EB-2013-0321

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act 1998*, Schedule B to the *Energy Competition Act*, 1998, S.O. 1998, c.15;

AND IN THE MATTER OF an Application Ontario Power Generation Inc. for an order or orders approving payment amounts for prescribed generating facilities commencing January 1, 2014.

SCHOOL ENERGY COALITION CROSS-EXAMINATION COMPENDIUM
(Panel 5 – Volume 2)

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UNDERTAKING J3.5

Undertaking

To update SEC spreadsheet for each component excluding pension and OPEB costs.

Response

Please see attached table. An excel spreadsheet vesion has also been provided.

Values taken from Ex JT2.33 are sourced as indicated under the column heading "JT2.33 Line."

Pension and Other Post Employment Benefits (OPEB) current service costs are shown at additional lines for each component shown in SEC's spreadsheet. With the exception of 2013 actuals, values used are from Ex L-6.1-1 Staff 105. Values for 2013 actuals are from data underpinning Ex. JT2.33.

Lines have been added for each component showing the compensation cost resulting from the subtraction of the pension and OPEB current service costs from the relevant total compensation lines in the SEC spreadsheet. For brevity, compensation costs excluding pension and OPEB current service costs are referred to as "Normalized Compensation" in the line lables throughout the table.

OPG notes that the 2014 and 2015 information contained in Appendix 2K filed as Ex. F4-3-1, Attachment 6, related interrogatories, Ex. JT 2.33, Ex. K3.5, and the attachment to this undertaking is based on the 2013-2015 Business Plan, which was the basis for OPG's pre-filed evidence. Therefore, that information does not reflect the updated projection of pension and OPEB costs provided in Ex. N2-1-1. The current service cost component of pension and OPEB costs reflected in this updated projection are lower than amounts of such costs per the 2013-2015 Business Plan and are provided below (including allocations of corporate support services). These amounts represent the regulated portion of the OPG-wide current service cost amounts found at Ex. N2-1-1 Attachment 1, pages 9 and 10.

Pension and OPEB Current Service Costs as per Ex. N2-1-1
(May 2014 Impact Statement)

($millions)	2014	2015
Nuclear	236.2	242.0
Previously Regulated Hydroelectric	13.0	14.0
Newly Regulated Hydroelectric	24.4	25.5
Total	273.6	281.5

The attached table updating the SEC spreadsheet also addresses the Undertaking J3.6 question regarding the burden percentage related to pension and OPEB. Lines have been added to the table for each component showing percentage of the relevant "Total Compensation" line that the Pension and OPEB current service costs represent. These percentages are shown at lines 19b, 29b, 35b, 38d, 41d and 44d.

FTE and Compensation Costs Analysis - Regulated Operations - NORMALIZED BY OPG

	JT2.33 Line	Item	n.	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Plan	2015 Plan	Change to date	Percent	Total Change	Percent
		Nuclear											
1	12	Nuclear Operations and Projects		8,292.5	7,988.6	6,536.7	6,353.6	6,315.6	6,243.9	-1,938.9	-23.38%	-2,048.6	-24.70%
2	13	DRP and New Nuclear		152.9	226.5	225.1	200.6	264.1	276.0	47.7	31.20%	123.1	80.51%
3	14	Allocated Corporate Support to Nuclear		875.0	876.1	2,037.2	1,910.6	1,790.6	1,714.1	1,035.6	118.35%	839.1	95.90%
4		**Total FTE**		9,320.4	9,091.2	8,799.0	8,464.8	8,370.3	8,234.0	-855.6	-9.18%	-1,086.4	-11.66%
5	34	Nuclear Operations and Projects		$1,274.6	$1,281.5	$1,135.7	$1,202.3	$1,143.6	$1,163.9	-$72.3	-5.67%	-$110.7	-8.69%
6	35	DRP and New Nuclear		$23.1	$36.3	$37.6	$40.3	$52.2	$55.2	$17.2	74.46%	$32.1	138.96%
7	36	Allocated Corporate Support to Nuclear		$122.5	$129.1	$268.2	$291.7	$290.1	$280.5	$169.2	138.12%	$158.0	128.98%
8		**Total Compensation**		$1,420.2	$1,446.9	$1,441.5	$1,534.3	$1,485.9	$1,499.6	$114.1	8.03%	$79.4	5.59%
8a		Less: Pension/OPEB Current Service Costs		$159.5	$218.3	$265.5	$294.6	$315.7	$320.3				
8b		**Normalized Total Compensation**		$1,261	$1,229	$1,176	$1,240	$1,170	$1,179	-$21	-1.67%	-$81	-6.46%
9		**Compensation per FTE**		$152,375	$159,154	$163,825	$181,256	$177,521	$182,123	$28,881	18.95%	$29,747	19.52%
9a		**Normalized Compensation per FTE**		$135,262	$135,142	$133,652	$146,454	$139,804	$143,223	$11,191	8.27%	$7,961	5.89%
9b		**% pension and OPEB costs from Compensation per FTE**		11%	15%	18%	19%	21%	21%				
10		Nuclear Production	1	45.8	48.6	49.0	44.7	48.5	46.1	-1.1	-2.40%	0.3	0.66%
11		**Compensation per TWh.**		$31.0	$29.8	$29.4	$34.3	$30.6	$32.5	$3.3	10.69%	$1.5	4.90%
11a		**Normalized Compensation per Twh.**		$28	$25	$24	$28	$24	$26	$0	0.75%	-$2	-7.07%
12		**FTE per TWh.**		203.5	187.1	179.6	189.4	172.6	178.6	-14.1	-6.94%	-24.9	-12.23%

FTE and Compensation Costs Analysis - Regulated Operations - NORMALIZED BY OPG

	JT2.33 Line	Item	n.	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Plan	2015 Plan	Change to date	Percent	Total Change	Percent
		Previously Reg Hydro											
13	15	Prev. Reg. Hydro Operations		359.7	369.4	343.8	321.5	343.1	340.9	-38.2	-10.62%	-18.8	-5.23%
14	16	Alloc. Corp. Supp. To Prev. Reg. Hydro		88.7	80.8	108.9	103.0	104.6	97.8	14.3	16.12%	9.1	10.26%
15		**Total FTE**		448.4	450.2	452.7	424.5	447.7	438.7	-23.9	-5.33%	-9.7	-2.16%
16	37	Prev. Reg. Hydro Operations		$50.4	$54.5	$51.8	$53.7	$58.4	$59.0	$3.3	6.55%	$8.6	17.06%
17	38	Alloc. Corp. Supp. To Prev. Reg. Hydro		$12.7	$13.1	$15.9	$17.4	$17.9	$16.8	$4.7	37.01%	$4.1	32.28%
18		**Total Compensation**		$63.1	$67.6	$67.7	$71.1	$76.3	$75.8	$8.0	12.68%	$12.7	20.13%
18a		Less: Pension/OPEB Current Service Costs		$7.5	$10.5	$13.4	$14.5	$17.3	$17.4				
18b		**Normalized Total Compensation**		$55.6	$57.1	$54.3	$56.6	$59.0	$58.4	$1.0	1.80%	$2.8	5.04%
19		**Compensation per FTE**		$140,723	$150,155	$149,547	$167,491	$170,427	$172,783	$26,769	19.02%	$32,061	22.78%
19a		**Normalized Compensation per FTE**		$123,996	$126,833	$119,947	$133,333	$131,785	$133,121	$9,337	7.53%	$9,124	7.36%
19b		**% pension and OPEB costs from Compensation per FTE**		12%	16%	20%	20%	23%	23%				
20		Prev. Reg. Hydro Production	2	18.9	19.5	18.5	18.9	20.1	21.0	0.0	0.00%	2.1	11.11%
21		**Compensation per TWh.**		$3.3	$3.5	$3.7	$3.8	$3.8	$3.6	$0.4	12.68%	$0.3	8.11%
21a		**Normalized Compensation per Twh.**		$2.9	$2.9	$2.9	$3.0	$2.9	$2.8	$0.1	1.80%	$0	-5.47%
22		**FTE per TWh.**		4.7	4.1	5.9	5.4	5.2	4.7	0.8	16.12%	0.0	-0.77%

