UNDERTAKING JTX4.17

Undertaking

TO PROVIDE A MORE DETAILED EXPLANATION OF THE ANALYSIS, INCLUDING THE CALCULATIONS THAT TAKES YOU FROM THE WTW REPORT THROUGH TO TABLE 2.

Response

The following response was prepared by Willis Towers Watson ("WTW"):

For each of PWU, Society, and Management employee groups, the total OPG and market total remuneration values were grossed up to capture OPG's full employee population relative to the benchmarked population for 2019 year. The variance is then calculated by taking the difference between OPG and the market. Table 1, step 1 below illustrates the calculations for each employee group, separately showing PWU Regular and PWU Term Employees.

Table 1

Step 1: Extrapolation of 2019 total benchmarked values to reflect full OPG population

OPG Group	2019 Total Dollar Values ($MM) *OPG Benchmarked Population*		% of OPG Matched Incumbents	2019 Total Dollar Values ($MM) *Full OPG Population*		Variance	
	OPG	Market		OPG	Market	%	$MM
	(A)	(B)	(C)	(D) = A * (1 + (1 - C))	(E) = B * (1 + (1 - C))	(F) = (D / E) - 1	(G) = D - E
PWU *(Regular)*	$554.3	$477.1	84%	$645.0	$555.2	16.2%	$89.8
PWU *(Terms)*	$25.8	$45.7	98%	$26.3	$46.6	-43.6%	($20.3)
PWU *(Regular + Terms)*	$580.1	$522.8	85%	$671.3	$601.8	11.5%	**$69.5**
Society	$456.8	$400.5	85%	$523.7	$459.2	**14.1%**	**$64.5**
Management	$190.7	$216.3	80%	$228.5	$259.2	**-11.8%**	**($30.7)**
Overall *(Sum of groups)*	**$1,227.6**	**$1,139.7**	**84%**	**$1,423.6**	**$1,320.2**	**7.8%**	**$103.3**

Reflects amounts presented in L-F4-03-SEC-149 Table 1

Consistent with the percentage variance outlined in the 2019 Compensation Benchmarking Report files at EX. F4-3-1, Attachment 2 *

*** Note:** The variance to market for the PWU and Overall groups vary slightly from the 2019 Compensation Benchmarking Report files at Ex. F4-3-1, Attachment 2 (one decimal point) as a result of rounding through grossing the benchmarked data for each employee group separately and then adding them back together.

Presented in Table 2 below, WTW calculated the projected headcount year over year headcount changes for each year and employee group based on a percentage change from 2019 as provided by OPG (Table 5 in Ex. L-F4-03-SEC-149).

Table 2

Step 2: Incorporate projected OPG headcount reductions (%) and calculate the year over year % change for each year from 2019

OPG Group	Overall 2019 Headcount	OPG Headcount Projections													
		2020		2021		2022		2023		2024		2025		2026	
		% change from 2019	Year over Year % change	% change from 2019	Year over Year % change	% change from 2019	Year over Year % change	% change from 2019	Year over Year % change	% change from 2019	Year over Year % change	% change from 2019	Year over Year % change	% change from 2019	Year over Year % change
PWU	4998	[redacted]													
Total Exc. Nuc. Auth	4754														
Nuclear Authorized	244														
PWU *(Regular)*	4608														
PWU *(Terms)*	390														
Society	3115														
Total Exc. Nuc. Auth	3020														
Nuclear Authorized	95														
Management	1069														
Total Exc. Nuc. Auth	1019														
Nuclear Authorized	50														
OPG Overall	9182														

Reflects amounts presented in L-F4-03-SEC-149 Table 5

For each year, OPG total values and the market were adjusted to reflect the percent changes in headcount from Table 2 above and expected salary increases at OPG and in the market (Table 4 in Ex. L-F4-03-SEC-149). Table 3 below captures the evolution of the amounts and variances for each year and employee group based on these inputs.

Table 3

Step 3: Incorporate salary and headcount adjustments

OPG Group	OPG				Market				Variance	
	Beginning Total $ Value ($MM)	Salary Increase Adjustment %	Headcount Adjustment %	Ending Total $ Value ($MM)	Beginning Total $ Value ($MM)	Salary Increase Adjustment %	Headcount Adjustment %	Ending Total $ Value ($MM)	%	$MM
	(D) *for 2019*	(I)	(H) *from step 2*	(J) = D x I x H	(E) *for 2019*	(K)	(H) *from step 2*	(L) = E x K x H	(M) = (J / L) - 1	(N) = J - L
PWU *(Regular)*										
2019	$645.0	n/a	n/a	$645.0	$555.2	n/a	n/a	$555.2	16.2%	$89.8
2019-2020	[redacted]									
2020-2021										
2021-2022										
2022-2023										
2023-2024										
2024-2025										
2025-2026										
PWU *(Terms)*										
2019	$26.3	n/a	n/a	$26.3	$46.6	n/a	n/a	$46.6	-43.6%	($20.3)
2019-2020	[redacted]									
2020-2021										
2021-2022										
2022-2023										
2023-2024										
2024-2025										
2025-2026										
PWU *(Regular + Terms)*										
2019	--	--	--	**$671.3**	--	--	--	**$601.8**	--	**$69.5**
2019-2020	[redacted]									
2020-2021										
2021-2022										
2022-2023										
2023-2024										
2024-2025										
2025-2026										
Society										
2019	$523.7	n/a	n/a	**$523.7**	$459.2	n/a	n/a	**$459.2**	**14.1%**	**$64.5**
2019-2020	[redacted]									
2020-2021										
2021-2022										
2022-2023										
2023-2024										
2024-2025										
2025-2026										
Management										
2019	$228.5	n/a	n/a	**$228.5**	$259.2	n/a	n/a	**$259.2**	**-11.8%**	**($30.7)**
2019-2020	[redacted]									
2020-2021										
2021-2022										
2022-2023										
2023-2024										
2024-2025										
2025-2026										
Overall *(Sum of groups)*										
2019	--	--	--	**$1,423.6**	--	--	--	**$1,320.2**	--	**$103.3**
2019-2020	[redacted]									
2020-2021										
2021-2022										
2022-2023										
2023-2024										
2024-2025										
2025-2026										

