics themselves, which are calculated as three-year rolling averages, and to reduce year-to-year volatility associated with Refurbishment operations. OPG will also continue to set one-year targets.

ScottMadden's Evaluation

We found that OPG's Nuclear Business Planning Procedure remains aligned with industry leading practice and ScottMadden's previous guidance. ScottMadden is comfortable with the OPG plan to set targets for three-year rolling averages for value for money metrics and we note that OPG will also continue to set one-year targets. We do not expect that the change from one-year targets to three-year targets for business planning will have any negative impact on the understanding of performance and associated goalsetting. It is possible that greater consistency will improve clarity and focus across the OPG organizations around these measures and targets. We are also comfortable with OPG similarly setting targets for normalized value for money metrics, as long as these normalized targets are always presented and pursued in conjunction with unadjusted (i.e., not normalized) targets.

8. CHANGES IN REPORT FORMAT AND PRESENTATION

Approach

We compared the 2014 and 2019 benchmarking reports for consistency in report format and presentation. Underlying data reflects changes in the availability of comparative data for the nuclear industry as well as changes in company performance.

Key Changes and their Justification

Changes to the 2019 report, compared with the 2014 report, include:

- Inclusion of call-out boxes in the "Key Highlights" section which explain trends for Pickering and Darlington performance in three out of the four nuclear cornerstones.

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- Expanded sections of the executive summary for each nuclear cornerstone. This provides greater context for benchmarking results overall.
- Placement of the executive summary nuclear cornerstone sections before sections on background, descriptions of performance indicators, industry peer groups, and report structure.

ScottMadden's Evaluation

It is ScottMadden's view that any changes from 2014 to 2019 were appropriate or immaterial to the overall purpose of the benchmarking analysis.

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APPENDIX: BREAKDOWN OF DARLINGTON REFURBISHMENT NORMALIZING ADJUSTMENTS

Table 1 and Table 2 show the 2018 calculations of the percentages used in Scenario 2 and Scenario 3 in Table 3 below in accordance with the Darlington Refurbishment TGC/MWh normalization methodology. The cost attribution methodologies for Scenario 2 and Scenario 3 are explained in a separate document prepared by ScottMadden for OPG, "OPG Nuclear Cost Performance Benchmarking: Methodology to Adjust for Refurbishment and Validation of Implementation."

Table 1: Calculation of FTE Percentage Used in Scenario 2

FTE *		
	2018	%
Refurb	986	43%
Darlington	1,311	57%
Total Refurb & Darlington FTE	2,297	

** Budget amounts utilized as per allocation methodology*

Table 2: Calculation of OM&A and Capital Cost Percentage Used in Scenario 3

OM&A and Capital Costs*		
	2018	%
Capital **		
Refurb	565.3	65%
Darlington	307.1	35%
Total Capital	872.4	
OM&A		
Refurb ***	69.4	16%
Darlington	375.1	84%
Total OM&A	444.5	
Total Costs		
Refurb	634.7	48%
Darlington	682.2	52%
Total Costs	1,316.9	

** Budget amounts utilized as per allocation methodology*

*** All Capital costs exclude External Purchased Services (EPS)*

**** Refurb OM&A includes Cyclical Outage*

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Table 3: Breakdown of 2018 Darlington Refurbishment Normalizing Adjustments