FTE and Compensation Costs Analysis - Regulated Operations - NORMALIZED BY OPG

	JT2.33 Line	Item	n.	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Plan	2015 Plan	Change to date	Percent	Total Change	Percent
		Newly Reg Hydro											
23	17	New. Reg. Hydro Operations		584.3	617.4	600.9	584.0	599.5	582.2	-0.3	-0.04%	-2.1	-0.36%
24	18	Alloc. Corp. Supp. To New. Reg. Hydro		127.7	115.6	152.8	129.1	148.6	140.8	1.4	1.12%	13.1	10.26%
25		**Total FTE**		712.0	733.0	753.7	713.2	748.1	723.0	1.2	0.16%	11.0	1.54%
26	39	New. Reg. Hydro Operations		$79.2	$87.9	$91.5	$96.1	$105.8	$104.1	$16.9	21.34%	$24.9	31.44%
27	40	Alloc. Corp. Supp. To New. Reg. Hydro		$18.6	$18.7	$23.0	$22.5	$26.4	$25.3	$3.9	20.97%	$6.7	36.02%
28		**Total Compensation**		$97.8	$106.6	$114.5	$118.6	$132.2	$129.4	$20.8	21.27%	$31.6	32.31%
28a		Less: Pension/OPEB Current Service Costs		$12.5	$18.8	$23.8	$25.1	$30.8	$30.5				
28b		Normalized Total Compensation		$85.3	$87.8	$90.7	$93.5	$101.4	$98.9	$8.2	9.61%	$13.6	15.94%
29		**Compensation per FTE**		$137,361	$145,430	$151,910	$166,301	$176,707	$178,985	$28,940	21.07%	$41,623	30.30%
29a		Normalized Compensation per FTE		$119,805	$119,782	$120,334	$131,106	$135,538	$136,797	$11,301	9.43%	$16,992	14.18%
29b		% pension and OPEB costs from Compensation per FTE		13%	18%	21%	21%	23%	24%				
30		New. Reg. Hydro Production	3	10.0	11.5	10.9	12.4	12.4	12.5	2.4	24.00%	2.5	25.00%
31		**Compensation per TWh.**		$9.8	$9.3	$10.5	$9.6	$10.7	$10.4	-$0.2	-2.20%	$0.6	5.85%
31a		Normalized Compensation per Twh.		$8.5	$7.6	$8.3	$7.5	$8.2	$7.9	-$1.0	-11.60%	-$0.6	-7.25%
32		**FTE per TWh.**		12.8	10.1	14.0	10.4	12.0	11.3	-2.4	-18.45%	-1.5	-11.79%
		Totals											
33		**Total FTE**		10,480.8	10,274.4	10,005.4	9,602.5	9,566.1	9,395.7	-878.3	-8.38%	-1,085.1	-10.35%
34		**Total Compensation**		$1,581.1	$1,621.1	$1,623.7	$1,724.0	$1,694.4	$1,704.8	$142.9	9.04%	$123.7	7.82%
35		**Total Compensation per FTE**		$150,857	$157,780	$162,282	$179,537	$177,125	$181,445	$28,680	19.01%	$30,588	20.28%
35a		Less: Pension/OPEB Current Service Costs		$179.5	$247.6	$302.7	$334.2	$363.8	$368.2				
35b		Normalized Total Compensation		$1,401.6	$1,373.5	$1,321.0	$1,389.8	$1,330.6	$1,336.6	-$11.8	-0.84%	-$65.0	-4.64%
35a		Normalized Total Compensation per FTE		$133,730.4	$133,681.8	$132,028.3	$144,733.7	$139,094.9	$142,257.1	$11,003.3	8.23%	$8,526.7	6.38%
35b		% pension and OPEB costs from Compensation per FTE		11%	15%	19%	19%	21%	22%				

FTE and Compensation Costs Analysis - Regulated Operations - NORMALIZED BY OPG

	JT2.33 Line	Item	n. 2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Plan	2015 Plan	Change to date	Percent	Total Change	Percent
		Management										
36	29	FTE	1,101.7	1,099.2	1,095.6	1,091.0	1,101.0	1,076.3	-10.7	-0.97%	-25.4	-2.31%
37	42	Compensation	$222.8	$230.9	$220.8	$233.1	$238.2	$233.5	$10.3	4.62%	$10.7	4.80%
38		Compensation per FTE	$202,233	$210,062	$201,533	$213,657	$216,349	$216,947	$11,424	5.65%	$14,714	7.28%
38a		Less: Pension/OPEB Current Service Costs	$25.9	$35.7	$40.3	$48.7	$52.9	$52.8				
38b		Normalized Total Compensation	$196.9	$195.2	$180.5	$184.4	$185.3	$180.7	-$12.5	-6.35%	-$16.2	-8.23%
38c		Normalized Total Compensation per FTE	$178,724	$177,584	$164,750	$169,019	$168,302	$167,890	-$9,705	-5.43%	-$10,834	-6.06%
38d		% pension and OPEB costs from Compensation per FTE	12%	15%	18%	21%	22%	23%				
		Society										
39	30	FTE	3,269.0	3,254.6	3,112.6	2,909.2	3,043.3	2,965.6	-359.8	-11.01%	-303.4	-9.28%
40	43	Compensation	$522.9	$541.0	$543.4	$568.4	$556.7	$551.5	$45.5	8.70%	$28.6	5.47%
41		Compensation per FTE	$159,957	$166,226	$174,581	$195,380	$182,926	$185,966	$35,423	22.15%	$26,009	16.26%
41a		Less: Pension/OPEB Current Service Costs	$64.4	$89.3	$107.7	$122.6	$130.7	$131.4				
41b		Normalized Total Compensation	$458.5	$451.7	$435.7	$445.8	$426.0	$420.1	-$12.7	-2.77%	-$38.4	-8.38%
41c		Normalized Total Compensation per FTE	$140,257	$138,788	$139,979	$153,238	$139,980	$141,658	$12,981	9.26%	$1,401	1.00%
41d		% pension and OPEB costs from Compensation per FTE	12%	17%	20%	22%	23%	24%				
		PWU										
42	31	FTE	6,012.9	5,840.7	5,711.0	5,542.0	5,371.7	5,300.3	-470.9	-7.83%	-712.6	-11.85%
43	44	Compensation	$820.9	$837.8	$847.6	$911.1	$893.0	$912.8	$90.2	10.99%	$91.9	11.20%
44		Compensation per FTE	$136,523	$143,442	$148,415	$164,399	$166,242	$172,217	$27,876	20.42%	$35,694	26.14%
44a		Less: Pension/OPEB Current Service Costs	$89.2	$122.7	$154.7	$162.8	$180.3	$184.0				
44b		Normalized Total Compensation	$731.7	$715.1	$692.9	$748.3	$712.7	$728.8	$16.6	2.27%	-$2.9	-0.40%
44c		Normalized Total Compensation per FTE	$121,688	$122,434	$121,327	$135,023	$132,677	$137,502	$13,335	10.96%	$15,813	12.99%
44d		% pension and OPEB costs from Compensation per FTE	11%	15%	18%	18%	20%	20%				
		EPSCA										
45	32	FTE	97.2	79.8	86.3	60.2	50.1	53.4	-37.0	-38.07%	-43.8	-45.06%
46	45	Compensation	$14.5	$11.3	$11.9	$11.3	$6.6	$7.1	-$3.2	-22.07%	-$7.4	-51.03%
47		Compensation per FTE	$149,177	$141,604	$137,891	$187,708	$131,737	$132,959	$38,531	25.83%	-$16,218	-10.87%

Note: Headcount/FTEs and compensation for New Nuclear is not included in the 2013 actual results or the 2014 and 2015 planned amounts. It is included in the 2010 to 2012 actual results.

