

**REDACTED**

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1 **Request IR-1:**

2  
3 **In the GR A at Section 6.3, page 83, NS Power states that they “continue to focus on**  
4 **managing current and future pension costs”. Please describe the initiatives taken to date,**  
5 **and those that continue to be taken, by NSPI to manage its current and future pension**  
6 **costs.**

7  
8 Response IR-1:

9  
10 In 2001, a defined contribution (DC) provision was introduced in the employee registered  
11 pension plan. As the pension plan forms part of the collective agreement, any changes to the  
12 registered pension plan that affect union employees have to be negotiated with the union as part  
13 of collective bargaining. The union did not agree to allow its members to participate in the DC  
14 provision. As such, only non-union employees are given the choice to participate in the defined  
15 benefit (DB) plan or DC plan. In each union negotiation since 2001, NS Power has proposed to  
16 amend the Plan so that union members also have the choice between DC and DB.

17  
18 In 2004, significant changes were made to the DB provision of the employee plan, including the  
19 unreduced retirement age, bridge benefit and indexation of benefits. These changes resulted  
20 from union negotiations with the goal of reducing benefit costs.

21  
22 As a result of the 2007 negotiations, all employees hired after July 30, 2007 are not eligible for  
23 the Long Service Award program.

24  
25 From both a funding and accounting perspective, annual valuations are performed to have an  
26 accurate view of the Plan's financial position. These calculations include the use of a market  
27 related asset value (rather than a mark to market asset value) in order to reduce volatility in cash  
28 and accounting benefits costs. The accounting and funding assumptions are reviewed and  
29 updated annually to confirm that they are up to date.

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1 NS Power management has met with the Plan's actuaries over the years to understand the drivers  
2 of benefit cost and understand projected future benefits costs, taking into account different  
3 scenarios. NS Power has also encouraged the union executive to understand the Plan's financial  
4 position through annual financial updates with the Plan's actuary.

5  
6 [REDACTED]  
7 [REDACTED]

- 8
- 9 • [REDACTED]
  - 10 • [REDACTED]
  - 11 • [REDACTED]
  - 12 • [REDACTED]
  - 13 [REDACTED]
  - 14 • [REDACTED]
  - 15 • [REDACTED]
  - 16 • [REDACTED]

17  
18 Please refer to Eckler IR-14.

19  
20 The Plan is managed by investing in a number of different assets classes, by establishing a long-  
21 term asset mix policy for the Plan, and by implementing an investment program in which the  
22 expected return and volatility of returns on the total assets of the Plan is at a level that is  
23 acceptable to achieving stated financial objectives. Asset Liability Studies are conducted  
24 periodically to review, and if appropriate revise the Plan's asset mix.

25  
26 NS Power conducted an Asset Liability Study in 2010 and 2011. Please refer to Confidential  
27 Attachments 1-5, available for viewing at NS Power's offices. The recommendations of the  
28 Asset Liability Study are in the process of being implemented.

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1 A Statement of Investment Policies and Procedures (SIP&P) was approved in September 2011.

2 Please refer to Eckler IR-6.

3

4 Please refer to Eckler IR-2 Attachment 5 for The Statement of Investment Beliefs. The  
5 Statement sets forth and documents the underlying principles and beliefs, which form the basis  
6 for the development of investment policies and guidelines, and serves as a guide for managing  
7 the assets of the Plans in a prudent and effective manner.

8

9 The Plan's overall operation is overseen by the Management Pension Committee (MPC) which  
10 meets quarterly. The mandate of MPC includes the setting and review of investment policy and  
11 performance, reviewing the Plan's financial position and cash requirements, reviewing the  
12 quality and costs of services provided by third party providers and making decisions regarding  
13 third party providers as necessary, and discussing other relevant pension issues.

**CONFIDENTIAL (Attachment Only)**

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1 **Request IR-2:**

2  
3 **Please provide any documents that are dated in or relate to 2011 and/or 2012 concerning**  
4 **the NSPI Registered Pension Plans (RPPs) and/or NSPI SERPs.**

5  
6 Response IR-2:

7  
8 Accounting disclosures for 2011 are included in OP-1 Attachments 1 and 2 and Q1 2012  
9 disclosures are publically available on our website.

10  
11 Please refer to the following documents:

- 12
- 13 • Eckler IR-11 for the Management Pension Committee Minutes and associated  
14 documents.
  - 15
  - 16 • Due to the volume of material the RBC Dexia Investment, Analytics, and Compliance  
17 Reports are available for viewing at NS Power's offices. Please refer to Eckler IR-12.
  - 18
  - 19 • Attachments 1 and 2 for copies of the actuarial valuation reports for the Company  
20 registered pension plans at December 31, 2010 and Attachment 4 for filing letters sent to  
21 the Nova Scotia Superintendent of Pensions and the Canada Revenue Agency in regards  
22 to these reports.
  - 23
  - 24 • Attachment 3 for the accounting valuation report for the various Company plans at  
25 December 31, 2011.
  - 26
  - 27 • Confidential Attachment 5 regarding the Company's Statement of Investment Beliefs.
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**CONFIDENTIAL (Attachment Only)**

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- 1 • Eckler IR-16 Attachment 1 for a copy of the annual pension statement template sent to  
2 members.  
3
- 4 • RB-02 – RB-16 Attachment 2 and Larkin IR-12 Attachment 1 for accounting projections  
5 over the 2013-2017 period.  
6
- 7 • Larkin IR-12 Attachment 2 for a letter regarding projected 2012 benefit cost.  
8
- 9 • Eckler IR-10 and corresponding attachments for materials reviewed in setting actuarial  
10 assumptions for pension accounting purposes  
11
- 12 • Confidential Attachments 6, 7, and 8 for letters to NS Power’s auditors regarding draft  
13 results for the Company registered pension plans going concern financial position at  
14 December 31, 2011 along with an estimate of the minimum contribution requirements for  
15 2012.  
16
- 17 • Please refer to Partially Confidential Attachment 9 for a copy of the letter of credit  
18 valuations for the Nova Scotia Power Inc. Supplementary Retirement Plan (SERP)  
19 performed in 2012. NS Power has modified the valuations to remove personal  
20 information. Attachment 2 from 2012 GRA NSPI (NPB) IR-173 contains details of prior  
21 SERP letter of credit valuations.  
22
- 23 • Eckler IR-7 Attachment 1 for copies of the audited financial statements in respect of the  
24 Registered Pension Plans (RPP’s) in 2011.

2013 General Rate Application (NSUARB P-893)  
NSPI Responses to Eckler Information Requests

**CONFIDENTIAL (Attachment Only)**

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1 Please also refer to the following Information Requests (IRs) from the 2012 GRA:

2

- 3 • NPB IR-99 Attachment 1<sup>1</sup> (December 31, 2009 funding valuation reports)
- 4 • Liberty IR-80 Attachment 1<sup>2</sup> (December 31, 2010 accounting valuation report)
- 5 • NPB IR-99 Attachment 16<sup>2</sup> (annual information returns)

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<sup>1</sup> NSPI 2012 General Rate Application, NSPI (NPB) IR-99, NSUARB-NSPI-P-892, June 30, 2011.

<sup>2</sup> NSPI 2012 General Rate Application, NSPI (Liberty) IR-80, NSUARB-NSPI-P-892, June 7, 2011.

Actuarial Valuation for Funding Purposes  
as at December 31, 2010 of the  
  
Pension Plan for Employees of  
Nova Scotia Power Incorporated

*December 2011*

*Registration numbers: Nova Scotia and Canada Revenue Agency 0687210*

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## Executive Summary

### Purpose

This report presents the results of the actuarial valuation as at December 31, 2010 of the Pension Plan for Employees of Nova Scotia Power Incorporated (the “Plan”). Nova Scotia Power Incorporated (“NSPI”) retained the services of Morneau Shepell Ltd. to perform this actuarial valuation. The last valuation of the Plan filed with Nova Scotia and the Canada Revenue Agency was performed as at December 31, 2009.

This report was prepared for NSPI for the following purposes:

- > to determine the going-concern financial position of the Plan;
- > to determine the solvency financial position of the Plan;
- > to estimate the Employer contributions required under the Plan during the period up until the next valuation in accordance with the Nova Scotia *Pension Benefits Act*; and
- > to provide the information and the actuarial opinion required by Nova Scotia and the Canada Revenue Agency.

We note that effective January 1, 2007, Emera became a participating employer under the DB component of the Plan. A number of NSPI employees transferred to Emera on or after January 1, 2007 and the benefits in respect of credited service after the transfer will be the responsibility of Emera. Additionally, Emera will be responsible for any changes in liability (actuarial gains or losses) in respect of benefits accrued in respect of credited service prior to the member’s date of transfer due to actual salary increases differing from the assumed salary increase (used for accounting valuation purposes).

The results summarized in this executive summary are shown for the Plan in total and do not distinguish between NSPI and Emera. Results are split between NSPI and Emera throughout the rest of the report, where appropriate.

