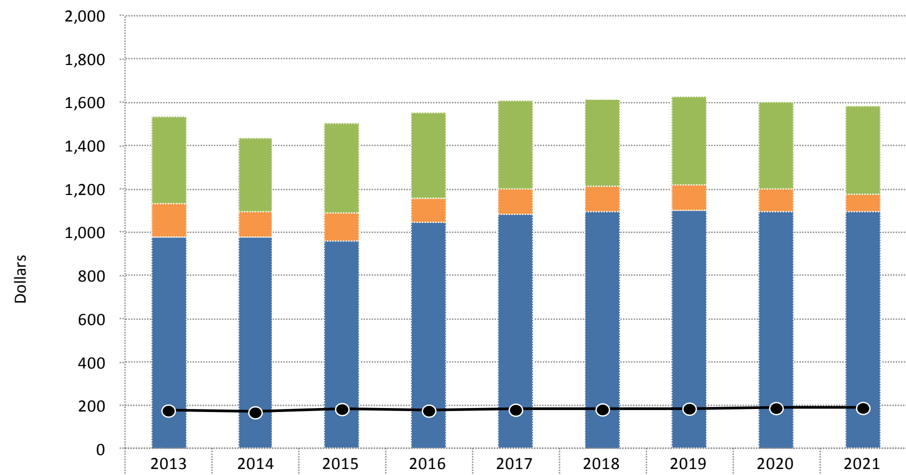
OPG

EB-2016-0152

OEB Staff Compendium

Panel 4

Figure 3 - Compensation Costs for Nuclear Facilities



	2013	2014	2015	2016	2017	2018	2019	2020	2021
Pensions & Benefits (M$)*	399	342	417	397	407	400	405	404	405
Overtime (M$)	159	118	132	112	117	116	119	102	81
Base Salaries & Incentives (M$)	976	978	956	1,046	1,082	1,095	1,099	1,097	1,096
Total Compensation (M$)	1,534	1,438	1,506	1,554	1,606	1,611	1,623	1,603	1,582
Growth Rate (Total Compensation)	6%	-6%	5%	3%	3%	0%	1%	-1%	-1%
Total Compensation (K$ / FTE)	179	171	186	178	182	184	187	190	191
Full Time Equivalents**	8594	8432	8114	8721	8801	8761	8665	8430	8293

*Pension and benefits include current service costs and are shown on an accrual basis.
** FTE includes both regular and non-regular FTEs. The actual 2013 FTEs shown are adjusted from those provided in EB-2013-0321, J7.3, Attachment 1. The adjustment increases the number of FTEs by excluding the impact of banked overtime (overtime taken as time off rather than pay) and shows the 2013 Actual FTEs on a consistent basis with the remaining years in the table.

Each component of compensation is described in more detail below, beginning with staffing levels. Additional details can also be found in Attachment 1 (FTE, Compensation and Benefit Information for OPG's Nuclear Facilities ["Appendix 2k"]).

FTE Staffing levels

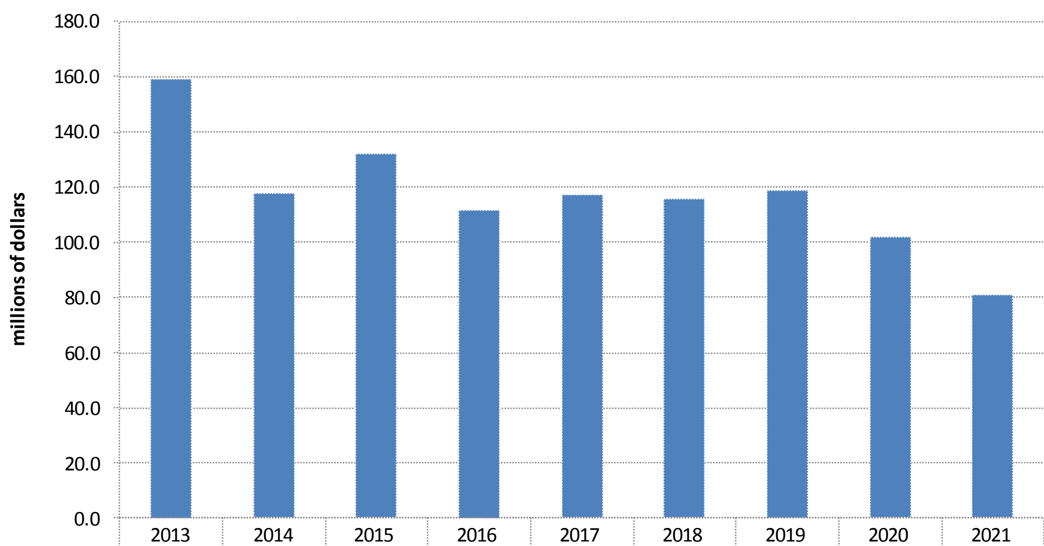
In 2016, staffing levels for OPG's Nuclear facilities are expected to increase by over 600 FTEs due largely to the Darlington Refurbishment Project ("DRP") and, to a lesser extent, the workforce renewal required to sustain Pickering operations. In 2015, Nuclear attrition was at its highest level in years, with over 300 retirements.[4] This represents a 20 per cent increase in the number of retirements in Nuclear compared to 2014. Over two thirds of the 2015

[4] These retirements include only those reporting to the Nuclear organization directly. Attrition associated with support staff attributed to the prescribed nuclear facilities is not reflected in this number.

reviews are also conducted to assess overtime usage and alternative options to address work needs.

Overtime costs for OPG's Nuclear facilities are expected to decline significantly, by approximately 50 per cent, between 2013 and 2021, as shown in Figure 9 below. Over the test period, overtime costs range from 7 per cent to 5 per cent of the Total Compensation associated with OPG's Nuclear facilities. See Attachment 1 for additional details.

Fgure 9 - Overtime Costs for Nuclear



	2013	2014	2015	2016	2017	2018	2019	2020	2021
Nuclear	159.2	117.6	132.0	111.9	117.5	115.7	118.6	101.9	81.1

Pension and Benefits costs represent approximately 25 per cent of OPG's nuclear compensation costs over the test period and include current employee benefits and current service costs for pension and other post employment benefits ("OPEB"). In this Application, OPG is proposing to limit the recovery of pension and OPEB costs to cash amounts during the test period, subject to the outcome of the OEB's generic proceeding on pension and OPEB costs (EB-2015-0040). OPG is also proposing to record the difference between actual accrual and actual cash valuations for pension and OPEB costs in the Pension & OPEB Cash Versus Accrual Differential Deferral Account (see Ex. H1-1-1). In this exhibit and as in

Chart 2

Total Pension and OPEB Accrual Costs – Nuclear[4] ($M)									
	2013 Actual	**2014 Actual**	**2015 Actual**	**2016 Projection**	**2017 Plan**	**2018 Plan**	**2019 Plan**	**2020 Plan**	**2021 Plan**
Pension	365.4	411.2	414.4	294.6	222.8	167.5	153.0	140.0	131.4
OPEB	223.0	176.1	202.8	192.6	194.6	195.0	196.0	197.0	198.3
Total	**588.4**	**587.3**	**617.2**	**487.2**	**417.4**	**362.5**	**349.0**	**337.0**	**329.7**

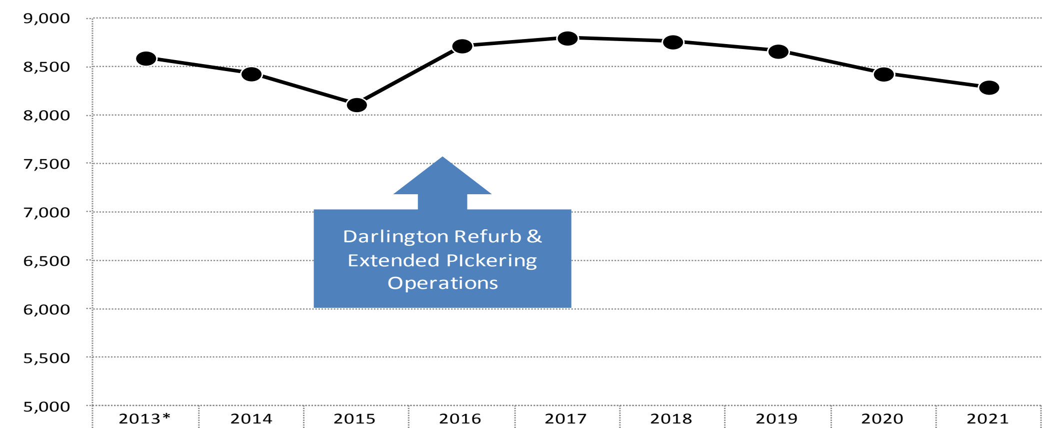
As set out in section 2.0 and Ex. H1-1-1, OPG proposes to record the difference between actual accrual costs and actual cash amounts during the test period in the Pension & OPEB Cash Versus Accrual Differential Deferral Account, and the difference between actual and forecast cash amounts in the Pension & OPEB Cash Payment Variance Account. Notwithstanding this proposal in light of the OEB's ongoing generic consultation on pension and OPEB, OPG continues to be of the view that it would be appropriate for it to recover accrual costs for pension and OPEB for the regulated business for reasons summarized in section 2.0.

Chart 3 below sets out the difference between pension and OPEB accrual costs and cash amounts attributed to the nuclear facilities for the historical, bridge and test periods (i.e., the difference between the amounts in Chart 2 and the amounts in Chart 1). The difference is expected to decline significantly by the end of the test period. Cash amounts for pension are expected to exceed accrual costs starting in 2018. This trend reflects lower pension accrual costs discussed in section 5.3. The OPEB cash-to-accrual difference is projected to decline gradually over the test period as cash amounts increase.

[4] Ibid.

retirements were in critical operations, maintenance, engineering and technical roles and will need to be replaced. As shown in Figure 4, staffing levels peak in 2017 and then decline by over 500 FTEs by 2021. Nuclear staffing levels are discussed further in Ex. F2-1-1.

Figure 4- Nuclear Full Time Equivalents (FTE)



	2013*	2014	2015	2016	2017	2018	2019	2020	2021
Temporary	634	734	843	808	833	853	816	731	694
Regular	7,960	7,698	7,271	7,912	7,968	7,909	7,848	7,699	7,599
Total	8,594	8,432	8,114	8,721	8,801	8,761	8,665	8,430	8,293

* The actual 2013 FTEs shown are adjusted from those provided in EB-2013-0321, J7.3, Attachment 1. The adjustment increases the number of FTEs by excluding the impact of banked overtime (overtime taken as time off rather than pay) and shows the 2013 Actual FTEs on a consistent basis with the remaining years in the table.

Workforce renewal leading up to the end of commercial operations at Pickering in 2022/2024 will be required to continue operating the station safely. To assist in mitigating the anticipated disruption and costs associated with deployment and involuntary terminations after Pickering is shut down, a new category of employees called “Term Employees” was negotiated with the PWU for the current collective agreement period. In general, term employees may be hired to avoid adding regular staff in circumstances where additional regular employees are likely to be laid off as a result of Pickering’s end of commercial operations. Term employees are hired with the understanding that they have no expectation of ongoing employment once Pickering’s operations cease.

Base Salaries and Incentives represent about 68 per cent of OPG’s total compensation costs related to the Nuclear facilities over the test period. These costs are largely a function

Introduction

- Willis Towers Watson has conducted a total compensation benchmarking study for roles across Ontario Power Generation's (OPG) Management, PWU and Society employee groups.
- This benchmark review has been conducted on a segmented basis. Roles are benchmarked against comparator organizations best representing the underlying skill sets required.
- The three segments are: Utility, Nuclear Authorized and General Industry.
- 78% of OPG incumbents are in roles covered by this benchmark review. In our experience, this is a strong representative sample.

OPG Group	Total # OPG Incumbents	Total # OPG Incumbents Benchmarked	% OPG Incumbents Benchmarked
PWU	**5,533**	**4,475**	**81%**
Utility	3,754	3,169	84%
Nuclear Authorized	255	255	100%
General Industry	1,524	1,051	69%
Society	**2,918**	**2,151**	**74%**
Utility	2,235	1,808	81%
Nuclear Authorized	111	53	48%
General Industry	572	290	51%
Management	**1,062**	**754**	**71%**
Utility	532	355	67%
Nuclear Authorized	39	37	95%
General Industry	491	362	74%
Total	**9,513**	**7,380**	**78%**

Note: OPG incumbent information as of April 2015

Segment Definitions

- Roles are benchmarked against peer groups appropriately representing the underlying skills sets required. These are categorized as three unique segments for benchmarking purposes.

Segment	% Total Population	Definition
Utility	69%	▪ Requires specific education and knowledge in a unique discipline related to the theories, principles and methods associated with the generation, regulation or trading of nuclear or non-nuclear energy. The requirement to apply this professional body of knowledge represents a significant portion of the job.
Nuclear Authorized	4%	▪ Requires federal licensing, specific education and in-depth knowledge in a unique discipline related to the theories, principles and methods associated with the generation, regulation or training of nuclear energy. The requirement to apply this professional body of knowledge represents a significant portion of the job.
General Industry	27%	▪ Roles that do not meet the Utilities and Nuclear segment definition criteria. ▪ These roles may require formal education and/or in-depth knowledge of a professional body of knowledge; however, this body of knowledge is not specific to energy generation. ▪ Previous industry experience may support faster contextual understanding, however this can be learned “on the job”.

Compensation Elements and Market Statistics

- Market statistics reported reflect the 50^{th} percentile and 75^{th} percentile of the benchmark samples for the data elements summarized below:
  - 50^{th} percentile represents the mid-point of the sample, 50% of the data points are positioned below and above this level.
  - 75^{th} percentile represents the level where 75% of the data points are positioned below and 25% are positioned above this level.
    - For survey confidentiality purposes, the 75^{th} percentile can only be shown if there are a minimum of 5 data points in the sample.
- Market data for the US nuclear peer group used for the Nuclear Authorized segment were converted to CAD, consistent with Willis Towers Watson's practice, using an average annual exchange rate to February 2016 of $1 USD - $1.29676 CAD to moderate fluctuations.

Compensation Element	Market	OPG
Salary	2015 actual reported comparator organization salaries of incumbents in benchmark roles	Average salary (as of April 2015) of incumbents in benchmark roles
Total direct compensation (TDC)	2015 actual reported comparator organization salary + target bonus + nuclear allowances + perquisites (if applicable) + long-term incentives (if applicable) of incumbents in benchmark roles	Average salary (as of April 2015) + target bonus (if applicable) + nuclear and/or and other applicable allowances of incumbents in benchmark roles

Overview: Compensation Analysis Results

- Willis Towers Watson considers compensation for benchmark jobs to be aligned with the competitive market when it falls within +/- 10% of the target market position. OPG's compensation philosophy defines a target market position at the 50th percentile for Utility and General Industry segments and the 75th percentile for the Nuclear Authorized Segment (based on role complexity).
- Overall, OPG's Total Direct Compensation is positioned within 5% of the target market. The Utility segment, which includes approximately three quarters of the incumbents, is positioned within 2% of the target market.

OPG Group and Segment	# OPG Matched Incumbents	% +/- Target Market Base Salary	% +/- Target Market TDC
PWU	**4,475**	**13%**	**8%**
Utility	3,169	10%	4%
Nuclear Authorized	255	7%	10%
General Industry	1,051	31%	27%
Society	**2,151**	**18%**	**8%**
Utility	1,808	17%	7%
Nuclear Authorized	53	-7%	-14%
General Industry	290	38%	27%
Management Group	**754**	**-7%**	**-13%**
Utility	355	-12%	-19%
Nuclear Authorized	37	-18%	-27%
General Industry	362	3%	1%
Overall	**7,380**	**12%**	**5%**

OPG Segment	% +/- Target Market Base Salary	% +/- Target Market TDC
Utility	10%	2%
Nuclear Authorized	1%	-3%
General Industry	25%	19%

Note: Target positioning for roles in the Nuclear Authorized segment is the 75th percentile, except for Senior Executive roles which target the 50th percentile.

Board Staff Interrogatory #153

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: Exh F4-3-1 Attachment 2

The Towers Total Compensation Benchmarking Study provides a compensation analysis and a pension and benefits analysis.

a) Nine of the ten comparators in the "nuclear authorized" group are based in the United States; accordingly Towers converted their compensation figures into CAD. Please confirm that the results of the nuclear authorized comparison can be heavily influenced by fluctuating exchange rates.

b) At page 11, the report states: "OPG's compensation philosophy defines a target market position at the … 75th percentile for the Nuclear Authorized Segment (based on role complexity)." Does Towers agree that the 75th percentile is the most appropriate comparison point for the Nuclear Authorized Segment? Please elaborate.

Response

a) As referenced in Ex. F4-3-1, p.21, footnote 7, "the Nuclear Authorized segment results are being affected by volatile exchange rates." It is also important to note that due to the small percentage of staff in this segment, the overall impact of exchange rates on OPG's benchmarking results is not significant.

b) Willis Towers Watson ("Towers") agrees that the 75th percentile is an appropriate comparison point for the Nuclear Authorized segment.

   The purpose of benchmarking compensation at the job role level is to ensure a comparison to market for comparable skills and accountabilities. Management, Society and PWU roles in the Nuclear Authorized Segment at OPG are subject to greater complexity due to how the nuclear units are structured with responsibility for 4 units at OPG compared to 1-2 in the market. This makes the scope of the management, society and PWU roles broader and more complex. As such in reviewing the range of market data, the 75th percentile data was determined to be the best proxy to address this relative level of complexity. It should be noted that use of the 75th percentile data is not used for top executive jobs where accountability for overall nuclear operations is consistent across roles in the comparator group.

SEC Interrogatory #83

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
[F4/3/1, Attach 2]

With respect to the Willis Towers Watson study:

a. What percentage of OPG's employees, that are either directly assigned or allocated (at least in part) to the nuclear facilities, are in each of the Utility, Nuclear, or General Industry comparator category?

b. For each employee category (PWU, Society, Mgmt Group, and Total), please provide the cost impact, for each year of the test period, if OPG was at the 50% median, for each comparator category (Utility, Nuclear, General Industry, Total). Please only include the cost impact as they relate to costs that are either directly attributable to or allocated to the nuclear facilities. Please provide all assumptions used in the calculation.

Response

a. OPG estimates that approximately 68% of employees associated with OPG's Nuclear Regulated Facilities are in the Utility segment, 5% in the Nuclear Authorized segment, and 27% in the General Industry segment.

b. The compensation benchmarking results captured in Ex. F4-3-1, Attachment 2, provide directional information to understand how OPG's compensation compares with the market place as of April, 2015. In Willis Towers Watson's experience, most organizations use this information by considering a range of pay around their desired reference point given the variability within the market data. Typical practice is to consider actual compensation that falls within +/- 10% of the organization's targeted market positioning to be "at market". For OPG, this is the +/- 10% to the 50th percentile or, in the case of a small portion of the population in the nuclear authorized segment +/- 10% of the 75th percentile targeted due to scope and complexity. OPG's overall positioning for total direct compensation currently falls within that market range.

   Cost impacts associated with OPG's total direct compensation being above or below the specific targeted market positioning as of April, 2015 can be estimated for the data included in the study, and have been estimated by Willis Towers Watson for total OPG.

OPG attributed the total OPG cost impact estimates of above target total direct compensation determined by Willis Towers Watson to the nuclear facilities based on the proportion of total OPG FTEs associated with the nuclear facilities. This yielded a cost impact of approximately $30M for the nuclear facilities of being 5% above the targeted marketed positioning. This is comprised of approximately $29M for PWU represented employees and approximately $15M for Society represented employees, and is offset by Management Group employees where OPG's costs are approximately $14M below the 50th percentile. OPG notes that the applicability of these point-in-time benchmarking results to a future period is speculative, as wage increases and compensation changes in the market place are not known.

Cost impacts associated with OPG pension and benefits benchmarking above market are not available because the benchmarking is based on the value of these forms of compensation to the employee, not the cost to the employer. Willis Towers Watson describes this at Ex. F4-3-1, Attachment 2, p. 35:

> *The methodology used determines the value to employees of each organization's benefits program by plan. The purpose is to quantify the provisions offered by each organization. The pension and benefit plan values are determined by applying a common set of actuarial methods and assumptions to employee profiles (these values are not intended to represent actual plan/program costs).*

The approach followed by Willis Towers Watson in conducting the pension and benefits benchmarking analysis is consistent with the prevalent industry practice for the competitive benchmarking of employee pension and benefits, and is similar in this regard to the previous benchmarking study prepared by AON Hewitt (see EB-2013-0321, Ex. F5-4-1, p. 65).

UNDERTAKING JT3.2

Undertaking

TO PROVIDE A STEP-BY-STEP BREAKDOWN OF HOW CALCULATIONS IN EX. L-6.6-15 SEC-083, PART B WERE ARRIVED AT. ALSO TO ADVISE IF ANY ADJUSTMENTS WERE MADE TO THE METHODOLOGY USED IN EB-2013-0321, UNDERTAKING J9.11 TO DETERMINE THAT RESPONSE TO THIS RESPONSE.

Response

Attachment 1 provides a breakdown of the calculations provided in Ex. L6.6-15 SEC-083, part (b).

The approach taken is mostly consistent with the methodology used in EB-2013-0321 Undertaking J9.11, with the following noted differences. The cost impacts reflected in J9.11 were estimated wholly by OPG; and, in providing a response to Ex. L-6.6-15 SEC-083, Willis Towers Watson estimated the total OPG cost impacts, and OPG calculated the percentage of the impacts attributable to the Nuclear regulated business as shown in Attachment 1.

Group	Segment	WTW Estimate	Determination of Regulated Portion Based on Organizational Details *(Prorated costs provided by WTW to each organization, and then used 2K FTE proportions to identify that which is assocaited with Regulated Nuclear, including both Direct (Nuclear Org) & Allocated (Corp Group) costs.*						
					OPG Headcount by Org (Apr 1 2015)	% Nuclear Regulated (from Appendix 2K Data)		% of Headcount	Estimate of Nuclear Regulated Costs
		TDC Costs Above (Below) 50thP ($M)	Nuclear Org	Corporate Groups		Nuclear Org	Corp Groups		
		A	B	C	D	E	F	G = (B x E + C x F) / D	H = A x G
Mgmt	Utility	(13.8)	358	81	532	99%	71%	78%	(10.7)
	Nuclear Authorized	(4.0)	33	6	39	100%	100%	100%	(4.0)
	General Industry	0.6	94	386	491	99%	71%	75%	0.5
	Mgmt Sub-Total	(17.1)	485	473	1,062	99%	71%	77%	(14.2)
Society	Utility	13.4	1,630	302	2,235	100%	75%	83%	11.1
	Nuclear Authorized	(1.9)	77	34	111	100%	100%	100%	(1.9)
	General Industry	7.4	118	429	572	100%	75%	77%	5.7
	Society Sub-Total	18.9	1,825	765	2,918	100%	75%	82%	14.9
PWU	Utility	14.1	2,711	191	3,754	100%	90%	77%	10.8
	Nuclear Authorized	3.9	255	0	255	100%	100%	100%	3.9
	General Industry	17.6	621	680	1,524	100%	90%	81%	14.2
	PWU Sub-Total	35.6	3,587	871	5,533	100%	90%	79%	28.9
Total		37.4	5,897	2,109	9,513			80%	29.6

NUCLEAR FTEs

	Nuclear FTE	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2016 Actual	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
	Operations										
1	Regular	5,870.7	5,626.7	5,430.4	5,788.6	5,341.1	5,710.8	5,666.2	5,602.1	5,504.1	5,394.7
2	Non-Regular	496.9	578.1	670.0	666.7	843.8	614.4	646.6	632.2	526.8	420.4
3	**Sub-total Ops**	**6,367.6**	**6,204.8**	**6,100.4**	**6,455.3**	**6,184.9**	**6,325.2**	**6,312.8**	**6,234.3**	**6,030.9**	**5,815.1**
	DRP										
4	Regular	282.0	307.2	329.7	427.6	422.6	587.2	599.9	620.5	589.5	597.8
5	Non-Regular	24.6	35.3	60.7	73.5	112.7	153.2	152.2	137.4	157.7	230.1
6	**Sub-total DRP**	**306.6**	**342.5**	**390.4**	**501.1**	**535.3**	**740.4**	**752.1**	**757.9**	**747.2**	**827.9**
7	**TOTAL Ops&DRP**	**6,674.2**	**6,547.3**	**6,490.8**	**6,956.4**	**6,720.2**	**7,065.6**	**7,064.9**	**6,992.2**	**6,778.1**	**6,643.0**
	Corporate										
8	Nuclear Allocated	1,919.5	1,884.4	1,628.9	1,773.3	1,659.8	1,742.8	1,703.7	1,679.8	1,659.0	1,656.2
9	**TOTAL Nuclear**	**8,593.7**	**8,431.7**	**8,119.7**	**8,729.7**	**8,380.0**	**8,808.4**	**8,768.6**	**8,672.0**	**8,437.1**	**8,299.2**

1,2,3,4,5,6,7 - Exh F2-1-1 Table 3
8 - Exh F2-1-1 Table 3, Exh F4-3-1 Attachment 1
Differences between Exh F2-1-1 Table 3 and Exh F4-3-1 Attachment 1 explained in L-6.6-Staff-139
2016 Actual FTE - J13.3 and J14.6

Board Staff Interrogatory #149

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: Exh 4-3-1 pp. 19-23
OPG retained Towers to conduct a compensation study. At figure 11 OPG presents a comparison between the results of the Towers study (2015) and the compensation study produced for OPG by AON Hewitt ("AON") for 2013. The Towers study generally shows more favourable OPG results compared to the AON study.

a) Please provide the retainer letter or other instructions OPG provided to Towers when they were retained to do the compensation study.

b) Please discuss any methodological or other significant differences between the Towers study and the AON study. For example, were the same comparators used? Are the positions reviewed the same?

c) Some of the results are markedly different from 2013 to 2015. For example, the PWU "utility" figures went from 21% above market in 2013 to only 4% above market in 2015. The management nuclear figures went from 3% below market in 2013 to 27% below market in 2015. Please provide any details that can help explain such a large shift over a short period of time.

d) Why did OPG select Towers instead of AON to conduct the 2015 study?

e) On page 20, there are three references to OPG employee compensation being at or below market (at lines 4, 13, and 19). Please confirm that "compensation" here refers to Total Direct Compensation (i.e. cash compensation) and excludes overtime, pensions and benefits, etc.

f) On pages 20-21, OPG observes that its "general industry" comparisons would be closer to market if measured against similar positions at utility companies. Does OPG believe that the make-up of the comparators in the general industry segment is faulty? Does Towers believe that the make-up of the comparators in the general industry segment is faulty?

Response

a) Attachment 1 is a copy of the agreed to scope of work which outlines services to be provided in relation to the compensation study. Note, Attachment 1 is marked "confidential", however OPG has determined this attachment to be non-confidential in its entirety.

b) There are many similarities between the compensation benchmarking studies prepared by AON Hewitt ("AON") for 2013 and Willis Towers Watson ("Towers") for 2015. Each provide directional insights into OPG's total direct compensation relative to three distinct segments, including the Utility segment (AON Group 1), the Nuclear Authorized segment (AON Group 2) and the General Industry Segment (AON Group 3). Both studies utilized similar comparator organizations that reflect organizations with similar talent pools and complexities to OPG, with a focus on those organizations from which OPG would recruit or lose talent. A comparison of the specific organizations included in each study is captured in L-06.6-15 SEC-82, Attachment 1.

   There are a few key differences between these studies, including:

   i) Utilization of Benchmarking Databases vs Custom Survey: While both studies used compensation data gathered as part of their annual survey processes, when evaluating positions in the General Industry segment, AON undertook a custom survey of select organizations and select positions to evaluate positions relative to the Utility (Group 1) and Nuclear (Group 2) segments. Towers utilized benchmark data from its survey database for all three segments.

      By utilizing a broader data set (i.e. Towers survey database), the number of OPG positions that could be included in the study results was increased, additional compensation components available in the market could be included (i.e. long term incentives), and OPG's ability to repeat this study in the future with comparable and reliable results was improved. Benchmark studies that are based on custom surveys, such as the study conducted by AON, are difficult to repeat over time due to participants dropping out.

   ii) Segmentation of Positions: As previously noted, both studies utilized similar but different comparator groups for each of the three segments assessed. The study prepared by Towers also utilized a segmented approach to selecting which OPG positions would be compared to each comparator group.

      This resulted in OPG positions associated with the General Industry segment, only being compared against comparator organizations that represent a mix of 50% public and 50% private in the General Industry segment.

      Similarly, OPG positions unique to energy production or related fields were only compared to organizations in the Utility or Nuclear Authorized segments.

In defining the Nuclear Authorized segment, focus was placed on those OPG positions that require individuals to hold or have held a federal license as per regulatory requirements.

Segmenting the positions on this basis is defined in Ex. F4-3-1, Attachment 2, p.5. Ex. F4-3-1, Attachment 2, pp. 7 and 34 provide additional information on the analysis done to ensure that segmenting the Nuclear Authorized segment in this manner was appropriate. Additional information on the associated premium that was applied to some positions in the Utility segment is provided in L-06.6-1 Staff-154.

iii) Target Market Positioning: The AON study utilized the 50^{th} percentile for all segments, as well as the pension and benefits analysis. The Towers study uses the 50^{th} percentile for the Utility and General Industry segments, as well as the pension and benefits analysis. The 75^{th} percentile is used for the Nuclear Authorized segment below the Senior Executive level. Use of the 75^{th} percentile is discussed further in L-06.6-1 Staff-153.

c) In comparing results, it is useful to refer to the results by job family shown in each of the exhibits, and consider the implications of the differences noted in part (b) above. This is explained further below, citing the examples referenced in this interrogatory.