Pension and OPEBs Comparison Table - 2014 Forecasts

(all totals are amounts proposed for recovery from ratepayers)

Utility		*FTE*	*Pension/ OPEBs Cost ($millions)*	*Annual Cost per FTE*
Ontario Power Generation	1	9,566	$675.9	$70,656
Hydro One Networks	2	8,223	$161.0	$19,579
Enbridge Gas Distribution	3	2,377	$37.2	$15,650
Cambride & North Dumfries Hydro	4	117	$1.2	$9,900
Kitchener-Wilmot Hydro	5	177	$2.0	$11,048
Horizon Utilities	6	355	$5.1	$14,516
Oakville Hydro	7	120	$1.6	$13,450
Veridian Connections	8	230	$2.5	$10,784

Sources:

1. *EB-2013-0321: J3.5 and N2-1-1, p. 3*
2. *EB-2013-0416: C1-3-3 and C1-3-2, Attach 2.*
3. *EB-2012-0459: D1-3-1, p. 3 and 14*
4. *EB-2013-0116: 4-4-1, p. 3 and 4-4-4, p. 3.*
5. *EB-2013-0147: 4-4-1, p. 3, 11, 12.*
6. *EB-2014-0002: 4-4-2, p. 8, 18, and App. 4-4.3, p. 4*
7. *EB-2013-0159: 4-3-4, p. 2, 21, 23.*
8. *EB-2013-0174: 4-3-1, p. 8 and 23*

SEC Interrogatory #118

Ref: Auditor General's 2013 Annual Report/p.171

Issue Number: 6.8
Issue: Are the 2014 and 2015 human resource related costs (wages, salaries, benefits, incentive payments, FTEs and pension costs) appropriate?

Interrogatory

Please provide a copy of the 2011 review of OPG's pension and benefit plan.

Response

OPG declines to provide the review requested on the basis that it is not relevant to the Application. The review results in no cost implications for the test period 2014 – 2015 as none of the elements of the review form part of the current plan.

UNDERTAKING JT2.12

Undertaking

To explain why the review of pension and benefits plans has no impact on amounts requested for the test period.

Response

The review referred to was originally requested in Ex L-6.8-17 SEC 118. It is provided as Attachment 1 to this undertaking response.

Ontario Power Generation

CHRC Briefing

December 14, 2011

This record (as that term is defined in the Freedom of Information and Protection of Privacy Act (Ontario)) is or was prepared, maintained or used by or on behalf of OPG in relation to: (a) meetings, consultations, discussions or communications about labour relations or employment-related matters in which OPG has an interest; and/or (b) negotiations or anticipated negotiations relating to labour relations or to the employment of a person by OPG between OPG and a person or a bargaining agent. In addition, this record contains: (a) positions, plans, procedures, criteria or instructions to be applied to any negotiations carried on or to be carried on by or on behalf of OPG; and/or (b) plans relating to the management of personnel or the administration of OPG that have not yet been put into operation or made public.

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

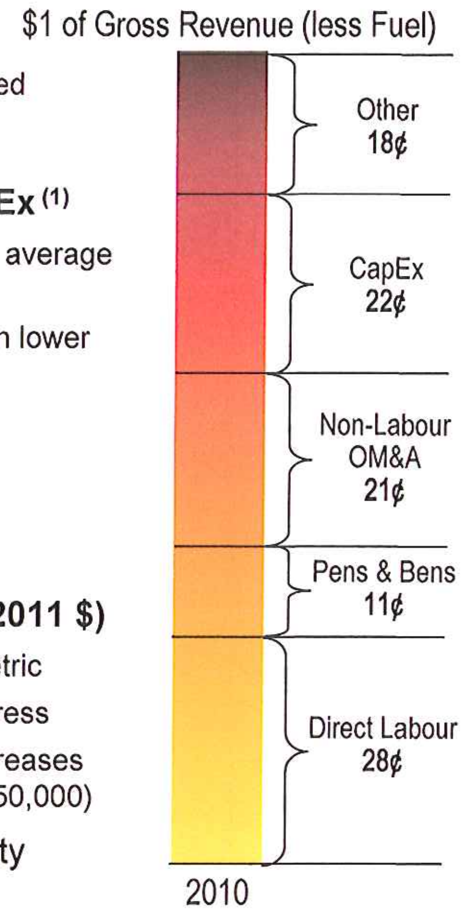
- **Overview**
  - 5 Work Teams: Program Design, Program Management, Business Model, Stakeholder Management and Sustainability
  - Programs in scope: Registered Pension Plan, Supplemental Pension Plan, Active Benefits and Post-Retirement Benefits
- **Work Completed**
  - Developed a stochastic financial 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

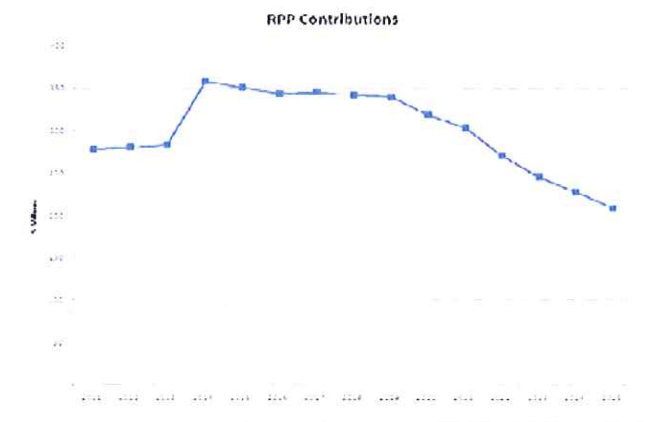


Notes:
[1] For purposes of the P&B Review, the terms "Operating Cash Flow Before CapEx" and "EBIT" above are determined before the direct financial effect of the P&B program costs (that is, they represent the value in the absence of P&B plans) – in OPG financials, these values are determined after adjusting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

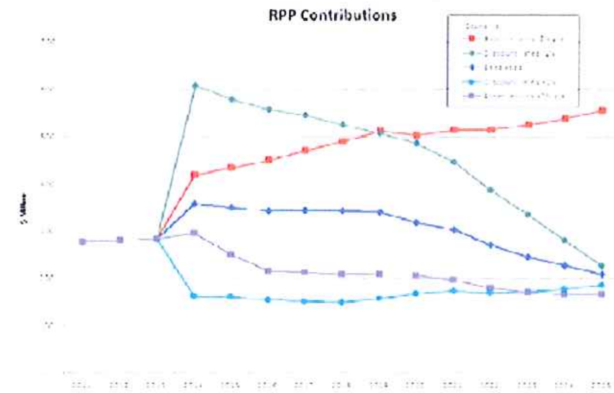
V:\Ontario Power Generation - 101496\11\XLOB\Pen & Ben Review\Overall Project\Nov 2011 CHRC Meeting\December 2011 CHRC Briefing.ppt