### Going-Concern Financial Position

The following table summarizes the change in the going-concern financial position of the defined benefit (“DB”) component of the Plan since the previous valuation:

**Table 0.1 Summary Reconciliation of Going-Concern Financial Position (millions) – DB Component**

Surplus (unfunded liability) as at December 31, 2009	(\$123.93)
Interest on surplus (unfunded liability)	(\$9.45)
Employer special contributions, plus interest	\$21.55
Change in actuarial assumptions	\$0.00
Actuarial gain (loss) on plan experience	\$8.28
Change in asset smoothing reserve	(\$40.77)
Surplus (unfunded liability) as at December 31, 2010	(\$144.31)

*Figures may not add up exactly due to rounding.*

The DB component of the Plan has a going-concern unfunded liability of \$144.31 million as at December 31, 2010.

The actuarial value of the Plan assets as at December 31, 2010 in respect of the DB component of the Plan is \$588.59 million. This represents 96% of the market value of assets, and 80% of the actuarial liability on a going-concern basis.

In addition, the defined contribution (“DC”) component of the Plan had assets and liabilities equal to \$12.93 million.

#### **Solvency Financial Position**

As at December 31, 2010, the DB component of the Plan has a solvency deficiency of \$11.84 million, and the transfer ratio is 0.84. As at December 31, 2009, the Plan had a transfer ratio of 0.87.

#### **Wind-Up Financial Position**

As at December 31, 2010, if the Plan had been wound-up, the liabilities would have exceeded the market value of Plan assets by \$456.97 million.

#### **Normal Actuarial Cost and Contributions**

The total normal actuarial cost for the DB component of the Plan is made up of employee required contributions and the residual normal cost. Effective January 1, 2011, the residual normal actuarial cost for the DB component of the Plan is 8.77% of covered payroll, compared to 9.09% of covered payroll for 2010. Based on estimated covered DB payroll for 2011 of \$102.83 million, the Employer 2011 current service cost is estimated to be \$9.02 million for the DB component of the Plan.

As a result of the going-concern unfunded liability and solvency shortfall, minimum monthly contributions of \$2.14 million (\$25.7 million annually) are required to be remitted to the fund until at least the time of the next formal valuation.

The Employer is also required to contribute to the Plan the value of escalated adjustments in respect of any commuted value payment being paid from the Plan in accordance with Regulation 19(12) of the

*Nova Scotia Pension Benefits Act*. In addition, due to the Plan's transfer ratio being less than 1, the Employer may be required to pay additional amounts into the Plan in order to pay the full commuted value at the time of a member's termination. For 2011, the contribution amount related to the escalated adjustment and transfer ratio is estimated to be \$0.47 million.

In total, the minimum 2011 required contribution to the DB component of the Plan is estimated to be \$35.15 million, comprised of \$9.02 million for DB current service cost, plus \$25.66 million for special payments towards the unfunded liability and solvency deficiency, plus an estimated \$0.47 million due to a transfer ratio less than 1 and the value of escalated adjustments in respect of any commuted value payment being paid from the Plan.

In addition, NSPI, along with other participating employers, will be required to make contributions to the DC component of the Plan equal to 3% of covered payroll plus, for those employers participating in Option 2 of the DC component, 50% of employee optional contributions. The required contribution to the DC component of the Plan for 2011 is estimated to be \$1.46 million for all participating employers.

#### **Changes since the Previous Valuation**

There have been no changes to the Plan terms since the last valuation.

The following changes have been made to the actuarial assumptions and methods since the last valuation:

- > The solvency and wind-up discount rates were reviewed and updated (where necessary) to reflect December 31, 2010 market conditions.

Appendix A provides complete details concerning the methods and assumptions used for going-concern funding purposes. Appendix B provides details regarding the basis used for solvency and wind-up purposes.

## Section 1 – Going-Concern Financial Position

### Statement of Going-Concern Financial Position

The financial position of the Plan on a going-concern basis is determined by comparing the actuarial value of assets to the actuarial liability. This reflects the assets available for the benefits earned up to the valuation date assuming the Plan continues indefinitely.

The following table shows the going-concern financial position of the DB component of the Plan as at December 31, 2010, with figures split between NSPI and Emera. For comparison, the going-concern financial position as at December 31, 2009 is also shown.

**Table 1.1 Going-Concern Financial Position (millions) – DB component**

	December 31, 2010			December 31, 2009
	NSPI	Emera	Total Plan	Total Plan
<b>Actuarial value of assets</b>				
> Market value	\$614.39	\$1.45	\$615.84	\$559.96
> Net receivable/(payable)	(\$0.30)	\$0.00	(\$0.30)	(\$0.14)
> Asset smoothing reserve	(\$26.89)	(\$0.06)	(\$26.95)	\$13.81
<b>Total actuarial value of assets</b>	<b>\$587.20</b>	<b>\$1.39</b>	<b>\$588.59</b>	<b>\$573.63</b>
<b>Actuarial liability</b>				
> Active members	\$287.61	\$1.46	\$289.07	\$285.29
> Terminated vested members	\$13.10	\$0.00	\$13.10	\$12.39
> Retired members and beneficiaries	\$430.68	\$0.05	\$430.73	\$399.87
<b>Total actuarial liability</b>	<b>\$731.39</b>	<b>\$1.51</b>	<b>\$732.90</b>	<b>\$697.56</b>
<b>Actuarial surplus (unfunded liability)</b>	<b>(\$144.18)</b>	<b>(\$0.13)</b>	<b>(\$144.31)</b>	<b>(\$123.93)</b>
<b>Funded Percentage</b>	<b>80.3%</b>	<b>91.7%</b>	<b>80.3%</b>	<b>82.2%</b>

*Figures may not add up exactly due to rounding.*

Assets and liabilities in respect of the DC component of the Plan were \$12.93 million as at December 31, 2010.

Appendix A and Appendix C provide further details on the determination of the actuarial liabilities and the actuarial value of assets respectively. A summary of membership data can be found in Appendix D. Appendix E contains a summary of the Plan provisions.



A summary of the recent history of the Plan’s going-concern funded position is provided below:

**Table 1.2 Going-Concern Assets and Liabilities (millions) – DB component**

Valuation Date	Actuarial Value of Assets	Actuarial Liabilities	Actuarial Surplus (Unfunded Liability)
December 31, 2008	\$575.44	\$664.34	(\$88.89)
December 31, 2009	\$573.63	\$697.56	(\$123.93)
December 31, 2010	\$588.59	\$732.90	(\$144.31)

*Figures may not add up exactly due to rounding.*

### Changes since the Previous Valuation

Changes since the previous valuation are discussed below. The financial impact of these changes is shown below in the section entitled “Reconciliation of Going-Concern Financial Position”.

### Changes in Plan Provisions

There have been no changes to the Plan terms since the last valuation.

A summary of Plan provisions can be found in Appendix E.

### Changes in Actuarial Basis

There have been no changes to the Actuarial Basis since the last valuation.

A summary of the going-concern assumptions used is shown in Appendix A.

### Reconciliation of Going-Concern Financial Position

An unfunded actuarial liability is the excess of the actuarial liability over the actuarial value of assets. A surplus is the excess of the actuarial value of assets over the actuarial liability. The change in the Plan’s going-concern financial position is the net result of several factors, which are summarized in the table below:

Table 1.3 Reconciliation of Going-Concern Financial Position (millions)

Actuarial surplus (unfunded liability) as at December 31, 2009	(\$123.93)
Adjustment to exclude smoothing reserve as at December 31, 2009	(13.81)
<b>Actuarial surplus (unfunded liability) as at December 31, 2009 (Market value basis)</b>	<b>(137.74)</b>
Expected changes in financial position:	
> Interest on surplus (unfunded liability)	(9.45)
> Employer special payments <sup>1</sup> plus interest	21.19
<b>Expected surplus (unfunded liability) as at December 31, 2010</b>	<b>(126.00)</b>
Actuarial gain (loss) due to plan experience:	
> Actuarial gain on net investment returns	14.09
> Actuarial loss on salary increase higher than assumed	(4.55)
> Actuarial gain on post-retirement indexing for pensioners and pre-retirement indexing for deferred members (actual indexing of 1.60% versus 2.75% expected)	4.95
> Actuarial loss on active termination experience	(2.39)
> Actuarial loss on active member retirement experience	(2.20)
> Actuarial loss on pensioner mortality experience	(0.82)
> All other experience combined	(0.43)
Total actuarial gain (loss) due to plan experience:	8.64
<b>Actuarial surplus (unfunded liability) as at December 31, 2010 (Market value basis)</b>	<b>(117.36)</b>
Adjustment to include smoothing reserve as at December 31, 2010	(26.95)
<b>Actuarial surplus (unfunded liability) as at December 31, 2010</b>	<b>(144.31)</b>

Figures may not add up exactly due to rounding.