<u>PWU – Utility Segment</u>: Referring to Ex. F4-3-1, Attachment 2, p. 14, this segment is dominated by positions in the Maintenance and Operations job family. Note that there are no positions captured under the Administration, Finance and Supply Chain job families. These job families are assessed as part of the General Industry segment. The table below summarizes these factors and shows that the results, while showing modest improvement, are not as divergent as they may have appeared upon initial review.

PWU - Total Direct Compensation Utility Segment (relative to the 50th percentile)	WTW (Utility)		AON (Group 1)	
	OPG Matches	EB 2016-0321 F4-3-1 Att. 2, p.14	OPG Population	EB 2013-0152 F5-4-1 p. 57
Administration			498	36%
Engineering			34	21%
Environment, Health & Safety	16	(14%)	75	(8%)
Finance			98	35%
Human Resources				
Information Technology				
Maintenance (Note 1)	1,996	9%	2,636	23%
Operations	1,187	(3%)	1,043	5%
Supply Chain			65	33%
Corporate Services				
Total		**4.0%**		**20.5%**

Note 1: Service & General Trades Maintainers as captured in the General Industry segment under the WTW study, were 18% above market. These positions would have been included in Group 1 under the AON study and explains some of the decrease captured here.

Management Group - Nuclear Authorized Segment: In the Towers study, this segment reflects a small group of authorized employees, primarily in the Operations job family. The AON study did not include any matches in the Operations job family, so for this particular group of employees, the overall total results are not directly comparable. Looking at the broader utility segment (Group 1) in EB-2013-0321, Ex. F5-4-1, p. 57 as a proxy, the Operations job family is 1% above the 75th percentile (OPG's target market positioning for the Nuclear Authorized segment). While this is still higher than the 27% below target indicated in the Towers study, the inclusion of long term incentives in the Towers study, and impact of foreign exchange as described in L-06.6-1 Staff- 153 contribute to this difference.

d) [redacted]

e) Confirmed.

f) No, OPG and Towers do not believe the make-up of the comparators in the general industry segment is faulty. The make-up of the comparators is based on a 50/50 mix of public and private sectors, and is an appropriate comparison relative to the talent pools from which OPG attracts and loses talent to for these positions. The fact that utility organizations tend to pay positions in general industry (i.e. finance, clerical and human resources staff) more than what other organizations would tend to pay for this type of work is a factor that affects OPGs ability to differentiate its compensation for these roles through the bargaining process given OPG's highly unionized environment.

Comparator Group Selection

- Comparator groups by segment were derived from the full list of organizations participating in the Willis Towers Watson 2015 Compensation databases, based on the criteria below. The full list of comparator organizations used by segment is provided in *Appendix I*.

1. **Utility**
   - Primarily consists of public and private sector utility companies.
2. **Nuclear Authorized**
   - These roles represent a small percentage of the total OPG population and are characterized by unique complexity requirements and pay practices (particularly licensing and certification allowances). Comparable roles are not readily found in Canada. Unlike the comparator organizations for the other segments which reflect data for Canadian employees only, this comparator group reflects a sample of 10 large nuclear organizations of a comparable size to OPG, including Bruce Power (Canada) and nine US nuclear organizations.
3. **General Industry**
   - Includes both public and private companies requiring a large range of skill sets and emphasis on large Ontario employers. The “total sample” data consists of data weighted “50/50” between the public and private companies within the peer group.

Board Staff Interrogatory #152

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:

Ref: Exh F4-3-1 Attachment 2
The Towers Total Compensation Benchmarking Study benchmarked 78% of OPG incumbents (corporate wide). However, only half of the Society nuclear authorized staff and Society represented general industry staff were benchmarked.

a) Please explain the low level of representation in the benchmarking.

b) Is there any correlation between these positions not benchmarked by Towers and the positions not benchmarked by Goodnight in the report at Exh F2-1-1 Attachment 2?

Response

a) The Nuclear Authorized segment is a relatively small population, with 111 Society incumbents in four different jobs. Two of these jobs were readily matched against roles included in Willis Towers Watson's (Towers) 2015 Compensation database. These two jobs were the Control Room Shift Supervisor and the Authorized Training Supervisor. There were a total of 53 incumbents in these jobs, which represented 48% of the total, as depicted at Ex. F4-3-1, Attachment 2, p.3.

The remaining two jobs could not be matched and were excluded from the study. This included employees who are training to become Control Room Shift Supervisors (Shift Supervisors in Training) and Unit 0 Training Supervisors.

This level of representation, while below the 78% achieved corporate wide, was an increase over that captured in the previous benchmarking study performed by Aon Hewitt (Aon) which was submitted in EB-2013-0321, Ex. F5-4-1. In that study, there were no suitable matches for any Society represented positions in the Nuclear Authorized segment (refer to the Operations job family, EB-2013-0321, Ex. F5-4-1, p.24). Referring to page 29 of the Aon benchmarking study (see EB-2013-0321, Ex. F5-4-1, p.29), suitable matches were found for a total of 74 incumbents in General Industry positions represented by the Society. Most of these were in the Finance and Information Technology job families.

More matches for Society represented positions in the General Industry were available in the Towers benchmarking study, with 290 incumbents (51%) matched as shown, in the aggregate and by job family, at Ex. F4-3-1, Attachment 2, pp. 3 and 23, respectively.

There were 282 Society represented positions in the General Industry that could not be matched by Towers. As described at Ex. F4-3-1, Attachment 2, p. 7, both the function of a position and the associated accountabilities are considered in finding an appropriate match. If a suitable match cannot be found, the position is excluded from the study.

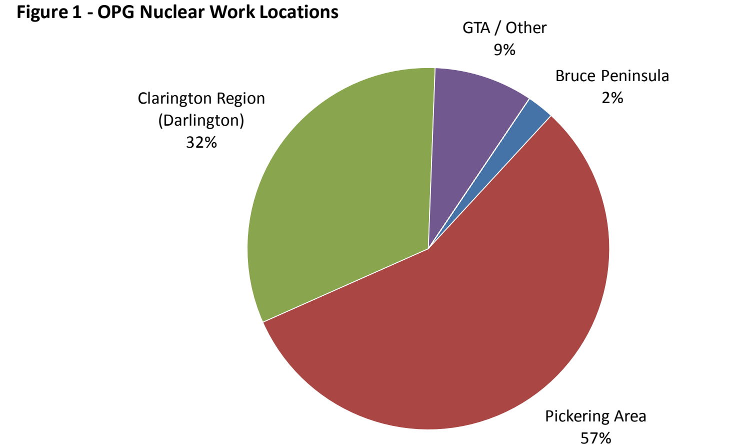
In addition, some positions in the security function were excluded from the Towers benchmarking study due to the sensitive and protected nature of this information.

b) Both the Willis Towers Watson compensation benchmarking study (Ex. F4-3-1, Attachment 2) and the Goodnight analysis (Ex. F2-1-1, Attachment 2) excluded the security function as noted in part (a) above. There was no other correlation between positions that were excluded from these studies.

Work Locations and Employees: OPG's nuclear employees work in generating stations and other facilities across the province as shown in Figure 1.

OPG employs individuals from a variety of disciplines, many of which are specialized technical roles. This includes engineers and operations staff that operate and maintain OPG's nuclear facilities in a safe and responsible manner.

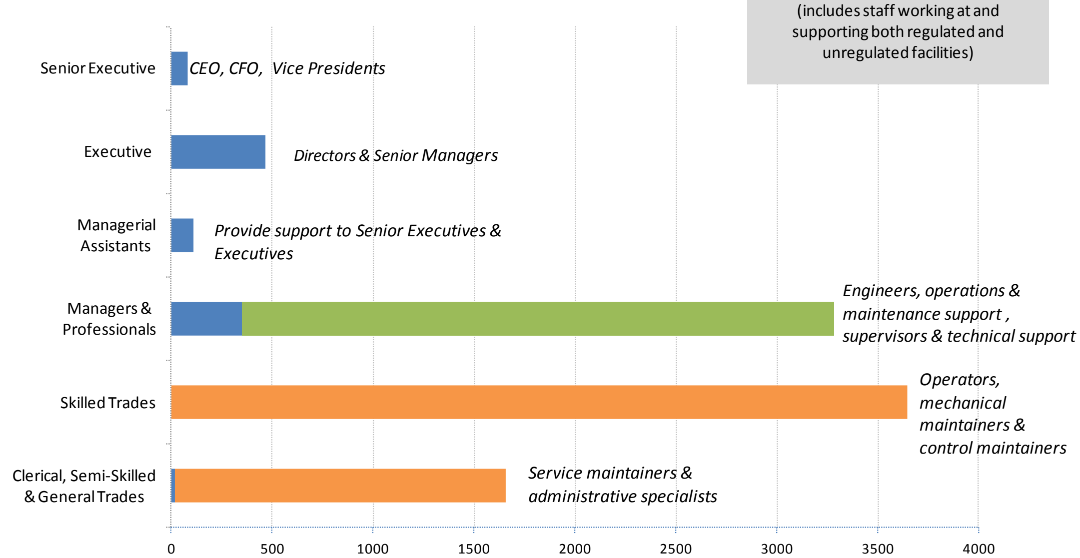
Figure 1 - OPG Nuclear Work Locations



An overview of employee counts as of December 31, 2015 by type of position is shown in Figure 2. Note that this information includes staff supporting both OPG's regulated and unregulated facilities.

Figure 2 - OPG Regular Headcount by Type of Position (December 31, 2015)

Total Number of Regular Staff
9,247
(includes staff working at and supporting both regulated and unregulated facilities)



	Clerical, Semi-Skilled & General Trades	Skilled Trades	Managers & Professionals	Managerial Assistants	Executive	Senior Executive
Mgmt Group	15	0	353	112	467	80
Society	0	0	2933	0	0	0
PWU	1641	3646	0	0	0	0

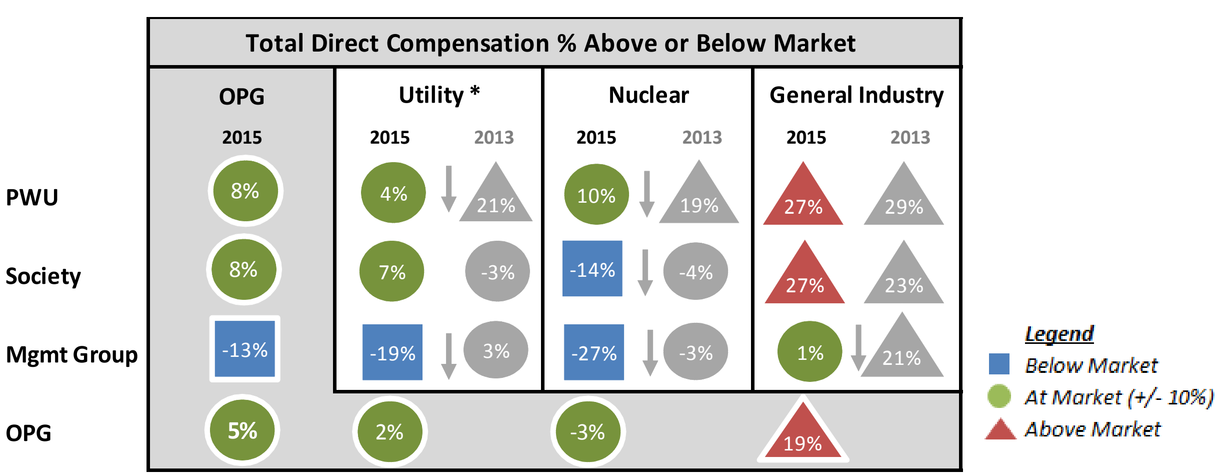
regulators, and represents a very small portion of OPG's employee population (about 4 per cent). The General Industry segment positions (about 27 per cent) are those commonly found in many different types of industries, and that rely on expertise and knowledge from disciplines not specific to energy generation (i.e., administrative support staff, finance, law, human resources, etc.).

In determining the appropriate comparator group or companies, Towers focused on the following types of organizations:

a) organizations from which OPG recruits,
b) organizations to which OPG loses staff,
c) organizations which operate in the same or similar industry sectors, and
d) organizations that reflect the complexity and size of OPG.

Figure 11 depicts the results of the Towers study in 2015 compared to the compensation study conducted by AON Hewitt ("AON") that was filed with the OEB in EB-2013-0321. These results are shown by industry segment and union representation, capturing whether OPG's Total Direct Compensation is above, at, or under market. The downward arrows in this table indicate those areas where OPG's Total Direct Compensation dropped relative to the market since 2013.

Figure 11



** Largest portion of OPG employees are in the Utility segment (69%).*

and benefit payments to retirees and dependants under the OPEB plans. OPG's total projected cash amounts for pension and OPEB for 2016-2021 were calculated by an independent actuary, Aon Hewitt, as shown in Attachment 1. Pension contributions, which are typically set by triennial actuarial valuations, are projected to decrease after each such assumed valuation during the test period, effective January 1, 2017 and January 1, 2020, as discussed in section 4.2. Forecast amounts for pension contributions represent estimated minimum required company contributions for current service cost and going concern special payments.[2] Increasing OPEB benefit payments over the period reflect the growing retiree population and expected increases in per capita medical and other costs.

Chart 1

Pension and OPEB Cash Amounts – Nuclear[3] ($M)

	2013 Actual	2014 Actual	2015 Actual	2016 Projection	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
Pension	231.6	280.9	284.5	283.3	171.1	175.5	180.3	157.2	162.1
OPEB	78.1	84.5	93.1	96.6	100.9	104.9	109.2	114.1	117.8
Total	**309.7**	**365.4**	**377.6**	**379.9**	**272.0**	**280.4**	**289.5**	**271.3**	**279.9**

Chart 2 sets out pension and OPEB accrual costs attributed to the nuclear facilities in the historical, bridge and test years. OPG's total accrual costs for these periods were determined by Aon Hewitt in accordance with US GAAP, as set out in Attachment 1 for the 2016-2021 projection and Attachment 2 for the 2014-2015 actual amounts.

[2] No solvency special payments are projected for 2016-2021 and none were made in 2013-2015.
[3] Nuclear pension and OPEB amounts presented in this exhibit exclude amounts related to the Nuclear Waste Management Organization ("NWMO"), which is consolidated into OPG's financial statements.

Chart 2

Total Pension and OPEB Accrual Costs – Nuclear[4] ($M)									
	2013 Actual	2014 Actual	2015 Actual	2016 Projection	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
Pension	365.4	411.2	414.4	294.6	222.8	167.5	153.0	140.0	131.4
OPEB	223.0	176.1	202.8	192.6	194.6	195.0	196.0	197.0	198.3
Total	**588.4**	**587.3**	**617.2**	**487.2**	**417.4**	**362.5**	**349.0**	**337.0**	**329.7**

As set out in section 2.0 and Ex. H1-1-1, OPG proposes to record the difference between actual accrual costs and actual cash amounts during the test period in the Pension & OPEB Cash Versus Accrual Differential Deferral Account, and the difference between actual and forecast cash amounts in the Pension & OPEB Cash Payment Variance Account. Notwithstanding this proposal in light of the OEB's ongoing generic consultation on pension and OPEB, OPG continues to be of the view that it would be appropriate for it to recover accrual costs for pension and OPEB for the regulated business for reasons summarized in section 2.0.

Chart 3 below sets out the difference between pension and OPEB accrual costs and cash amounts attributed to the nuclear facilities for the historical, bridge and test periods (i.e., the difference between the amounts in Chart 2 and the amounts in Chart 1). The difference is expected to decline significantly by the end of the test period. Cash amounts for pension are expected to exceed accrual costs starting in 2018. This trend reflects lower pension accrual costs discussed in section 5.3. The OPEB cash-to-accrual difference is projected to decline gradually over the test period as cash amounts increase.

[4] Ibid.

Numbers may not add due to rounding.

Table 3
Allocation of Centrally Held Costs - Nuclear ($M)

Line No.	Costs	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	**Pension/OPEB Related Accrual Costs**	289.0	298.5	343.0	200.1	106.6	65.9	42.9	26.5	16.8
2	**Pension/OPEB Adjustment for Test Period Cash to Accrual Differences[1]**	0.0	0.0	0.0	0.0	(145.4)	(82.1)	(59.5)	(65.7)	(49.8)
3	**OPG-Wide Insurance**	3.3	3.4	4.6	6.2	6.4	6.5	7.0	7.0	6.8
4	**Nuclear Insurance**	7.6	8.0	8.2	19.1	21.1	23.1	26.1	26.5	27.1
5	**Performance Incentives**	14.5	20.2	17.1	18.4	18.4	18.5	18.6	18.5	18.5
6	**IESO Non-Energy Charges**	57.4	51.2	77.7	62.1	61.1	56.5	51.8	54.5	42.0
7	**Other**	38.1	29.7	9.4	21.0	6.7	24.5	16.0	18.3	14.3
8	**Total**	409.9	411.0	459.9	326.9	74.9	112.9	102.9	85.7	75.7

Notes:

1 As discussed in Ex. F4-4-1 and Ex. F4-3-2, the test period adjustment is included to reflect OPG's proposal to include cash amounts for pension and OPEB in the nuclear revenue requirement and defer the difference between accrual costs and cash amounts in the Pension & OPEB Cash to Accrual Differential Deferral Account pending the outcome of the EB-2015-0040 generic consultation, consistent with the EB-2013-0321 treatment.
The difference between accrual costs and cash amounts is found in Ex. F4-3-2 Chart 3.

Chart 3.1.1A

Revenue Requirement Changes – Nuclear Pension and OPEB Cash Amounts ($M)

Line No.		Reference	2017	2018	2019	2020	2021
	Pension:						
1	Original Submission	Ex. F4-3-2, Chart 1	171.1	175.5	180.3	157.2	162.1
2	N1 Update		200.0	202.9	243.5	247.9	250.6
3	Revenue Requirement Impact of Update	line 2 - line 1	28.9	27.4	63.2	90.7	88.5
	OPEB:						
4	Original Submission	Ex. F4-3-2, Chart 1	100.9	104.9	109.2	114.1	117.8
5	N1 Update		91.1	95.7	99.9	104.3	108.5
6	Revenue Requirement Impact of Update	line 5 - line 4	(9.8)	(9.2)	(9.3)	(9.8)	(9.3)
7	Total Revenue Req'ment Impact of Update	line 3 + line 6	19.1	18.3	53.8	81.0	79.3

In line with the 2017-2019 Business Plan, the updated forecast of cash amounts reflects the latest filed actuarial valuation of the OPG registered pension plan ("RPP") as of January 1, 2016, which sets out the minimum employer funding requirements for 2016 to 2018. The valuation was prepared and certified by Aon, and was filed with the Financial Services Commission of Ontario on September 30, 2016. As discussed in Ex. L-6.6-1 Staff-156, OPG made the decision to advance this valuation from January 1, 2017, in response to a decrease in long-term bond yields observed since the beginning of the year. The decrease in bond yields increased the likelihood of higher 2017 and 2018 contributions under a January 1, 2017 valuation, compared to a January 1, 2016 valuation. In addition, the January 1, 2016 valuation decreased OPG's 2016 pension contributions attributed to the nuclear facilities by approximately $80M. Further details and a copy of the January 1, 2016 funding valuation can be found at Ex. L-6.6-1 Staff-156.

The 2017-2019 Business Plan also reflects the projected results of the next funding valuation of the RPP as of the latest permitted date of January 1, 2019, which would set the minimum employer funding requirements for 2019 to 2021. Aon projected the results of this

Numbers may not add due to rounding.

Table 1
Deferral and Variance Accounts
Closing Account Balances - 2014 to 2015 ($M)

Line No.	Account	Audited Year End Balance 2014[1]	Audited Year End Balance 2015[3]
		(a)	(b)
	Regulated Hydroelectric:		
1	**Hydroelectric Water Conditions Variance**	(8.5)	(23.0)
2	**Ancillary Services Net Revenue Variance - Hydroelectric**	(16.5)	(24.2)
3	**Hydroelectric Incentive Mechanism Variance**	(7.5)	(1.7)
4	**Hydroelectric Surplus Baseload Generation Variance**	67.1	114.4
5	**Income and Other Taxes Variance - Hydroelectric**	(0.2)	(0.1)
6	**Capacity Refurbishment Variance - Hydroelectric**	232.6	83.2
7	**Pension and OPEB Cost Variance - Hydroelectric - Future**	10.5	9.5
8	**Pension and OPEB Cost Variance - Hydroelectric - Post 2012 Additions**	35.5	32.5
9	**Pension & OPEB Cash Versus Accrual Differential Deferral - Hydroelectric**[2]	4.6	44.2
10	**Pension & OPEB Cash Payment Variance - Hydroelectric**[2]	0.2	4.3
11	**Hydroelectric Deferral and Variance Over/Under Recovery Variance**	4.5	16.5
12	**Total**	322.4	255.5
	Nuclear:		
13	**Nuclear Liability Deferral**	285.7	190.5
14	**Nuclear Development Variance**	58.8	3.3
15	**Ancillary Services Net Revenue Variance - Nuclear**	1.7	2.1
16	**Capacity Refurbishment Variance - Nuclear - Capital Portion**	13.2	(32.5)
17	**Capacity Refurbishment Variance - Nuclear - Non-Capital Portion**	1.3	(30.8)
18	**Bruce Lease Net Revenues Variance - Derivative Sub-Account**	153.8	(4.5)
19	**Bruce Lease Net Revenues Variance - Non-Derivative Sub-Account - EB-2012-0002**	37.3	18.7
20	**Bruce Lease Net Revenues Variance - Non-Derivative Sub-Account - Post 2012 Additions**	123.8	103.1
21	**Income and Other Taxes Variance - Nuclear**	(13.2)	(13.1)
22	**Pension and OPEB Cost Variance - Nuclear - Future**	214.7	193.2
23	**Pension and OPEB Cost Variance - Nuclear - Post 2012 Additions**	678.6	622.0
24	**Pension & OPEB Cash Versus Accrual Differential Deferral - Nuclear**[2]	31.3	271.1
25	**Pension & OPEB Cash Payment Variance - Nuclear**[2]	6.2	23.4
26	**Pickering Life Extension Depreciation Variance**	7.8	5.2
27	**Nuclear Deferral and Variance Over/Under Recovery Variance**	56.4	81.7
28	**Total**	1,657.5	1,433.4
29	**Grand Total** (line 12 + line 28)	1,979.9	1,688.9

Notes:
1 From EB-2014-0370, Payment Amounts Order, App. A, Table 1, col. (a) and Table 2, col. (a), unless otherwise noted.
2 2014 balance from EB-2014-0370, Ex. H1-1-2, Table 1, col. (d).
3 From Ex. H1-1-1, Table 1a, col. (f).

Appendix A

Terms of Reference for Special Advisor on the Sustainability of Electricity Sector Pension Plans December 16, 2013

Background

There are four government agencies operating in the electricity sector that sponsor pension plans for its employees. The four agencies are:

1. Electrical Safety Authority (ESA);
2. Hydro One;
3. Independent Electricity System Operator (IESO); and
4. Ontario Power Generation (OPG).

The four agencies and their plans are the subject of the review by the government's newly-appointed Special Advisor, Electricity Sector Pension Sustainability. The two government agencies within the electricity sector that are not part of the review, the Ontario Energy Board and the Ontario Power Authority, do not sponsor their own pension plans.

Ontario Budget 2013

The 2013 Budget re-iterated the government's commitment to:

- ensuring that single-employer pension plans (SEPPs) move to equal cost-sharing for ongoing contributions within five years; and
- exploring opportunities to support joint sponsorship as the model for pension plan governance and funding in Ontario's public sector.

It also specifically addressed the issue of sustainability of electricity sector pensions and committed to engaging with both employer and labour representatives on the challenges facing electricity sector plans in order to promote a common understanding of the pension challenges and move toward a more sustainable framework.

The 2013 Ontario Economic Outlook and Fiscal Review further indicated the government's commitment to seeing changes in cost sharing, governance, and other provisions to make Ontario's electricity sector pensions more affordable.

32

Mandate

The mandate of the Special Advisor is to prepare a report for the Minister of Finance setting out:

- a summary of the funding sources and funding status of the plans;
- the nature of funding challenges (including potential electricity price impacts resulting from funding challenges);
- workplace changes in demographics (including planned OPG workforce reductions);
- a summary of the treatment of management and executives within the plans;
- a list of appropriate comparators and how the provisions and governance of current electricity sector pension plans compare to them;
- advice on how to move forward on initiatives to improve the sustainability and the affordability of the plans, including the potential benefit of pooled asset management for the sector; and
- an assessment of the implications of such initiatives, which could include, but are not limited to, moving toward:
    1. equal cost sharing between employers and employees for ongoing contributions within five years;
    2. joint governance by employers and plan members, and joint responsibility for funding shortfalls on a prospective basis through joint sponsorship of plan(s); and
    3. more affordable pension benefits, such as conditional prospective benefits.

Any advice on initiatives to address the sustainability and affordability should operate within the context of collective agreements and existing labour agreements.

The Working Group announced in Budget 2013 will provide a forum, under the leadership of Ministry of Finance officials for sector-nominated employer and employee representatives to consider the potential approaches to improving sustainability and affordability of the electricity sector pension plans. The report of the Special Advisor is intended to inform and help frame the efforts of the Working Group.

33

Special Advisor Consultations

In preparing the report for the Minister, the Special Advisor is expected to consult with management and union representatives within the sector. This should include representatives of the following organizations:

- Ontario Power Generation;
- Hydro One;
- the Independent Electricity System Operator;
- the Electrical Safety Authority;
- the Power Workers Union; and
- the Society of Energy Professionals.

Key contacts for these organizations are attached in the Appendix.

Deliverables and Timing

The Special Advisor will provide a final report to the Minister of Finance by February 28th, 2014. The proposal will include options and a recommended strategy for improved affordability and sustainability, including implementation considerations and timelines.

Meetings and Reporting

The schedule of meetings is to be developed by the Special Advisor to meet the above deliverable.

Resources and Budget

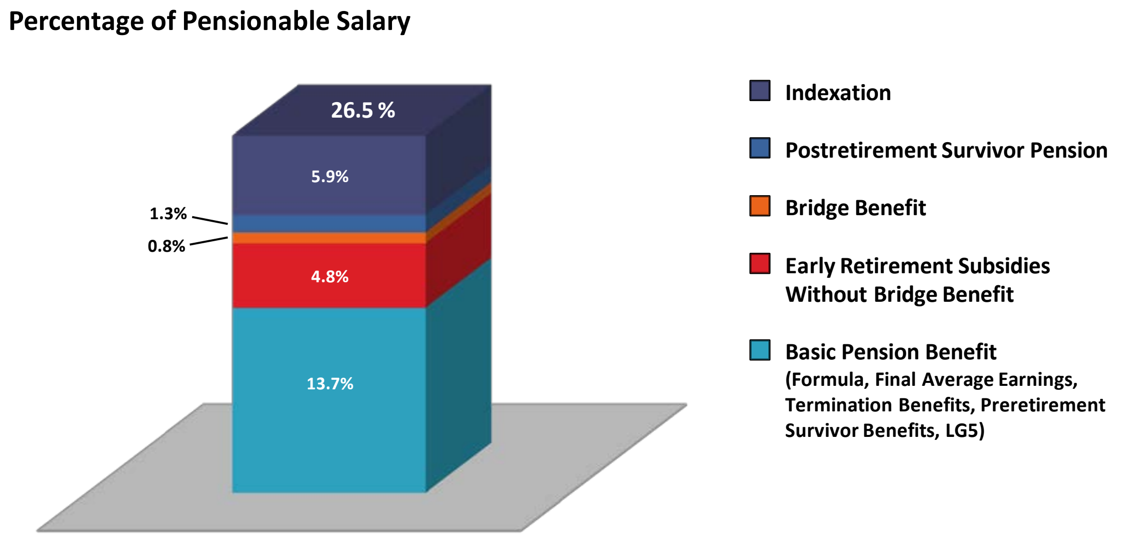
In addition to the costs related to the appointment of the Special Advisor, the Ministry of Finance will fund outside expertise as required to fulfill the mandate of the Special Advisor.

The Broader Public Sector Pension Branch of the Ministry of Finance will provide secretariat support in the organization and scheduling of meetings.

34

Breakdown of Total Current Service Cost as of January 1, 2013 by Benefit Component

Chart 1



Note: Actuarial assumptions provided in document summarizing January 1, 2013 valuation results.

Table 3 in Appendix B compares these benefits with other public sector plans and other energy companies. Compared to other public-sector pension plans, the DB plans in the electricity agencies are generous, expensive and inflexible.[6] They generally require lower contributions from employees, while providing substantial benefits. Furthermore, electricity sector employers are responsible for a larger share of pension contributions compared to most other public-sector employers. In addition, as single-employer pension plans (SEPPs), the employers bear all risks, such as investment performance, interest rate changes and increased longevity. These risks increase both the amount and the volatility of pension costs, which is ultimately borne by ratepayers, customers and the shareholder.

In addition to the registered pension plans, the four companies provide Supplementary Pension Plans (SPP), which provide additional benefits to employees whose income exceeds federal *Income Tax Act* limits for pension contributions. These plans are non-contributory, and not pre-funded (i.e., benefits are paid from the individual company's general revenue, including regulated revenues). In 2013, the cumulative unfunded SPP liability on the balance sheets of the four agencies was approximately $490 million.

6 In recent years, several public sector pension plans have introduced flexibility by adjusting benefits to control costs. For instance, both the Ontario Teachers' Pension Plan and the Healthcare of Ontario Pension Plan have adopted variations of conditional inflation protection for future service.

Single-Employer Pension Plans (SEPPs):

SEPPs are composed of members that work for the same employer or group of affiliated employers. These plans can be defined benefit or defined contribution, or a combination of both.