Approach to Building Stochastic Projection Model

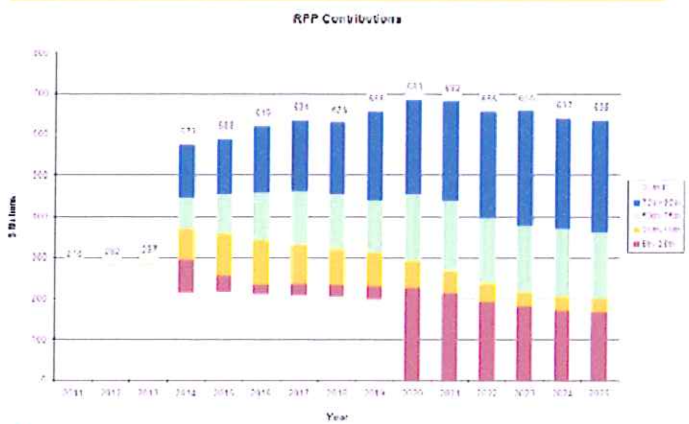
Basic Deterministic Pension Model (Business Plan)



Alternative Deterministic Pension Scenarios



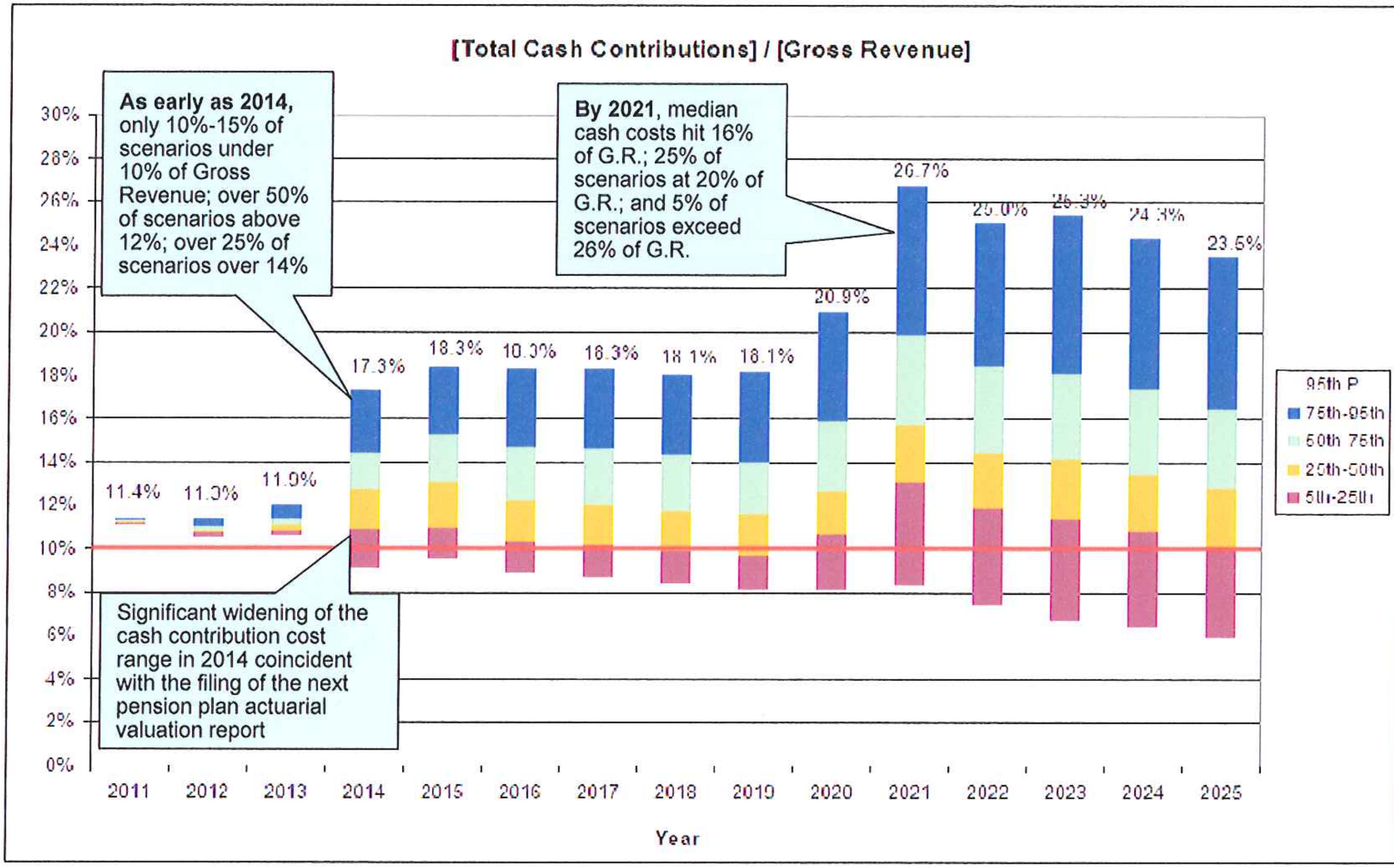
Stochastic Pension Forecast



Extend Stochastic Forecast to All P&B Programs

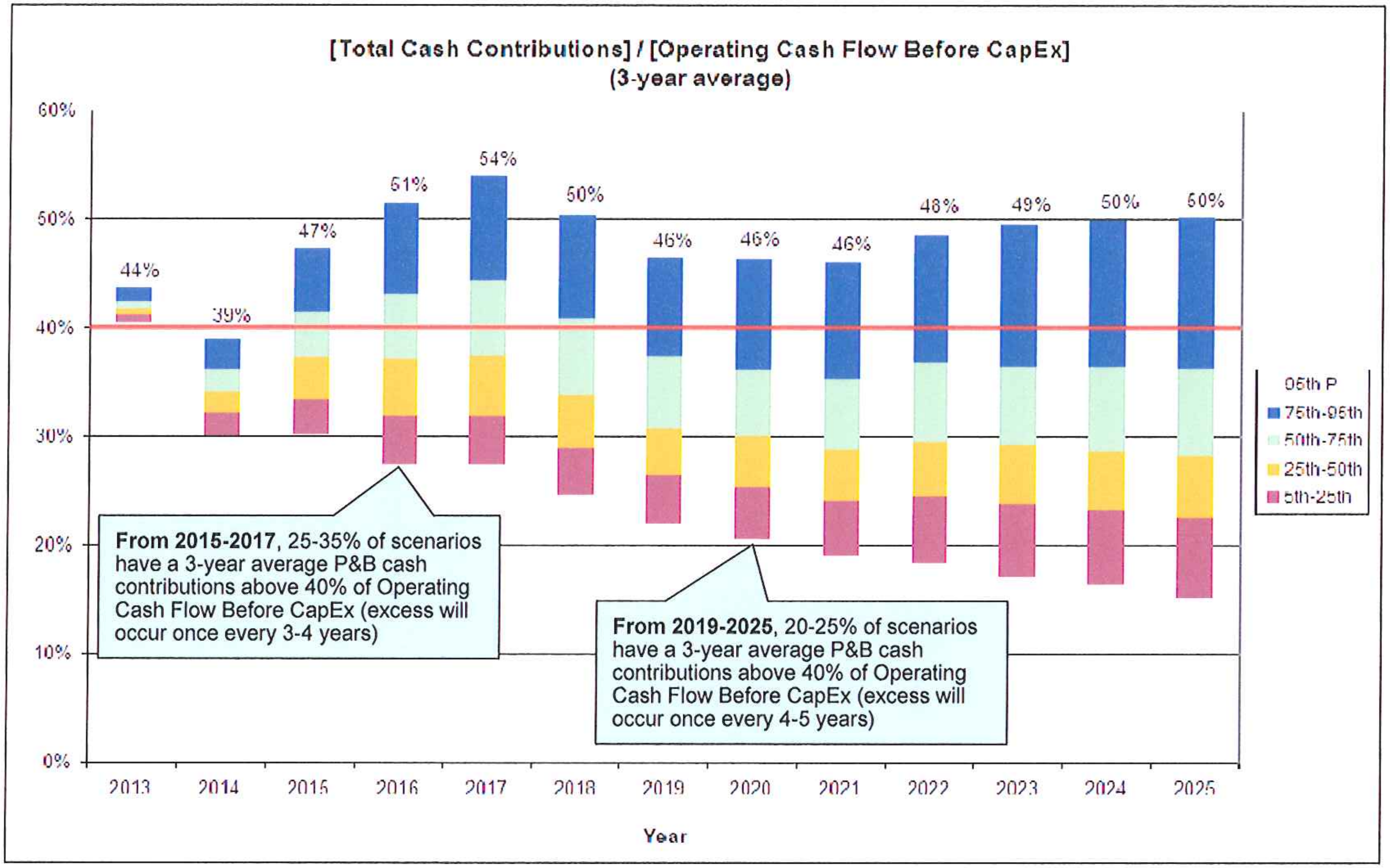
Metric #1 – P&B Cash Should Not Exceed 10% of Gross Revenue