1. Includes both special payments and payments made related to the funding of escalated adjustments.

### Sensitivity Analysis on the Going-Concern Basis

The table below illustrates the effect of 1% decrease in the discount rates on the going-concern actuarial liabilities. With the exception of the discount rates, all other assumptions and methods used for this valuation were maintained.

**Table 1.4 – Sensitivity of Actuarial Liabilities on the Going-Concern Basis (millions)**

	December 31, 2010	Discount rates 1% lower
	\$	\$
Actuarial liabilities		
> Active members	\$289.07	\$343.61
> Terminated vested members	\$13.10	\$15.60
> Retired members and beneficiaries	\$430.73	\$479.25
> Total	<b>\$732.90</b>	<b>\$838.46</b>
Increase in actuarial liabilities		<b>\$105.56</b>

## Section 2 – Solvency and Wind-Up Financial Position

### Statement of Solvency Financial Position

As required by the Nova Scotia *Pension Benefits Act*, we have determined the solvency financial position of the Plan as at the valuation date. The Plan's solvency financial position is the extent to which the actuarial present value of benefits, calculated as if the Plan were wound up on December 31, 2010 but allowing for the exclusion of escalated adjustments (i.e. pension indexing after January 1, 2011) and member grow-in rights, is supported by the assets and certain amortization payments. For the purpose of the valuation, the value related to indexing effective January 1, 2011 is included in the liabilities. Appendix B provides further details on the determination of solvency liabilities and assets.

The following table shows the solvency financial position of the DB component of the Plan as at December 31, 2010, with figures split between NSPI and Emera. For comparison, the solvency financial position as at December 31, 2009 is also shown.

**Table 2.1 Solvency Financial Position (millions) – DB component**

	December 31, 2010			December 31, 2009
	NSPI	Emera	Total Plan	Total Plan
<b>Solvency assets</b>				
> Market value of assets	\$614.39	\$1.45	\$615.84	\$559.96
> Net receivable/(payable)	(\$0.30)	\$0.00	(\$0.30)	(\$0.14)
> Asset smoothing reserve	(\$26.89)	(\$0.06)	(\$26.95)	\$13.81
> Present value of 5 years of existing special payments	\$97.80	\$0.13	\$97.91	\$60.35
> Wind-up expenses	(\$0.75)	(\$0.03)	(\$0.78)	(\$0.78)
<b>Total solvency assets</b>	<b>\$684.26</b>	<b>\$1.47</b>	<b>\$685.73</b>	<b>\$633.20</b>
<b>Solvency liability</b>				
> Active members	\$266.80	\$1.17	\$267.97	\$262.01
> Terminated vested and pending members	\$13.62	\$0.00	\$13.62	\$12.76
> Retired members and beneficiaries	\$415.93	\$0.05	\$415.98	\$385.68
<b>Total solvency liability</b>	<b>\$696.35</b>	<b>\$1.22</b>	<b>\$697.57</b>	<b>\$660.45</b>
<b>Solvency assets less solvency liability</b>	<b>(\$12.09)</b>	<b>\$0.25</b>	<b>(\$11.84)</b>	<b>(\$27.25)</b>
<b>Transfer ratio* (assets/solvency liability)</b>	<b>0.84</b>	<b>1.11</b>	<b>0.84</b>	<b>0.87</b>
Assumed annual discount rate for annuity purchase	4.48%	4.48%	4.48%	4.49%

Figures may not add up exactly due to rounding.

\* Ratio of market value of assets plus net receivable/payable and asset smoothing reserve less wind-up expenses to solvency liability. The present value of special payments is excluded from the assets in this calculation.

Solvency assets and liabilities in respect of the DC component of the Plan were \$12.93 million as at December 31, 2010.

A discount rate of 3.30% per annum is the prescribed rate used for the first ten years to value the transfer value of non-indexed pensions as determined in accordance with the standards of the Canadian Institute of Actuaries (the “CIA”) in effect at the valuation date. The ultimate rate is 5.00% per annum.

Based on the Canadian Institute of Actuaries’ (CIA) guidance provided in May 2011 and long term Government of Canada bonds’ yield (series V39062) of 3.48% at December 31, 2010, the guidance suggests a 4.48% discount rate used on conjunction with the UP94@2020 mortality table to approximate the cost of purchasing immediate non-indexed annuities as at the valuation date.

For purposes of the solvency valuation, we assumed that all active members over age 50, deferred vested members, and pensioners would elect to take an annuity purchase if the plan were terminated. Active members under age 50 were assumed to elect a transfer value. For additional details on the solvency assumptions and methods, see Appendix B.

#### **Exclusion of Escalated Adjustments**

Due to the exclusion of escalated adjustments (i.e. pension indexing after January 1, 2011) from the solvency valuation, any commuted value payment from the Plan must exclude the value of the escalated adjustments unless an amount equal to the value of the escalated adjustments in respect of such payment is first paid into the Plan by NSPI.

#### **Transfer Ratio**

Since the transfer ratio of the NSPI DB component of the Plan is less than 1, the Nova Scotia Pension Benefits Act restricts the amount that may be paid out of the NSPI DB component in respect of the commuted value of a terminating member. Specifically, since the transfer ratio is 0.84, an amount equal to 16% of a terminating member’s commuted value (the “transfer deficiency”) may be required to remain in the Plan until the transfer ratio has increased to at least 1. Alternatively, the employer may contribute an additional amount to the fund equal to the transfer deficiency on a member by member basis and pay 100% of the commuted value excluding any escalated adjustment portion (unless the value of the escalated adjustment is also contributed as discussed above).

In the absence of contributing the 16%, the requirement to hold back the transfer deficiency may be waived in individual cases if the following conditions are met:

- a) the transfer deficiency is less than 5% of the YMPE in the year (i.e. if the commuted value excluding the value of escalated adjustments is less than \$15,094 for 2011); and
- b) the total of all transfer deficiencies which have been paid from the Plan since the date of this valuation report are less than 5% of the solvency assets at the valuation date.

We understand that NSPI intends to remit the value of the escalated adjustments (as discussed in the previous section) and the transfer deficiency to the fund when paying commuted values and have presented our funding recommendations in Section 3 on this basis. The Plan actuary should be consulted for advice if NSPI decides to change their funding policy.

The transfer ratio of the Emera DB component of the Plan is greater than 1.0. Emera needs to remit the value of escalated adjustments (as discussed in the previous section) related to terminating member's so that the member's entire entitlement may be transferred out of the Emera DB component of the Plan.

#### **Solvency Asset Smoothing Reserve**

As permitted by Section 16(1)(c)(i) of the Regulations to the Nova Scotia *Pension Benefits Act*, an asset smoothing reserve has been included in the value of solvency assets to stabilize short-term fluctuations in the market value of the plan assets. Further details on this smoothing method are presented in Appendix B and Appendix C. The asset smoothing method results in a write-down of the assets for solvency purposes in the amount of \$26.95 million. In accordance with Section 19(1)(a) of the Regulations to the Nova Scotia *Pension Benefits Act*, the calculation of the transfer ratio includes the asset smoothing reserve.

#### **Present Value of Five Years of Special Payments**

As permitted by Section 16(1)(c)(iv) of the Regulations to the Nova Scotia *Pension Benefits Act*, the present value of each of NSPI and Emera's going-concern special payments that are scheduled for the next five years have been included in the value of solvency assets for the Plan. The schedule of special payments to amortize the Plan's going-concern unfunded liability and solvency deficiency is set out in Section 3 of this report. The present value of payments is calculated using the discount rate in the solvency actuarial basis. In accordance with the Nova Scotia *Pension Benefits Act*, the present value of special payments is excluded from the calculation of the transfer ratio.

The following table shows the present value of each of NSPI and Emera's special payments that have been included:

Table 2.2 Present Value of Five Years of Special Payments for NSPI and Emera

Nature of liability	End of Calculation Period	Annual Amortization Payments	Present Value of Special Payments
Going-concern (NSPI)	Dec. 31, 2015	\$9,359,900	\$41,950,200
Going-concern (NSPI)	Dec. 31, 2015	\$4,084,800	\$18,307,700
Going-concern (NSPI)	Dec. 31, 2015	\$3,381,600	\$15,156,000
Solvency (NSPI)	Dec. 31, 2014	\$6,113,300	\$22,388,900
<b>NSPI Subtotal</b>		<b>\$22,939,600</b>	<b>\$97,802,700</b>
Going-concern (Emera)	Dec. 31, 2014	\$14,400	\$52,700
Going-concern (Emera)	Dec. 31, 2015	\$8,700	\$39,000
Going-concern (Emera)	Dec. 31, 2015	\$3,100	\$14,100
<b>Emera Subtotal</b>		<b>\$26,200</b>	<b>\$105,800</b>
<b>Totals</b>		<b>\$22,959,800</b>	<b>\$97,908,500</b>

### Sensitivity Analysis on the Solvency Basis

The table below illustrates the effect on the actuarial liabilities of using discount rates 1% lower than those used for the solvency valuation. All other assumptions and methods, as used in this valuation, were maintained.