- While these plans can be either contributory or non-contributory, the employer is typically the sole sponsor. With respect to DB plans, employers as sole sponsor are responsible for financing any funding shortfall, as required by the PBA.
- All plans within the four electricity agencies are SEPPs. While employees contribute to their pension, the employers are responsible for ensuring that the plans are fully funded, and bear all funding risks.

Multi-Employer Pension Plans (MEPPs):

MEPPs are composed of members that work for any of two or more non-affiliated employers. These plans can be DB, DC or a combination of both.

- These plans are most commonly established by trade unions, and provide pension mobility for employees who change employers within the same industry (e.g., in the construction trades).
- MEPPs may be “target benefit” plans: Where employer contributions are not enough to cover pension benefits, the PBA allows that accrued benefits as well as future benefits may be reduced, if the terms of the plan permit.

The 2013 Ontario Budget confirmed that the government will be moving ahead on regulatory changes to formalize the PBA framework pertaining to target benefits in MEPPs and announced the intention to develop a framework for single-employer target benefit plans.

MEPPs may have a single-sponsor (a group of employers) or be jointly sponsored.

Jointly Sponsored Pension Plans (JSPPs):

JSPPs are DB plans that may be SEPPs or MEPPs. The governance structure of JSPPs is fundamentally different from single-sponsor plans:

- Decision making on plan administration is shared and any plan changes must be agreed by the sponsors jointly.
- Contributions are shared by plan members and their employers, making the plans “cost-shared”.
- Funding shortfalls are a joint obligation of both employees and employers, making the plans “risk-shared”.

In addition, these plans allow for the reduction of accrued benefits in the event of the wind-up of a plan.

Some PWU and Society-represented employees at certain local distribution companies in the electricity sector are members of Ontario Municipal Employees Retirement System (OMERS), which is a JSPP.

2.3 Collective Bargaining Environment

Generally, employees and employers are able to negotiate a compensation package that can include tradeoffs between current and future compensation, where pensions represent future payments. In the electricity sector, it is not obvious that such tradeoffs have been realized: the pensions are generous, in comparison to comparators; and, according to the companies, current compensation is also at least equivalent to, or better than, other employers.

Bargaining Pensions

As noted earlier, all elements of the pension plans at these companies are determined in collective bargaining. Notwithstanding the fact that the employers are the plan sponsors and bear all of the risks, the collective agreements contain language providing that terms can only be altered with the consent of both parties.

Historically, pensions have been a key subject of negotiations at the bargaining table. Both the PWU and the Society maintain that over the years they have made concessions on some elements of current compensation in return for pension plan improvements, and that the total compensation package must be considered at the negotiating table. They were very clear in discussions with the Special Advisor that government should respect the collective bargaining process and that pensions should remain part of the collective bargaining process.

Collective bargaining in this sector is decentralized — it takes place on an employer-by-employer and union-by-union basis. The four employers do not coordinate their bargaining activity or mandates. However, outcomes at one table directly influence outcomes at the others.

Collective Bargaining Background

Collective bargaining in the electricity sector is governed by the *Labour Relations Act, 1995* (LRA). There is no provincial essential services statute covering employees.

In general, the parties are free to strike or lockout, although the Society has agreed to interest arbitration in place of the right to strike other than at H1. The Society is covered by voluntary recognition agreements (VRA) which prohibit a strike/lock-out so long as the VRA remains in effect.

The PWU has two classes of employees that are covered under an essential services protocol negotiated by the parties. There is no requirement under the collective agreement to negotiate such a protocol, but it was done voluntarily when the parties negotiated work conditions specific to those classes.

The binding interest arbitration framework negotiated by the Society and electricity employers is a non-statutory regime. The framework is contained in VRAs/collective agreements which originated with Ontario Hydro and have been modified over subsequent bargaining rounds.

3.3 The Plans are Far from Sustainable

As demonstrated by Chart 2, approximately 75 per cent of pension plan benefits' liabilities have accrued and cannot be changed under the *PBA*. With employer contributions already at high levels, none of the plans have the ability to absorb further market fluctuations, investment performance significantly below actuarial assumptions or the costs associated with increased longevity of its members. Should plans go further into deficit, the sponsors, and ultimately ratepayers, will be required to pay even larger contributions. This exposes the plans to volatility.

Employer contribution rates have been volatile with large increases in special payments in the period since the 2008 economic downturn. As described earlier, this volatility increases the potential impact on regulated electricity rates. With stronger 2013 investment returns and higher long-term interest rates (as reflected in the plans' discount rate), deficits in all plans are decreasing. This may create a sense of complacency — "if we just wait, the problem will go away". However, the plans are far from sustainable: they have a high total cost, volatile/unpredictable contribution rates, have yet to incorporate new actuarial mortality assumptions[10] and no flexibility to absorb the effect of future adverse events.

It is critical that the plans build flexibility into their structure so that they are able to accommodate shocks in the future. Because so much of the pension liability is already accrued, and changes can only affect future service, benefit changes that provide flexibility must be adopted sooner rather than later to have a meaningful impact.

3.4 More Pension Data Transparency and Information Sharing is Needed

Indications are that, in recent years, there has been increased pension information and data sharing and discussions of pension issues between the companies and unions, companies and employees, and unions and members. This is a change from past practice of pension information being withheld by employers, and is a positive development.

There has also been movement to institutionalize or regularize such arrangements through the collective bargaining process. For example, under the most recent collective agreement between the IESO and the PWU, parties have agreed to establish a new joint committee to discuss pension plan sustainability. The Forecasts and Assessments Standing Committee (FASC) is set to meet annually to discuss plan administration, funding and performance.

Similarly, ESA, H1 and OPG meet regularly with the unions to discuss pension plan information and data.

[10] For example, the Canadian Institute of Actuaries (CIA) has recently issued the first-ever mortality tables and mortality improvement scales that are based on Canadian pensioner mortality experience. In prior years, many Canadian pension actuaries have used the U.S. standard tables published in 1994 to derive their assumptions. According to the CIA, the financial impact of adopting the new Canadian tables may vary considerably between pension plans. Reported pension obligations could increase by as much as 7 per cent or more for some plans but, more typically, increases may be in the range of 3 to 4 percent. Some larger Canadian pension plans, such as OPG, have determined mortality assumptions from their own experience.

Chapter 4: Conclusions and Recommendations

This Report's recommendations reflect many of the experiences and insights shared by the four agencies and the two unions with the Special Advisor and offers a balanced response to the many complex issues confronting Ontario's electricity sector pension plans.

Summary of Key Conclusions:

The purpose of this Report is to create a roadmap so that the sector can achieve sustainable pension plans at affordable costs. It is not the goal of this Report to set out specific pension plan terms, or provide a specific cost for those plans. Rather, it is to provide context and understanding for the government, employers and employees, so that those parties can reach an agreement that will address the issues faced by the sector's plans.

The following key conclusions guided the formation of the Report's recommendations:

- *Defined benefit pension plan model is preferred over alternatives provided it is affordable, sustainable and flexible.*
- *The four pension plans are relatively generous and very costly to employers.*
- *None of the pension plans are currently stable — nor do they have the ability/flexibility to handle any adversity as the parties do not share risks and the benefits are fully guaranteed regardless of the investment performance of plans.*
- *Exposure of regulators, ratepayers and customers to open-ended and volatile pension costs needs to be minimized.*
- *None of the plans have stated strategies on how to handle future surpluses or deficits should the plans over/under perform actuarial assumptions.*
- *There is no history or experience of shared governance, risk sharing or cost sharing.*
- *Historically, limited institutionalized transparency and data sharing suggests that further employee education may be needed.*
- *IESO and ESA are too small to have efficient asset management.*
- *Collective bargaining process, on its own, is not an optimal process to ensure that the pension plans are sustainable and affordable on an ongoing basis.*

4.1 Equal Cost-Sharing for Ongoing Contributions

It is recommended that employer/employee contribution move to the target of 50/50 on an agreed timeline. The government has suggested five years to reach that target which would appear to be a reasonable phase in period.

4.2 Affordability: Contribution Ceiling

The parties should establish a ceiling on the contribution rate (current service plus special payments) to be paid by the employer and employees. A suggested appropriate range would be 9 per cent to 12 per cent.[13] Limiting pension costs to 24 per cent (i.e. 12 per cent for each of the employer and the employee) of salary would appear to be appropriate; however this should be determined by the parties. The reduction in employer contribution levels could be phased in to allow funding of any existing deficits by the agencies. As noted earlier, there are examples of effective ceilings that have been negotiated in the public sector — in 2012 and 2013 the government successfully negotiated contribution ceilings with certain consolidated JSPP pension plans. These ceilings require reductions in future benefits rather than increased contributions in the event of future deficits.

If the parties are unable to agree on an affordable ceiling then there could be a role for government in establishing a ceiling on the contribution rate.

4.3 Joint Responsibility for the Sustainability of Plans

The opportunity to make the necessary plan changes is increased if, for the time being, the agency plans remain as SEPPs; this approach is the most practical in light of the additional complexities associated with moving to a MEPP or joint sponsorship.[14] However, there are a number of elements that typically support single-employer jointly-sponsored pension plan governance that would be very beneficial to the agency plans and would help ensure their sustainability.

These include:

- Institutionalized pension information and data sharing processes. It is recommended that the parties institutionalize pension information and data sharing through the plan sponsor reporting the plan status to a proposed Funding Management Committee (comprising employer and employee representatives) on a quarterly basis.

- A Funding Management Policy (FMP) that sets out what would happen in the event the plan is in surplus or deficit going forward. A new funding management policy would guide the parties in terms of affordability of current and future pension benefits. Its primary purpose is to ensure sustainability of the plan so that both active and retired members know their retirement will be secure. A strong FMP requires the pension plan be managed in the most prudent manner, reducing the reliance on the plan sponsor's solvency to fund benefits.

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[13] Nine per cent of salary is the limit outlined in the *Income Tax Act* as the maximum employee contribution level; contribution levels above 9 per cent must be approved by the Canada Revenue Agency. There has been commentary within the actuarial community that due to the prolonged level of low interest rates, 12 per cent may be a more appropriate upper limit. The parties may wish to canvass their membership to determine contribution rate appetite.

[14] There are no existing barriers to the parties agreeing to a funding management policy and contribution ceiling under the SEPP structure. However, the *PBA* currently does not allow for the conversion of SEPP benefits to a JSPP. The Province has signalled its intention to develop a legislative framework to facilitate conversion of existing benefits from a SEPP to a JSPP.

Accordingly, it is recommended that the parties immediately engage in a process to implement formal information and data sharing processes and develop an agreed-upon FMP, contribution ceiling and 50/50 cost sharing phase in period, as SEPPs. During this process, the parties may determine it to be in their interests to move to a company-specific JSPP which the government should facilitate.

Chart 4 sets out a general framework for a FMP. The intent is that the FMP would steer a plan to sustainability over the long term by making decisions automatic, based on funding status. An FMP can be designed with specific valuation thresholds that determine what contribution rates should be, when benefits may require temporary reduction, and when those benefits may be restored or new benefits offered. The framework provides mechanisms for benefit and contribution changes in response to pension funding risks. It may be that the parties would prefer that the FMP form part of a collective agreement but it should operate automatically outside of the collective bargaining cycle.

Funding Management Policy — Framework Description

Chart 4

Valuation Basis

Valuation Basis	Zone	Mechanism	Funding Risk
Assets = (100+x)% of Liabilities valued at interest rates + y_1%	**Permanent Plan Improvements**	Improve benefits as agreed	Plan is essentially fully funded at a conservative discount rate. Funding security is desired to ensure the Plan can support these benefits continually in the future.
Assets = (100+x)% of Liabilities valued at interest rates + y_2%	**Temporary Plan Improvements**	Improve benefits or lower contributions as negotiated	Plan is well funded and can afford changes that temporarily provide a benefit enhancement (as long as it does not create a long term cost) and/or lower the contributions being paid into the plan.
Assets = Liabilities valued at interest rates + y_3%	**Fully Funded**	Maintain Base Benefits and Contributions	Plan is adequately funded to provide base benefits supported by the base contributions. Given the volatility of market factors and the numerous assumptions in the funding valuation, "fully funded" is considered a range.
	Additional Support Required From FMP Levers	Raise Contribution Rates and/or Invoke Benefit reductions as agreed	Plan is not considered adequately funded to provide base benefits supported by the base contributions using a discount rate that reflects long term expected return less expenses less a provision for adverse deviation. An increase to the contribution rate (within FMP maximum) and/or a decrease to the level of benefits being provided are necessary to recoup the deficit. As the funding position improves, these plan changes will be reversed.

Where $y_1\% < y_2\% < y_3\%$

The JSPP model has many positive attributes, including joint involvement in decision making, but can also represent a risk for members. For instance, benefits can be reduced on the wind-up of a JSPP. It is possible to design an FMP that can mimic many of the attributes that the JSPP model can provide with respect to funding decisions, while not converting completely to that model. The following compares key attributes of a JSPP and the proposed SEPP model with a FMP and contribution ceiling. The comparative table demonstrates that a SEPP with FMP and contribution ceiling can allow for:

- increased pension data/information transparency;
- co-governance;
- effective use of collective bargaining process to address complex and long-term pension plan challenges; and
- pension plan design flexibility.

Attributes of a JSPP	Attributes of a SEPP with Funding Management Policy/Contribution Constraints
General	
Employer and employee jointly responsible for plan; jointly determine plan design and what actions must be taken in the event of a deficit or surplus.	Employer remains plan sponsor but financial exposure is defined. Employer and employees jointly determine in advance what actions must be taken in the event of a deficit or surplus.

Attributes of a JSPP	Attributes of a SEPP with Funding Management Policy/Contribution Constraints
Benefits	
Sponsors can agree to certain benefits, as appropriate, to meet agreed contribution constraints.	Funding Management Policy (FMP) agreed by employer and union determines in advance the valuation parameters and what action is to be taken in the event of either a deficit or a surplus (i.e. plan is put on auto-pilot). For example, in the event of a deficit, once the contribution ceiling is reached, benefits start to decrease on a temporary basis. Once the plan is no longer in deficit, benefit reductions can be restored. Examples of benefit flexibility include: inflation protection; early retirement subsidy; bridge benefit.
Given plan can only reduce future benefits under current legislation, it would be important that as many benefits as possible become conditional as soon as possible (but not necessarily invoked) to start the "grow in"; otherwise there is too much risk borne by young actives.	Given plan can only reduce future benefits under current legislation, it would be important that as many benefits as possible become conditional as soon as possible (but not necessarily invoked) to start the "grow in"; otherwise there is too much risk borne by young actives.

Attributes of a JSPP	Attributes of a SEPP with Funding Management Policy/Contribution Constraints
Governance	
Removed from formal collective bargaining process: full transparency and decisions made collaboratively (usually through a Committee comprised of equal representation from the employer and the employees) with equal information.	Does not legally remove from collective bargaining process — FMP is collectively agreed. Parameters are set for long term, beyond the normal collective bargaining cycle. Plan administrator reports with full transparency to Funding Management Committee (comprising agency and union representatives) on a quarterly basis. Committee is responsible to ensure plan decisions made in accordance with FMP.
Default	
Regulatory default in case of no agreement to solve deficit is to raise contributions.	FMP defines what happens in the event of a deficit.
Solvency	
Only JSPPs named in a regulation under the PBA are exempted from funding solvency deficit.	As SEPPs, solvency funding requirements would continue to apply.
Process to Convert	
It requires enabling legislation to convert existing benefits from a SEPP to a JSPP. Process to convert must comply with collective bargaining parameters; broad parameters are laid out but employer/union have flexibility to work within those parameters	No enabling legislation is required provided employer and employees can agree to FMP and contribution ceiling.

Methodology – Pension and Benefit Analysis

- Pension and benefit information was obtained from the Willis Towers Watson's Benefit Data Source – Canada based on comparator organizations representing a 50%/50% mix of private and public sector organizations. Comparator organizations are not differentiated by segment as organizations typically offer common pension and benefit plans across all roles and skill sets. A list of comparator organizations are presented in *Appendix I.*
- Comparator organizations were established based on data availability where program information is available for comparator PWU, Society and Management populations. Plan provisions valued are those that apply to newly hired employees.
- Results are based on the benefits data and information provided to Willis Towers Watson by participating organizations. Benefit plans included in the analysis are: pension, savings (including stock purchase, group RRSP, DPSP), active and retiree health care and dental care, short-term disability, long term disability and active and retiree benefits. Benefits no longer available to new hires are not considered.
- We determined a value for these benefits by applying a standard methodology to develop employee profiles based on applicable PWU, Society and Management age, service, gender and salary demographics. Detailed methodology is presented in *Appendix III*.

Market Statistics

- For the market studied in this review, pension and benefits represent a small component of the overall total compensation package.
- The table below illustrates the weighted average of pension and benefit employer-provided values as a % of base salary at OPG and how it compares to the 50th percentile of the market, recognizing that values vary across demographic, tenure and age profiles.
- The employer-provided value of OPG's pension and benefits as a % of base salary is above the 50th percentile of the market for the PWU, Society and Management Groups.

Pension & Benefits % of Base Salary		
OPG Group	**OPG**	**Market P50**
PWU	29.7%	20.2%
Society	30.3%	20.3%
Management	31.3%	22.8%

AMPCO Interrogatory #144

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: 2013 Annual Report of the Office of the Auditor General of Ontario

a) Chapter 3, Page 176, Figure 11: Sick Leave Plans at OPG are compared to the Ontario Public Service. Please provide any updates to OPG's data.

b) Please discuss if OPG internally compares its Benefit Plans to the Ontario Public Service Plan.

Response

a) There is no update to the Sick Leave Plans at OPG information presented in the 2013 Annual Report of the Office of the Auditor General of Ontario (2013 AG Report), Figure 11, p. 176. Please see L-06.6-2 AMPCO-143, part (g). Please refer to Table 1 below for an update to OPG's data as found at p. 176 of the 2013 AG Report:

Table 1: Update to OPG Data as at 2013 AG Report, p. 176

Data Point	As of December 31, 2012	Update
# EEs on old sick leave plan	Approximately 5200 (or 50% of EEs)	Approximately 3300 (or 40% of EEs) as of Sep 30, 2016
Ave # of sick leave credits restored and accumulated per EE who is on the old sick leave plan	162 credits @ 100% and 191 @ 75%	179 credits @ 100% and 194 @ 75% as of Sep 30, 2016
Ave # sick days per EE (incl. short term and MMAs between 2003 and 2012	9.2 days (2003) vs. 10.5 days (2012)	2015 Total Days Lost per employee: 10.97 Sep YTD 2016 Total Days Lost per employee: 10.47
Direct costs associated with sick leave days	$29M (2003) vs. $41M (2012)	2015 Direct Salary Costs: $38.4M Sep YTD 2016 Direct Salary

		Costs: $27.5M
Compared to other sectors	OPG was lower than 12.9 days (public sector); more than 8.2 days (private sector) and more than 7.3 days (utility sector).	OPG Annualized Total Sick Leave Days per employee (2016 Sept YTD) was lower than 10.8 days (public sector); more than 6.3 days (private sector) and more than 7.9 days (utility sector).

b) While OPG does not routinely compare its Benefit Plans to the Ontario Public Service Plan (OPS) internally, OPG has in the past undertaken high level comparisons of certain provisions of its Benefit Plans with that of the OPS.

Figure 10[6]

Employee Pension Contributions	% of Pensionable Earnings Contributed by Employees (% below / above YMPE)			Contribution Ratio (Employee/Employer)
	MG	PWU	Society	
2014	7 / 7	5 / 7	7 / 7	24% / 76%
2015	7 / 7	6 / 8	7 / 7	
2016	7.3 / 8.25	7 / 9	8 / 8	
2017	7.6 / 9.5	7.5 / 10	9 / 9	35% / 65%

b) Earnings Basis for Pension

OPG negotiated changes to the basis for determining pension benefits. Previously, the calculation basis was an employee's highest three consecutive years. This was increased to the highest five consecutive years for future service beginning March 31, 2025 for both the PWU and Society. This change applies to both current employees and new hires.

c) Retirement Eligibility for an Undiscounted Pension

OPG successfully negotiated a change in the retirement eligibility formula. Currently, PWU and Society employees can retire with an undiscounted pension when their age plus service equals 82; this is referred to as the Rule of 82. For service after March 31, 2025, the eligibility for an undiscounted pension will be changed to the Rule of 85. The retirement eligibility formula of age plus service was also changed for Management employees from 84 to 90 years, effective July 1, 2014 for new Management employees, and effective for future service beginning January 1, 2025 for existing employees.

In exchange for these pension reforms that were negotiated with the assistance of the Government, existing PWU and Society employees contributing to the pension plan will receive the following:

[6] YMPE is defined as the year's maximum pensionable earnings.

OPG TOTAL COMPANY
PENSION AND OPEBs ANALYSIS
PREPARED ON A CASH AND ACCRUAL BASIS

TABLE 1 ***(in Millions $)***

2015 Actual Pension and OPEB Costs - Total Company		
Plan	**Cash[1]**	**Accrual[1]**
RPP	231	525
Special payments*	131	
OPEBs	94	232
SPP	24	26
Total Employer Payments/Cost	**480**	**783**
Total Employee Cont.	**72**	**72**

TABLE 2 ***(in Millions $)***

2016 Actual Pension and OPEB Costs - Total Company		
Plan	**Cash[3]**	**Accrual[3]**
RPP*	200	369
Special payments*	55	
OPEBs	93	168
SPP	15	23
Total Employer Payments/Cost	**363**	**560**
Total Employee Cont.	**85**	**85**

2015 Cost Ratio	Cash (%)
Employer RPP Cont / Employee Cont	76/24
Employer / Employee (RPP Only incl special payments)	83/17
Employer / Employee (Total P&OPEB)	87/13

2016 Cost Ratio	Cash (%)
Employer RPP Cont / Employee Cont	70/30
Employer / Employee (RPP Only incl special payments)	75/25
Employer / Employee (Total P&OPEB)	81/19

TABLE 3 ***(in Millions $)***

2017 Forecast Pension and OPEB Costs - Total Company		
Plan	**Cash[2]**	**Accrual[2]**
RPP	193	266
Special Payments	55	
OPEBs	94	186
SPP	18	25
Total Employer Payments/Cost	**360**	**477**
Total Employee Cont.	**93**	**93**

TABLE 4 ***(in Millions $)***

2018 Forecast Pension and OPEB Costs - Total Company		
Plan	**Cash[2]**	**Accrual[2]**
RPP	196	215
Special Payments	55	
OPEBs	99	191
SPP	19	24
Total Employer Payments/Cost	**369**	**430**
Total Employee Cont.	**96**	**96**

2017 Cost Ratio	Cash (%)
Employer RPP Cont / Employee Cont	67/33
Employer / Employee (RPP Only incl special payments)	73/27
Employer / Employee (Total P&OPEB)	79/21

2018 Cost Ratio	Cash (%)
Employer RPP Cont / Employee Cont	67/33
Employer / Employee (RPP Only incl special payments)	72/28
Employer / Employee (Total P&OPEB)	79/21

Notes:

[1]Balances from the 2015 Annual Report p. 155, total RPP contributions equals the sum of RPP and Special Payments above.

[2]Balance taken from the AON January 1, 2016 Funding Valuation provided in the response to Staff IR #156, and from the additional AON valuation provided in Exhibit N1

[3]Balance from the 2016 Annual Report p. 48 and 49.

*Special payments for 2015 of $131M taken from the 2015 Report to Members p. 2, and the 2016 amount of $55M taken from September 2016 AON Actuarial Valuation report p. 22.

OPG TOTAL COMPANY
PENSION AND OPEBs ANALYSIS
PREPARED ON A CASH AND ACCRUAL BASIS

TABLE 5 *(in Millions $)*

2019 Forecast Pension and OPEB Costs - Total Company		
Plan	**Cash[1]**	**Accrual[1]**
RPP	299*	204
Special Payments		
OPEBs	104	196
SPP	19	24
Total Employer Payments/Cost	**123**	**424**
Total Employee Cont.	**?**	**?**

TABLE 6 *(in Millions $)*

2020 Forecast Pension and OPEB Costs - Total Company		
Plan	**Cash[1]**	**Accrual[1]**
RPP	305*	201
Special Payments		
OPEBs	109	201
SPP	20	24
Total Employer Payments/Cost	**129**	**426**
Total Employee Cont.	**?**	**?**

TABLE 7 *(in Millions $)*

2021 Forecast Pension and OPEB Costs - Total Company		
Plan	**Cash[1]**	**Accrual[1]**
RPP	308*	201
Special Payments		
OPEBs	113	206
SPP	20	24
Total Employer Payments/Cost	**133**	**431**
Total Employee Cont.	**?**	**?**

2019 Cost Ratio	**Cash (%)**
Employer RPP Cont / Employee Cont	?
Employer / Employee (RPP Only incl special payments)	?
Employer / Employee (Total P&OPEB)	?

2020 Cost Ratio	**Cash (%)**
Employer RPP Cont / Employee Cont	?
Employer / Employee (RPP Only incl special payments)	?
Employer / Employee (Total P&OPEB)	?

2021 Cost Ratio	**Cash (%)**
Employer RPP Cont / Employee Cont	?
Employer / Employee (RPP Only incl special payments)	?
Employer / Employee (Total P&OPEB)	?

*Includes special payments

[1]Balance taken from the AON December 2016 Report on the Estimated Accounting Cost for Post Employment Benefit Plans for Fiscal Years 2017-2021

ONTARIO POWER GENERATION
PENSION AND OTHER POST-EMPLOYMENT BENEFITS (OPEBs)
EB-2016-0152

TABLE 1 *(in Millions $)*

2015 Pension and OPEB Costs - Total Company		
Plan	**Cash[1]**	**Accrual[2]**
RPP	228	525
Special Payments	131	n/a
OPEBs	94	232
SPP	24	26
Total Employer Payments/Cost (A)	**477**	**783**
Total Employee Cont. (B)	**72**	**72**

TABLE 2 (in Millions $)

2017 Pension and OPEB Costs - Nuclear only (forecast)				
Plan	**Cash**		**Accrual**	
RPP (incl. SPP)*	155.8	3	214.4	5
Special Payments	44.3	3	n/a	
OPEBs	91.1	4	169.8	5
Total Employer Payments/Cost	**291.2**		**384.2**	
Tiotal Employee Cont.	?		?	

TABLE 3: Employer/Employee contribution ratio (excludes OPEBs and SPP)

	2015		**2017**			
	Cash (%)	**Accrual (%)**	**Cash**		**Accrual**	
RPP/Employee	76/24	88/12	?		?	
RPP+deficit/employee	83/17	88/12	?		?	

Notes:

*Information as currently presented in N1-1-1 is not broken out between RPP in SPP. Amounts are combined.

[1]Balances taken from OPG 2015 Annual Report, p. 155. Total RPP contributions equals the sum of RPP and Special Payments above.

[2]Balances taken from the OPG 2015 Annual Report, p. 154. Balance for RPP includes contributions to SPP.

[3]Balance taken from N1-1-1, p. 8, Chart 3.1.1B.

[4]Balance taken from N1-1-1, p. 7, Chart 3.1.1A.

[5]Balance taken from N1-1-1, p. 10, Chart 3.1.2.

One improved its standing against others in the peer group who were also attempting to reduce compensation costs over the same measured period.

14. PENSIONS

In EB–2010-0002, the Board stated that: "Hydro One must demonstrate measurable progress towards having its pension contributions reflect those prevailing in the public sector generally. The evidence suggests that an employee contribution level of 50% is the norm". Hydro One has strived to increase employee contributions and reduce benefits with all employee groups. Hydro One has demonstrated this commitment to reducing pension costs by:

- Introducing lower cost defined benefit plans for MCP employees (2004) and Society employees (2005);
- Increasing employee pension plan contributions annually since 2013 for all employee groups (see Figure 8 for PWU represented employee pension contributions and Appendix A for employee contributions for other employee groups);
- Closing the Defined Benefit Pension Plan for new externally hired MCP employees as of September 30, 2015 and introducing a new Defined Contribution Pension Plan; and
- Reducing future service benefits for all current PWU and future PWU employees as well as Society legacy pension plan members by adjusting the number of years for determining the final average earnings from three years to five years and increasing the early undiscounted pension eligibility from Rule of 82 to Rule of 85 (both effective March 31, 2025).

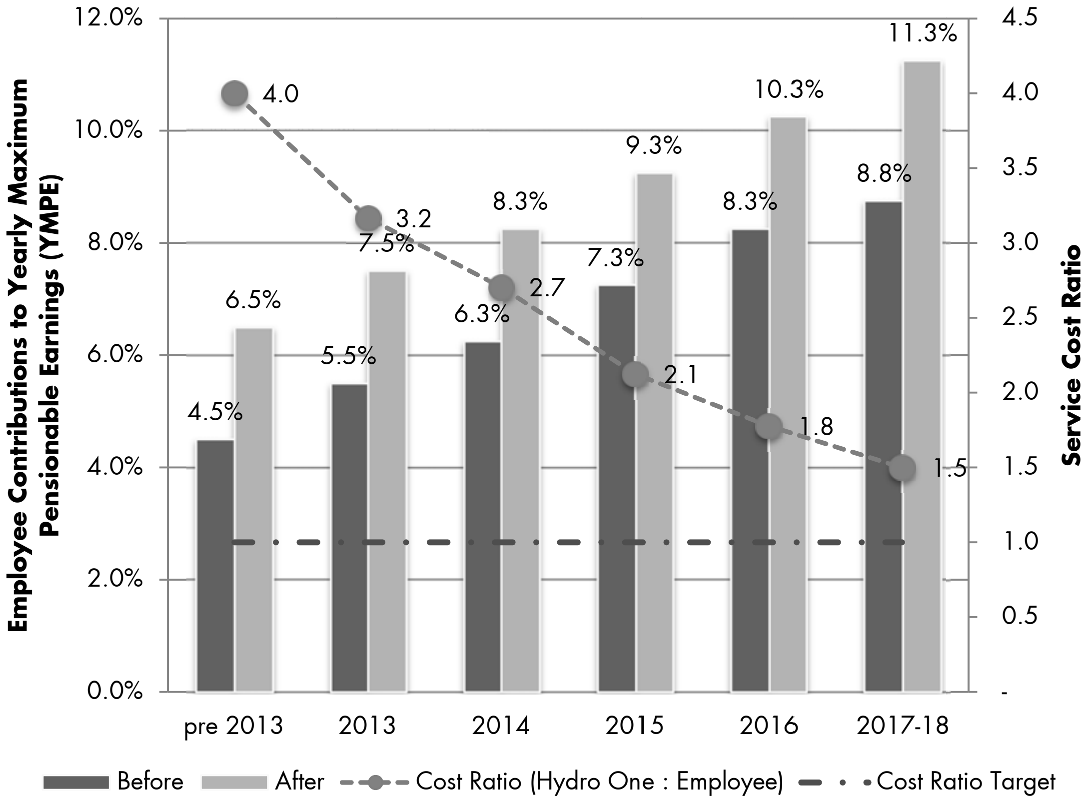

Figure 8: Employee Pension Plan Contributions - PWU

Annual savings as a result of the increased employee contributions are found in Table 4.