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



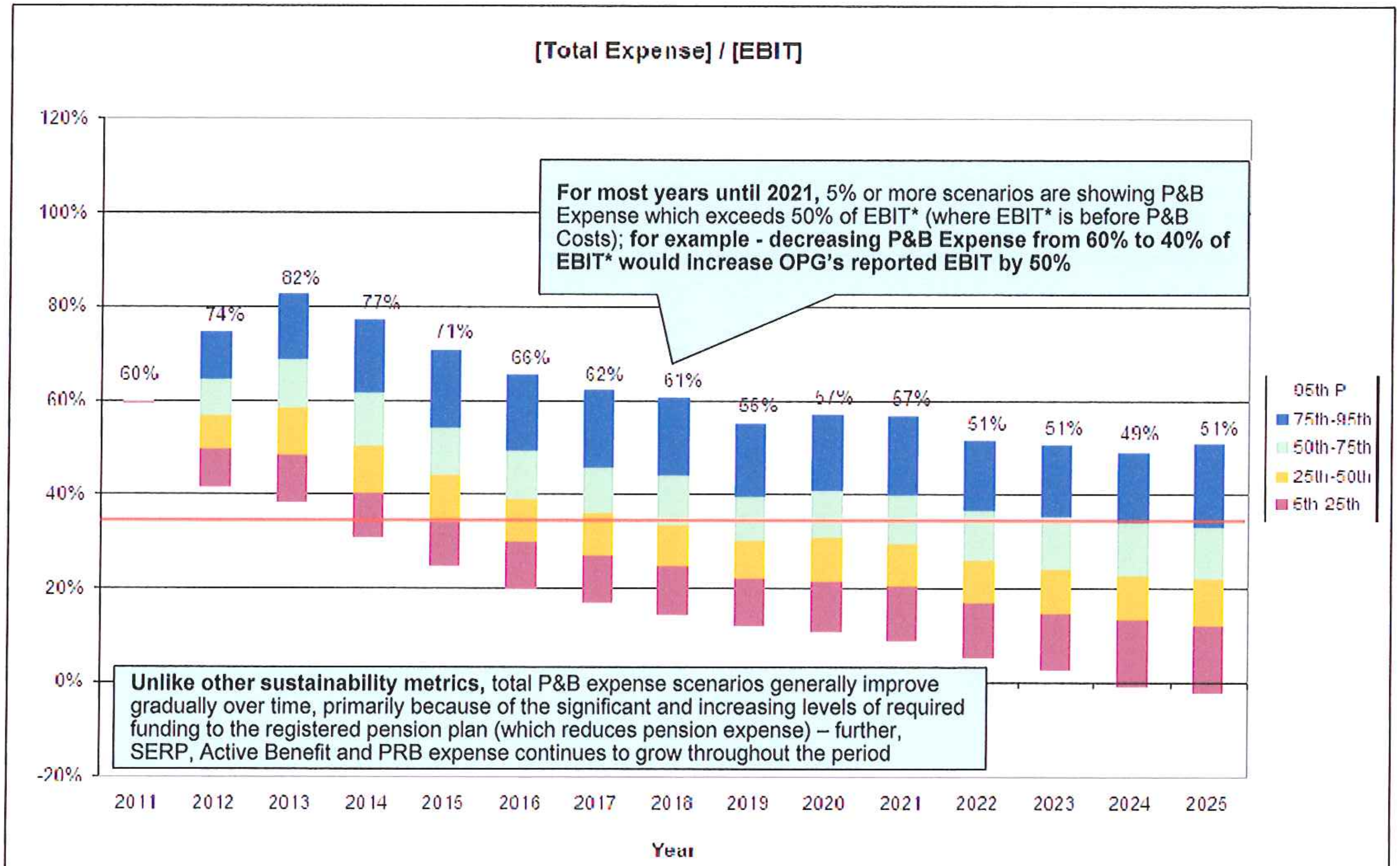
Metric #2 – P&B Cash Should Not Exceed 40% of Operating Cash Flow Before CapEx

- 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



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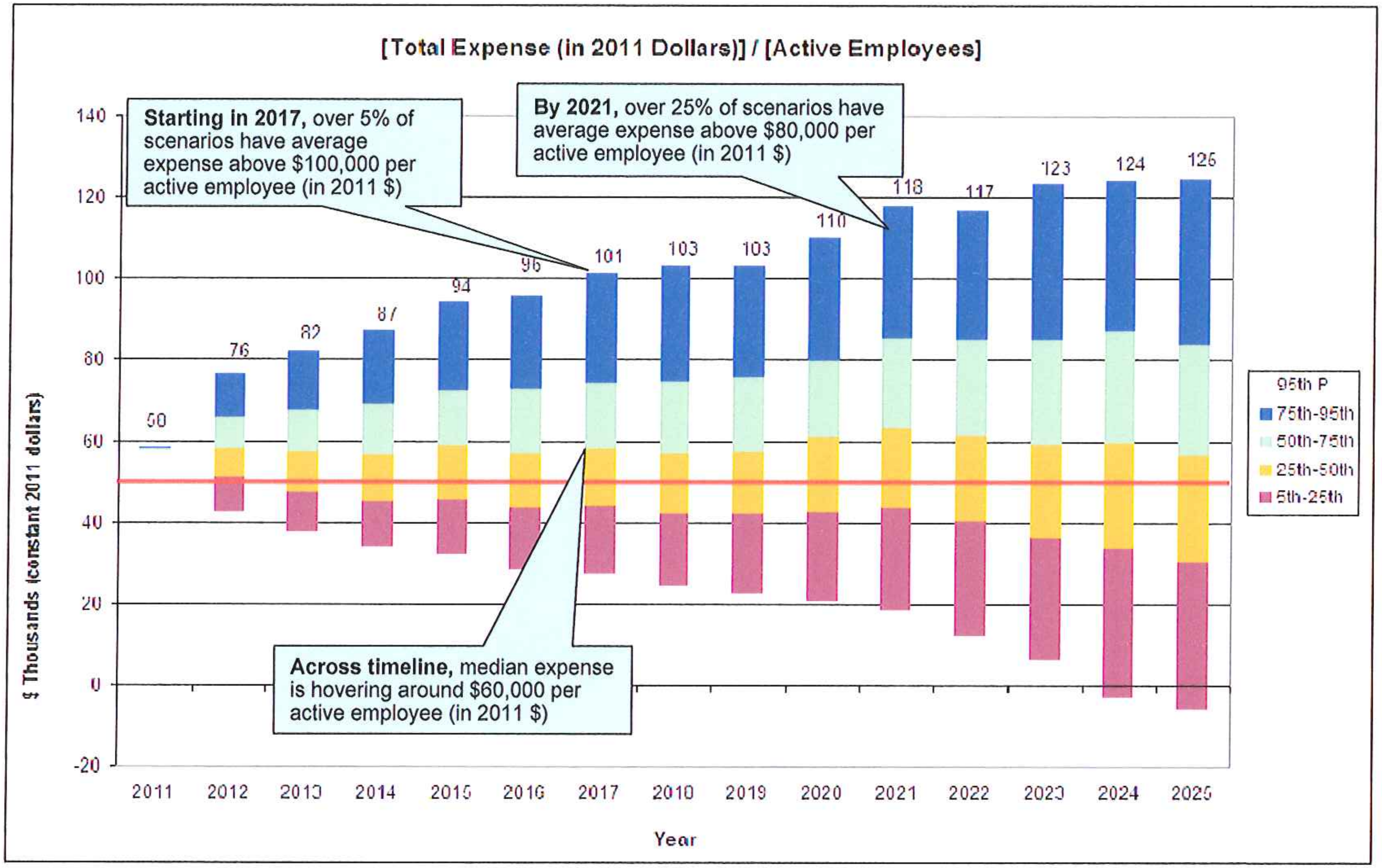
Metric #4 – P&B Expense Should Not Exceed $50K Per Active Employee (const. 2011 $)