Table 2.3 – Sensitivity of Actuarial Liabilities on the Solvency Basis (millions)

	December 31, 2010	Discount rates 1% lower
	\$	\$
Actuarial liabilities		
> Active members	\$267.97	\$312.51
> Terminated vested members	\$13.62	\$16.11
> Retired members and beneficiaries	\$415.98	\$461.13
> Total	\$697.57	\$789.75
Increase in actuarial liabilities		\$92.18

### Incremental Cost on the Solvency Basis

The incremental cost on the solvency basis represents the present value of the expected aggregate change in the solvency liabilities from December 31, 2010 to December 31, 2011, adjusted upwards for expected benefit payments in the inter-valuation period. This incremental cost is estimated to be \$35.2 million as at December 31, 2010.

### Statement of Wind-Up Financial Position

The following table shows the wind-up position of the DB component of the Plan as at December 31, 2010, with figures split between NSPI and Emera. For comparison, the wind-up position as at December 31, 2009 is also shown. Wind-up values take into account all benefits payable (the differences from the solvency valuation being the inclusion of escalated adjustments, grow-in benefits, and the use of market value of assets rather than the solvency value of assets).

**Table 2.4 Wind-Up Financial Position (millions) – DB component**

	December 31, 2010			December 31, 2009
	NSPI	Emera	Total Plan	Total Plan
<b>Wind-up assets</b>				
> Market value	\$614.39	\$1.45	\$615.84	\$559.96
> Net receivable/(payable)	(\$0.30)	\$0.00	(\$0.30)	(\$0.14)
> Wind-up expenses	(\$0.75)	(\$0.03)	(\$0.78)	(\$0.78)
<b>Total wind-up assets</b>	<b>\$613.34</b>	<b>\$1.43</b>	<b>\$614.77</b>	<b>\$559.04</b>
<b>Wind-up liability</b>				
> Active members (excluding grow-in)	\$393.19	\$1.82	\$395.01	\$369.43
> Additional liability due to grow-in rights	\$54.33	\$0.29	\$54.62	\$47.97
> Terminated vested members and pending	\$22.97	\$0.00	\$22.97	\$20.50
> Retired members and beneficiaries	\$599.07	\$0.07	\$599.14	\$530.23
<b>Total wind-up liability</b>	<b>\$1,069.56</b>	<b>\$2.18</b>	<b>\$1,071.74</b>	<b>\$968.13</b>
<b>Wind-up surplus (shortfall)</b>	<b>(\$456.22)</b>	<b>(\$0.75)</b>	<b>(\$456.97)</b>	<b>(\$409.08)</b>

*Figures may not add up exactly due to rounding.*

The assumed net discount rate as at December 31, 2010 to purchase CPI indexed immediate annuities is 1.11% per annum. This is based on the Canadian Institute of Actuaries' (CIA) guidance provided in May 2011 and long term Government of Canada bonds' yield (series V39057) of 1.11% at December 31 2010.

If the Plan had been wound-up as at December 31, 2010, liabilities would exceed the market value of assets by \$456.97 million (\$456.22 million for NSPI and \$0.75 million for Emera).

The difference between the solvency and wind-up liabilities of \$374.17 million represents the value of the escalated adjustments (i.e., pension indexing after January 1, 2011) equal to \$319.55 million and the value of the grow-in benefits equal to \$54.62 million.

In addition, wind-up assets and liabilities in respect of the DC component of the Plan were \$12.93 million as at December 31, 2010.



## Section 3 – Employer Contributions

There are two primary types of Employer contributions. The first one is the contribution that may be required to cover the residual normal actuarial cost; the excess of the total normal cost over employee required contributions. The second one is the amortization payment that is required to liquidate any going-concern unfunded liabilities and/or solvency deficiencies. In addition, other Employer contributions may be required when commuted values are paid from the Plan and escalated adjustments are excluded from the solvency valuation.

### Normal Actuarial Cost

Table 3.1 below summarizes the estimated going-concern cost of pension benefits being earned under the DB component of the Plan in the twelve-month period after the valuation date (the normal actuarial cost). The normal actuarial cost is shown split between NSPI and Emera.

**Table 3.1 Normal Actuarial Cost – DB component**

	NSPI		Emera		Total Plan	
	\$ millions	(% of Pay)	\$ millions	(% of Pay)	\$ millions	(% of Pay)
Normal actuarial cost	\$14.59	(14.65%)	\$0.37	(11.17%)	\$14.96	(14.54%)
Less : Employee contributions	\$5.79	(5.82%)	\$0.15	(4.44%)	\$5.94	(5.77%)
Residual normal actuarial cost	\$8.80	(8.84%)	\$0.22	(6.73%)	\$9.02	(8.77%)
Covered Payroll (DB component)*	\$99.54		\$3.28		\$102.83	

*Figures may not add up exactly due to rounding.*

\* Covered payroll is based on the definition of Earnings in the Plan text and may include amounts on which members do not contribute to the Plan.

The factors contributing to the change in the normal actuarial cost are shown below:

**Table 3.2 Reconciliation of Normal Actuarial Cost (Total Plan, % of payroll) – DB component**

Normal actuarial cost for Total Plan as at December 31, 2009	14.85%
Change in demographics of active membership	-0.31%
Normal actuarial cost for Total Plan as at December 31, 2010	14.54%

*Figures may not add up exactly due to rounding.*

The required contribution for normal actuarial cost for the DB component for 2011 is 8.84% of payroll for NSPI and 6.73% for Emera (8.77% for the total DB component of the Plan). For 2011, based on a projected DB pensionable payroll of \$99.54 million for NSPI and \$3.28 million for Emera, the required contribution is estimated to be \$8.80 million for NSPI and \$0.22 million for Emera (\$9.02 million for the total DB component of the Plan). For comparison, the employer's required contribution for normal actuarial cost for the DB component of the Plan for 2010 was 9.19% of payroll for NSPI and 6.19% for Emera.

Appendix A provides further details on the determination of the normal actuarial cost. A summary of the membership data and of the plan provisions is presented in Appendix D and Appendix E, respectively.

The table below summarizes the estimated employer contributions required for the DC component of the Plan for 2011.

**Table 3.3 Normal Actuarial Cost – DC component (thousands)**

<b>Employer</b>	<b>Employer Basic 3% Contribution</b>	<b>Employer 50% Matching of Member Optional Contributions</b>	<b>Total Employer Contributions (Basic plus 50% Matching)</b>
Nova Scotia Power Inc.	\$435	\$368	\$803
Emera Energy Incorporated	\$105	\$97	\$202
Bayside Power Inc.	\$35	\$34	\$68
Emera Utility Services Incorporated	\$199	\$59	\$259
Emera Incorporated	\$57	\$53	\$109
Emera Brunswick Pipeline Company Ltd.	\$11	\$10	\$20
<b>Total</b>	<b>\$842</b>	<b>\$620</b>	<b>\$1,462</b>

*Figures may not add up exactly due to rounding.*

### **Amortization Payments**

The going-concern statement of financial position shown in Section 1 for NSPI identified a going-concern unfunded liability of \$144.18 million at the valuation date. This unfunded liability requires monthly special payments of \$1.40 million until the next valuation.

In addition, monthly solvency special payments of \$0.73 million are required until the next valuation.

NSPI's total monthly amortization payments required until the next valuation are \$2.14 million.

Emera has a going-concern unfunded liability of \$0.13 million at the valuation date. This unfunded liability requires monthly special payments of \$2,200 until the next actuarial valuation is performed.

Emera's solvency assets exceed the solvency liabilities by \$0.25 million at the valuation date. As a result, no solvency special payments are required at this time for Emera.

Such special contributions must be remitted to the fund monthly, within 30 days of the month to which they pertain. The amortization schedules are summarized as follows:

Table 3.4 Amortization Payments and Present Values as at December 31, 2010

Nature of Liability	Date Established	End of Amortization Period	Annual Payment	Monthly Payment	Present Value of Special Payments (GC Basis)	Present Value of Special Payments (Solv Basis*)
Going-concern (NSPI)	Dec. 31, 2008	May 31, 2016	\$9,359,900	\$779,992	\$42,134,800	\$41,950,200
Going-concern (NSPI)	Dec. 31, 2009	Dec. 31, 2024	\$4,084,800	\$340,400	\$37,144,500	\$18,307,700
Going-concern (NSPI)	Dec. 31, 2010	Dec. 31, 2025	\$3,381,600	\$281,800	\$32,038,800	\$15,156,000
Solvency (NSPI)	Dec. 31, 2009	Dec. 31, 2014	\$6,113,300	\$509,442	\$21,418,000	\$22,388,900
Solvency (NSPI)	Dec. 31, 2010	Dec. 31, 2015	\$2,697,300	\$224,775	\$11,445,900	\$12,089,000
<b>NSPI Subtotal</b>			<b>\$25,636,900</b>	<b>\$2,136,408</b>	<b>\$144,182,000</b>	<b>\$109,891,800</b>
Going-concern (Emera)	Dec. 31, 2007	Dec. 31, 2014	\$14,400	\$1,200	\$50,500	\$52,700
Going-concern (Emera)	Dec. 31, 2008	June 30, 2017	\$8,700	\$725	\$45,800	\$39,000
Going-concern (Emera)	Dec. 31, 2010	Dec. 31, 2025	\$3,139	\$262	\$29,700	\$14,100
<b>Emera Subtotal</b>			<b>\$26,239</b>	<b>\$2,187</b>	<b>\$126,000</b>	<b>\$105,800</b>
<b>Totals</b>			<b>\$25,663,139</b>	<b>\$2,138,595</b>	<b>\$144,308,000</b>	<b>\$109,997,600</b>

\* Present value on a solvency basis includes a maximum of five years of scheduled payments following the valuation date.