Table 4: Annual Savings from Increased Employee Pension Contributions

Year	$M
2016	$7.9
2017	$15.2
2018	$20.5

In summary, Hydro One has been successful in reducing pension costs by:

- making incremental increases every year since 2013 in employee pension contributions for all employee groups; and

- improving the ratio of employer and employee cost sharing by moving towards the 50%-50% cost sharing ratio.

As described in Exhibit C1, Tab 4, Schedule 1, the employee contribution rate to the pension plan has increased and Hydro One engaged Willis Towers Watson to provide an estimate of the resultant savings to the company. These savings were are reflected in cash pension costs provided in the Table 4, as well as the pension expense that is included in Hydro One's operating and capital expenses provided in this application for the test years 2017 and 2018.

As described in Exhibit C1, Tab 4, Schedule 2, Hydro One has also engaged Willis Towers Watson to prepare an actuarial valuation as at December 31, 2015. Although the valuation was not finalized at the time this application was filed, it is expected to be received by Hydro One at the end of June 2016 and will be filed with Financial Services Commission of Ontario shortly thereafter. In addition to the recently negotiated changes in employee contribution rates, the valuation will also reflect updated investment returns, negotiated changes in employee benefits, and refreshed actuarial assumptions. It is anticipated that the valuation will demonstrate a further reduction in transmission pension contribution costs. In order to ensure that Hydro One's rates for the 2017 and 2018 test years reflect the anticipated reduction in costs, Hydro One will submit an update to this application to reflect the actual changes when the final valuation is received.

15. SUMMARY

Attracting, motivating and retaining the right people is key to Hydro One's success. Hydro One will continue to utilize a mix of regular, non-regular and contract staff in order to maintain the necessary flexibility to meet the needs of the company's investment plan. In an industry with aging demographics and a competitive labour market, Hydro

One needs to be positioned as an attractive employer if it is to succeed in recruiting and retaining staff with the requisite skills. To do so, it must provide challenging and rewarding job opportunities and a competitive compensation package.

Compensation levels at Hydro One are reasonable and have a declining trend. Hydro One's demographic challenge requires the Company to be active in the labour market with competitive compensation.

Recent fundamental changes in the compensation and pension programs for both represented and non-represented employees are a reasonable balance between rewarding employees, addressing cost concerns and enabling Hydro One to recruit, retain and motivate a highly skilled workforce.

APPENDIX A:

Employee Pension Contributions for Other Employee Groups

The following graphs illustrate the increasing employee pension plan contributions annually since 2013 for Society-represented employees; Legacy and post November 2005 members and Management Compensated staff.

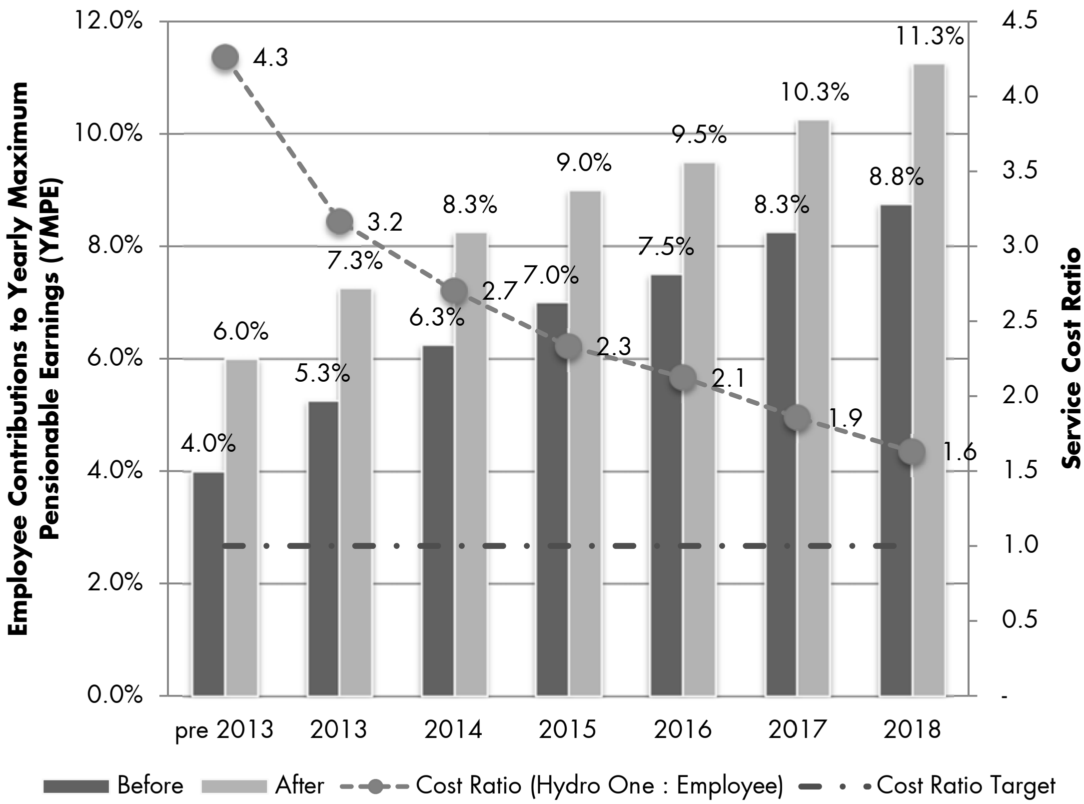

Figure 1: Society Pension Changes - Legacy Pension Plan

Witness: Jon Rebick

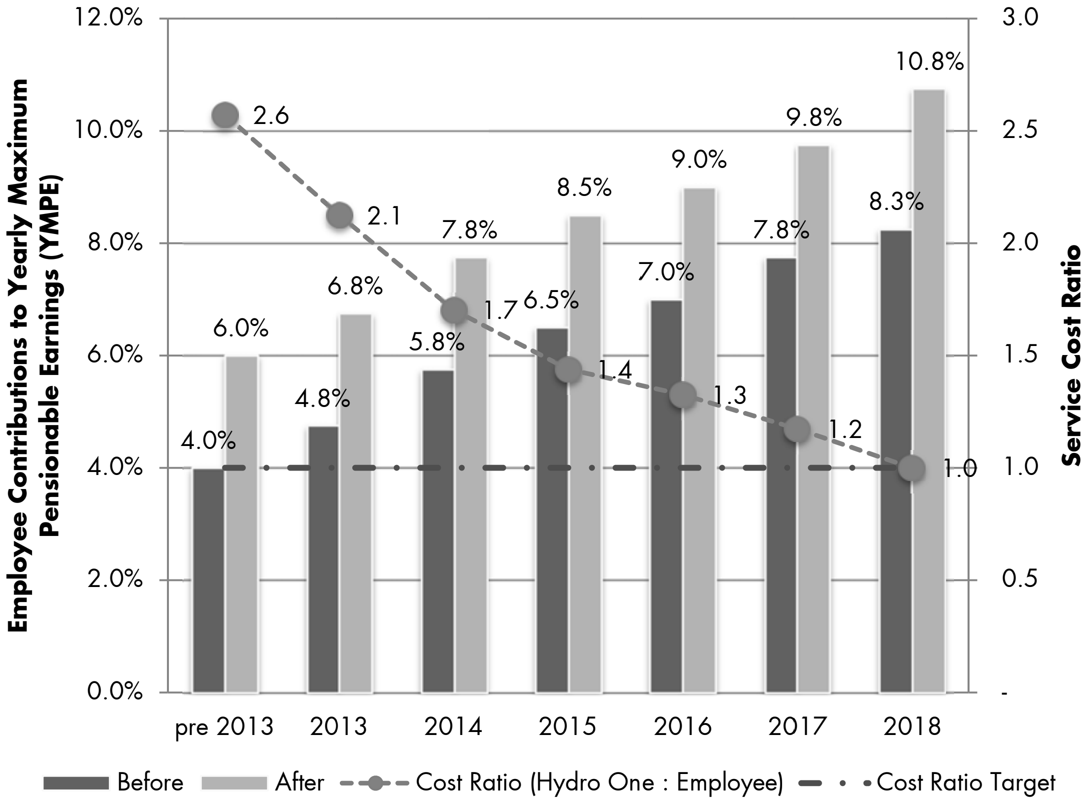

Figure 2: Society Pension Changes - Post November 2005 Members

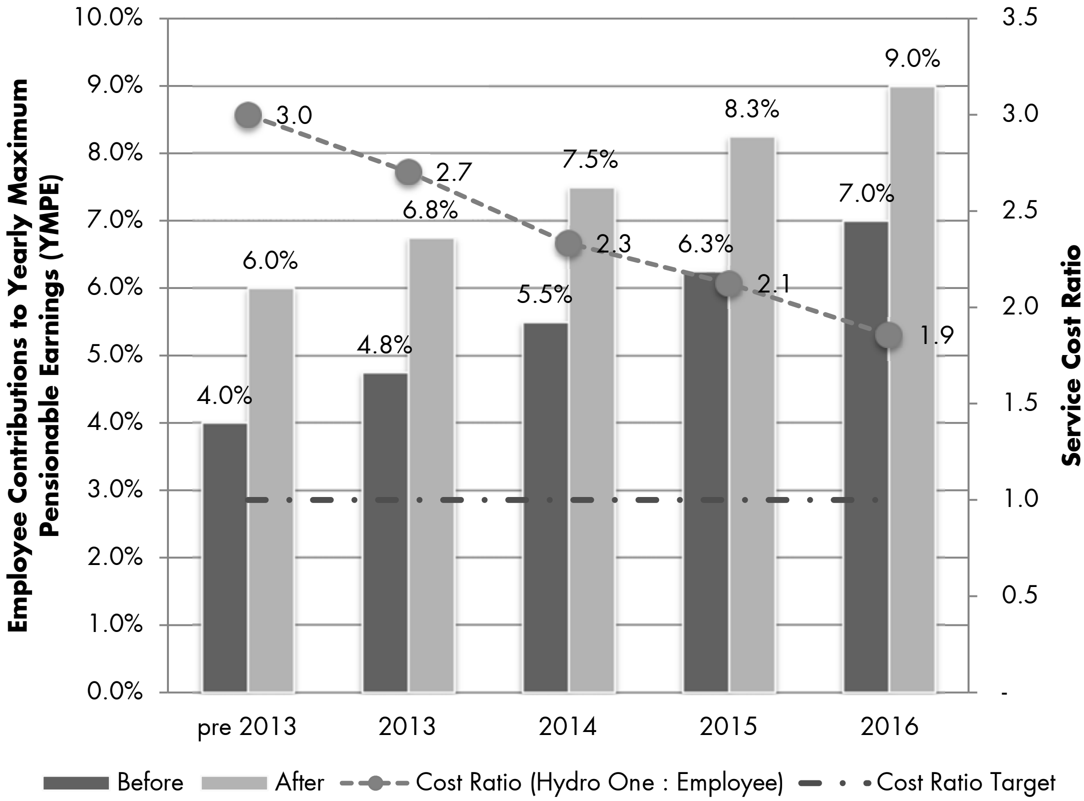

Figure 3: MCP Pension Changes

Board Staff Interrogatory #147

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: Exh F4-3-1 pp. 15-16
The evidence discusses changes to pension and benefits.

a) Figure 10 shows the employee/employer contribution ratio. Does this figure relate to pensions only, or does it include OPEBs? If it does not, please provide a chart showing the employee/employer ratio including OPEB costs.

b) Do retirees receive the same benefits as current employees?

c) The evidence states that the mandate of the Advisory Council on Government Assets included "obtaining a multi-year agreement, wage increases that were neutral to Ontario taxpayers and electricity ratepayers, and longer term solutions to help address pension stability." Did the agreements reached with the PWU and the Society result in wage increases that were neutral to electricity ratepayers? If yes, please provide the details.

d) The evidence describes three concessions that were negotiated with the unions respecting pensions: increased employee contributions, changes to the earnings basis for pensions, and changes to retirement eligibility for undiscounted pensions. Please provide the anticipated annual savings over the test period for each of these changes. Are these savings included in Figure 3 at F4-3-1 p. 6?

e) How does the "Rule of 85" compare with pension plans in the Ontario public service generally?

f) Approximately how much money is expected to be saved annually in the years after the test period on account of the concessions described in question (d)?

g) In return for the concessions described in question (d), PWU and Society employees received a "lump sum payment" and a number of Hydro One Limited shares (the Share Performance Plan). Please provide the annual costs for these measures. Are these costs included in Figure 3 at F4-3-1 p. 6?

h) Is OPG targeting a 1:1 contribution ratio for some point in the future? If so, when? What is the revenue requirement impact in the test period for contribution ratios higher than 1:1? Please provide the answer for each year, and on an accrual basis and a cash basis.

Response

a) The employee / employer contribution ratio shown in Ex. F4-3-1, Figure 10 relates only to OPG's registered pension plan. OPEBs are not funded; as a result, OPG has not provided a chart showing the employee/employer ratio including OPEB costs as requested.

b) Retirees receive similar benefits to employees. Employees, retirees and their respective dependents are eligible for health and dental coverage. Retirees also receive basic life insurance coverage; however, the amount of the life insurance benefit is reduced compared to the coverage provided to employees. Only employees are eligible for short-term and long- term disability benefits.

c) [redacted]

d) The total projected savings associated with increased employee contributions attributed to the nuclear facilities are $88M over the 2017-2021 period ($17M/yr for 2017-2018 and $18M/yr for 2019-2021). These savings are reflected in Figure 3 at Ex. F4-3-1, p. 6.

There are no savings during the 2017-2021 period associated with the changes to the earnings basis for pensions and changes to retirement eligibility for undiscounted pensions for unionized employees because, as noted at Ex. F4-3-1, p. 16, lines 12-14 and lines 20-21, these changes apply to future service accrued by employees after March 31, 2025.

e) Most major Ontario public sector pension plans currently utilize a Rule of 85 (with some of these requiring a minimum age of 55), with some also utilizing a Rule of 90.

f) OPG declines to provide the requested information on the basis of relevance. This interrogatory seeks information for periods beyond the IR Term that is not relevant to deciding any issue on the approved Issues List in this application and is not readily available.

g) The total projected costs associated with the “lump sum payments” made in the first two years of the respective collective agreements, and the Share Performance Plan for the remaining years of the respective collective agreements, attributed to the nuclear facilities are $92M over the 2017-2021 period ($26M in 2017, $24M in 2018, $15M in 2019, $14M in 2020, and $13M in 2021). These costs are reflected in Figure 3 at Ex. F4-3-1, p. 6.

OPG notes that, unlike employee contribution increases that apply to both existing and new employees, the Share Performance Plan applies only to employees contributing to the pension plan on April 1, 2015 (PWU) and January 1, 2016 (Society), and having less than 35 years of pensionable service as of those dates, as noted at Ex. F4-3-1, p. 17, lines 7-11. This means that while savings from higher employee contributions are expected to continue at similar levels beyond 2021, the cost of the Share Performance Plan will decline as the number of eligible employees declines.

h) [redacted]

L-6.6-1 STAFF 147 ATTACHMENT 1

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Total benefit costs, including the impact of the Pension and OPEB Cost Variance Account, the Pension & OPEB Cash Payment Variance Account and the Pension & OPEB Cash Versus Accrual Differential Deferral Account, for the years ended December 31 are as follows:

(millions of dollars)	**2015**	**2014**
Registered pension plans	**525**	528
Supplementary pension plans	**26**	26
Other post-employment benefits	**232**	202
Pension and OPEB Cost Variance Account *(Note 5)*	**-**	(254)
Pension & OPEB Cash Payment Variance Account *(Note 5)*	**(21)**	(6)
Pension & OPEB Cash Versus Accrual Differential Deferral Account *(Note 5)*	**(279)**	(36)
Pension and other post-employment benefit costs	**483**	460

The pension and OPEB obligations and the pension fund assets measured as at December 31 are as follows:

	Registered Pension Plans		**Supplementary Pension Plans**		**Other Post-Employment Benefits**	
(millions of dollars)	**2015**	**2014**	**2015**	**2014**	**2015**	**2014**
Change in Plan Assets						
Fair value of plan assets at beginning of year	**12,407**	10,961	**-**	-	**-**	-
Contributions by employer	**362**	364	**24**	16	**94**	93
Contributions by employees	**72**	70	**-**	-	**-**	-
Actual return on plan assets, net of expenses	**1,151**	1,677	**-**	-	**-**	-
Benefit payments	**(832)**	(665)	**(24)**	(16)	**(94)**	(93)
Fair value of plan assets at end of year	**13,160**	12,407	**-**	-	**-**	-
Change in Projected Benefit Obligations						
Projected benefit obligations at beginning of year	**15,669**	13,422	**317**	289	**3,143**	2,719
Employer current service costs	**320**	238	**7**	8	**71**	64
Contributions by employees	**72**	70	**-**	-	**-**	-
Interest on projected benefit obligation	**630**	658	**13**	14	**127**	135
Benefit payments	**(832)**	(665)	**(24)**	(16)	**(94)**	(93)
Past service costs	**-**	-	**-**	-	**5**	-
Net actuarial (gain) loss	**(384)**	1,946	**(14)**	22	**(64)**	318
Projected benefit obligations at end of year	**15,475**	15,669	**299**	317	**3,188**	3,143
Funded status – deficit at end of year	**(2,315)**	(3,262)	**(299)**	(317)	**(3,188)**	(3,143)

Total benefit costs, including the impact of the Pension & OPEB Cash Payment Variance Account and the Pension & OPEB Cash Versus Accrual Differential Deferral Account, for the years ended December 31 are as follows:

(millions of dollars)	**2016**	**2015**
Registered pension plans	**369**	525
Supplementary pension plans	**23**	26
Other post-employment benefits	**168**	232
Pension & OPEB Cash Payment Variance Account *(Note 5)*	**86**	(21)
Pension & OPEB Cash Versus Accrual Differential Deferral Account *(Note 5)*	**(182)**	(279)
Pension and other post-employment benefit costs	**464**	483

The pension and OPEB obligations and the pension fund assets measured as at December 31 are as follows:

	Registered Pension Plans		**Supplementary Pension Plans**		**Other Post-Employment Benefits**	
(millions of dollars)	**2016**	**2015**	**2016**	**2015**	**2016**	**2015**
Change in Plan Assets						
Fair value of plan assets at beginning of year	**13,160**	12,407	**-**	-	**-**	-
Contributions by employer	**255**	362	**15**	24	**93**	94
Contributions by employees	**85**	72	**-**	-	**-**	-
Actual return on plan assets, net of expenses	**714**	1,151	**-**	-	**-**	-
Benefit payments	**(708)**	(832)	**(15)**	(24)	**(93)**	(94)
Fair value of plan assets at end of year	**13,506**	13,160	**-**	-	**-**	-
Change in Projected Benefit Obligations						
Projected benefit obligations at beginning of year	**15,475**	15,669	**299**	317	**3,188**	3,143
Employer current service costs	**277**	320	**7**	7	**67**	71
Contributions by employees	**85**	72	**-**	-	**-**	-
Interest on projected benefit obligation	**634**	630	**12**	13	**133**	127
Benefit payments	**(708)**	(832)	**(15)**	(24)	**(93)**	(94)
Past service costs	**-**	-	**-**	-	**-**	5
Net actuarial loss (gain)	**436**	(384)	**33**	(14)	**(303)**	(64)
Projected benefit obligations at end of year	**16,199**	15,475	**336**	299	**2,992**	3,188
Funded status – deficit at end of year	**(2,693)**	(2,315)	**(336)**	(299)	**(2,992)**	(3,188)

The following table provides the pension and OPEB liabilities and their classification on the consolidated balance sheets as at December 31:

	Registered Pension Plans		**Supplementary Pension Plans**		**Other Post-Employment Benefits**	
(millions of dollars)	**2016**	**2015**	**2016**	**2015**	**2016**	**2015**
Current liabilities	**-**	-	**(17)**	(17)	**(95)**	(103)
Non-current liabilities	**(2,693)**	(2,315)	**(319)**	(282)	**(2,897)**	(3,085)
Total liabilities	**(2,693)**	(2,315)	**(336)**	(299)	**(2,992)**	(3,188)

The accumulated benefit obligations for the registered pension plans and supplementary pension plans as at December 31, 2016 are $14,909 million and $293 million, respectively (2015 – $14,327 million and $267 million, respectively). The accumulated benefit obligation differs from the projected benefit obligation in that the accumulated benefit obligation includes no assumption about future compensation levels.

Chart 3.1.1A

Revenue Requirement Changes – Nuclear Pension and OPEB Cash Amounts ($M)

Line No.		Reference	2017	2018	2019	2020	2021
	Pension:						
1	Original Submission	Ex. F4-3-2, Chart 1	171.1	175.5	180.3	157.2	162.1
2	N1 Update		200.0	202.9	243.5	247.9	250.6
3	Revenue Requirement Impact of Update	line 2 - line 1	28.9	27.4	63.2	90.7	88.5
	OPEB:						
4	Original Submission	Ex. F4-3-2, Chart 1	100.9	104.9	109.2	114.1	117.8
5	N1 Update		91.1	95.7	99.9	104.3	108.5
6	Revenue Requirement Impact of Update	line 5 - line 4	(9.8)	(9.2)	(9.3)	(9.8)	(9.3)
7	Total Revenue Req'ment Impact of Update	line 3 + line 6	19.1	18.3	53.8	81.0	79.3

In line with the 2017-2019 Business Plan, the updated forecast of cash amounts reflects the latest filed actuarial valuation of the OPG registered pension plan ("RPP") as of January 1, 2016, which sets out the minimum employer funding requirements for 2016 to 2018. The valuation was prepared and certified by Aon, and was filed with the Financial Services Commission of Ontario on September 30, 2016. As discussed in Ex. L-6.6-1 Staff-156, OPG made the decision to advance this valuation from January 1, 2017, in response to a decrease in long-term bond yields observed since the beginning of the year. The decrease in bond yields increased the likelihood of higher 2017 and 2018 contributions under a January 1, 2017 valuation, compared to a January 1, 2016 valuation. In addition, the January 1, 2016 valuation decreased OPG's 2016 pension contributions attributed to the nuclear facilities by approximately $80M. Further details and a copy of the January 1, 2016 funding valuation can be found at Ex. L-6.6-1 Staff-156.

The 2017-2019 Business Plan also reflects the projected results of the next funding valuation of the RPP as of the latest permitted date of January 1, 2019, which would set the minimum employer funding requirements for 2019 to 2021. Aon projected the results of this

News Release

Ontario Updates Public Sector Retiree Benefit Plans

Sharing Cost Of Retiree Benefits Equally With Ontario Public Sector Employees

February 18, 2014 4:00 P.M. | Ministry of Government and Consumer Services

The Ontario government will transition to a cost-sharing model for retiree benefits for employees retiring on or after Jan. 1, 2017.

This will bring Ontario Public Service retiree benefits in line with other public sector organizations where retirees are often asked to contribute up to 100 per cent of their benefits premium.

Current retirees from the Ontario Public Service will not be affected by these changes.

Key features of the new model will:

- Require employees retiring on or after Jan. 1, 2017 to pay 50 per cent of their benefits premiums (e.g. life, health, dental and vision). Currently the government pays 100 per cent.
- Change the eligibility period for retiree benefits from 10 to 20 years for employees hired on or after Jan. 1, 2017.

Taking a measured and moderate approach to Ontario's finances is part of the government's economic plan that is creating jobs for today and tomorrow. The comprehensive plan and its six priorities focus on Ontario's greatest strengths - its people and strategic partnerships.

Quick Facts

- Employees who do not have 10 years pension credit in the pension plans by Jan. 1, 2017 will have to have at least 20 years of pension credits and retire to an immediate unreduced pension in order to qualify for retiree benefits.
- About 3,000 - 4,000 employees begin to receive a pension and retiree benefits from the Public Service Pension Plan or the OPSEU Pension Plan each year.
- There are more than 84,000 active members of the Ontario Public Service and other employers enrolled in Ontario Public Service pension plans.
- Retiree benefits are not a provision of the pension plans nor are they a pension benefit.

Background Information

- Modernization of Public Sector Retiree Benefit Plans

Additional Resources

- About the Ministry of Government Services
- About Ontario's fiscal outlook

Quotes

"Our government respects and values the hard work and dedication of the Ontario Public Service. OPS employees will continue to have a generous retirement benefits package. Equally sharing the cost of benefits with future retirees will align Ontario with most other Canadian jurisdictions, the private sector and other public sector organizations."

John Milloy
Minister of Government Services

"We must continue to manage costs in a responsible and fair way. With half of all government spending going to compensation, including post-retirement benefits, managing these costs is essential to ensuring sustainable public services that Ontarians rely on."

Charles Sousa
Minister of Finance

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Introduction

Ontario Power Generation ("OPG") recently announced changes to the OPG Pension Plan (“Pension Plan”) and the OPG Supplementary Pension Plan (“SPP”) for non-represented (i.e., Management Group) staff.

OPG has requested that Aon Hewitt prepare cost estimates of extending the changes to represented staff as well as provide cost estimates for other requested plan changes. All the cost estimates are based on the January 1, 2014 actuarial valuation of the Pension Plan.

Summary of Key Changes for Management Group

OPG Pension Plan

- Migrate to 50/50 sharing of cost for current service cost:
  - A contribution schedule has been developed in two phases with an increase in contributions for Management Group employees effective January 1, 2016 and a second increase effective January 1, 2017.
  - Management Group employees hired by OPG on and after July 1, 2014 will pay the January 1, 2017 contribution rate from date of hire.
  - [redacted]
- Transition from unreduced retirement at 84 points (“Rule of 84”) to unreduced retirement at 90 points (“Rule of 90”):
  - Members with 84 points on January 1, 2016 would retain eligibility for unreduced pension for all service.
  - For all other members, benefits earned for service on and after January 1, 2016 will be subject to Rule of 90 rather than Rule of 84.
  - Benefits earned for service prior to January 1, 2016 will continue to be subject to Rule of 84.
  - Management Group employees hired by OPG on and after July 1, 2014 will have all benefits subject to Rule of 90.
- Elimination of enhanced early retirement benefits for employees who terminate prior to retirement eligibility.

OPG SPP

- Mirror design changes in RPP
- Change eligibility rules for ESPS

About This Material

In this study, the value of the Ontario Power Generation ("OPG") salaried employee benefits program for the PWU group is compared to a norm of the values of the salaried employee benefits programs of the following 16 base companies selected by OPG:

[redacted]

Some of these organizations may have more than one benefits program covering salaried employees. This study is based on one program offered by each company—generally the one for corporate salaried employees. Of course, in some cases, the same benefits may be provided to both hourly and salaried employees.

This material is intended to be diagnostic in nature. One should not expect to find a prescription in this material. This study provides a thorough analysis of your benefits program as it exists today compared to the norm of these 16 base companies.

The study is divided into four major sections:

- The **Methodology** section defines the methods used in determining index values and the benefit areas that are included in this study.
- The **Index Displays** section illustrates the competitive position of each of the major elements of your benefits program (individually and in aggregate) relative to the base company norm. We have also included a summary of the major elements of the benefits programs of OPG and the base companies on facing pages.
- The **Comments** section describes the similarities and differences within the base and explains why your benefit values rank where they do relative to the 16 base company norm.
- The **Specifications** section summarizes in more detail the major elements of the benefits programs of OPG and the base companies.

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Ontario

MC-2015-239

FEB 0 5 2015

Mr. Tom Mitchell
President and Chief Executive Officer
Ontario Power Generation
700 University Avenue
Toronto ON M5G 1X6

Dear Mr. Mitchell:

I understand that Ontario Power Generation (OPG) will be engaging in collective bargaining discussions with the Power Workers' Union (PWU) shortly, and with the Society of Energy Professionals (Society) later this year. In advance of these discussions, I am writing to confirm that OPG will engage in negotiations that reflect a revised bargaining mandate that includes specified cost-savings objectives.

You may recall that in recent budgets the Province has expressed its commitment to manage the costs of public sector compensation, and to review electricity sector pensions, in particular. The Province is now looking to ensure there are savings achieved in the short and long term by minimizing the impact of compensation and pension costs to ratepayers across Ontario.

As you prepare for upcoming bargaining negotiations with the PWU and the Society, the government expects that the following bargaining mandate will form the basis for those discussions. Prior to entering into negotiations, please ensure that the mandate and requirement for government approval is made clear to the PWU and the Society. OPG's bargaining mandate comprises the following elements:

- Multiple year agreements (two to four years).
- Pension contributions from employees adjusted upwards gradually in order to achieve equal cost sharing between employers and employees.