- 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)



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

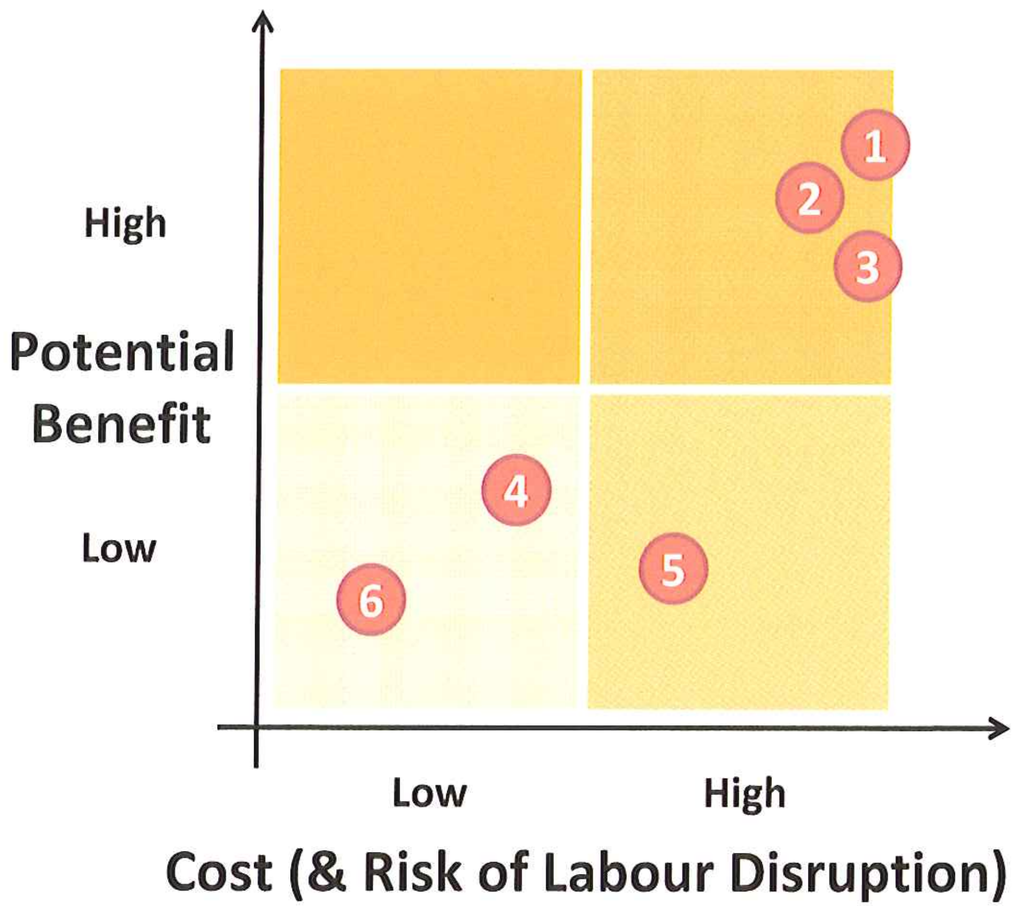
Alternative	Assessment/Impact on OPG's Business
Reduce Capital Expenditures	• CapEx includes sustaining and developmental expenditures (other than significant builds/refurbishments) – reductions would impair future power generation and/or value of OPG assets; not viable to reduce CapEx and deliver on 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



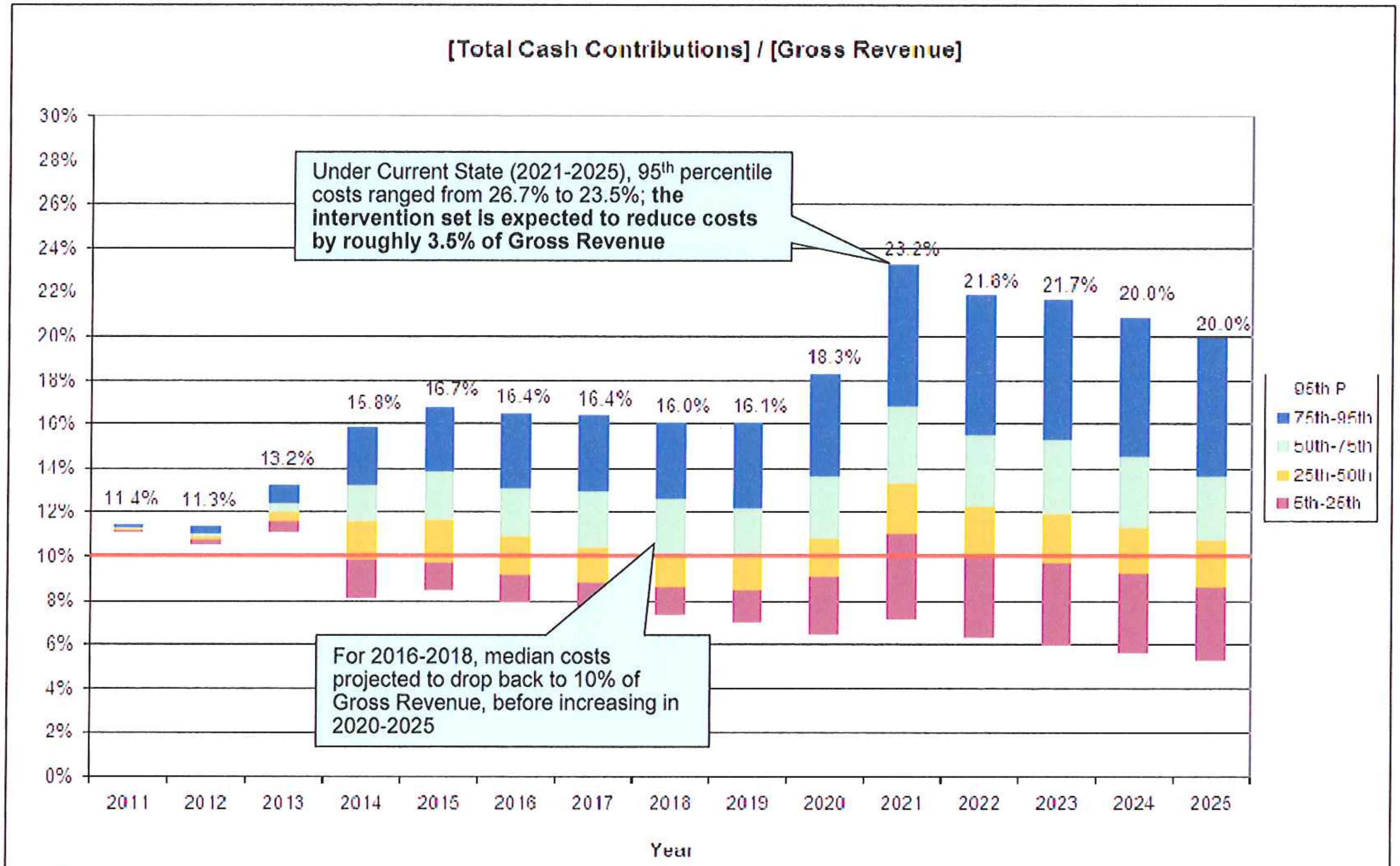
Legend (N → Negotiation Required)

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.