Higher amortization payments are acceptable under the Nova Scotia *Pension Benefits Act* and would be deductible under the *Income Tax Act* and Regulations. These payments, however, must be limited to the greater of the going-concern unfunded liability and wind-up shortfall: \$456.22 million plus accrued interest for NSPI and \$0.75 million plus accrued interest for Emera.

There are no statutory funding requirements based on the Plan's wind-up position.

#### Other Contributions

Due to the exclusion of escalated adjustments from the solvency valuation, any commuted value payment from the Plan must exclude the value of the escalated adjustments unless an amount equal to the value of the escalated adjustments in respect of such payment is first paid into the Plan by NSPI or Emera. For 2011, if NSPI and Emera wish to pay out the full commuted value, and assuming \$1.09 million of total payments for NSPI and zero for Emera, we estimate the additional contribution in respect of the escalated adjustments to be approximately \$0.35 million for NSPI and zero for Emera (on average 32.2% of each payment). These additional contributions may be adjusted accordingly based on the actual amount of the commuted value payments.

In addition, as discussed in Section 2, because the NSPI DB component of the Plan has a transfer ratio less than 1, other Employer contributions may be required when commuted values are paid from the Plan. Based on \$1.09 million of payments for the NSPI DB component, the required amount is estimated to be \$0.12 million (\$1.09 million x 67.8% relating to the portion which excludes escalated adjustments x 16% transfer ratio deficiency).

### Summary of Contributions

Based on the above, the estimated minimum contributions in 2011 for NSPI and Emera are as follows:

**Table 3.5 Minimum 2011 Contributions to the Plan (millions)**

	NSPI Estimated Minimum Contribution for 2011	Emera Estimated Minimum Contribution for 2011	Total Plan Estimated Minimum Contribution for 2011
Current service cost (DB component)	\$8.80	\$0.22	\$9.02
Amortization payments (DB component)			
> Going-concern Unfunded liability	\$16.83	\$0.03	\$16.85
> Solvency deficiency	\$8.81	-	\$8.81
Other Contributions*	\$0.47	-	\$0.47
<b>Estimated Employer contributions (DB component)</b>	<b>\$34.90</b>	<b>\$0.25</b>	<b>\$35.15</b>
Current service cost (DC)	\$0.80	\$0.11	\$0.91
<b>Estimated Employer contributions (DB plus DC components)</b>	<b>\$35.70</b>	<b>\$0.36</b>	<b>\$36.06</b>

Figures may not add up exactly due to rounding.

\* Assuming \$1.09 million of commuted value payments from the Plan in 2011. This amount is the estimated contribution required to fund the value of escalated adjustments not included in the solvency valuation and due to the transfer ratio being less than 1.

The maximum contributions in 2011 for NSPI and Emera are as follows:

**Table 3.6 Maximum 2011 Contributions to the Plan (millions)**

	NSPI Estimated Maximum Contribution for 2011	Emera Estimated Maximum Contribution for 2011	Total Plan Estimated Maximum Contribution for 2011
Current service cost (DB component)	\$8.80	\$0.22	\$9.02
Funding on Wind-up basis	\$456.22	\$0.75	\$456.97
<b>Estimated Employer contributions (DB component)</b>	<b>\$465.01</b>	<b>\$0.97</b>	<b>\$465.98</b>
Current service cost (DC)	\$0.80	\$0.11	\$0.91
<b>Estimated Employer contributions (DB plus DC components)</b>	<b>\$465.81</b>	<b>\$1.08</b>	<b>\$466.89</b>

Figures may not add up exactly due to rounding.

The estimated minimum and maximum contribution for participating employers other than NSPI and Emera is shown in Table 3.3.

The minimum Employer contributions described above are based on the rules set out in the Nova Scotia *Pension Benefits Act* and Regulations and are therefore in accordance with the *Income Tax Act* and Regulations if contributed within the fiscal year or remitted within 120 days after the end of the fiscal year.

The Nova Scotia *Pension Benefits Act* requires that employee contributions be remitted to the fund monthly, within 30 days of the month to which they pertain. It also requires that the Employer contributions and special amortization payments (including those noted as “Other Contributions” in Table 3.5) be paid at least monthly and within 30 days of the month to which they pertain.

If the participating employer wishes to fund the DB component of the Plan on a “termination” basis (i.e., wind-up basis) as described in Regulation 8516(7) of the *Income Tax Act* and Regulations, NSPI and Emera may contribute \$465.01 million and \$0.97 million respectively to the Plan between December 31, 2010 and December 31, 2011 provided that a more recent valuation has not yet been filed.

The employer is required to contribute between the indicated minimum and maximum amounts in 2011. Contributions with respect to the residual normal actuarial cost should be determined on a percentage of payroll basis, while amortization payments are usually contributed based on the shown dollar amounts. Payments toward the value of escalated adjustments and due to the transfer ratio being less than 1.0 should be adjusted based on the actual amount of commuted value payments made in 2011.

The maximum contributions in subsequent years will depend on the contributions actually made to the Plan in 2011. The Plan actuary should be consulted for advice regarding maximum contributions in the following years if the total contributions in 2011 are greater than the estimated minimum required contribution.

It is noted that the value of the Accumulated Excess Company Contribution (as defined under the Plan terms) balance as at December 31, 2010 is \$113.83 million for NSPI and \$0.32 million for Emera. For 2011, the minimum Employer contributions described in Table 3.5 are greater than the estimated employee contributions described in Table 3.1. Therefore, it is expected that a portion of Employer contributions will be considered a contribution toward Accumulated Excess Company Contributions in 2011. Please refer to Tables C.5 and C.6 in Appendix C for details of the determination of the Accumulated Excess Company Contribution balance.

## Section 4 – Actuarial Opinion

This opinion is given with respect to the Pension Plan for Employees of Nova Scotia Power Incorporated (the “Plan”), Registration number 0687210 under the Nova Scotia *Pension Benefits Act* and Canada Revenue Agency.

We performed a valuation of the Plan as at December 31, 2010 based on the Plan provisions and data as at that date. Nova Scotia Power Incorporated (“NSPI”) has confirmed that no modifications or extraordinary changes to the membership that would materially affect the results of this actuarial valuation have occurred during the period from December 31, 2010 to the date of this report.

**For NSPI**, I hereby certify that, in my opinion, as at December 31, 2010:

- a) The going-concern liability exceeds the going-concern assets resulting in an unfunded liability of \$144.18 million. Assuming that amortization is over the maximum permitted period, and considering the solvency special payments described in section (b) below, the schedule of minimum monthly amortization payments to liquidate this going-concern unfunded liability is as follows:

Date Established	End of Amortization Period	Annual Payment	Monthly Payment	Present Value of Payments as at Dec 31, 2010 (GC Basis)	Present Value of Payments as at Dec 31, 2010 (Solvency)*
Dec. 31, 2008	May 31, 2016	\$9,359,900	\$779,992	\$42,134,800	\$41,950,200
Dec. 31, 2009	Dec. 31, 2024	\$4,084,800	\$340,400	\$37,144,500	\$18,307,700
Dec. 31, 2010	Dec. 31, 2025	\$3,381,600	\$281,800	\$32,038,800	\$15,156,000
<b>Total</b>		<b>\$16,826,300</b>	<b>\$1,402,192</b>	<b>\$111,318,100</b>	<b>\$75,413,900</b>

\* Present value on a solvency basis includes a maximum of five years of scheduled payments following the valuation date.