.../cont'd

- While protecting all employee pension benefits earned under the plans to date, modestly reduce future service benefit accruals for current employees and new hires through a number of mechanisms that may include:

  - Adjustment of number of years upon which the calculation of final average earnings would be based;
  - Revising the points formula for the threshold for reduced early retirement;
  - Reducing bridge benefit before age 65; and/or
  - Basing indexation on a modestly reduced percentage of CPI.

- Introduce a model of shared governance of risk through a combination of:

  - Funded conditional indexation; and
  - Limiting employer funding for deficits arising under a new funding policy to a defined corridor, after which the funding policy would define how to address deficits.

- Where relevant, enable restructuring activities recommended by the Premier's Advisory Council on Government Assets and approved by government.

- The cumulative effect of the resolution of compensation issues would reflect an overall net neutral costing result. Any changes to pension contributions and benefits would not count as offsets for the purposes of calculating this net zero result.

I would appreciate confirmation that OPG's final negotiating mandates reflect the elements described above, as the company commences engagement with PWU and with the Society. I expect that OPG will provide regular updates to the Ministry on the status of negotiations and return to government for approval prior to finalizing any and all collective agreements.

Sincerely,

Bob Chiarelli
Minister

Board Staff Interrogatory #136

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: Exh A2-2-1 Attachment 1 page 15 Ref: F2-2-1 page 3
Ref: Exh A2-2-1 Attachment 2 page 15

here are different presentations of information related to human resources related costs. Please provide clarification and definitions.

a) OPG's Business Plan refers to headcount. Does headcount include part time staff and contract staff? Is headcount a year end determination?

b) The evidence at Exh F2-2-1 refers to full-time regular staff, non-regular staff and part time staff. Please provide definitions for these terms.

c) The evidence at Exh F2-2-1 defines augmented staff as "external personnel providing specialized expertise (e.g., engineering) to supplement internal capability and/or to fill temporary vacancies." Are augmented staff considered in headcount or FTE determinations?

d) The business planning instructions state that a change is being introduced in the 2016-2018 business planning process: "FTE calculations for regular labour costing must use the half-year rule. That is, when a regular headcount is added or removed during the year, 0.5 of an FTE must be added or removed in that year for labour costing purposes." Are the FTE calculations and costs related to FTE's consistently represented in the application for the historical and forecast period?

e) Please explain how the FTE are calculated, including reference to the staff categories noted in (b) and (c) above. Is FTE a year end determination?

Response

a) The headcount captured in OPG's Business Plan includes part-time staff and is depicted as of year end. Contract staff are not included in OPG's Business Plan headcount.

b) Regular employees, including both full time and part time staff, are those employees for which there is the expectation of ongoing employment. Regular employees are paid through OPG payroll.

- Full time regular staff are regular employees who typically work the base hours associated with their position, being either 35, 37.5 or 40 hours per week.

- Part time regular staff work less than the scheduled hours associated with a position.

Non-regular employees are hired for a fixed period of time with a start and end date. Non-regular employees include students and other employees hired directly by OPG or through a trade union hall for a limited duration. Non-regular employees are paid through OPG payroll.

c) Augmented staff are not normally considered in headcount or FTE determinations. Where augmented staff are included in these calculations, such as in the Goodnight benchmarking study (see Ex. F2-1-1, Attachment 2), this inclusion is explicitly noted. References to headcount and FTEs captured in Ex. F2-2-1 and Ex. F4-3-1 do not include augmented staff.

d) and e) The FTE calculations and associated costs are consistently represented in the application for the historical and forecast period in that FTEs represent the number of hours worked over the year converted to an equivalent number of full-time employees The associated labour costs are determined on the basis of the number of hours worked.

Historical FTEs are calculated by dividing the total period of time an employee occupied a position during the year by the scheduled hours associated with the position. The same scheduled hours are utilized whether an employee is a regular full time, regular part time or a non-regular employee. The standard scheduled hours of work are either 35, 37.5 or 40 hours per week.

For example, a part time regular employee who works on average 20 hours per week in a position normally scheduled for 40 hours, would equate to 0.5 of an FTE, provided the employee worked the entire year. Similarly, a full time regular or non-regular employee in this same position working 40 hours a week for half of the year would also equate to 0.5 of an FTE.

Forecast FTEs are determined as part of the business planning process in a manner similar to that described above. Demand for labour resources are identified and hours assigned to different work programs by job family. There are standard scheduled hours of work for each job family, being 35, 37.5 or 40 hours per week. The hours assigned to the various work programs and the standard scheduled hours of work are used to derive the number of FTEs forecasted for each job family. In some cases forecasted FTEs may be entered directly. In these situations, the associated hours are determined using the scheduled hours of work for the job family. FTE is not a year end determination.

AMPCO Interrogatory #131

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: F4-3-1 Page 7

Preamble: Figure 4 shows temporary FTEs.

a) Please define temporary.

b) Please explain how temporary FTES compare to non-regular FTEs?

Response

a) Temporary FTEs are equivalent to non-regular FTEs. Please refer to L6.6-1 Staff-136(b) for the definition of non-regular FTEs.

b) Temporary FTEs are equivalent to non-regular FTEs.

1. **Labour:** The salary and benefits cost of OPG full-time regular staff, non-regular staff and part-time staff. Base OM&A labour costs are derived using standard labour rates for job families within Nuclear. In addition to base salary and statutory benefits (e.g. EI, CPP), these standard labour rates include a component for pension and other post employment benefits earned by employees for current service (discussed in Ex. F4-3-2) as well as a component for current employee health, dental and other benefits provided during employment.
2. **Overtime:** The incremental pay for work outside of core hours, for example during forced outages or urgent repairs.
3. **Augmented Staff:** External personnel providing specialized expertise (e.g., engineering) to supplement internal capability and/or to fill temporary vacancies.
4. **Other Purchased Services:** The costs of specialized external services, including construction and maintenance services, personal protective equipment, laundry services, and specialized technical services (e.g., nuclear safety analysis, research and development, and specialized testing services).
5. **Materials:** The costs of all consumables, replacement parts, and associated transportation service costs supporting station operations (e.g., ongoing maintenance and repair work).
6. **License Fees:** The cost of licensing-related fees paid to the Canadian Nuclear Safety Commission (“CNSC”).
7. **Other Costs:** Costs for miscellaneous items such as travel and utility expenses (water, sewage, and electricity for administration buildings) and inventory obsolescence provision.

In order to operate the nuclear facilities safely, reliably and efficiently, OPG uses incremental short-term labour resources to address temporary staffing shortages. Incremental labour resources used by OPG include overtime, temporary staff (e.g., non-regular staff) and external contractors. Three primary factors drive the use of incremental short-term labour resources in Nuclear: 1) to meet peak work requirements, 2) to maintain coverage for key staff positions in accordance with licensing requirements, and 3) to complete priority work impacted by short term or unexpected staff shortages due to factors such as temporary

AMPCO Interrogatory #132

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: F4-3-1 Page 7

Preamble: The evidence indicates a new category of employees called "Term Employees" exists.

a) Please provide the forecast number of Term Employees for the years 2016 to 2021 split between Darlington and Pickering.

b) Please provide the budget for the years 2016 to 2021 for Term Employees.

c) Are Term Employee numbers included in the Non-Regular staffing numbers and costs?

d) What specific benefits are Term Employees entitled to?

Response

a) Term employees have not been forecasted in OPG's 2016-2018 Business Plan, as these types of employees will be hired based on OPG assessing staffing requirements on an ongoing basis. As stated in L-06.6-1 Staff-143, currently term employees represent less than 1% of the nuclear organization headcount.

b) See response above in part (a).

c) OPG reports Term employees in the Non-Regular categories of employees. However, no Term employees are included in this application because none have been forecasted for 2016-2021 as discussed in part (a) and none were hired prior to 2016.

d) Term employees accrue sick leave similar to PWU temporary employees at the rate of 0.5 days per month, are entitled to statutory holidays similar to regular employees per the collective agreement, have specific quotas of unpaid time off from work, and receive severance of 2 weeks per year of service. Term employees do not receive health and dental benefits during employment, pensions, other post-retirement benefits, or long-term disability benefits from OPG. Please also see L-06.6-15 SEC-71.

with the detailed headcount FTE and employee costs on page 6, the numbers you are referring to include both regular and non-regular staff, and the headcount reductions in the business plan would be just regular staff.

MS. HARE: What do you mean by "non-regular staff"? Are you talking about contract staff?

MS. BUTCHER: Yes. These would be temporary staff or contract staff.

MS. HARE: Thank you.

MR. MILLAR: I see. Because if you look at line 10, there is a line saying "less all non-regular staff."

MS. BUTCHER: Yes.

MR. MILLAR: Is that who we are talking about there? So if we back those out -- but I guess it might not be allocated all to nuclear operations and projects?

MS. BUTCHER: That's correct.

MR. MILLAR: I had similar questions about the numbers for 2014 and 2015, although those are forecasts, obviously. They don't match up between JT2.33 and the 2013 to 2015 business plan.

Do I take it it would be the same answer for that question?

MS. BUTCHER: I would assume that would certainly be a component of it.

MR. MILLAR: Would there be any other components you would be aware of?

MS. BUTCHER: Not that I can think of now, but again, you may have to ask that in detail to the other panel.

to see is the impact on the deferral balance and the interest cost?

MR. BUONAGURO: Yes, trying to get some sense of materiality.

MR. PUGH: We can undertake to do that.

MR. SMITH: We can do that.

MR. MILLAR: JT2.24.

UNDERTAKING NO. JT2.24: TO PROVIDE A SCENARIO SHOWING RATE SMOOTHING AND MATERIALITY

MR. BUONAGURO: Thank you. We are skimming along quite nicely so far. Issue 6.6 Staff 136.

MS. REES: Okay. I have it.

MR. BUONAGURO: So at part (a) of that response, it says the head count capture in OPG's business plan includes part-time staff and is depicted as of year end. Contract staff is not included in OPG's business plan head count.

I guess so the simple question is why are contract staff not included?

MS. REES: Contract staff are included as a dollar amount in purchased services, but they are not included as a count of employees as they are not employees.

MR. BUONAGURO: Okay. Can you tell me what percentage of that compensation amount relates to contract staff versus employees? Or I guess you are going to tell me I can look at 2 K and find that out?

MS. REES: No, there is no compensation amount for contract staff in the 2K.

MR. BUONAGURO: You don't use the word compensation

SEP Interrogatory #15

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref Exh F2-1-1, p13
“In 2015, actual FTEs were below budgeted FTEs primarily due to higher than planned attrition of Nuclear Operations regular staff, which, because of hiring lags, was managed through the use of non-regular staff, overtime and purchased services.”

a) What is the typical hiring lag for Nuclear Operations regular staff?

b) What is the typical period of time for Nuclear Operations new hires to become “fully competent”.

c) In 2015, what were the total contractor ftes and cost?

Response

a) Integrated fleet staffing plans (including Nuclear Operation) are developed to ensure sufficient resources are available for safe and reliable operation and for the lag time between attrition and recruitment of new hires to be mitigated. Lag time is not tracked as OPG does not necessarily wait for staff to retire before the hiring process begins. The goal is to establish staffing plans to manage the allocation of resources across the nuclear fleet. These staffing plans optimize the resources between sites within key functional areas, and provide the input for yearly external recruitment of staff based on attrition data, to maintain an adequate number of qualified staff.

b) Newly hired Nuclear Operators go through a formal training program of 18 month duration prior to be qualified in the generating unit stream. Following the completion of the standard 18 months formal nuclear operator training, an oral review board is conducted by the operator’s supervisor before the operator is deemed “fully competent” for the minimum complement role and placed on shift.

c) OPG obtains contractor services through non-regular staff, augmented staff and other purchased services.

As per Ex. F2-1-1 Table 3, Nuclear Operations had 670 non-regular staff FTEs in 2015. Augmented staff and other purchased services contractors are not quantified as FTEs.

Base OM&A includes contractor costs for 2015 of $30.2M for non-regular labour,[1] $4.4M for augmented staff and $108.4M for other purchased services (see Ex. F2-2-1 Table 2). Outage OM&A includes contractor costs for 2015 of $19.9M for non-regular labour, $25.8M for augmented staff and $123.3M for other purchased services (see Ex. F2-4-1 Table 3).

[1] The non-regular labour amount is included in the total labour amount as shown in Ex. L-6.1-2 AMPCO-109 (b).

accepted as it is OPG who is responsible for creation and implementation of resource optimization strategies and that the OEB's role is to consider whether resulting costs are appropriate.

Overtime and contractual work arrangements are well within the scope of review of human resources related costs. For clarity, the issue will be revised to:

> 6.6 Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

The IESO submitted that issues 6.7 and 6.8 should not be limited to the nuclear facilities. Both OEB staff and OPG replied that the revision should not be approved as the hydroelectric application is based on the IRM methodology. OPG stated that as the hydroelectric payment amounts will be determined mechanistically, issues 6.7 and 6.8 should only relate to allocated costs for the nuclear facilities.

As the hydroelectric application is based on IRM, the OEB agrees with the OEB staff and OPG reply submissions that the focus of issues 6.7 and 6.8 should be the nuclear business.

7. OTHER REVENUES

No submissions were filed on the other revenues issues.

8. NUCLEAR WASTE MANAGEMENT AND DECOMMISSIONING LIABILITIES

No submissions were filed on issue 8.1 of OPG's draft issues list but an additional issue was proposed.

8.1 Is the revenue requirement impact of the nuclear liabilities appropriately determined?

AMPCO proposed the addition of: *Is the revenue requirement methodology for recovering nuclear liabilities in relation to nuclear waste management and decommissioning costs appropriate? If not, what alternative methodology should be considered?* AMPCO stated that including this issue would be consistent with the previously approved issues list in proceeding EB-2013-0321. In reply, OEB staff stated that it had no concerns. OPG replied that the issue should not be accepted. OPG noted that the methodology for recovering nuclear liabilities was established in the first OPG

Numbers may not add due to rounding

Line No.	NUCLEAR FACILITIES	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	**Staff** (Regular and Non-Regular)	**FTEs**	**FTEs**	**FTEs**	**FTEs**	**FTEs**	**FTEs**	**FTEs**	**FTEs**	**FTEs**
2										
3	**Nuclear - Direct**									
4	Management	578.6	553.1	521.7	573.3	605.8	602.9	606.2	596.0	583.2
5	Society	2,008.5	1,922.2	1,893.7	2,089.7	2,119.0	2,117.1	2,065.9	1,994.4	1,955.1
6	PWU	4,026.9	4,002.4	3,975.2	4,164.9	4,162.8	4,165.6	4,173.2	4,015.4	3,885.7
7	EPSCA	60.2	69.6	94.2	119.6	170.7	172.1	139.6	165.1	213.1
8	Subtotal	6,674.2	6,547.3	6,484.8	6,947.4	7,058.4	7,057.7	6,984.9	6,770.9	6,637.0
9										
10	**Nuclear - Allocated**									
11	Management	382.2	376.0	368.6	353.6	352.7	347.3	339.6	337.6	337.4
12	Society	607.1	625.6	590.3	664.2	665.5	652.8	642.2	638.9	636.9
13	PWU	930.2	882.8	658.0	739.5	708.7	687.6	682.0	666.6	665.9
14	EPSCA	0.0	0.0	12.0	16.0	16.0	16.0	16.0	16.0	16.0
15	Subtotal	1,919.5	1,884.4	1,628.9	1,773.3	1,742.8	1,703.7	1,679.8	1,659.0	1,656.2
16										
17	**NUCLEAR FACILITIES**									
18	Management	960.8	929.1	890.3	926.9	958.5	950.2	945.7	933.6	920.6
19	Society	2,615.5	2,547.8	2,484.0	2,753.9	2,784.5	2,769.9	2,708.1	2,633.3	2,592.0
20	PWU	4,957.1	4,885.2	4,633.2	4,904.3	4,871.4	4,853.2	4,855.3	4,681.9	4,551.5
21	EPSCA	60.2	69.6	106.2	135.6	186.7	188.1	155.6	181.1	229.1
22	Total	8,593.7	8,431.8	8,113.7	8,720.7	8,801.2	8,761.4	8,664.7	8,429.9	8,293.2
23										
24	**Salary & Incentive Pay** (including Fiscal Adjustment)	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**
25	Management	145.8	147.8	144.1	147.2	152.9	153.5	155.0	154.8	153.7
26	Society	318.9	312.9	310.8	348.9	361.0	367.3	363.0	362.1	363.5
27	PWU	502.1	507.0	487.3	535.8	549.1	555.2	565.2	560.4	553.9
28	EPSCA	8.9	10.6	14.3	13.6	19.1	19.3	16.3	19.3	25.0
29	Total	975.7	978.4	956.5	1,045.6	1,082.1	1,095.3	1,099.5	1,096.7	1,096.1
30	**Overtime**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**
31	Management	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	Society	46.8	32.2	36.8	33.1	36.0	35.7	36.8	30.4	24.0
33	PWU	110.5	83.4	89.4	77.5	79.6	78.4	80.3	69.9	54.6
34	EPSCA	1.8	1.9	5.7	1.3	1.8	1.7	1.5	1.6	2.5
35	Total	159.2	117.6	132.0	111.9	117.5	115.7	118.6	101.9	81.1
36	**Benefits** (Current Benefits and Pension & OPEB)	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**
37	Management	57.8	48.7	51.3	50.2	52.6	51.4	51.8	51.6	51.0
38	Society	147.1	117.7	136.3	141.0	145.0	141.7	142.8	142.5	143.1
39	PWU	194.0	174.8	228.6	200.2	201.8	200.0	204.6	203.1	201.4
40	EPSCA	0.5	0.6	1.0	5.1	7.2	7.2	6.1	7.2	9.4
41	Total	399.5	341.9	417.2	396.5	406.5	400.3	405.2	404.4	404.9
42										
43	Current Benefits (Statutory)	56.5	55.6	58.7	56.1	58.2	57.2	57.4	57.5	57.7
44	Current Benefits (Non-Statutory)	48.3	47.5	47.2	63.2	65.1	64.5	64.2	64.0	65.1
45	Pension & OPEB (Current Service)*	294.7	238.8	311.3	277.2	283.2	278.7	283.6	283.0	282.1
46	**TOTAL COMPENSATION**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**	**$M**
47	Management	203.6	196.6	195.4	197.5	205.5	204.8	206.8	206.4	204.8
48	Society	512.8	462.9	483.9	523.0	542.0	544.7	542.6	535.0	530.7
49	PWU	806.6	765.3	805.4	813.5	830.5	833.7	850.0	833.5	809.9
50	EPSCA	11.3	13.1	21.0	20.0	28.2	28.2	23.8	28.2	36.9
51	Total	1,534.4	1,437.8	1,505.7	1,554.0	1,606.1	1,611.4	1,623.3	1,603.0	1,582.2
52										
53	*presented on an accrual basis									

3.0 THE BUSINESS TRANSFORMATION INITIATIVE

3.1 Background

OPG introduced BT in 2011 to develop approaches to reducing staff levels and modifying OPG's cost structure consistent with expected decreases in capacity and energy production in the coming years.

3.2 Business Transformation Objectives

Business Transformation is intended to transform OPG so that it can compete, grow and respond to changing market conditions without compromising continued safe and reliable operations. This transformation is being accomplished through:

- Reducing staff levels by 2,000 employees by the end of 2015. This reduction aligns with expected attrition that is factored into business plan assumptions, and better aligns OPG's staff levels with production and revenue expectations.
- Creating a scalable organization, which is more efficient and effective. This will give OPG flexibility to scale up or down areas of the organization based on changing needs to support various operational units.
- Moving to a centre-led organizational model that allows best practices to be better shared and integrated across the company.

In 2012, the Ministry of Energy announced an Efficiency Review of OPG and engaged KMPG to perform the review. As part of that process, KMPG was asked to identify organizational and structural opportunities for efficiency improvements. KMPG reviewed key aspects of the BT project and reached the following conclusion:

"Based on observations from management interviews, business plans and project plans, KPMG believe that OPG has employed a systematic and structured approach to developing a company-wide transformation plan. OPG has incorporated many leading practices for implementing a large business transformation such as assigning dedicated staff to implement the transformation, establishing a program management office, incorporating change management with a focus of cultural change and incorporating business transformation milestones into executive performance plans."

Demographics and OPG's Business Transformation: OPG has a mature and experienced workforce. By year-end 2016, approximately 20 per cent of active employees will be eligible to retire with an undiscounted pension, with an additional 4 per cent becoming eligible to retire each year thereafter.

OPG has been able to utilize this demographic profile to support its objectives of transforming the business to a more cost effective and sustainable model. As part of Business Transformation, OPG changed its structure to a centre-led matrix organization that required fewer staff to support the production of electricity. By managing staffing reductions through retirements and putting in place vacancy controls, OPG was able to reduce its regular headcount by nearly 2,700 positions between 2011 and 2015 while avoiding costly severance packages and minimizing disruptions associated with the redeployment of staff. While Business Transformation has ended as a discrete initiative, efforts to continually improve and manage OPG's resources are embedded in day-to-day operations and business plans.

4.0 COMPENSATION COSTS

Figure 3 summarizes the compensation costs for OPG's Nuclear facilities for 2013-2021 and reflects the impacts of wage escalation during the test period. The wage increases OPG negotiated in its collective agreements are moderate (i.e., increases below expected inflation), with increases arising as a result of the arbitrated progression catch up and items negotiated in exchange for pension reforms. As discussed further below, the number of FTEs grows between 2015 and 2017 before declining over the remainder of the rate period (2018-2021). This growth contributes significantly to the 2013 to 2021 trend in nuclear compensation costs.

AMPCO Interrogatory #129

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: F4-3-1 Page 5

Preamble: OPG indicates that by managing staff reductions through retirements and putting in place vacancy controls, OPG was able to reduce its regular headcount by nearly 2,700 positions between 2011 and 2015…"

a) Please explain OPG's vacancy controls.

b) Please confirm the date the vacancy controls became effective.

c) Please provide the number of nuclear vacancies in June and December for the years 2013 to 2015 and June and Year to Date for 2016.

d) Please provide the forecast number of nuclear vacancies for the years 2017 to 2021 built into the application.

Response

a) As described in EB-2013-0321, Ex. A4-1-1, p. 5, additional vacancy controls were put in place to support the reduction of staff levels through attrition and associated redeployment activities. These included establishing a gated process for hiring to ensure that company wide internal redeployment was considered before any external hiring was undertaken. The gated process included requiring justification before any positions could be filled externally. This gated hiring process was in place during the Business Transformation initiative between 2011 and 2015.

   Currently, OPG's primary vacancy controls are embedded in the hiring approval process. Standard approval processes require concurrence from both Finance Controllership and HR Business Partners staff before line management approves a request to create a new position and / or fill a position, with CEO approval required to create new Senior Executive and Director level positions.

Concurrence by Finance and the HR Business Partner is in place to ensure budget funding is available and to obtain guidance regarding resourcing options and alternatives (i.e., regular hire, temporary hire, temporary assignment, etc.). This control is an on-going well established practice.

CEO level approvals for Senior Executive and Director level vacancies was put in place in 2014, to control staffing levels for these senior positions.

In recognition of the hiring activity required to support the Darlington Refurbishment Project and Pickering operations as described in Ex. F4-3-1, p. 6, a Resource Planning and Control Team was established to review and approve all staffing requests for the Nuclear business. This includes vacancies associated with regular, temporary and contract positions. This team, and the associated approvals, are closely integrated with OPG's standard approval processes regarding vacancies.

b) Please see part (a) above.

c) The number of vacancies for the month of June and the month of December for OPG's nuclear organization are shown in Table 1 below for 2013 through 2015. These numbers reflect the number of jobs advertised for full time regular positions that were posted internally and externally for that month. Internal job postings target existing employees to fill vacant positions, whereas external job postings target external labour markets to fill vacant positions.

Table 1

Month / Year	Internal	External
Jun 2013	5	0
Dec 2013	1	0
Jun 2014	25	1
Dec 2014	2	0
Jun 2015	259	6
Dec 2015	9	2
Jun 2016	25	24

The number of vacancies in any given month can vary substantially, as indicated by the large number of internal vacancies shown for Jun 2015 in Table 1. In Jun 2015, a number of vacancies were bundled together and included hiring for OPG's Nuclear Operators In Training program, Supervising Nuclear Operators, and Senior Engineering positions.

The number of year to date vacancies for regular positions in OPG's nuclear organization for 2016 includes: 767 jobs that were posted internally and 484 jobs that were posted externally. These year to date vacancies reflect the number of positions that were posted for the first nine months of 2016.

d) OPG does not plan for positions it does not expect to fill, and therefore the rate application reflects only resource levels considered necessary to execute planned work programs.

There are definitions in this interrogatory and interrogatory response that I am hoping you can help me with. Critical positions and critical job families? Can you give me those definitions, please.

MS. REES: Sure. So at OPG we group our jobs into what we call job families, and certain job families have a higher degree of operational impact or criticality. This would be positions like engineers, our operators, and some of our mechanical and control maintenance staff. So those are sort of broad groupings that we use, critical job families.

When we come to critical positions, that could be any position in any job family. It could be a leadership position, it could be a job that's not in the critical job family, but the role itself is very critical, so that's the distinction I would make between a critical job family and a critical position.

MS. BINETTE: So -- and this interrogatory talks about changes and hiring in groups in critical positions and critical job families.

Is there a higher bar for hiring in the other functions that are not critical or not in the critical job families? Is there more approval level required, or is it the same process?

MS. REES: Sorry, is there a higher approval for --

MS. BINETTE: Would you have to go through more levels of approval? Would you have to go to a higher level of approval to hire into positions that are not in the critical positions or critical job families?

MS. REES: No, not a higher level of approval.

MS. BINETTE: Okay, thank you.

MS. REES: You're welcome.

MS. BINETTE: Would you go to page 8, please. This is 6.6 Staff 152, and this is an interrogatory that queried positions that were not benchmarked by towers. And there are 282 Society positions in the general industry category that could not be benchmarked by towers.

And I was wondering if -- could you go to page 9, please. You may have to rotate that, but I am not sure it really matters. The general industry group has different job families. I was wondering if those 282 that could not be benchmarked could in fact be grouped by these job families, or not?

MS. REES: We haven't grouped them, but that could be done.

MS. BINETTE: Could I get that as an undertaking?

MR. SMITH: Yes.

MS. REES: Yes, sorry.

MR. MILLAR: JT 2.29.

UNDERTAKING NO. JT2.29: FOR THE 282 THAT COULD NOT BE BENCHMARKED, TO GROUP THEM BY JOB FAMILIES

MS. BINETTE: Could you go to page 10, please? This is 6.7, Staff 167, and it's interrogatory about corporate costs -- the corporate centre costs, excuse me.

Am I correct that there is a communications function under corporate centre?

Board Staff Interrogatory #143

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: Exh F4-3-1 page 6
The evidence states that "In 2016, staffing levels for OPG's Nuclear facilities are expected to increase by over 600 FTEs due largely to the DRP and, to a lesser extent, the workforce renewal required to sustain Pickering operations."

a) There will be approximately 1,700 external contractors working on DRP.
   i. Please provide more detail on the need for an additional 600 OPG FTEs for DRP.
   ii. If not provided in (i) above, please provide a functional summary for the DRP FTEs, e.g. engineers, business analysts, administrative assistants, etc.
   iii. Please provide the breakdown for the DRP FTEs by management, Society and PWU.

b) Please provide a breakdown on the number of additional FTEs that will be associated with the DRP, and the number of additional FTEs that will be associated with sustaining Pickering operations. Please provide the response as separate line items (i.e. lines for DRP regular and non-regular, and lines for Pickering extended operations regular and non-regular) in the format of Table 3 of Exh F2-1-1 and Attachment 1 to Exh F4-3-1.

c) Will the additional FTEs hired for sustaining Pickering operations be "term employees" as described at Exh F4-3-1 p. 7?

d) Why do the numbers of FTEs fall by approximately 500 from 2017-2021?