Darlington Refurb 2018 Cost Summary (C$k)		
Group	**OPG Method of Cost Attribution to DNGS**	**Total**
Nuclear Station & Support	OM&A costs assigned to DNGS that are reasonably attributable to the unit(s) in Refurbishment should be removed: Cyclical Outage Costs	(63,768)
Chief Administrative Office		**(20,826)**
Environment	Scenario 1: Management Assignment or Proportionate Support Allocation	(629)
	Scenario 3: OM&A & Capital Blend	(856)
Legal, Ethics & Compliance (Less Enviro & Reg Affairs)	Scenario 1: Management Assignment or Proportionate Support Allocation	(478)
	Scenario 3: OM&A & Capital Blend	(2,072)
Real Estate & Services	Scenario 1: Management Assignment or Proportionate Support Allocation	(9,929)
	Scenario 3: OM&A & Capital Blend	(68)
Regulatory Affairs	Scenario 1: Management Assignment or Proportionate Support Allocation	(235)
	Scenario 3: OM&A & Capital Blend	(55)
Supply Chain	Scenario 1: Management Assignment or Proportionate Support Allocation	(5,474)
	Scenario 3: OM&A & Capital Blend	(850)
SVP & OPG 2025	Scenario 3: OM&A & Capital Blend	(180)
Corporate Office		**(3,643)**
Corporate Affairs	Scenario 1: Management Assignment or Proportionate Support Allocation	(1,568)
	Scenario 3: OM&A & Capital Blend	(1,926)
Executive Office	Scenario 3: OM&A & Capital Blend	(149)
Finance		**(10,141)**
Assurance & Enterprise Risk Mgmt	Scenario 1: Management Assignment or Proportionate Support Allocation	(326)
	Scenario 3: OM&A & Capital Blend	(775)
Corp Business Development & Strategy	Scenario 1: Management Assignment or Proportionate Support Allocation	(48)
	Scenario 3: OM&A & Capital Blend	(1,081)
Fund Management	Scenario 3: OM&A & Capital Blend	(283)
Treasury	Scenario 1: Management Assignment or Proportionate Support Allocation	(2,229)
	Scenario 3: OM&A & Capital Blend	(537)
Business Planning & Reporting	Scenario 1: Management Assignment or Proportionate Support Allocation	(96)
	Scenario 3: OM&A & Capital Blend	(1,319)
External Reporting & Policy	Scenario 3: OM&A & Capital Blend	(1,107)
Income Tax	Scenario 1: Management Assignment or Proportionate Support Allocation	(70)
	Scenario 3: OM&A & Capital Blend	(383)
Corporate Controllership	Scenario 3: OM&A & Capital Blend	(496)
Nuclear Finance	Scenario 1: Management Assignment or Proportionate Support Allocation	(1,144)
SVP Office & Chief Controller Office	Scenario 1: Management Assignment or Proportionate Support Allocation	(246)
Chief Information Office		**(19,051)**
CIO	Scenario 1: Management Assignment or Proportionate Support Allocation	(14,534)
	Scenario 3: OM&A & Capital Blend	(4,517)
People & Culture		**(9,034)**
Business Change & Talent	Scenario 1: Management Assignment or Proportionate Support Allocation	(539)
	Scenario 2: Full-Time Equivalents	(518)
Employee & Labour Relations and Health & Safety	Scenario 1: Management Assignment or Proportionate Support Allocation	(445)
	Scenario 2: Full-Time Equivalents	(1,452)
Business Partners	Scenario 1: Management Assignment or Proportionate Support Allocation	(607)
	Scenario 2: Full-Time Equivalents	(263)
Learning & Development	Scenario 1: Management Assignment or Proportionate Support Allocation	(4,230)
	Scenario 2: Full-Time Equivalents	(305)
SVP Office	Scenario 2: Full-Time Equivalents	(674)
Nuclear Support		**(62,969)**
Direct Report	Scenario 4: Number of Operating Units	(2,821)
Fleet Ops Maintenance & Training	Scenario 4: Number of Operating Units	(5,159)
Inspection & Reactor Innovation	Scenario 4: Number of Operating Units	(3,462)
Nuclear Engineering	Scenario 4: Number of Operating Units	(23,418)
Nuclear Oversight	Scenario 4: Number of Operating Units	(565)
Nuclear Reg Affairs & Stakeholder	Scenario 4: Number of Operating Units	(4,424)
Nuclear Training	Scenario 4: Number of Operating Units	(3,597)
Nuclear Waste Management	Scenario 4: Number of Operating Units	(157)
Projects & Modifications and Enterprise Projects	Scenario 4: Number of Operating Units	(9,489)
Security & Emergency Services	Scenario 3: OM&A & Capital Blend	(143)
	Scenario 4: Number of Operating Units	(9,733)
Nuclear Station		**(59,960)**
PNGS	Scenario 4: Number of Operating Units	(15)
Nuclear Sustaining Capital Cost	Sustaining Capital Cost Common to All Units at DNGS	(59,945)
Grand Total		**(249,392)**

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