Reflects amounts presented in L-F4-03-SEC-149 Tables 1, 3 and 4

Consistent with the percentage variance outlined in the 2019 Compensation Benchmarking Report files at EX. F4-3-1, Attachment 2

The allocation, by employee group, to nuclear operations and further to OM&A expenses were completed based on percentages as provided by OPG. Table 4 illustrates the calculations below for each year and employee group.

Table 4

Step 4: Incorporate nuclear allocation and OM&A attribution adjustments

OPG Group	OPG $ Variance ($MM)	Nuclear $ Allocation %	Nuclear $ Allocation ($MM)	OM&A Attribution %	OM&A $ Attributed ($MM)
	(N) *from step 3*	(O)	(P) = N x O	(Q)	(R) = P x Q
PWU *(Regular)*	[redacted]				
2022	[redacted]	**75.6%**	$56.7	**84.7%**	$48.0
2023	[redacted]	**75.6%**	$49.3	**83.9%**	$41.4
2024	[redacted]	**74.5%**	$45.2	**81.5%**	$36.9
2025	[redacted]	**73.5%**	$39.6	**75.6%**	$29.9
2026	[redacted]	**72.2%**	$35.0	**57.1%**	$19.9
PWU *(Terms)*	[redacted]				
2022	[redacted]	**100.0%**	($43.6)	**99.2%**	($43.3)
2023	[redacted]	**100.0%**	($44.8)	**99.2%**	($44.4)
2024	[redacted]	**100.0%**	($47.4)	**99.1%**	($47.0)
2025	[redacted]	**100.0%**	($34.7)	**97.3%**	($33.8)
2026	[redacted]	**100.0%**	($5.6)	**0.0%**	$0.0
PWU *(Regular + Terms)*	[redacted]				
2022	[redacted]	--	**$13.1**	--	**$4.8**
2023	[redacted]	--	**$4.6**	--	**($3.0)**
2024	[redacted]	--	**($2.2)**	--	**($10.1)**
2025	[redacted]	--	**$4.9**	--	**($3.8)**
2026	[redacted]	--	**$29.4**	--	**$19.9**
Society	[redacted]				
2022	[redacted]	**79.1%**	**$43.1**	**75.3%**	**$32.5**
2023	[redacted]	**79.0%**	**$36.8**	**74.7%**	**$27.5**
2024	[redacted]	**78.6%**	**$30.5**	**73.7%**	**$22.5**
2025	[redacted]	**76.7%**	**$24.6**	**69.3%**	**$17.1**
2026	[redacted]	**72.3%**	**$17.8**	**62.1%**	**$11.0**
Management	[redacted]				
2022	[redacted]	**79.7%**	**($28.5)**	**79.3%**	**($22.6)**
2023	[redacted]	**79.9%**	**($32.2)**	**79.3%**	**($25.5)**
2024	[redacted]	**79.2%**	**($34.7)**	**78.2%**	**($27.1)**
2025	[redacted]	**76.8%**	**($32.2)**	**75.8%**	**($24.4)**
2026	[redacted]	**71.4%**	**($25.1)**	**73.1%**	**($18.4)**
Overall *(Sum of groups)*	[redacted]				
2022	[redacted]	--	**$27.7**	--	**$14.7**
2023	[redacted]	--	**$9.1**	--	**($1.1)**
2024	[redacted]	--	**($6.3)**	--	**($14.7)**
2025	[redacted]	--	**($2.7)**	--	**($11.2)**
2026	[redacted]	--	**$22.0**	--	**$12.6**

Reflects amounts presented in L-F4-03-SEC-149 Tables 2 and 6

The following response was prepared by OPG:

The percentage changes from 2019 in step 2a and the corresponding year-over-year percentage changes in step 2b were derived directly from the corresponding employee group line items in Ex. L-F4-03-Society-018, Attachment 1 (i.e., line 26 for Management, line 27 for Society, line 29 for PWU Regular and line 31 for PWU Term).

The 2022-2026 OM&A attribution percentages in step 4 represent the distribution of labour costs, by employee group, as reflected in the annual requested nuclear revenue requirement in this application and summarized on an overall basis in Ex. L-F4-03-Staff-275, Attachment 1.