Response

a)
   i. The OPG FTEs for the Darlington Refurbishment Program (DRP) are required to fulfill OPG's role as program owner as described in section 3 of Ex. D2-2-2, p. 3.

   ii. See Figure 1 below:

Figure 1 - DRP FTEs by year by Job Category by Representation

Represention	Job Category	2016	2017	2018	2019	2020	2021
MGT	Adminstrative Support	7	10	9	9	9	9
	Business Support	-	2	2	2	2	2
	Engineering	34	43	42	42	42	40
	Operations/Maintenance	13	18	18	18	17	19
	Senior Management	59	74	73	75	69	68
	Technical	-	1	1	1	1	1
MGT Total		**113**	**147**	**146**	**148**	**140**	**139**
SOC	Business Support	30	50	49	47	48	47
	Engineering	118	127	125	125	109	108
	Operations/Maintenance	42	73	81	81	81	83
	Technical	18	31	34	31	29	27
SOC Total		**208**	**280**	**287**	**284**	**267**	**263**
PWU	Adminstrative Support	4	5	5	5	5	5
	Business Support	5	7	7	7	7	7
	Engineering	9	13	15	13	14	13
	Operations/Maintenance	82	125	128	168	158	190
	Technical	41	55	55	53	49	54
	Student	6	6	6	6	6	6
PWU Total		**147**	**211**	**217**	**253**	**238**	**275**
EPSCA Total	Operations/Maintenance	33	102	102	73	102	150
EPSCA Total		**33**	**102**	**102**	**73**	**102**	**150**
Grand Total		**501**	**740**	**752**	**758**	**747**	**828**

1. Includes regular and temporary OPG Nuclear staff supporting DRP
2. Excludes: Augmented staff and support from non Nuclear OPG organizations
3. Numbers may not add due to rounding.

iii. See part a) ii. above.

b) See requested information in format of Ex. F2-1-1 Table 3, in Chart 1:

Chart 1 - Nuclear Staff Summary - Regular and Non-Regular (FTEs)
(format of Exh F2-1-1 Table 3)

Line No.	Group	2015 Actual	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
		(a)	(b)	(c)	(e)	(f)	(g)	(h)
	DARLINGTON REFURBISHMENT:							
	NUCLEAR OPERATIONS:							
1	**Regular Staff**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	**Non-Regular Staff**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	**Subtotal Nuclear Operations**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	DARLINGTON REFURBISHMENT:							
4	**Regular Staff**	329.7	427.6	587.2	599.9	620.5	589.5	597.8
5	**Non-Regular Staff**	60.7	73.5	153.2	152.2	137.4	157.7	230.1
6	**Subtotal Nuclear Generation Development**	390.4	501.1	740.4	752.1	757.9	747.2	827.9
7	**Total Nuclear - Darlington Refurbishment**	**390.4**	**501.1**	**740.4**	**752.1**	**757.9**	**747.2**	**827.9**
	PICKERING EXTENDED OPERATIONS:							
	NUCLEAR OPERATIONS:							
8	**Regular Staff**	0.0	0.0	30.0	76.4	107.0	146.8	967.3
9	**Non-Regular Staff**	0.0	0.0	0.0	0.0	0.0	40.0	171.1
10	**Subtotal Nuclear Operations**	0.0	0.0	30.0	76.4	107.0	186.8	1,138.5
	DARLINGTON REFURBISHMENT:							
11	**Regular Staff**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	**Non-Regular Staff**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	**Subtotal Nuclear Generation Development**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	**Total Nuclear - Pickering Extended Operations**	**0.0**	**0.0**	**30.0**	**76.4**	**107.0**	**186.8**	**1,138.5**

See requested information in format of Ex. F4-3-1, Attachment 1, in Chart 2:

Chart 2 - Nuclear Facilities Staff - Regular and Non-Regular (FTEs)

(format of Ex. F4-3-1 Attachment 1)

Line No.	NUCLEAR FACILITIES	2015 Actual	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2021 Plan
		(a)	(b)	(c)	(e)	(f)	(g)	(h)
	Staff (Regular and Non-Regular)	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
	DARLINGTON REFURBISHMENT:							
	Nuclear - Direct							
1	Management	97.3	113.4	147.4	145.8	147.8	139.9	139.1
2	Society	173.3	208.2	279.9	287.3	284.2	266.7	263.1
3	PWU	93.1	147.0	211.5	217.0	253.0	238.7	275.7
4	EPSCA	26.8	32.5	101.5	102.0	73.0	102.0	150.0
5	Subtotal	390.4	501.1	740.4	752.1	757.9	747.2	827.9
	Nuclear - Allocated							
6	Management	7.5	14.5	14.5	13.5	14.0	13.5	14.0
7	Society	27.8	40.5	43.5	43.5	43.5	40.5	39.5
8	PWU	10.3	28.0	28.0	28.0	28.0	24.0	24.0
9	EPSCA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Subtotal	45.6	83.0	86.0	85.0	85.5	78.0	77.5
	NUCLEAR FACILITIES							
11	Management	104.8	127.9	161.9	159.3	161.8	153.4	153.1
12	Society	201.1	248.7	323.4	330.8	327.7	307.2	302.6
13	PWU	103.4	175.0	239.5	245.0	281.0	262.7	299.7
14	EPSCA	26.8	32.5	101.5	102.0	73.0	102.0	150.0
15	**Total Darlington Refurbishment**	**436.0**	**584.1**	**826.4**	**837.1**	**843.4**	**825.2**	**905.4**

	PICKERING EXTENDED OPERATIONS:							
	Nuclear - Direct							
16	Management	0.0	0.0	0.0	0.5	2.0	11.5	39.2
17	Society	0.0	0.0	5.0	19.7	46.0	94.9	374.7
18	PWU	0.0	0.0	25.0	56.2	59.0	80.3	717.7
19	EPSCA	0.0	0.0	0.0	0.0	0.0	0.0	6.8
20	Subtotal	0.0	0.0	30.0	76.4	107.0	186.8	1,138.5
	Nuclear - Allocated							
21	Management	0.0	0.0	0.0	0.0	1.0	1.5	12.0
22	Society	0.0	0.0	2.0	4.0	19.0	33.0	55.0
23	PWU	0.0	0.0	12.0	12.5	15.0	20.0	43.0
24	EPSCA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	Subtotal	0.0	0.0	14.0	16.5	35.0	54.5	110.0
	NUCLEAR FACILITIES							
26	Management	0.0	0.0	0.0	0.5	3.0	13.0	51.2
27	Society	0.0	0.0	7.0	23.7	65.0	127.9	429.7
28	PWU	0.0	0.0	37.0	68.7	74.0	100.3	760.7
29	EPSCA	0.0	0.0	0.0	0.0	0.0	0.0	6.8
30	**Total Pickering Extended Operations**	**0.0**	**0.0**	**44.0**	**92.9**	**142.0**	**241.3**	**1,248.5**

1. Numbers may not add due to rounding

c) Some of the additional FTEs hired for sustaining Pickering operations will be term employees; however, the number of term employees to be employed has not been determined. Currently, term employees represent less than 1% of the nuclear organization headcount.

d) The decline of approximately 500 FTEs (about 8%) between 2017 and 2021 involves decreases in both regular and non-regular FTE as shown in Ex. F4-3-1, Attachment 1. This decline reflects reduced staffing levels associated with the completion of work programs to enable Pickering continued operations and a decline in outage activity in 2021. While a station-wide Pickering VBO is planned in 2021, non-refurbishment outage work at Darlington is restricted as two units undergo refurbishment. Also embedded in the business plan are staffing reductions for corporate support headcounts associated with achieving a 5% reduction from 2015 planned levels by 2020. Monitoring and control of new hiring as staff numbers fall due to attrition will continue, as well as initiative development and implementation to streamline processes and find new efficiencies to help manage attrition as OPG prepares for the end of Pickering unit operations beyond the IR test period.

Board Staff Interrogatory #140

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:

Ref: Exh F4-3-1 Attachment 1
Ref: 2015 Annual Report of the Office of the Auditor General of Ontario (Dec. 2, 2015)
Nuclear facility FTE increase in 2016 and for the period 2017-2021 are higher than 2015, when Business Transformation concluded.

a) Are any of the FTE added after 2015 former OPG employees?

b) If yes to (a), how many?

c) If yes to (a), was the process described at page 630 of the 2015 Auditor General of Ontario Report (below) followed?

OPG also implemented a new procedure for rehiring of retirees that requires a minimum waiting period of one year between the time an employee retires and when that employee can be rehired, and then only with a maximum contract length of one year. Any such hire must also receive senior management approval. Exceptions may be made to accommodate employees in the nuclear field because of the limited availability of highly skilled workers.

Response

a) The FTEs captured in Ex. F4-3-1, Attachment 1 from 2016-2021 reflect forecast values from OPG's business plan. OPG did not plan for the rehiring of former employees as part of its business planning process. Therefore, the extent to which former OPG employees may form a part of these numbers when the actual hiring takes place over the period is not known.

b) OPG has rehired 85 former employees to date in 2016 (as of Sept 20, 2016). 64 of these former employees report directly to the nuclear organization.

c) The process described in the 2015 Auditor General's report is no longer followed by OPG as of June 2016, when OPG revised its rehiring procedure. The main changes to the rehiring procedure include a reduction to the waiting period and an extension to the working period, both by six months. Please find below a chart summarizing the June 2016 changes to OPG's rehiring procedure.

Chart 1: Summary of Changes to OPG Rehiring Procedure

Provision	Past Re-hire Policy	June 2016 Re-hire Policy
Eligibility Criteria	Individuals who receive a regular pension payment form OPG, were retirement eligible at time of departure from OPG or received a severance package and are returning to work directly.	No Change.
Waiting Period	Must not be employed by OPG directly or indirectly. • **12 months** continuous waiting period; or • **6 months** continuous waiting period for Darlington Refurbishment or Authorized in Learning & Development; or • **6 months** continuous waiting period for Managed Task contracts.	Must not be employed by OPG directly or indirectly. • **6 months** uninterrupted waiting period for all of OPG; and • **No waiting period** for previously certified individuals who are returning to a role where a certification or license is required.
Working Period	Maximum cumulative time working directly for OPG: • **12 months** maximum continuous working period; or • **3 years** for Darlington Refurbishment or Authorized in Learning & Development.	Maximum continuous time working directly for OPG: 1. For retirees: • who took any commuted value pension: **18 months** maximum uninterrupted working period; or • who are collecting a pension: **3 years** maximum uninterrupted working period. 2. For former employees: • who received a severance package: 18 months maximum uninterrupted working period; or • who resigned: working period is defined as per employment contract and provisions of respective collective agreement.
Approvals	Manager Recruitment Hiring Manager Line OAR VP Human Resources ELT	Hiring Manager VP Human Resources Business Partners R2 or Line VP
Exceptions	President/CEO	ELT, SVP PC&C and CEO

ONTARIOPOWER GENERATION

OPG CONFIDENTIAL

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MEMORANDUM

May 21st, 2014

Barb Keenan
SVP People & Culture

Background

In December 2013, the Auditor General (AG) of Ontario released a report on OPG's Human Resources which had a number of findings and six specific recommendations for OPG to address. OPG Senior Management analyzed the AG report and assigned selected findings to a number of ELT members to address. Action plans were drafted, key milestones were developed and individuals were assigned to take responsibility for actions associated with each finding.

One of the overall OPG management actions developed to address the AG findings was for Internal Audit (IA) and/or an independent third party to perform a review of management actions upon their completion. IA took the opportunity to conduct a review of the status of management actions related to the recruitment process in conjunction with its previously scheduled 2014 audit of the Recruit, Select and Hire process.

Objective & Scope

The objective of this review was to verify completion of management action plans, as reported by management in the, "OPG Actions in Response to 2013 Auditor General Report on Human Resources" document, and the underlying supporting documentation.

The scope of this review included management actions pertaining to recruitment, as listed in the table below. Only underlying milestones (associated with the action plans below) declared by management as "complete" as of March 24, 2014 were reviewed as part of this engagement. Milestones under the purview of OPG business units/functions outside of recruitment, e.g. supply chain, were excluded from this review and if required, will be followed up at a future date.

Finding	AG Issue Description Excerpts	Management Action Plans
1b	Staff size has reduced by 8.5% since 2005 but there has been an increase by 58% in senior staff/executive ranks (VPs 74%, Directors 47%) in the same period, with the "most obvious	#2 - Hiring of all Director and above positions (Bands A-F) require CEO approval. Two executive positions have been eliminated by consolidation in Q4 2013 (EVP and Deputy CNO roles).

	period, with the "most obvious jump in 2012 during BT".	
1d	Approximately 700 groups (1,400 employees over 10% of total staff) reside at the same address indicating they were family members. Four employees offered jobs although never appearing on an interview list etc.	#1 - Amend Code of Conduct to clarify expectations regarding hiring policies. Failure to follow policy will result in disciplinary action up to and including termination. #2 - Centralize hiring records. #3 - Centralize OPG's recruitment function to improve process efficiency and improve controls and compliance with the hiring process. #4 - Establish standards and develop education/support materials to aid managers in complying with the hiring policies. #5 - Conduct compliance reviews for both internal and external vacancies starting Q1 2014 #6 - All 700 groups have been analyzed to ensure a valid hiring process was followed.
3a	In 2012, 120 of 1,700 temporary and contract staff had formerly been regular employees. Almost all of them were rehired shortly after leaving OPG. Some of them continued to receive significant amounts in allowances and AIP awards, and some had already drawn commuted value of their pensions	#1 & #3- Conducted a policy review for hiring retirees on a temporary basis. A business rationale is required with approval by the Business Unit Leader and the Senior Vice President, People & Culture. OPG will implement a policy of not hiring retirees for at least twelve months after retiring from OPG.

Results of the Review

This engagement identified the following:

- Milestones were declared by management as complete prematurely, while documentation continued to be in draft form, and processes had yet to be fully implemented. Clear criteria that define completion for each milestone or action plan have not been defined, allowing for multiple interpretations of the status of each action plan or milestone.
- There was lack of well documented assumptions made during the analysis of the 700 groups of employees identified by the AG who reside at the same postal address.
- One instance of a hiring approval form for an executive was authorized by the required approvers after the effective date of the promotion.

e) Nothing in the disciplinary interview process is intended to interfere with the Company's right to investigate matters.

6. Term employees will not be used to circumvent the CPAA and will have the same terms and conditions as regular employees subject to paragraphs 7 and 8 below. Where it is anticipated that trades employees, in the classifications listed in Appendix A of the collective agreement will be required for greater than two years, OPG may utilize Term employees. Otherwise trades employees will be referred through Appendix A.

7. Term employees will be entitled to the following:

a) All wage packages outlined below are subject to negotiated increases in the 2015-2018 Collective Agreement.

Subject to the pay treatment outlined for former OPG employees in receipt of a pension as set out below, Term Employees shall be hired and paid as per the following Wage Schedule:

Band 1 (Term)	**Step 0**	**Step 1**	**Step 2**
	$28.24	$32.87	-----------
Band 2 (Term)	**Step 0**	**Step 1**	**Step 2**
	$31.11	$35.40	$40.02
Band 3 (Term)	**Step 0**	**Step 1**	**Step 2**
	$40.37	$45.74	$51.46

Progressions from step to step will be annual.

Rates include vacation/statutory holiday pay. Deductions from this wage rate for dues, benefit and retirement fund to be remitted in the amounts prescribed by the PWU.

Former OPG Employees in Receipt of a Pension

Former OPG employees in receipt of a pension who are hired into the same classification they occupied prior to leaving OPG will be placed at the band and step at which they left.

Deductions from this wage rate for vacation pay and dues to be remitted in the amounts prescribed by the PWU. These Term employees will be entitled to Statutory Holiday pay as per Part A, Item 7 of the collective agreement.

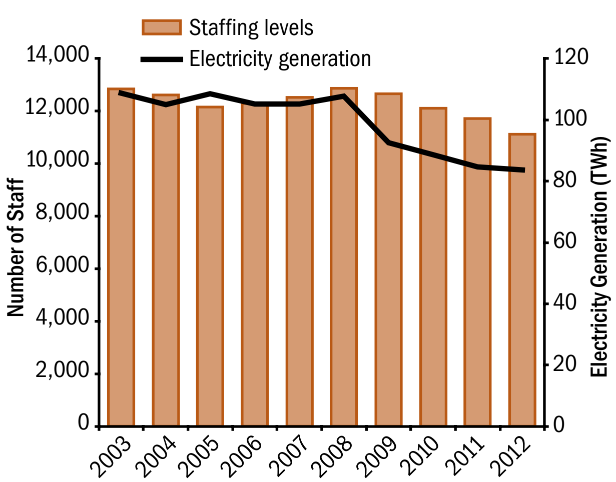
Where Term employees in Trades classifications are not available in sufficient numbers, Term employees anticipated to be employed in a Trades classification for a period of greater than two (2) years will be recruited from the BTUs and will be paid at Appendix "A" rates and classified as Term Employees. Trades employees who are anticipated to be employed for a period of less than two (2) years, will continue to be recruited through the CPAA process and paid at Appendix in new power generation, the amount of electricity generated by OPG has been decreasing steadily. The decline has been sharpest over the past four years, dropping 22%, or from 108 terawatt hours in 2008 to 84 terawatt hours in 2012. Over the same period of time, the number of staff at OPG has decreased by 13%, from about 12,800 employees in 2008 to about 11,100 in 2012 (see Figure 2).

OPG's projections show that the amount of electricity it needs to produce will continue to decrease (see Figure 3). Therefore, the number of staff needed to operate, maintain and support its business activities is expected to drop significantly from 2013 to 2025—by close to 50%. As a result, OPG will need only about 5,400–7,000 staff by 2025. In response to these projections, OPG has initiated a Business Transformation project that is expected to reduce its staffing levels through organizational restructuring over a five-year period (2011–15) and save about $700 million. OPG's target is to reduce the number of its staff by 2,000, going from 11,640 in January 2011 to 9,640 by December 2015.

At the end of our audit fieldwork in April 2013, OPG had about 10,400 staff—a reduction of about 1,200 since January 2011. OPG projected that at its current rate of reducing staff it would meet its staff reduction target by the end of 2015. Beyond 2015, OPG plans to make further organizational changes and assess whether it needs to reduce staffing levels by a further 500 employees as part of its 2016 business planning.

Figure 2: Electricity Generation and Staffing Levels* at OPG, 2003–2012

Source of data: Ontario Power Generation



* These numbers represent year-end staffing levels. They include regular staff and non-regular (temporary and contract) staff but exclude nuclear security staff for reasons of confidentiality.

To avoid having to offer staff costly severance packages, the reductions are to take place through attrition (gradually reducing staff through retirement or resignation) and redeployment (relocating staff to areas where they are required) rather than layoffs. OPG informed us that it decided not to lay off staff en masse because a large number of staff are eligible to retire between 2011 and 2015 and because layoffs would pose difficulties in a unionized environment. For example, the collective agreements in place not only give first refusal for voluntary job termination by seniority, they also provide a displacement right that allows a senior staff member to take over the job of a junior staff member instead of being laid off. If unionized staff exercised those rights, OPG would bear severance costs for junior staff as well as relocation and retraining costs for senior staff. In addition, with many people eligible to retire, staff might stay to take advantage of severance packages equivalent to a maximum of 24 months' salary in the event of a layoff announcement. This would curtail the rate of staff leaving through attrition.

OPG told us that to achieve its staff reduction target and sustain its operations with fewer staff, it has introduced 120 initiatives to improve efficiency and eliminate unnecessary work. OPG also informed us that there is no direct correlation between specific initiatives and attrition—the positions vacated will not match up exactly to the areas in which work has been eliminated.

Although OPG informed us that staff who leave through attrition do not receive packages, we noted that its staff reduction in recent years has still cost a significant amount. There has been a fourfold increase in total severance and termination costs (from about $4 million in 2009 to about $17 million in 2012). The two key components of these costs are retirement bonuses (equivalent to one month and amend controls as needed to ensure compensation is justified and clearly documented.

We acknowledge that OPG pension and benefits are higher than market average. As a result, in 2011, we completed a review of pension and benefit plans to reduce costs and improve sustainability. OPG also participated in a 2012 pension reform committee established by the government, and will be participating in the electricity sector working group, consisting of employer and employee representatives, as announced in the 2013 Ontario Budget.

USE OF NON-REGULAR STAFF AND CONTRACT RESOURCES

Apart from regular employees, OPG's other human resources include non-regular staff (temporary and contract), outsourced information technology (IT) workers, and contractors from private-sector vendors. Of particular concern to us were OPG's practice of rehiring former employees, the IT outsourcing arrangement, and management of nuclear contractors.

Rehiring Former Employees as Temporary or Contract Staff

There were approximately 1,700 temporary staff and contract staff working for OPG in 2012. We noted that about 120 of them had formerly been regular employees. In our review of a sample of temporary and contract staff who were former employees we found that most had been rehired mainly for the purpose of identifying, grooming and training successors or meeting core business needs, suggesting that knowledge transfer and succession planning at OPG has not kept pace with attrition and retirement. We also found that almost all of them had been rehired shortly after leaving OPG. Some of them continued to receive significant amounts in allowances and Annual Incentive Plan (AIP) awards, and some had already drawn their pensions in single lump-sum payments upon leaving. We noted in particular:

- An employee who chose to receive his pension in a lump sum was rehired by OPG shortly after he retired and continued to work at OPG for about six years. His total earnings in his sixth year as a temporary employee were $331,000, which included an executive allowance of $12,000 and an AIP award of $98,200—double his annual amount as a regular employee.
- Another employee who chose to draw his pension in a significant lump sum returned to work at OPG a month after his retirement. His total earnings that year as a temporary employee working three days a week were $328,000, which included an AIP award of $147,000 for his performance before retirement.
- Shortly after leaving OPG, two nuclear employees who chose to receive their pensions in lump-sum payments were rehired as contract employees.

We also found that selection processes and decisions to rehire former employees were not always transparent:

- All the temporary staff in our sample had been selected and rehired by executive or senior management staff without job postings or competitions. OPG explained that these were unnecessary because only former employees would have been suitable for the positions. Most of their original contracts were extended beyond 12 months with only a one- or two-page document attached indicating the contract length and terms but without specifying why the contract needed to be extended.
- For the contract staff in our sample, justifications for extending contracts beyond 12 months had been documented, but no evaluations were kept on file. OPG explained that these were unnecessary because contract employees who did not perform satisfactorily could have their contracts terminated without any significant notice period or penalty payment.

Many of the respondents to our survey expressed concerns similar to ours. They felt that rehiring former employees on an ongoing basis was an indication of poor succession planning. They also felt that better processes should have been put into place to capture the knowledge and experience of retiring staff; to identify and train their successors with sufficient lead time for the transition; and to avoid "double-dipping" by former employees who had withdrawn their pensions in lump sums upon leaving OPG only to return and earn a salary again.

In response to the above concerns, OPG indicated that it was necessary to hire former employees and to pay them at higher rates because it was difficult to find people with the right skills to fill the positions right away, and that it could not influence employees who wished to draw their pensions in single lump sums before returning to work at OPG because this was a personal choice.

Outsourcing of Information Technology Services

OPG has been outsourcing its information technology (IT) function to the same private-sector vendor since February 2001, after it conducted a competitive process and signed a 10-year (February 1, 2001–January 31, 2011), $1-billion contract with the vendor. They formed a joint venture (ownership: 51% vendor and 49% OPG) for delivering IT services to OPG, and 684 OPG employees (about 400 unionized) were transferred to the joint venture. A little over a year later, in March 2002, OPG accepted the vendor's offer of purchasing OPG's share of joint venture ownership.

In March 2007, OPG reviewed its existing outsourcing arrangement and decided to end the contract early in October 2009 and then renew it with the same vendor without competition for a term of six years and four months (October 1, 2009–January 31, 2016) at $635 million. Including the durations of the original and renewed contracts, the total contract length is 15 years.

Although OPG did not go through an open-competition process, its management did prepare a "single-source justification" form, which indicated that renewing the contract would avoid transition costs of $25 million and save $105 million from 2009 to 2015, and identified labour relations as a factor that would make switching to a new vendor unfavourable. OPG informed us that if it stopped using the current vendor, it would have an obligation to reimburse the vendor for severance costs associated with about 270 staff who are former OPG employees. We note, however, that OPG is still responsible for the severance costs whenever these staff leave the vendor's employ (for example, by being laid off or retiring)—staying with the current vendor simply means the severance payout will not be immediate.

OPG's management submitted its proposal to renegotiate and renew the contract with the current vendor to its Board on October 1, 2009, and received approval on the same day. However, only after it received this approval did OPG start looking for consultants to validate and endorse the proposal. Two consultants were engaged on October 6, 2009, and issued their final reports within a week.

There are good reasons for public-sector organizations to use open competition rather than non-competitive approaches. Through open competition, organizations can determine a fair market price for the goods and services they require when a variety of suppliers submit competitive bids, and this also helps demonstrate accountability and ensure value for money. In addition, competition eliminates risks associated with over-reliance on a single supplier and minimizes the perception of conflict of interest. By single-sourcing its IT services, OPG did not take full advantage of these benefits.

Time Reporting of Nuclear Contractors

OPG uses Oncore, a web-based time management system, to track the hours and costs of nuclear contractors. It uses a three-step process to do this:

Ontario Power Generation

CHRC Briefing

December 14, 2011

TOWERS WATSON

Executive Summary

- The analysis confirms the belief and quantifies the extent to which OPG's P&B plans are unsustainable
  - Under the status quo the threshold levels for all metrics chosen to assess sustainability are exceeded
- Initial set of six interventions analyzed have potential to provide significant financial benefit (growing to roughly 3% of Gross Revenue; $1.3B cumulative over 15 years) but do not move P&B plans to a fully sustainable position
  - Three interventions are within management control and are being pursued for implementation through the BTS
  - Further three interventions requiring negotiation are being used to influence labour negotiation strategies
  - Beneficial effect of additional interventions identified by the work teams are being evaluated
- Consistent with prior CHRC discussions, significant changes to P&B design and program management will be required to improve sustainability
  - Long term strategy will require aggressive pursuit of significant design changes through a variety of channels, supported by critical cost reduction approaches through plan management

Pension and Benefit Sustainability Project Update

- **Overview**
  - 5 Work Teams: Program Design, Program Management, Business Model, Stakeholder Management and Sustainability
  - Programs in scope: Registered Pension Plan, Supplemental Pension Plan, Active Benefits and Post-Retirement Benefits
- **Work Completed**
  - Developed a stochastic financial model to assess current state
  - Defined a set of measures and thresholds against which to evaluate and monitor sustainability
  - Considered business impact of exceeding the thresholds
  - Obtained feedback and positioning from work teams and project sponsors
  - Assessed impact on sustainability of a set of potential program interventions
    - Integrating implementation of program management interventions into related Business Transformation Strategy (BTS) initiatives
    - Using program design interventions that require negotiated solutions to influence Labour strategies

Defining "Sustainability" Measures and Thresholds

The following financial metrics were determined to be the most appropriate, most transparent and comparable to available benchmarks:

1 P&B Cash should not exceed 10% of Gross Revenue

- Cost of P&B trending well above upper threshold and further increases must be limited
- Significant P&B cash requirements is drawing funds away from core business needs

2 P&B Cash should not exceed 40% of Operating Cash Flow before CapEx (1)

- Cannot allow P&B cash requirements to impair CapEx spend; tested on a three-year average to allow for ebbs and flows in business financials
- 40% is an upper end limit – external proxy analysis indicates majority of companies in lower range of 5% to 40% (OPG cash requirements currently above 50%)

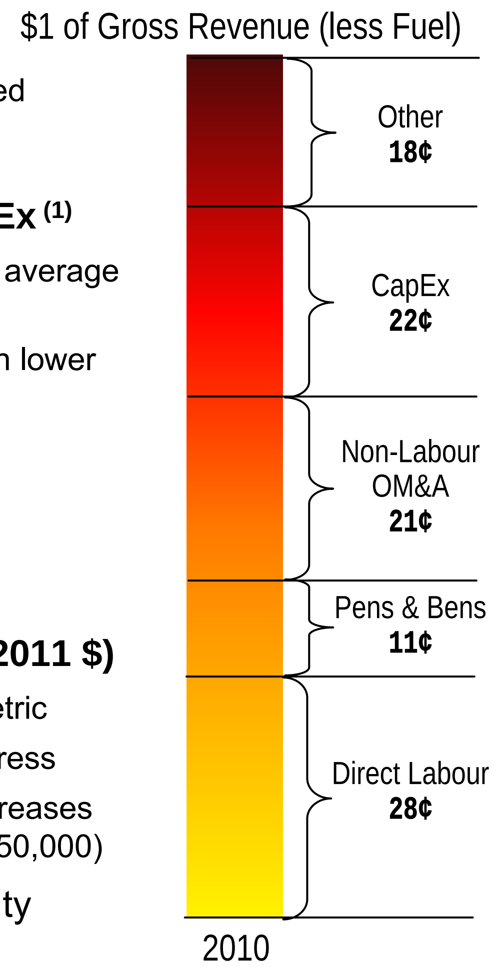
3 P&B Expense should not exceed 35% of EBIT (1)

- P&B expense is currently well above 35%, but expected to decline to 30-35%
- 35% selected as upper end limit based on current business plan approach

4 P&B Expense should not exceed $50K per active employee (constant 2011 $)

- From stakeholder (OEB, public, union, employee) perspectives, an easy-to-follow metric
- Management of per capita P&B costs may be a critical means of demonstrating progress
- $50,000 selected as a level in line with current costs and as a point where further increases in average costs would be viewed adversely by broader publics (OPG has crossed $50,000)

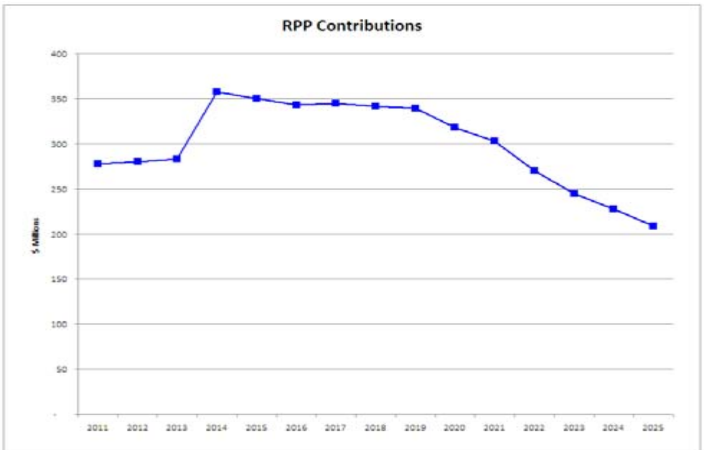
- Additional metrics defined which may be used to better illustrate sustainability thresholds depending on stakeholder audience provided in Appendix A



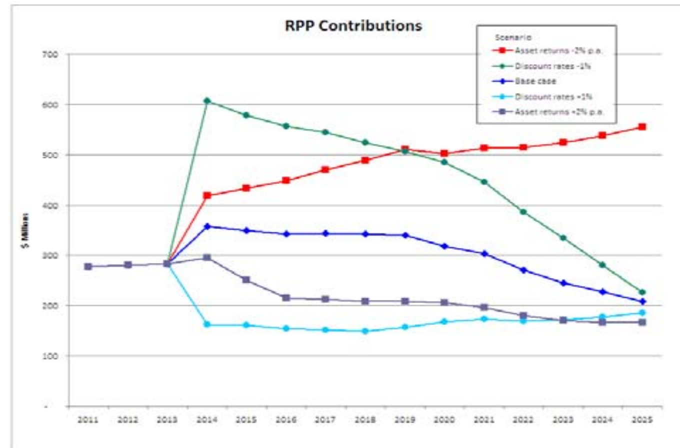
Notes:
(1) For purposes of the P&B Review, the terms "Operating Cash Flow Before CapEx" and "EBIT" above are determined before the direct financial effect of the P&B program costs (that is, they represent the value in the absence of P&B plans) – in OPG financials, these values are determined after adjusting for P&B program costs.