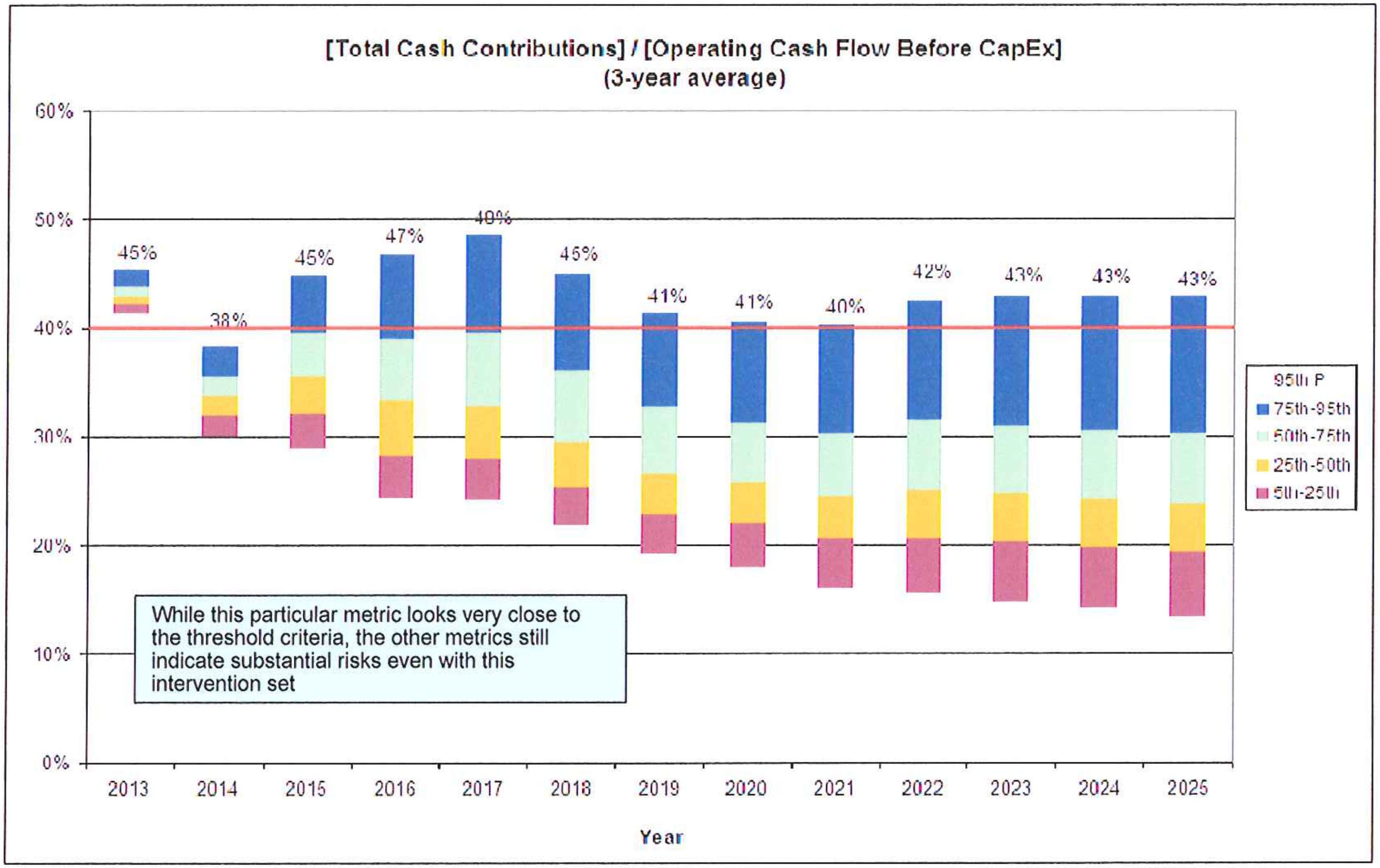
Metric #1 – P&B Cash Should Not Exceed 10% of Gross Revenue (with Initial Interventions)

- 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

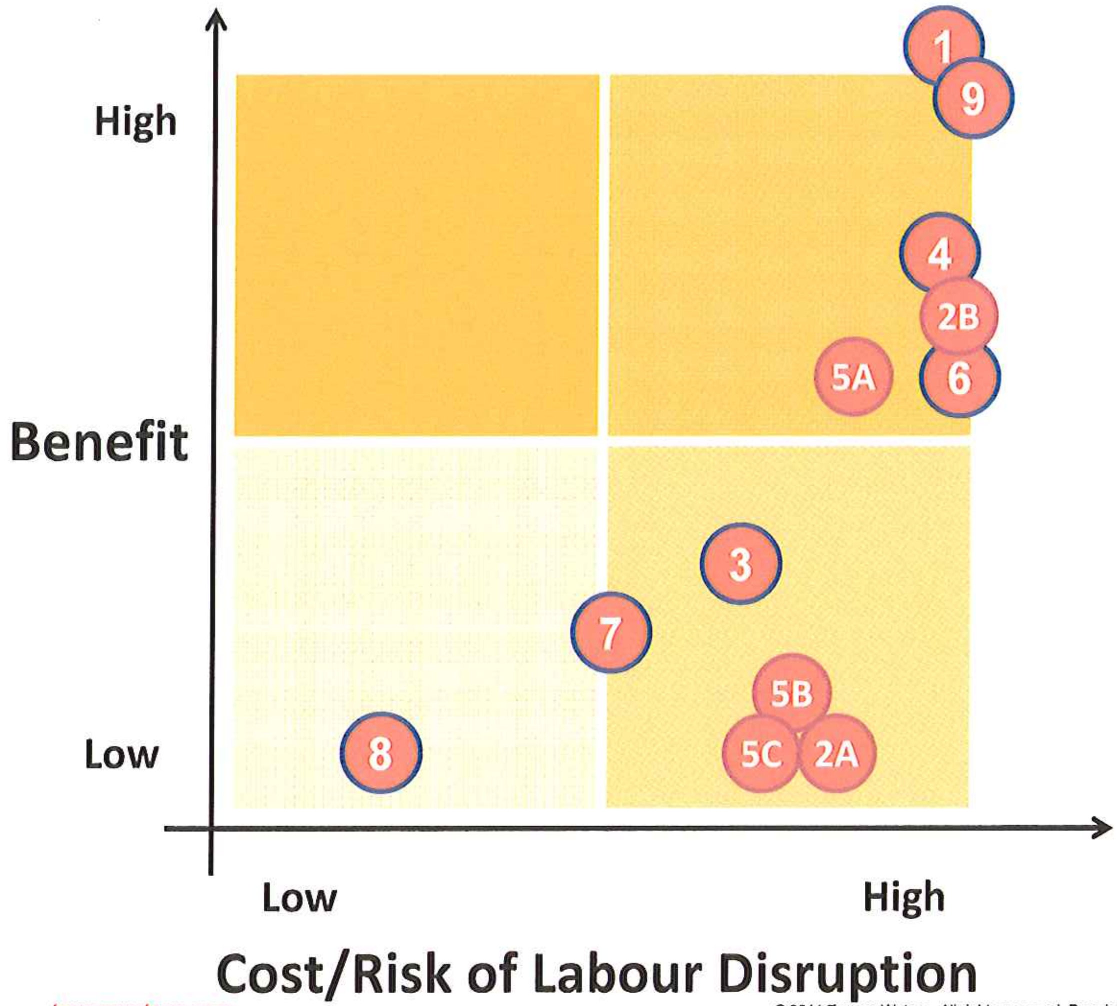
- Continue intervention evaluation through the sustainability model
  - Refine analysis of sustainability measures, thresholds, confidence levels and current state
  - Extend analysis to incorporate additional interventions with a view to identifying the most feasible set of interventions to maximize 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