- b) According to the solvency test required under the Nova Scotia *Pension Benefits Act*, the Plan’s solvency assets are less than the solvency liabilities and the transfer ratio is 0.84. The schedule of minimum monthly amortization payments to liquidate this solvency deficiency is as follows:

Date Established	End of Amortization Period	Annual Payment	Monthly Payment	Present Value of Payments as at Dec 31, 2010 (GC Basis)	Present Value of Payments as at Dec 31, 2010 (Solvency)*
Dec. 31, 2009	Dec. 31, 2014	\$6,113,300	\$509,442	\$21,418,000	\$22,388,900
Dec. 31, 2010	Dec. 31, 2015	\$2,697,300	\$224,775	\$11,445,900	\$12,089,000
<b>Total</b>		<b>\$8,810,600</b>	<b>\$734,217</b>	<b>\$32,863,900</b>	<b>\$34,477,900</b>

- c) For NSPI, the liabilities, including grow-in benefits, would exceed the assets by \$456.22 million if the Plan were to be wound-up on the valuation date.
- d) For NSPI, the total normal actuarial cost for the DB component of the Plan is 14.65% of covered payroll. The residual normal actuarial cost (i.e. total normal actuarial cost less employee required contributions) is 8.84% of covered payroll until the next valuation. The residual normal cost for 2011, based on NSPI's estimated 2011 DB pensionable payroll of \$99.54 million, is \$8.80 million.

The employer cost for the defined contribution ("DC") component of the Plan is 3% of covered payroll plus 50% of any employee optional contributions.

- e) The minimum required NSPI contribution for the DB component for 2011 is \$34.90 million. This is comprised of \$8.80 million for DB current service cost, plus an estimated \$0.47 million for the value of escalated adjustments, and the transfer ratio being less than 1.0 in respect of any commuted value payment being paid from the Plan in accordance with Regulation 19(12) of the *Nova Scotia Pension Benefits Act*, and \$25.64 million of special payments.

The minimum required contribution to the DC component of the Plan for 2011 is estimated to be \$0.80 million for NSPI, as shown in Table 3.3.

- f) If NSPI wishes to fund the DB component of the Plan on a "termination" basis (i.e., wind-up basis) as described in Regulation 8516(7) of the *Income Tax Act* and Regulations, they may contribute \$465.01 million to the Plan between December 31, 2010 and December 31, 2011, provided that a more recent valuation has not yet been filed.

The maximum contribution for NSPI for the DC component for 2011 is equal to the minimum contribution.

**For Emera**, I hereby certify that, in my opinion, as at December 31, 2010:

- a) The going-concern liability exceeds the going-concern assets resulting in an unfunded liability of \$0.13 million. Assuming that amortization is over the maximum permitted period, the schedule of minimum monthly amortization payments to liquidate this going-concern unfunded liability is as follows:

Date Established	End of Amortization Period	Annual Payment	Monthly Payment	Present Value of Payments as at Dec 31, 2010 (GC Basis)	Present Value of Payments as at Dec 31, 2010 (Solvency)*
Dec. 31, 2007	Dec. 31, 2014	\$14,400	\$1,200	\$50,500	\$52,700
Dec. 31, 2008	June 30, 2017	\$8,700	\$725	\$45,800	\$39,000
Dec. 31, 2010	Dec. 31, 2025	\$3,139	\$262	\$29,700	\$14,100
<b>Total</b>		<b>\$26,239</b>	<b>\$2,187</b>	<b>\$126,000</b>	<b>\$105,800</b>

\* Present value on a solvency basis includes a maximum of five years of scheduled payments following the valuation date.

- b) According to the solvency test required under the Nova Scotia *Pension Benefits Act*, the Plan's solvency assets exceed the solvency liabilities for Emera and the transfer ratio is greater than 1.0. There are no required solvency amortization payments to the Plan.
- c) For Emera, the Plan's liabilities, including grow-in benefits, would exceed the Plan's assets by \$0.75 million if the Plan were to be wound-up on the valuation date.
- d) For Emera, the total normal actuarial cost for the DB component of the Plan is 11.17% of covered payroll. The residual normal actuarial cost is 6.73% of covered payroll until the next valuation. The residual normal cost for 2011, based on Emera's estimated 2011 DB pensionable payroll of \$3.28 million, is \$0.22 million.

The employer cost for the DC component of the Plan is 3% of covered payroll plus 50% of any employee optional contributions.

- e) The minimum required Emera contribution for the DB component for 2011 is \$0.25 million, comprised of \$0.22 million for DB current service cost, and \$0.03 million for special payments towards the unfunded liability.

The minimum required contribution to the DC component of the Plan for 2011 is estimated to be \$0.11 million for Emera as shown in Table 3.3.

- f) If Emera wishes to fund the DB component of the Plan on a "termination" basis (i.e., wind-up basis) as described in Regulation 8516(7) of the *Income Tax Act* and Regulations, they may contribute \$0.97 million to the Plan between December 31, 2010 and December 31, 2011, provided that a more recent valuation has not yet been filed.

The maximum contribution for Emera for the DC component for 2011 is equal to the minimum contribution.

**For all participating employers other than NSPI and Emera**, I hereby certify that, in my opinion, as at December 31, 2011:

- a) The minimum contribution for the DC component for 2011 is 3% of covered payroll plus, if the employer participates in Option 2, 50% of any employee optional contributions. The required contribution to the DC component of the Plan for 2011 is estimated to be \$0.55 million for all participating employers other than NSPI and Emera, as shown in Table 3.3.
- b) The maximum contribution for all participating employers other than NSPI and Emera for the DC component for 2011 is equal to the minimum contribution.



In my opinion:

- > The data on which the valuation is based are sufficient and reliable for the purposes of the valuation.
- > The assumptions used are appropriate for the purposes of the valuation.
- > The methods employed in the valuation are appropriate for the purposes of the valuation.

This report has been prepared, and my opinion given, in accordance with accepted actuarial practice. The assumptions that form each actuarial basis used in the report were reasonable at the time this actuarial valuation report was prepared and contributions were determined.

This actuarial valuation was performed in accordance with the funding and solvency standards prescribed under the Nova Scotia *Pension Benefits Act*. The calculations in the actuarial valuation report have been prepared in accordance with Subparagraph 147.2(2) of the *Income Tax Act*.

The recommendations and opinions are given exclusively from a financial viewpoint. This valuation report does not constitute a legal opinion on the rights or duties of the Plan administrator, the Employer or the members over the pension funds.

Actuarial valuations are performed based on assumptions and methods that are in accordance with sound actuarial principles. Emerging experience differing from these assumptions may result in gains or losses, which may affect future contribution levels. These will be revealed in future actuarial valuations.

Based on a request from the Nova Scotia Superintendent of Pensions, the next actuarial valuation should be performed not later than as at December 31, 2011.

Respectfully submitted,



Paul Chang, F.C.I.A.



Don Charlton, F.C.I.A.

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December 2011

## Appendix A – Going-Concern Actuarial Basis

### Asset Valuation Method

The actuarial value of invested assets for the DB component of the Plan used to determine the going-concern financial position is based on an adjusted value that recognizes the market value, adjusted for payments due to and payable from the pension fund, while smoothing out investment gains and losses over a 3-year period. The smoothing reserve is capped at 20% of the market value. This method was also used in the previous valuation, and is illustrated further in Appendix C. The actuarial value of assets for the DC component of the Plan is based on the market value of account balances.

### Actuarial Cost Method

The actuarial liability and normal actuarial cost on a going-concern basis for the DB component of the Plan were calculated using the “Projected Accrued Benefit (or Projected Unit Credit) Actuarial Cost Method”. The actuarial liability is equal to the present value of benefits earned by members for service prior to the valuation date, taking relevant factors into account as indicated in the assumptions below. In the case of members expected to have more than 35 years of service at retirement, we have funded the cost of their projected pension over the first 35 years of their service.

The total normal actuarial cost is equal to the present value of benefits expected to be earned by members in the year following the valuation date. The residual normal actuarial cost is the excess of the total normal actuarial cost over members’ required contributions.

The normal actuarial cost rate is the normal actuarial cost divided by covered payroll for the same period. This rate will tend to be stable over time if the demographic characteristics of the active and disabled Plan membership remain stable. All other things being equal, an increase in the average age of the active and disabled membership will result in an increasing normal actuarial cost rate.

The age for valuation purposes has been calculated by rounding to the nearest birthday.

Decrements are assumed to occur at the beginning of the year.

The liability for the DC component of the Plan is equal to the total of all DC account balances.

### Going-Concern Actuarial Assumptions

The main actuarial assumptions employed for the going-concern actuarial valuation for the DB component of the Plan are summarized in the following table. All rates and percentages are annualized unless otherwise noted.