Approach to Building Stochastic Projection Model

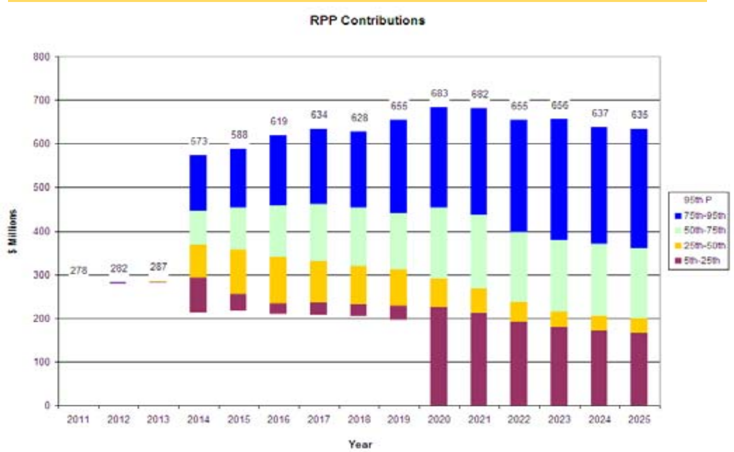
Basic Deterministic Pension Model (Business Plan)



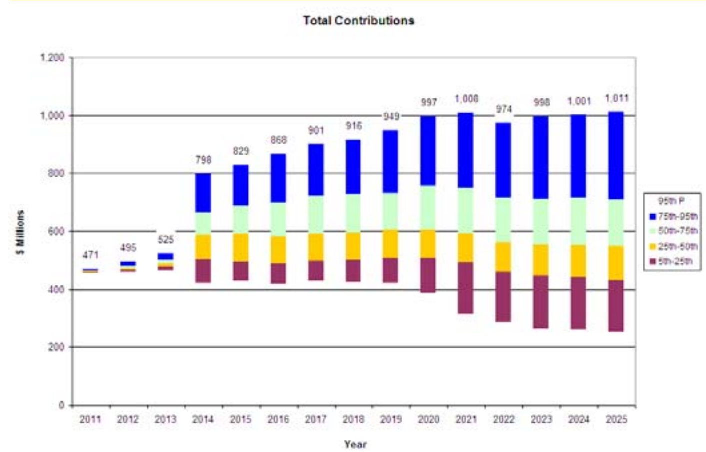
Alternative Deterministic Pension Scenarios



Stochastic Pension Forecast

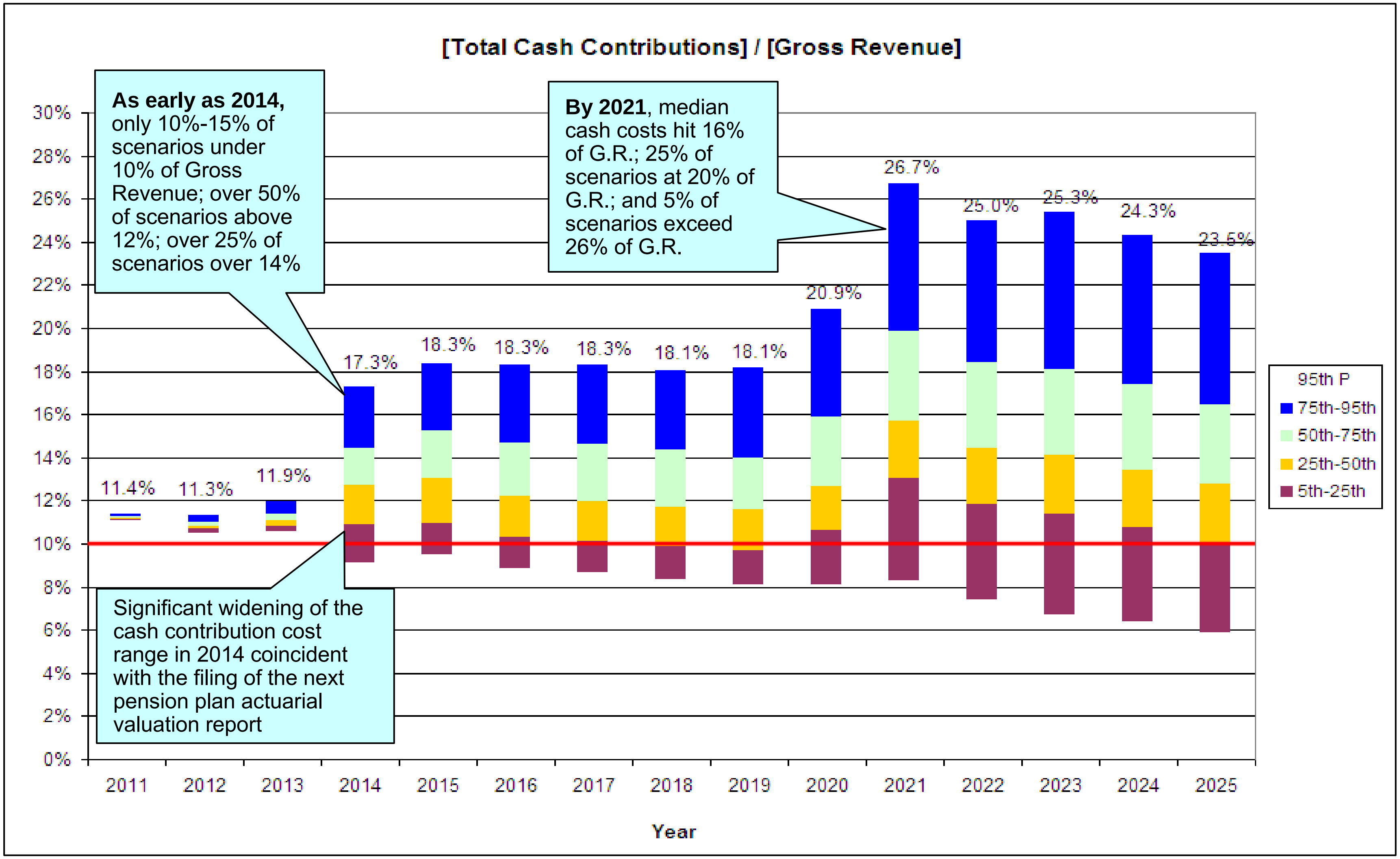


Extend Stochastic Forecast to All P&B Programs



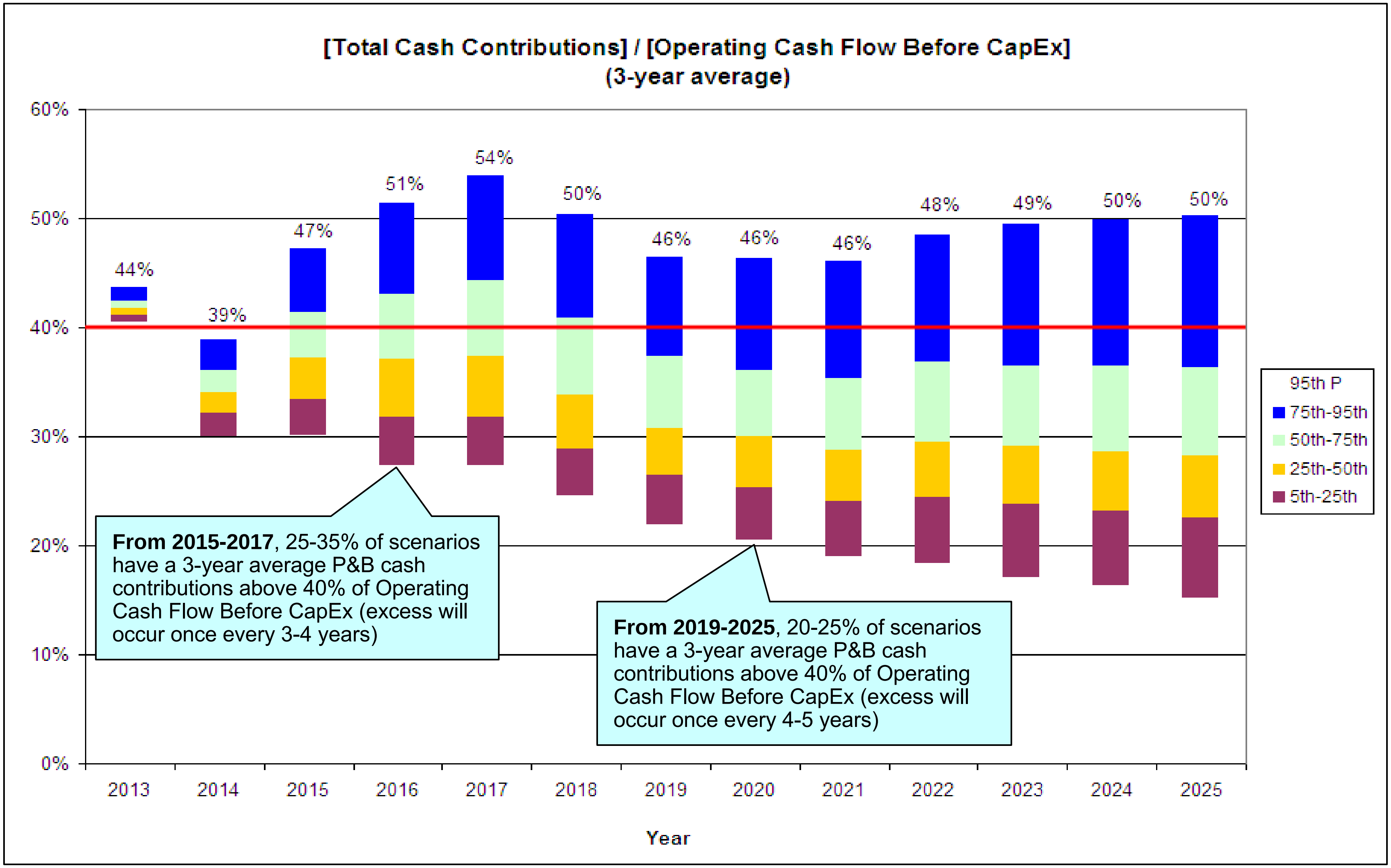
Metric #1 – P&B Cash Should Not Exceed 10% of Gross Revenue

- Starting in 2014 (after next pension valuation), more than 75% of scenarios show cash contribution requirements above 10% of gross revenue each year



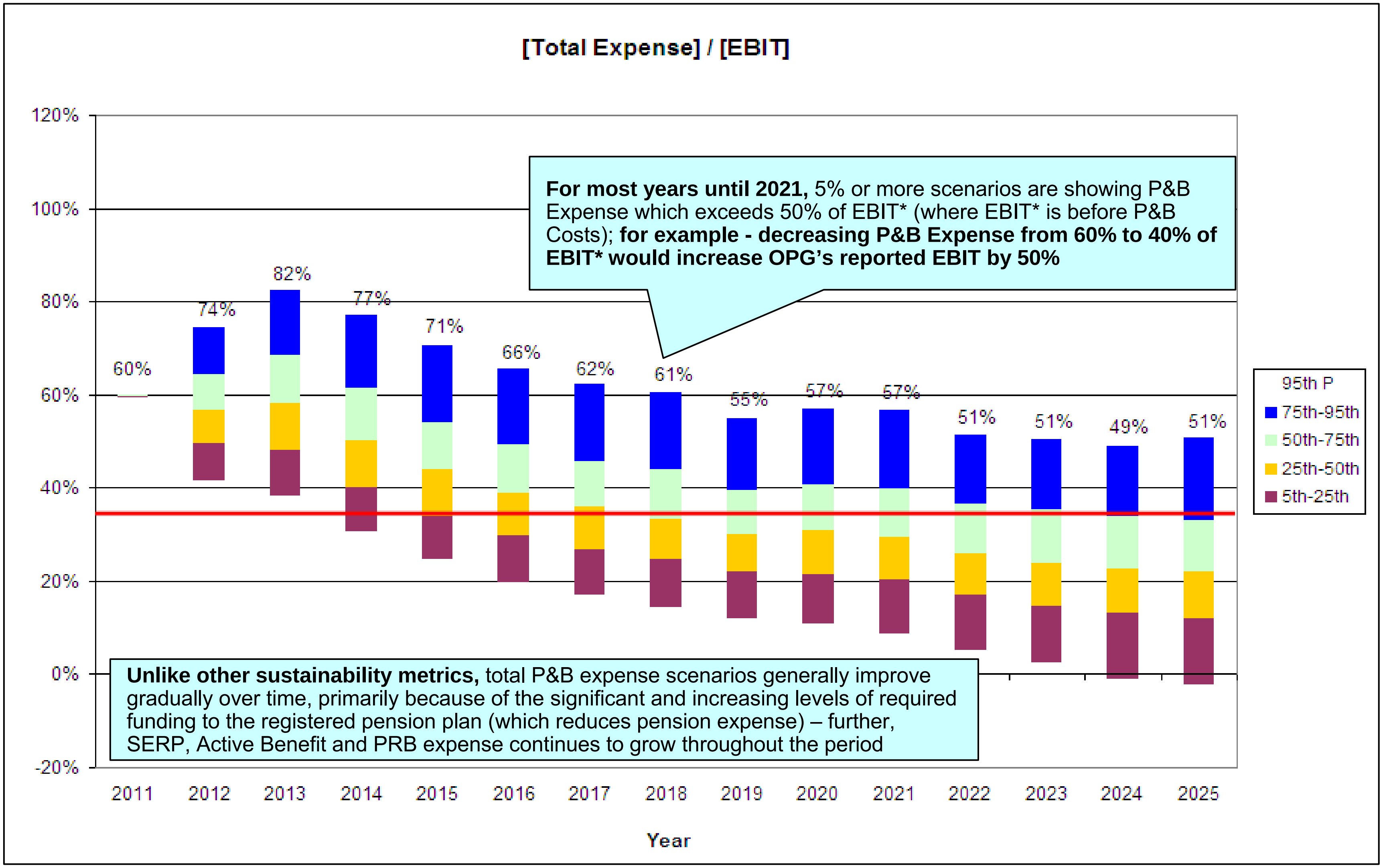
Metric #2 – P&B Cash Should Not Exceed 40% of Operating Cash Flow Before CapEx

- Cash contributions represents over 40% of Operating Cash Flow before CapEx in 20-35% of scenarios for entire projection period



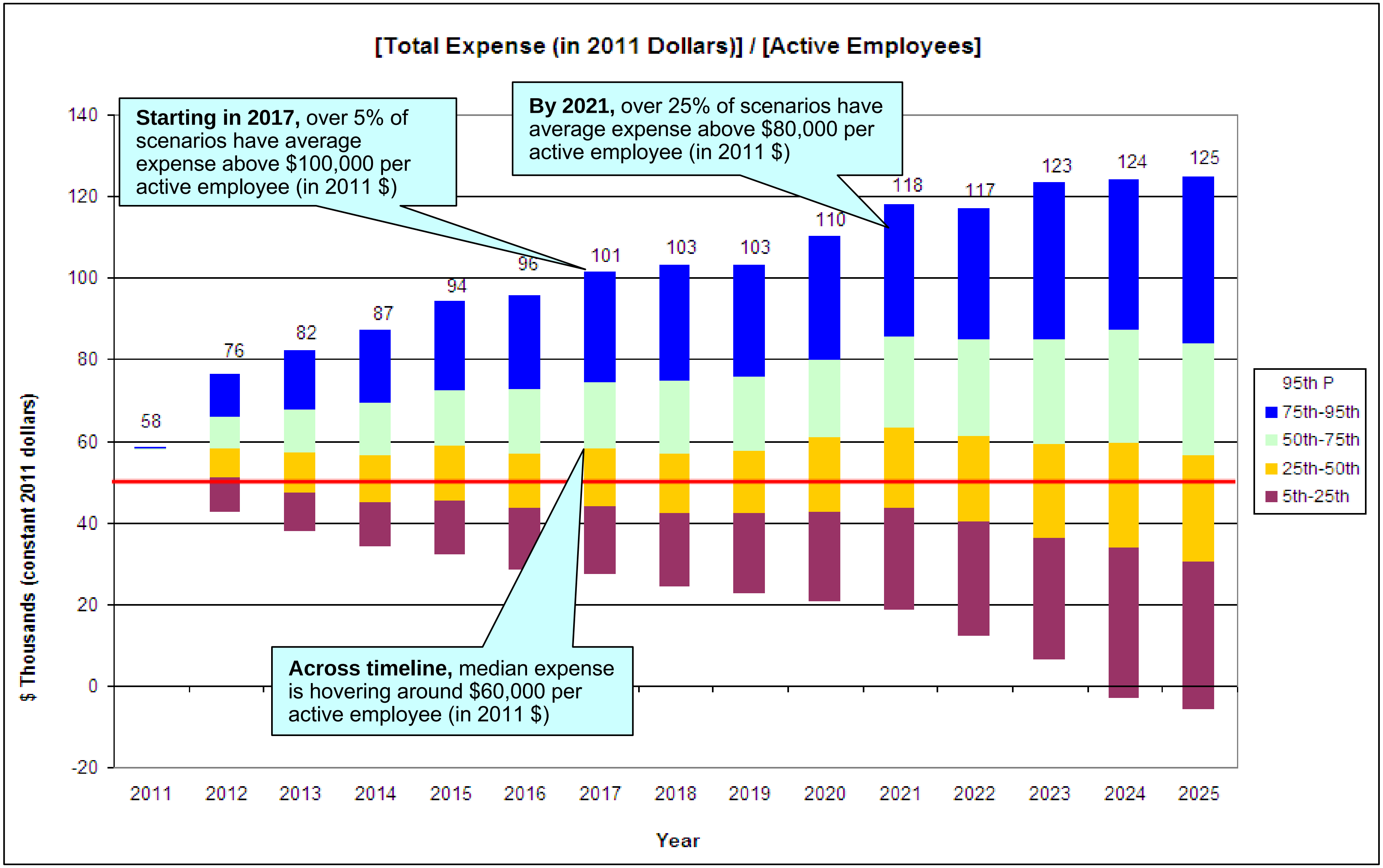
Metric #3 – P&B Expense Should Not Exceed 35% of EBIT

- Projected ratio of P&B expense to EBIT is expected to gradually reduce over time, primarily due to significant contributions to pension plan



Metric #4 – P&B Expense Should Not Exceed $50K Per Active Employee (const. 2011 $)

- Median per capita expense stays at $60,000 for projection period, with 25% of scenarios having per capita expense above $80,000 (constant 2011 dollars)



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Business Alternatives if Cost Thresholds Exceeded

- Non-P&B alternatives to address financial shortfalls were reviewed and found to be insufficient – certain options may provide short-term tactical relief

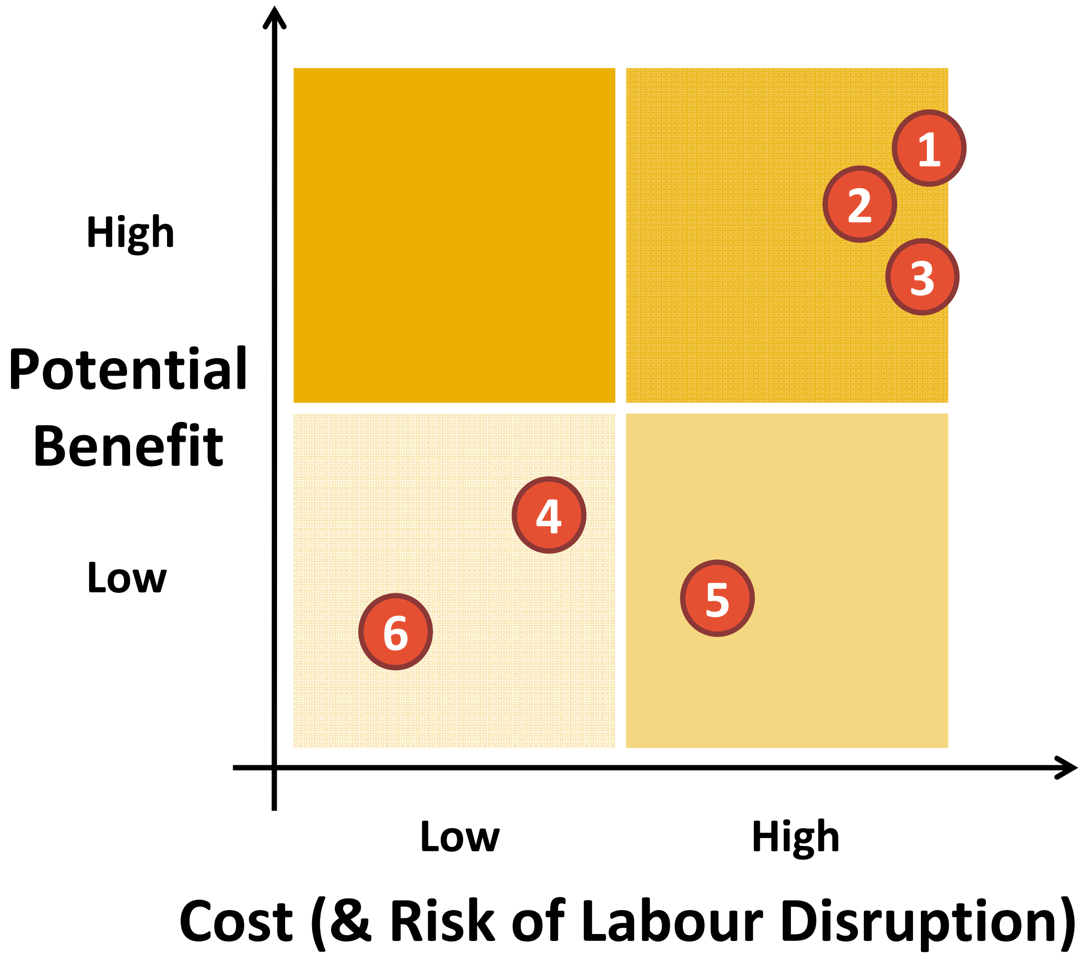
Alternative	Assessment/Impact on OPG's Business
Reduce Capital Expenditures	• CapEx includes sustaining and developmental expenditures (other than significant builds/refurbishments) – reductions would impair future power generation and/or value of OPG assets; not viable to reduce CapEx and deliver on OPG business strategy • Supplemental CapEx funds would require OEB approval (cost borne by rate payers)
Obtain Additional Capital via Shareholder	• Notwithstanding a common belief by many employees and other stakeholders that the government will backstop all financial shortfalls at OPG, Ontario government has provided no explicit commitment for any such funding
Increase Level Of External Financing	• Potential adverse implications on OPG's credit rating (and total cost of credit) • Credit rating agencies would expect increased levels of Free Cash Flow to maintain higher coverage ratios and support higher debt servicing costs (not in current OPG business plan)
Earn Better Fund Returns / Revise Pension Asset Mix	• Market movements and/or significant correction will not provide sustained financial support • Asset mix changes to generate higher expected returns would significantly increase risk/volatility • Incremental fund returns provides no relief for SERP, PRB and Active Benefits
Implement Workforce Reduction	• Longer term cash costs and expense can be reduced with reduced headcount; however, implementation costs usually exceed savings in the first year or two years • Reduction programs constrained by collective bargaining agreements • Limitation to total cost savings which can be achieved by workforce reduction before business is impaired (reduction of headcount in regulated segments also affects revenue)
Eliminate Certain Internal Non-Labour Programs	• Limitation to total cost savings which can be achieved by reducing/eliminating internal non-labour programs (significant amount of re-evaluation already implemented)
OEB Rate Increase	• Roughly $200M p.a. of additional revenue equates to roughly 70¢ increase in average monthly consumer hydro bill; OPG faces significant challenges in getting new OEB increases approved
Asset Sales / Service Spinoffs / Shutdown	• If counterparties exist, could sell/spin off certain services or power generation assets; significant asset sales/shutdowns will have workforce implications and will adversely affect future OPG revenue stream

Recap of Current State

- A number of current cost levels exceed the thresholds which OPG views as necessary to maintain a sustainable business (across all key measures)
- The risk of costs escalating far beyond an affordable level is very plausible
- OPG is operating within a period of relative P&B cost stability until the next pension plan actuarial valuation report is filed in 2014
  - This provides a limited window to achieve selected changes in program management and plan design as the first phase of an overall strategy to reign in P&B costs
- Overall change strategy needs to recognize the reality of labour negotiation dynamics and related bargaining capital required for implementing changes
- Negotiation strategies and mandates must carefully evaluate impacts on P&B costs

Pension and Benefit Interventions

- Set of initial interventions analyzed/evaluated to assess their impact on sustainability

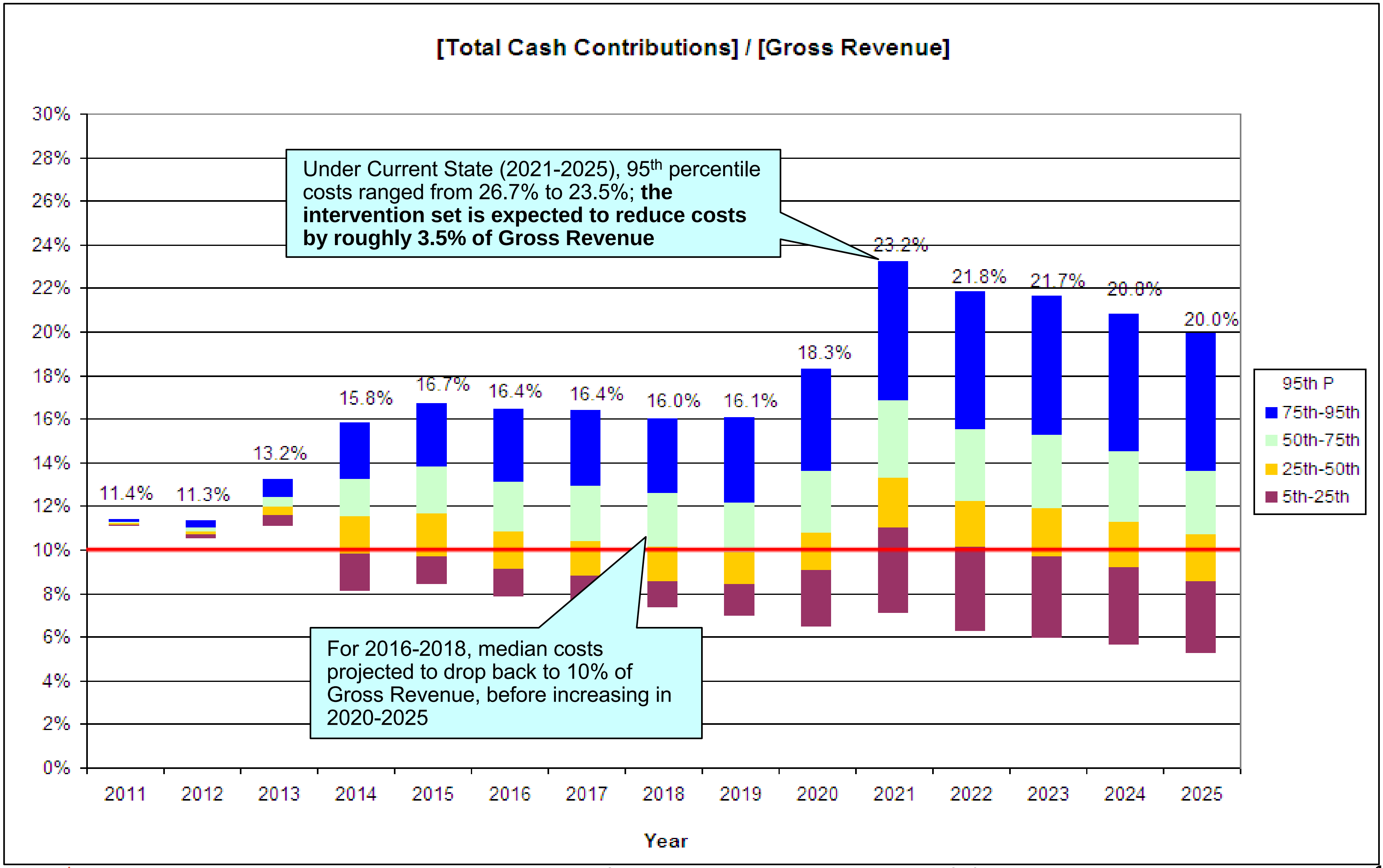


Legend (N → Negotiation Required)	
1	**Program Management:** Exclude portion of future wage increases from pensionable earnings N
2	**Benefits Design:** Implement changes to benefit program to generate savings in active/PRB cost structure N
3	**Pension Design:** Change 82/84 Points Rule to instead require 55 with 90 Points to collect unreduced pension N
4	**Program Management:** Implement more efficient Rx delivery methods/networks
5	**Program Management:** Voluntary settlements for post-retirement benefits
6	**Program Management:** Reduce vendor costs and obtain more accurate/efficient claim adjudication

Notes:
(1) For purposes of this phase of the P&B Review, all interventions were assumed to take effect January 1, 2013 in respect of past and future service for all members; in practice, certain provisions would need to be negotiated and/or may require notice to unions and members; grandfathering rules may also be required.