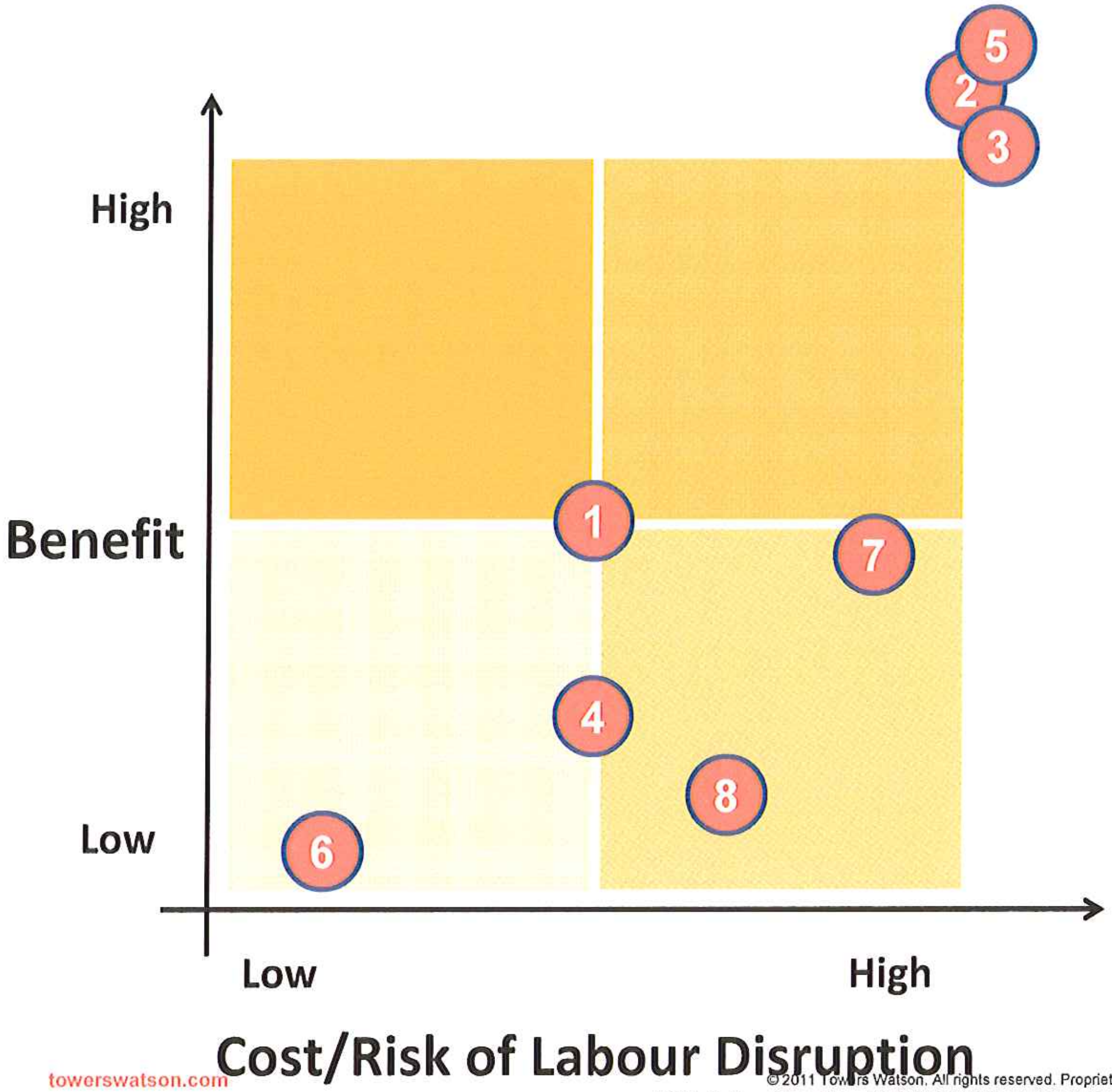
Appendix B - Priority Matrix for Pension Design Interventions



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

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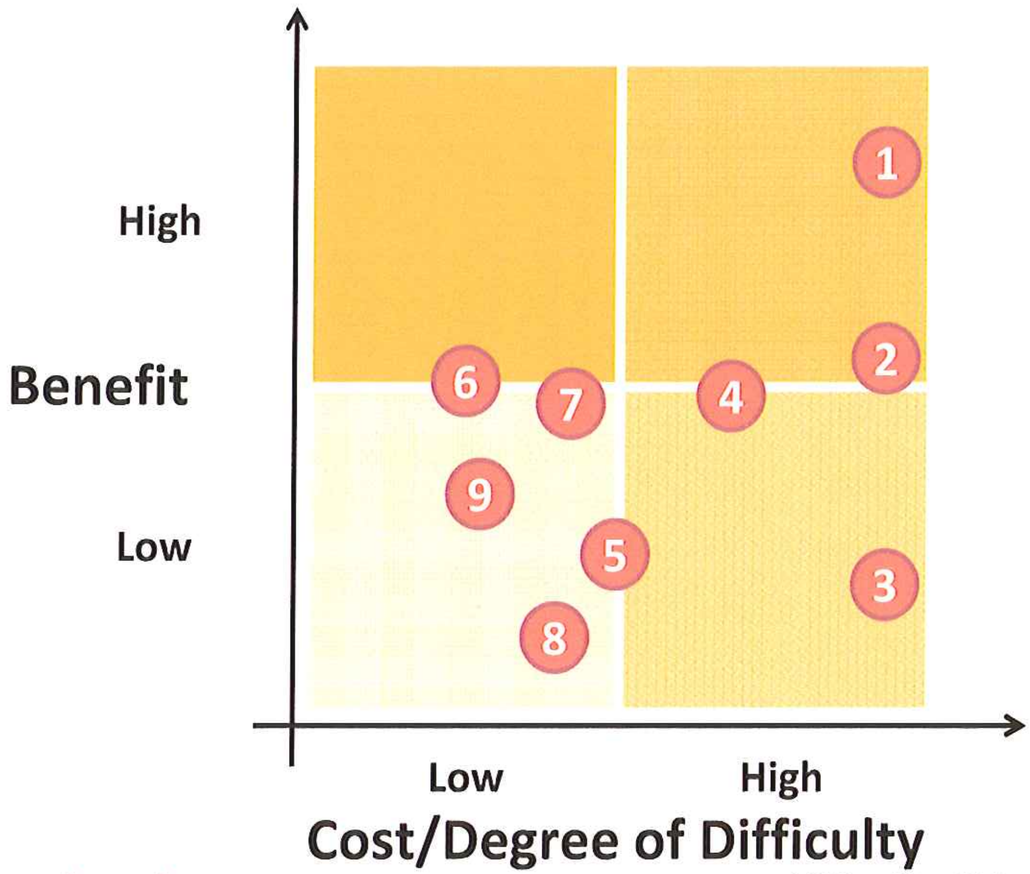
Appendix B – Priority Matrix for Program Management Interventions

- 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