Table A.1 Going-Concern Actuarial Assumptions – DB component

	December 31, 2010	December 31, 2009
Discount rate	6.86% (real rate of return of 4.00%)	6.86% (real rate of return of 4.00%)
Inflation	2.75%	2.75%
Salary increases, including inflation, merit and promotion	Under 30 5.75% 30 to 34 5.25% 35 to 39 4.75% 40 to 44 4.25% 45 to 49 3.75% 50 plus 3.25%	Under 30 5.75% 30 to 34 5.25% 35 to 39 4.75% 40 to 44 4.25% 45 to 49 3.75% 50 plus 3.25%
	Not applicable to members on LTD	Not applicable to members on LTD
Increase in YMPE	\$48,300 in 2011, increasing by 3.25% per annum starting in 2012	\$47,200 in 2010, increasing by 3.25% per annum starting in 2011
Maximum pension (permitted by Income Tax Act) per year of service (applicable only for service after December 31, 1991)	\$2,552 for 2010, indexed at 3.25% per annum starting in 2012	\$2,494 for 2010, indexed at 3.25% per annum starting in 2011
Interest credited on employee contributions	4.25%	4.25%
Mortality rate	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA (UP94@2020) Post-retirement only	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA (UP94@2020) Post-retirement only
Termination rate	5.00% per year prior to age 50	5.00% per year prior to age 50
Disability rate	None assumed	None assumed
Retirement	Age 58. Age 60 for deferred vested and terminating members. Age 65 or upon 35 years of service for members accruing LTD credits. Members past assumed retirement age assumed to retire in one year.	Age 58. Age 60 for deferred vested and terminating members. Age 65 or upon 35 years of service for members accruing LTD credits. Members past assumed retirement age assumed to retire in one year.
Plan expenses	Discount rate is assumed to be net of all expenses	Discount rate is assumed to be net of all expenses
Married %	At retirement: 85% Pensioners: if there was a spouse at retirement, assumed to be alive unless otherwise notified	At retirement: 85% Pensioners: if there was a spouse at retirement, assumed to be alive unless otherwise notified
Spousal age difference	Male is 3 years older than female	Male is 3 years older than female
Children's Benefits	None assumed	None assumed

### Choice of assumptions

The assumptions have been reviewed in light of current economic conditions.

#### Inflation

As stated in its monetary policy, the Bank of Canada aims to keep inflation at the 2% target, i.e. the midpoint of the 1% to 3% inflation-control target range. Given historical increases in consumer prices in Canada, the rates expected by the market, portfolio managers' expectations and the Bank of Canada policy, an expected rate of inflation of 2.75% has been used which includes a margin for adverse deviation of 0.25%.

#### Asset Return

The expected real rate of return of 4.1% was determined as follows:

**Table A.2 – Asset Mix**

	Asset Proportion	Expected real rate of return for passive management
Bonds	35%	1.50%
Equities	65%	5.50%

The elements considered in the development of the discount rates assumption for going-concern purposes are summarized in the table below.

**Table A.3 – Discount Rates**

	%
Expected inflation	2.75
Expected real return	4.10
Value added for active management	0.15
Value added for rebalancing and diversification effect	0.48
Margin for adverse deviations	(0.22)
Expected expenses	(0.40) <sup>1</sup>
Discount rates	6.86

<sup>1</sup> Includes 0.15% expense assumption for active management

The asset return is based on a building block approach. The best estimate net asset return is 7.08%. The actual assumption used is equal to 6.86% which reflects a margin for adverse deviations of 0.22%.

The return assumptions for bonds have been determined mainly (but not totally) on current market conditions while the return assumptions for equities are based more on long-term expectations.

Portfolio rebalancing will affect the portfolio's expected long-term return. In other words, realigning portfolio's weightings to the target determined in the investment policy from time to time will have an impact on the long-term return. The impact of portfolio rebalancing depends on its frequency, the weightings between asset classes, the level of diversification in the portfolio and the investment horizon. The expected return is also influenced by the level of diversification of the portfolio (this is independent of rebalancing). The expected impact of rebalancing and diversification on the portfolio's return (weighed average of returns of asset categories) was estimated on the basis of stochastic projections.

Discount rates have been adjusted to take into account fees related to asset management and plan administration.

#### Mortality

A mortality experience study has not been conducted. As such, we have used a commonly used mortality table and will monitor mortality experience gains & losses in future valuations.

#### Retirement Age

Based on a review of the Plan's retirement experience for 231 active members who retired during the period January 1, 2002 to December 31, 2007, the average retirement age was 58. We also reviewed the incidence of retirement by age relative to attainment of eligibility for an unreduced pension. While a more explicit age based retirement scale could be constructed, the valuation results would not have been materially different than assuming all members retire at age 58. For ease of communication we have assumed all active members retire at age 58.

#### Salary Scale

The salary scale is based on a building block approach. While the real wage increases reflect management's best estimate, the underlying inflation assumption includes a 0.25% margin for adverse deviation. Actual salary increases have been greater than assumed in the recent past. Given the current economic outlook, salary increases are expected to be somewhat lower in the near future. As a result, the salary scale has not been adjusted.

#### Plan Expenses

The best estimate of plan expenses is 0.40% of assets per year. Of this amount, 0.15% is attributable to active asset management.

**Exclusion of contingent benefits in going concern valuation for purpose of the valuation**

The following contingent benefits have been excluded for the purposes of the going concern valuation:

- Disability benefits – as the incidence of long-term disability is low, there is no need to make an explicit assumption regarding future disabilities. Similarly, there is no need to make an assumption regarding a return to active employment from long-term disability. The retirement assumptions which apply are based on the members' status at the valuation date. This has no material impact on the valuation results.
- Pre-retirement death benefits – as the incidence of death prior to retirement is very low, there is no need to make an explicit assumption regarding death prior to retirement. This has no material impact on the valuation results.
- Spouse at the time of death – Under the Plan terms, a spouse of a retired member is entitled to survivor benefits (regardless of whether the person was the spouse at the time of retirement). The data only records known spouses and so it is possible that a person may have a spouse at the time of death which is not recorded in the data. This is offset by the fact that known spouses may die before the member and the plan may not be notified. Therefore no adjustment is applied.
- Child and Dependent benefits: Other than valuing any children's and dependent pensions in pay, there is no need to make an explicit assumption regarding the possibility of Child and dependent benefits as it has no material impact on the valuation results.

## Appendix B – Solvency and Wind-Up Actuarial Basis

### Asset Valuation Method

The actuarial value of invested assets for the DB component of the Plan used to determine the solvency financial position is based on an adjusted value that recognizes the market value, adjusted for payments due to and payable from the pension fund, while smoothing out investment gains and losses over a 3-year period, plus the present value of minimum special amortization payments for the next five years, less an allowance for wind-up expenses. The smoothing is capped at 20% of the market value. This method was also used in the previous valuation. This method produces the same asset smoothing reserve as determined for the going-concern and is illustrated further in Appendix C. The actuarial value of assets for the DC component of the Plan is based on the market value of account balances.

Wind-up assets are equal to the sum of the market value of invested assets, adjusted for amounts payable and receivable, less an allowance for wind-up expenses.

### Actuarial Cost Method

The solvency and wind-up liability for the DB component of the Plan is determined using the Accrued Benefit (or Unit Credit) Actuarial Cost Method. The solvency liability is equal to the actuarial present value of all benefits earned by members for service prior to the valuation date, assuming the Plan is wound up on the valuation date. As permitted by the Nova Scotia *Pension Benefits Act* and the Regulations, the value of escalated adjustments (i.e. pension indexing after January 1, 2011) and member grow-in rights are excluded from the solvency valuation. The wind-up liability has been calculated including both escalated adjustments and member grow-in rights. All members are treated as vested in a solvency valuation. The solvency and wind-up liability for the DC component of the Plan is equal to the market value of account balances.

The age has been calculated rounding to the nearest integer.

### Solvency Actuarial Assumptions

The primary actuarial assumptions employed for the solvency actuarial valuation of the DB component of the Plan are summarized in the following table. For comparison, the assumptions used for the last valuation are also included in the table. All rates and percentages are annualized unless otherwise noted.

Table B.1 Solvency Actuarial Assumptions – DB component

	December 31, 2010	December 31, 2009
Discount rate for transfer value	3.30% for the next 10 years and 5.00% thereafter	3.90% for the next 10 years and 5.40% thereafter
Discount rate for annuity purchase	4.48%	4.49%
Member Election	Transfer Value: Active members under 50 years of age  Annuity Purchase: Pensioners, active members 50 years of age or older, and deferred vested members	Transfer Value: Active members under 50 years of age  Annuity Purchase: Pensioners, active members 50 years of age or older, and deferred vested members
Mortality	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA. Sex distinct*	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA. Sex distinct*
Salary increases	None	None
Merit and promotional scale	None	None
Maximum pension (permitted by Income Tax Act) per year of service (applies only in respect of service after December 31, 1991)	The Defined Benefit Limit as at January 1, 2011: \$2,552 per year of service	The Defined Benefit Limit as at January 1, 2010: \$2,494 per year of service
Increase in maximum pension	None	None
Termination, Disability	None	None
Retirement	Age that maximizes the value of the pension	Age that maximizes the value of the pension
Married %	Active Members: 85% Pensioners: if there was a spouse at retirement, assumed to be alive unless otherwise notified	Active Members: 85% Pensioners: if there was a spouse at retirement, assumed to be alive unless otherwise notified
Difference in age of spouses	Male is 3 years older than female	Male is 3 years older than female
Assets	Actuarial value with 3-year asset smoothing (reserve same as amount determined for going concern) plus present value of minimum special payments for next 5 years.	Actuarial value with 3-year asset smoothing (reserve same as amount determined for going concern) plus present value of minimum special payments for next 5 years.
Wind-up expenses (DB and DC)	\$780,000	\$780,000

\* Liabilities determined on a sex distinct basis and the appropriate unisex basis are identical.