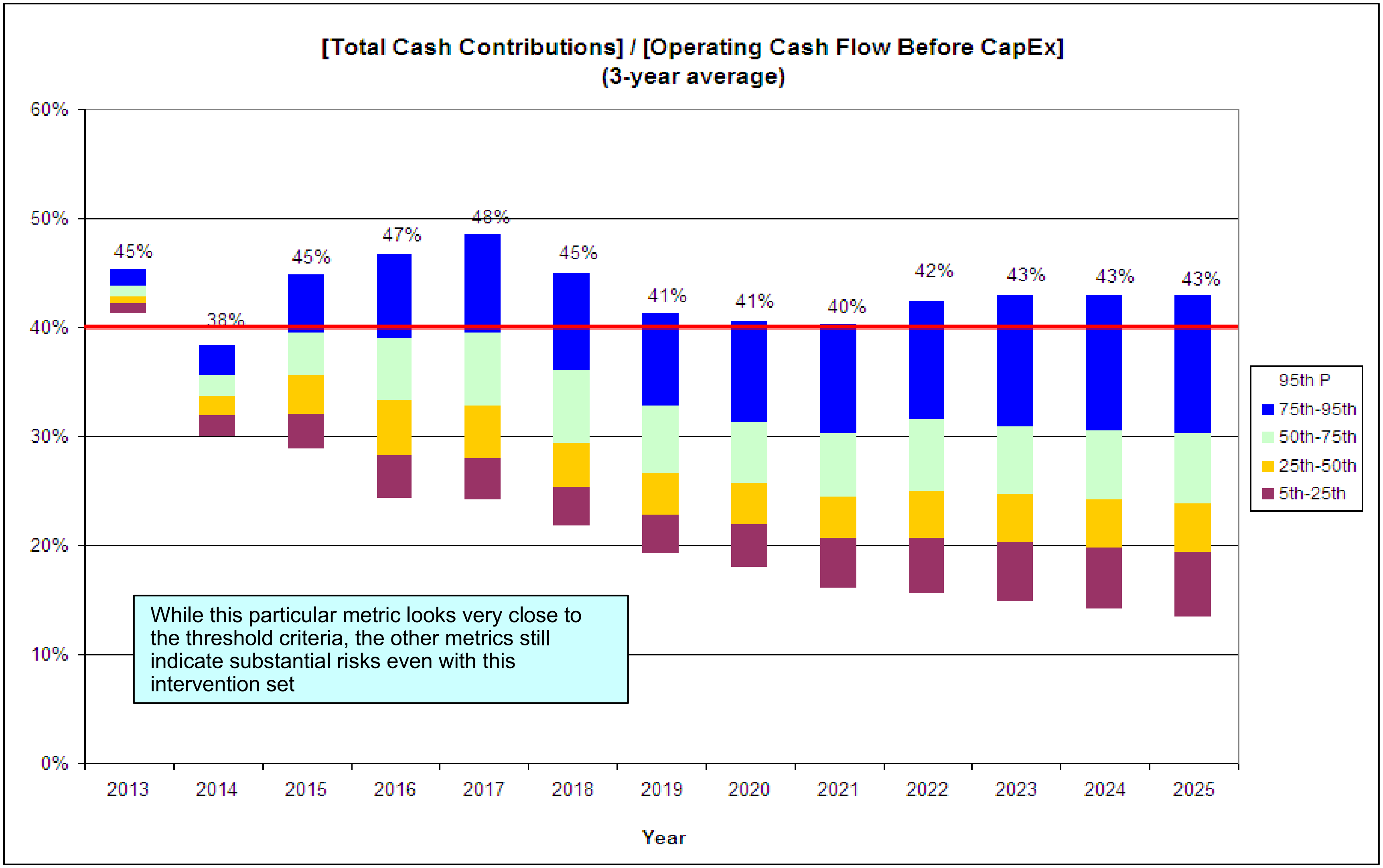
Metric #1 – P&B Cash Should Not Exceed 10% of Gross Revenue (with Initial Interventions)

- While 95th percentile cost ratio is still above 20% over long term, median costs are approaching the 10% level



Metric #2 – P&B Cash Should Not Exceed 40% of Operating Cash Flow Before CapEx (with Initial Interventions)

- 95th percentile ratios moved from 46-50% to 40-43% for most years



Dashboard and Assessment of Initial Intervention Set

- At 95% confidence, initial intervention set expected to generate cost reduction of 2-3% of Gross Revenue (5-7% of Operating Cash Flow Before CapEx)
- Further analysis required to augment intervention set

Pension & Benefits Dashboard																
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1 -- Total P&B Cash Contributions < 10% Gross Revenue														Threshold:		10%
95th P	Current State	11%	11%	12%	17%	18%	18%	18%	18%	18%	21%	27%	25%	25%	24%	23%
95th P	Alternative	11%	11%	13%	16%	17%	16%	16%	16%	16%	18%	23%	22%	22%	21%	20%
75th P	Current State	11%	11%	11%	14%	15%	15%	15%	14%	14%	16%	20%	18%	18%	17%	16%
75th P	Alternative	11%	11%	12%	13%	14%	13%	13%	13%	12%	14%	17%	16%	15%	15%	14%
2 -- Total P&B Cash Contributions < 40% Operating Cash Flow before CapEx (3-Year Average)														Threshold:		40%
95th P	Current State				39%	47%	51%	54%	50%	46%	46%	46%	48%	49%	50%	50%
95th P	Alternative				38%	45%	47%	48%	45%	41%	41%	40%	42%	43%	43%	43%
75th P	Current State				36%	41%	43%	44%	41%	37%	36%	35%	37%	37%	36%	36%
75th P	Alternative				36%	39%	39%	40%	36%	33%	31%	30%	31%	31%	30%	30%
3 -- Total P&B Expense < 35% of EBIT														Threshold:		35%
95th P	Current State	60%	74%	82%	77%	71%	66%	62%	61%	55%	57%	57%	51%	51%	49%	51%
95th P	Alternative	60%	75%	70%	68%	61%	56%	52%	51%	45%	47%	45%	42%	43%	42%	42%
75th P	Current State	60%	64%	68%	61%	54%	49%	46%	44%	40%	41%	40%	37%	35%	34%	33%
75th P	Alternative	60%	65%	56%	54%	47%	42%	38%	36%	32%	33%	32%	28%	28%	27%	26%
4 -- Total P&B Expense < $50,000 Per Active Employee (in constant 2011 $)														Threshold:		50
95th P	Current State	58	76	82	87	94	96	101	103	103	110	118	117	123	124	125
95th P	Alternative	59	77	70	77	83	82	86	87	86	91	96	96	102	104	104
75th P	Current State	58	66	68	69	72	73	74	75	76	80	85	85	85	87	84
75th P	Alternative	58	66	55	61	63	61	63	62	62	65	68	66	69	70	67

Next Steps

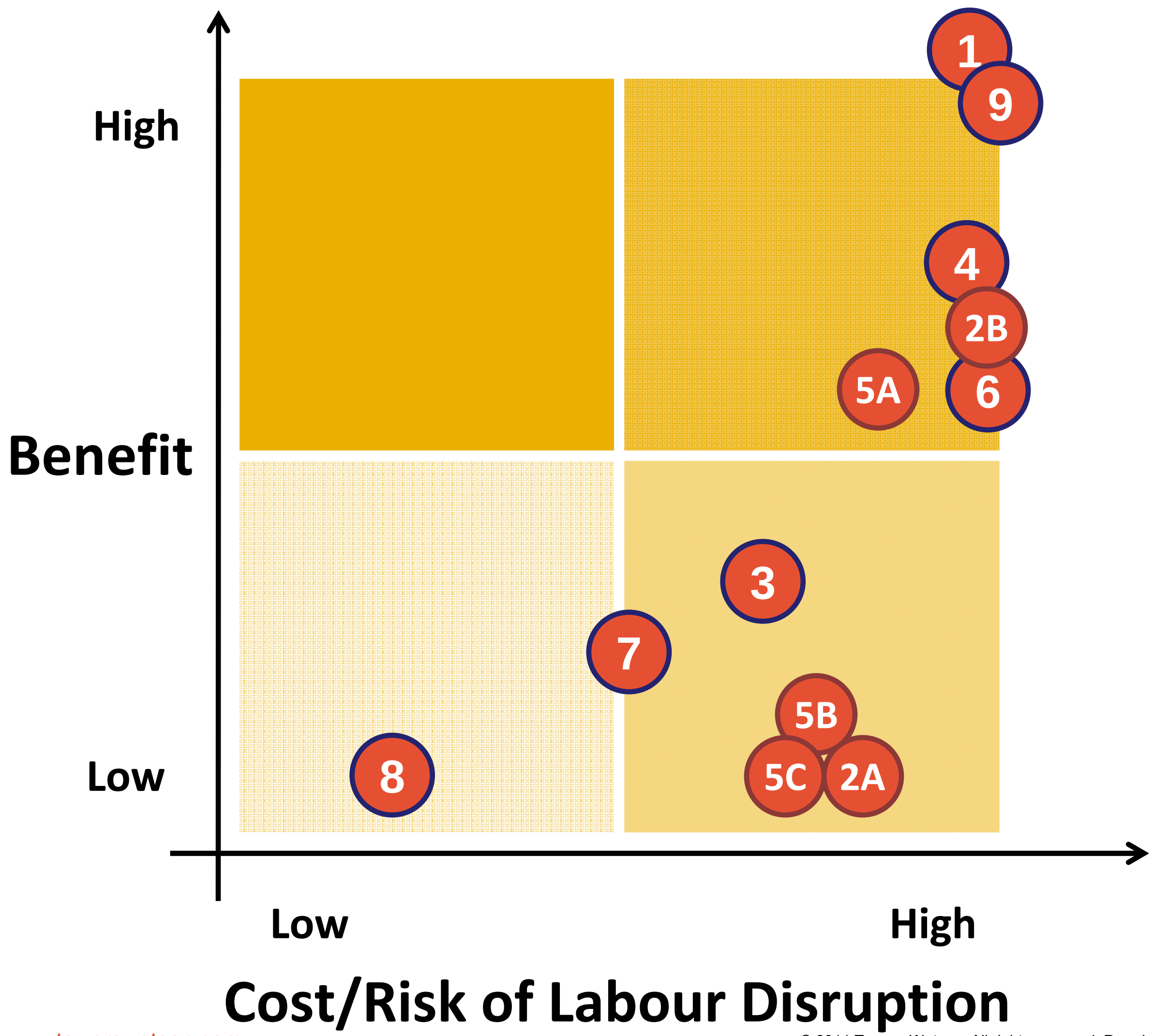
- Continue intervention evaluation through the sustainability model
  - Refine analysis of sustainability measures, thresholds, confidence levels and current state
  - Extend analysis to incorporate additional interventions with a view to identifying the most feasible set of interventions to maximize degree of sustainability
  - Estimate cost of execution for identified interventions
- Refine stakeholder management and education plan and integrate messaging with BTS
- Utilize the analysis and outcomes to influence longer term strategies
  - Coordinate sequencing, timing and impact of the three interventions within management control with other BTS initiatives
  - Inform BTS decisions around approaches to achieving staffing targets
  - Continue to manage Union attempts to improve programs over the long term
  - Use the three interventions which require negotiation to influence Labour negotiation strategy

Appendix A – Other Sustainability Measures to Monitor

The following sustainability metrics will also be monitored and may be used in key stakeholder communications:

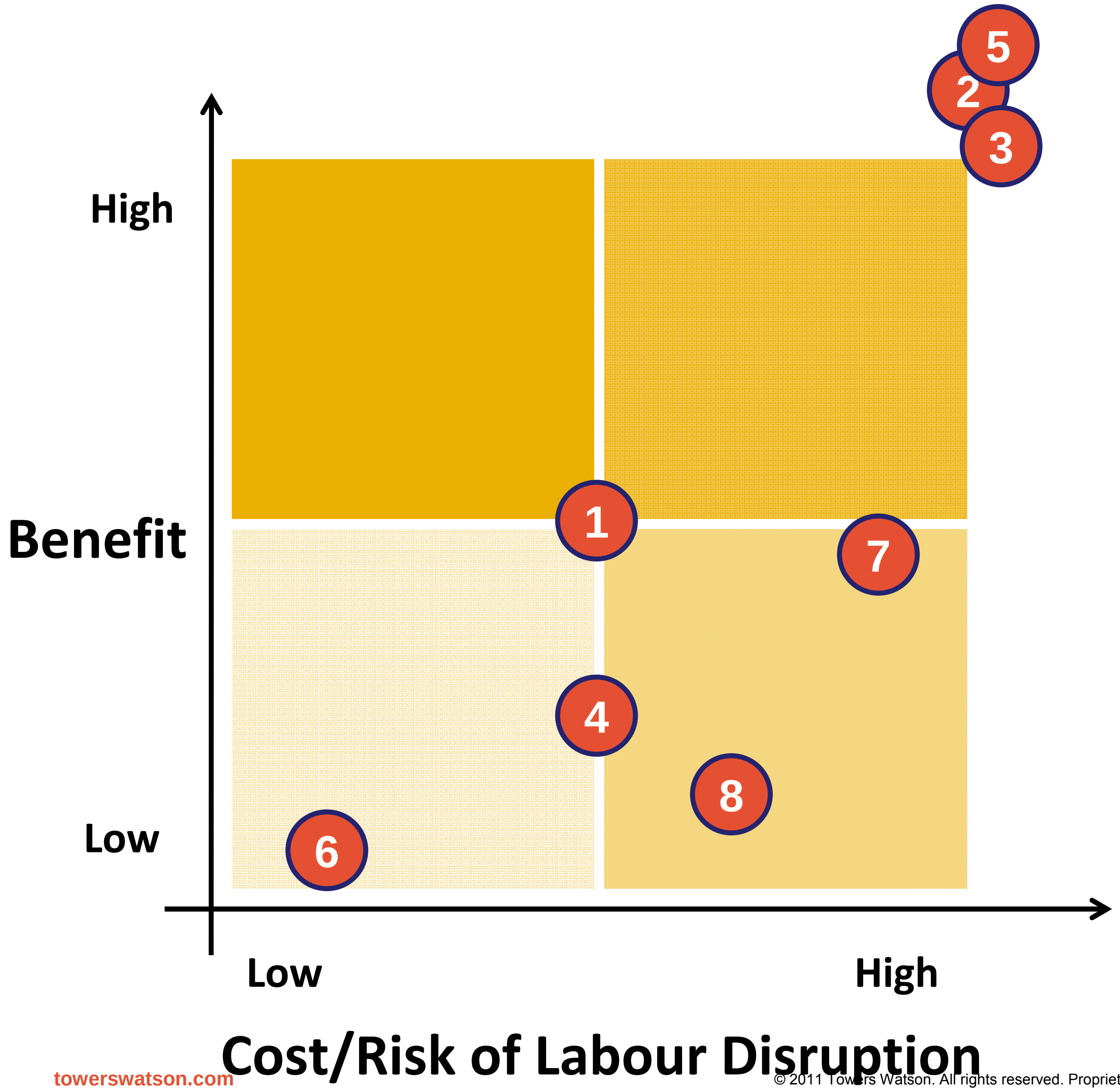
- **P&B Cash should not exceed 100% of Operating Cash Flow after CapEx**
  - Operating Cash Flow cannot be depleted after making for provision for CapEx and providing cash requirements for P&B
- **P&B Expense should not exceed 60% of Payroll**
  - P&B burden needs to be managed especially in conjunction with the management of overtime/etc.
- **P&B Cash should not exceed $6M per TWh**
  - P&B program spending should remain in line with OPG's overall cost of power production
- **Pension Windup Deficit should not exceed $5B**
  - Substantial portion of windup deficit is exempt from solvency funding under current pension law
  - Pension deficit represents a potential but crippling financial burden if the Ontario government removes current funding exemptions applicable to the OPG pension plan
- **Annual pension plan contributions should not exceed 5x employee contributions**
  - As OPG contributions exceed more than 5x employee contributions, significant concern that the basic cost-sharing relationship is impaired

Appendix B - Priority Matrix for Pension Design Interventions



Legend	
1	New DB/DC combo plan
	Employee Contributions:
2A	•Negotiate dynamic employee contributions
2B	•Negotiate 1:1 contribution
3	High 5 vs. High 3
4	Rule of 90 and age 55
	Reduce features
5A	•Indexing
5B	•Spousal plan
5C	•Bridge factor
6	Flexible pension plan
7	Delay eligibility to join
8	Remove commuted value option
9	Jointly-sponsored plan

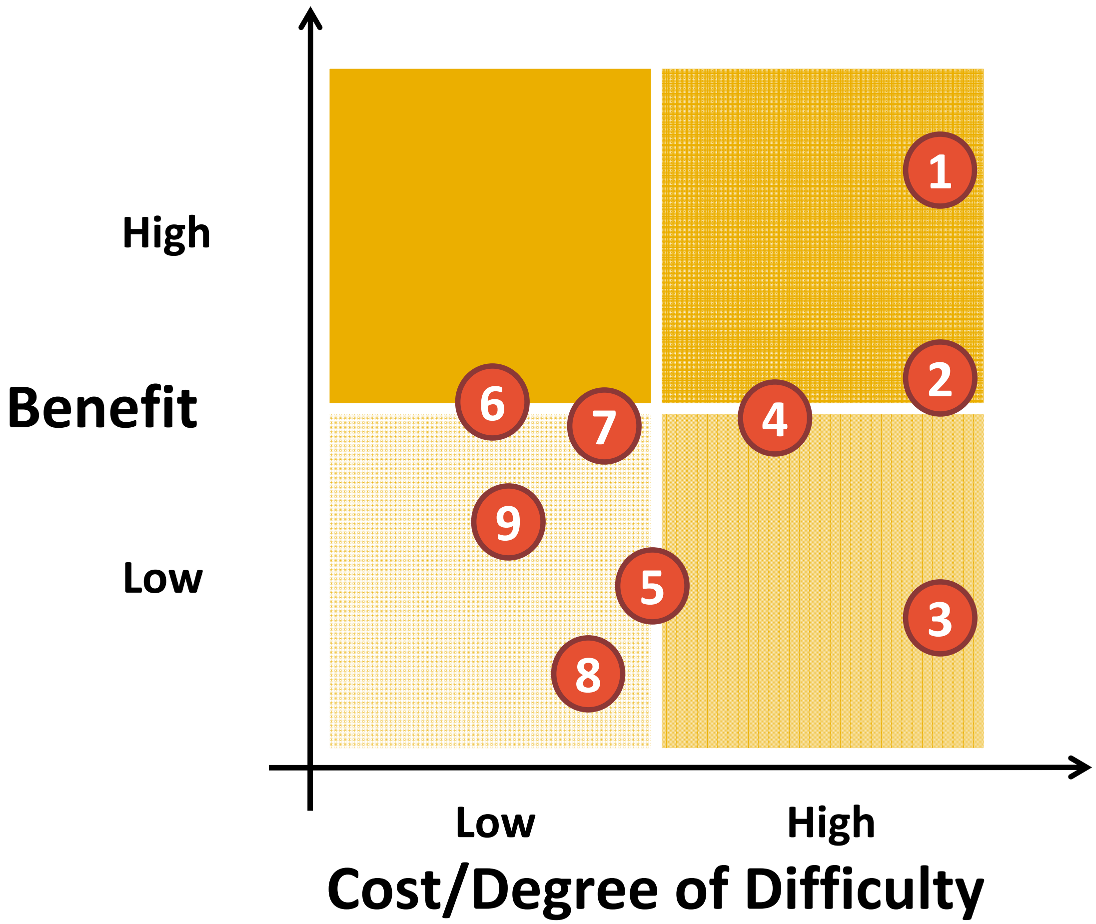
Appendix B – Priority Matrix for Benefits Design Interventions



Legend	
1	Negotiate various changes to benefits (eliminate OTCs, cap dispensing fees, eliminate hospital coverage, generic drugs only)
2	Replace current plan with Health Spending Account
3	New millennium plan for all
4	Incent coordination through high deductible, low coverage replaced with HSA
5	Pay flat rate to union to provide benefits plan to their members
6	Eliminate the Benefits Exception Review Committee
7	Employee 10% contribution
8	Post-retirement benefits earned at age 55 & 10 years service

Appendix B – Priority Matrix for Program Management Interventions

- This is an initial prioritization, to be refined
- The scale for this matrix is different than used for the design interventions



Legend	
1	Exclude portions of future wage increases from pensionable earnings
2	Increase prevalence of non-pensionable variable comp.
3	Increase cost/risk sharing (e.g., consider JSPP)
4	Voluntary settlements for post-retirement benefits
5	Voluntary settlements for disability income benefits
6	Reduce vendor costs and obtain more accurate/efficient claim adjudication
7	Implement more efficient Rx delivery methods/networks
8	Aggressively manage the disability program
9	Develop and implement a consumerism campaign

Appendix C – Confidence Levels

- When interpreting the results of a stochastic forecast (i.e., a large number of plausible scenarios), it is necessary to establish a confidence level
- **OPG selected a 95% confidence level as most appropriate measure for assessment**
  - **Threshold conditions were established at the highest level viewed as affordable for OPG**
  - **Therefore, occurrences of actual experience beyond the threshold must be minimized**
- For example, confidence levels of:
  - 50% - on average, one year in two would exceed the threshold
  - 75% - on average, one year in four would exceed the threshold
  - 90% - on average, one year in ten would exceed the threshold
  - 95% - on average, one year in twenty would exceed the threshold
- Sustainability Team spent considerable time deliberating on appropriate confidence level
  - Impossible to absolutely ensure that cash/expense will stay within specified thresholds, but concluded that should P&B costs occasionally exceed thresholds and/or exceed by small amounts, these occasional excesses can be managed by OPG
  - Viewed to be less prudent to establish a lower threshold criteria
    - With this approach, OPG would face more-frequent adverse experience above that threshold
    - With a lower threshold, the potential size of any excess amount would also be larger, bringing potentially severe consequences to OPG

Board Staff Interrogatory #157

Issue Number: 6.6
Issue: Are the test period human resource related costs for the nuclear facilities (including wages, salaries, payments under contractual work arrangements, benefits, incentive payments, overtime, FTEs and pension costs, etc.) appropriate?

Interrogatory

Reference:
Ref: Exh F4-3-2
Ref: EB-2013-0321 Exhibit JT2.12, Attachment 1

In EB-2013-0321, OPG filed a CHRC Briefing Report prepared by Towers Watson. The report reviewed the challenges OPG was facing regarding the costs of its employee pensions and benefits.

a) The report filed in EB-2013-0321 had last been updated in 2013. Has the report been updated since then? If so, please provide a copy.

b) Has OPG received any other reports regarding the costs and sustainability of its employee pensions and benefits? If so, please provide.

c) The report assessed the sustainability of OPG's pensions and benefits plans against four metrics. The report concluded that all four metrics had been exceeded (p. 2, 6- 9). Does OPG still exceed the thresholds established in all four metrics?

d) The report identified six "interventions" that OPG could undertake to improve the sustainability of its pensions and benefits. Please describe what activities OPG has taken with regard to these six interventions, and the results of these activities.

e) At page 2, the report states that (as of 2013) "OPG's P&B plans are unsustainable". At page 11 it states: "a number of current cost levels exceed the thresholds which OPG views as necessary to maintain a sustainable business (across all key measures)". Are OPG's pensions and benefits plans currently sustainable? Do the current costs of pensions and benefits allow OPG to maintain a sustainable business? If not, how does OPG plan to address this situation? Will ratepayers be asked to provide additional funding for pensions and benefits now or in the future?

f) At page 11, the report states: "the risk of costs escalating far beyond an affordable level is very plausible." Is this statement still accurate?

Response

a) No, the report has not been further updated since 2013.

b) OPG has obtained the following externally prepared reports regarding the costs of OPG's pension and benefit program costs, attached to this response as Attachments 1-2. Attachments 1-2 are being filed confidentially in accordance with the Board's practice direction on confidential filings.

   a. Potential Changes to Pension and Benefits Programs for Represented Members – Prepared by AON Hewitt, June 2014
   b. Benefit Index Report (value based benchmarking) – Prepared by AON Hewitt, July 2013,

c) OPG does not update or monitor the four referenced metrics found in the briefing at EB-2013-0321, Ex. JT2.12, Attachment 1. For the purposes of this interrogatory, OPG estimated the values for each of the metrics and determined that from 2015 -2021, most of the values are within their threshold values as stated in the report.

d) It should be noted that while the six "interventions" were observations into areas that Towers Watson believed might be worth pursuing, they did not represent specific recommendations for management. With reference to these six observations from the Towers Watson report, OPG has undertaken the following activities :

   1) Pensionable Earnings & Future Wage Increases: As described in Ex. F4-3-1, pp. 15 - 18, the lump sum payments and Hydro One shares awards negotiated with the PWU and Society in exchange for the identified pension reforms, are non-pensionable payments that will be made only to eligible existing employees as of April 1, 2015 (for PWU) and January 1, 2016 (for Society).

   2 [redacted]

   3) Pension Design: As described in Ex. F4-3-1, pp.15 - 16, a number of pension reforms were introduced for management group staff and negotiated through bargaining for represented employees. Considerable effort was required to negotiate these reforms which included the direct involvement of the Government and other

electricity sector stakeholders. These reforms reduce costs associated with OPG's pension plan by immediately increasing employee contributions, changing the rules used to determine when an employee becomes eligible for an undiscounted pension, and increasing the number of years used to determine pensionable earnings.

4) Drug Costs: In November 2014, following a competitive procurement process, OPG selected Sun Life Financial (Sun Life) as its new Health and Dental benefits administrator. As part of their service, Sun Life has been able to negotiate savings for various high use prescription medications to provide plan sponsors, such as OPG, with reduced costs. Sun Life has also developed mobile applications that give plan members convenient drug information more quickly including drug coverage, potential generic and/or therapeutic drug alternatives and other cost-saving opportunities.

5) Voluntary Settlement for Post-Retirement Benefits: OPG has not pursued this intervention that was identified for consideration in the Towers Watson report (p.12). In the Towers Watson report, this intervention was assessed as having low benefit and high cost.

6) Health and Dental Plan Administration: As noted above, OPG completed a competitive procurement process and selected Sun Life Financial as its benefits administrator in 2014. The new contract is delivering savings through lower administration costs and more stringent adjudication against plan terms reflecting OPG's commitment to cost efficiency efforts.

e) Using metrics estimated in part (c) based on current projections, OPG's pensions and benefits are currently "sustainable" and allow OPG to "maintain a sustainable business".

Overall, OPG believes that the "sustainability" of the plan is improving, reflecting the above noted reforms, stable or gradually decreasing cash requirements, declining accounting costs, and a strong funded position of the pension plan according to the latest actuarial valuation filed with the Financial Services Commission of Ontario, as of January 1, 2016. The valuation indicates that the pension plan is 96% funded on a going concern basis and 99% on a solvency basis (see Ex. L-6.6-1 Staff-156, Attachment 1, pp. 9 and 15).

OPG will continue to seek recovery of its prudently incurred pension and benefit costs for the regulated operations through its payment amounts applications.

f) Although OPG does not update or maintain the stochastic analysis relied upon by Towers Watson to support the referenced statement, based on current projections, OPG does not believe that the referenced statement from the 2011 report is true today, for the reasons discussed in part (e). However, OPG acknowledges that there are inherent risks related to the impact of financial market conditions on pension and OPEB obligations, as with any material obligations that span several decades. This is acknowledged in the summary of key risks to OPG's business plan, as discussed in Ex. L-1.2-5 CCC-4.

Chart 3

Pension and OPEB Accrual-Cash Differential Amounts – Nuclear[5] ($M)									
	2013 Actual	**2014 Actual**	**2015 Actual**	**2016 Projection**	**2017 Plan**	**2018 Plan**	**2019 Plan**	**2020 Plan**	**2021 Plan**
Pension	133.8	130.3	129.9	11.3	51.7	(8.0)	(27.3)	(17.2)	(30.7)
OPEB	144.9	91.6	109.7	96.0	93.7	90.1	86.8	82.9	80.5
Total	**278.7**	**221.9**	**239.6**	**107.3**	**145.4**	**82.1**	**59.5**	**65.7**	**49.8**

3.1 Presentation of Pension and OPEB Costs in the Application

In costing labour for planning, target setting and financial reporting purposes, OPG includes accrual costs for pension and OPEB in line with US GAAP requirements. Accordingly, OPG's corporate and business unit business plans, which present financial information in accordance with US GAAP, reflect accrual costs for pension and OPEB. This Application is based on OPG's approved 2016-2018 Business Plan and therefore presents business unit and compensation related cost information on the same basis as the business plan.[6] In order to reconcile this presentation with OPG's proposed treatment of pension and OPEB costs in the test period, a negative adjustment in the amount of the forecast differential between pension and OPEB accrual costs and cash amounts (shown in Chart 3) is included as a separate entry in centrally-held costs for the nuclear facilities in each of the test years (Ex. F4-4-1 Table 3, line 2).

4.0 CASH AMOUNTS FOR PENSION AND OPEB

OPG's pension plans are defined benefit pension plans that provide members with a pension amount based on years of service and salary at retirement. The RPP is funded by member (i.e., employee) and OPG (i.e., employer) contributions.[7] The *Pension Benefits Act* (Ontario) ("PBA") sets the minimum funding requirements for registered pension plans to ensure that

[5] Although the accrual-to-cash differential is presented starting in 2013 for illustrative purposes, 2014 is the first year for which the OEB set payment amounts on the basis of cash amounts for pension and OPEB. Positive amounts represent excess of accrual costs over cash amounts.
[6] As in previous proceedings and as discussed in section 5.2, the current service component of accrual costs is largely reflected in costs charged to the business units, while the other components of accrual costs are held centrally and are assigned and allocated to the business units.
[7] The supplementary pension plan is not funded but is secured by letters of credit.