We note the following changes from the assumptions used in the prior valuation:

- > The discount rate used for valuing transfer values was updated to be in accordance with the recommendations of the Canadian Institute of Actuaries and is based on the rates of return for long-term bonds issued by the Government of Canada in October 2010.
- > Based on the Canadian Institute of Actuaries' (CIA) guidance provided in May 2011 and long term Government of Canada bonds' yield (series V39062) of 3.48% at December 31, 2010, the guidance suggests a 4.48% discount rate used on conjunction with the UP94@2020 mortality table to approximate the cost of purchasing immediate non-indexed annuities as at the valuation date.



- > Allowance has been made for administrative, actuarial and basic legal costs which would be incurred if the Plan were to be wound up in full or in part. No allowance has been made for costs which may be incurred in respect of resolving surplus issues on plan wind up or the costs in respect of assets which cannot be readily realized.

### **Incremental Cost**

The incremental cost on the solvency basis is based on the actuarial method and assumptions described below.

#### *Actuarial Cost Method*

The method used to calculate the incremental cost may be described as follows:

1. Present value of expected benefit payments between December 31, 2010 and December 31, 2011, discounted to December 31, 2010;
- Plus
2. Projected solvency liabilities as at December 31, 2011, discounted to December 31, 2010;
- Less
3. Solvency liabilities as at December 31, 2010.

The projected liabilities as at December 31, 2011 take into account:

- > accrual of service (if applicable) to December 31, 2011;
- > expected changes in benefits to December 31, 2011; and
- > projection of pensionable earnings (if applicable) to December 31, 2011.

#### *Actuarial Assumptions*

- > The assumptions used to calculate the expected benefit payments in item 1. above and service accruals, projected changes in benefits and projected changes in the pensionable earnings in item 2. above correspond to those used in the going-concern valuation as at December 31, 2010.
- > The assumptions used to calculate the projected solvency liabilities as at December 31, 2011 in item 2. above correspond to those used for the solvency valuation as at December 31, 2010, taking into account the method of settlement applicable to each member as at December 31, 2011.

However, we assume that the discount rates remain at the levels applicable as at December 31, 2010 and that the select period is reset as at December 31, 2011 for discount rate assumptions that are select and ultimate.

We also assume that the standards of practice for the calculation of commuted values and the guidance for estimated annuity purchase costs in effect as at December 31, 2010 remain in effect as at December 31, 2011 and as such the mortality table used is the UP-94 projected to 2020 as at December 31, 2010 and as at December 31, 2011 even though the full generational UP-94 table projected with scale AA will have to be used for any valuation after February 1, 2011.

- > The projected solvency liabilities as at December 31, 2011 in item 2. above is calculated using the same postulated scenario as is used for the solvency valuation as at December 31, 2010.
- > The rates used to discount items 1. and 2. above from December 31, 2011 to December 31, 2010 correspond to those used for the solvency valuation as at December 31, 2010. However, these rates are adjusted to take into account the applicable method of settlement applicable to each member as at December 31, 2011.

### Wind-Up Actuarial Assumptions

The wind-up liability has been calculated including both escalated adjustments and member grow-in rights. The other assumptions used for the wind-up valuation are the same as those used for the solvency valuation, except for the following:

**Table B.2 Wind-Up Actuarial Assumptions – DB component**

	December 31, 2010	December 31, 2009
Assets	Market value adjusted for current payables and receivables*	Market value adjusted for current payables and receivables*
Implicit discount rate for transfer value for indexed pensions, (i.e., taking into account indexing after retirement)	1.70% for the next 10 years and 2.30% thereafter	2.10% for the next 10 years and 2.70% thereafter
Implicit discount rate for annuity purchase for indexed pension (i.e., taking into account indexing where applicable)	1.11%	1.53%
Maximum pension (permitted by Income Tax Act) per year of service (applicable only for service after December 31, 1991)	The Defined Benefit Limit as at January 1, 2011**	The Defined Benefit Limit as at January 1, 2010**

\* Excludes present value of special payments.

\*\* We have excluded the indexing of the DB limit from the valuation date to each individual's retirement date. This is not material to the results.

The escalated adjustments included in the wind-up valuation include both a) the post-retirement indexing for all members, and b) the pre-retirement indexing for deferred vested members who terminated prior to the effective date for Amendment #12 (July 1, 2004 for Union members and October 1, 2004 for Non-Union members).

Based on the Canadian Institute of Actuaries' (CIA) guidance provided in May 2011 and long term Government of Canada bonds' yield (series V39057) of 1.11% at December 31 2010, the guidance suggests a 1.11% discount rate used in conjunction with the UP94@2020 mortality table to approximate the cost of purchasing CPI indexed annuities at the valuation date.

*Termination scenario*

The termination scenario used in the solvency and hypothetical wind-up valuations includes the following assumptions:

- > Plan wind-up would not result from employer insolvency.
- > All assets could be realized at their reported market value.

This approach is the same as the one used in the last valuation.

*Margin for adverse deviations*

As specified by the Standards of Practice of the Canadian Institute of Actuaries, the solvency assumptions do not include a margin for adverse deviations.

*Provision for fees*

Allowance has been made for administrative, actuarial and legal costs which would be incurred if the Plan were to be wound up, based on sufficient and reliable data. It is assumed that the wind-up date, the calculation date and the settlement date are coincident, and as such, expenses related to investment policy reviews, investment and custodial fees are not included. Expenses related to the resolution of surplus and deficit issues are not taken into account. The amount of expenses is only an approximation and may differ significantly from real expenses incurred on plan wind-up, for example, in case of litigation, bankruptcy and eventual replacement by a third-party administrator.

## Appendix C – Assets

### Description of Plan Assets

Assets held by the DB component of the Plan are under the custody of RBC Dexia Investor Services. The investment managers responsible for investing the Plan assets are the same as at December 31, 2010 as they were as at December 31, 2009.

- > *Canadian Fixed Income*: Phillips Hager & North, Letko Brosseau.
- > *Canadian Equity*: PCJ Investment Counsel Ltd., Fidelity Investments Canada, Letko Brosseau.
- > *Foreign Equity*: State Street Global Advisors, American Century, Letko Brosseau.

Assets held by the DC component of the Plan are invested in various mutual funds at the option of each member. The DC component is administered by Standard Life.

We have relied upon the information provided in the draft audited financial statements provided to us by NSPI, following tests of reasonableness with respect to contributions, benefit payments and investment income.

### Statement of Market Value

The following table shows the asset mix as at December 31, 2010 and for comparison, the mix as at December 31, 2009:

**Table C.1 Assets at Market Value (millions) – DB component**

	December 31, 2010	December 31, 2009
Invested assets		
> Cash and short-term	7.34	13.90
> Bonds	205.62	184.89
> Equities	402.03	360.39
> Accrued Investment Income	0.84	0.78
<b>Total invested assets</b>	<b>615.84</b>	<b>559.96</b>
Net receivables and payable (excluding accrued investment income)	(0.30)	(0.14)
<b>Total market value of assets</b>	<b>\$615.54</b>	<b>\$559.82</b>

*Figures may not add up exactly due to rounding.*

The market value of the DC component of the Plan (including both employee and employer portions) was approximately \$12.93 million as at December 31, 2010. The investment returns on individual member DC accounts depend on the members' investment choices.

### Changes to Plan Assets

The following table shows changes to the DB component of Plan assets based on market values.

**Table C.2a 2010 Reconciliation (millions) – DB assets**

	NSPI	Emera	Total Plan
<b>Market Value of Assets at beginning of year</b>	<b>558.83</b>	<b>0.99</b>	<b>\$559.82</b>
<b>Receipts:</b>			
> Employee contributions	5.56	0.14	5.70
> Employer matching contributions	5.56	0.14	5.70
> Employer contributions toward normal actuarial cost above matching contribution	3.24	0.06	3.29
> Employer special payments	20.47	0.02	20.50
> Investment income and change in market value	55.25	0.11	55.36
<b>Total receipts</b>	<b>90.09</b>	<b>0.46</b>	<b>90.56</b>
<b>Disbursements:</b>			
> Pensions paid	31.39	0.00	31.39
> Contribution and transfer refunds	0.65	0.00	0.65
> Plan and Investment expenses	2.80	0.00	2.80
<b>Total disbursements</b>	<b>34.83</b>	<b>0.00</b>	<b>34.83</b>
<b>Market Value of Assets at end of year</b>	<b>614.09</b>	<b>1.45</b>	<b>615.54</b>

*Figures may not add up exactly due to rounding.*

DC contributions during 2010 were approximately \$1.17 million by employees and \$1.38 million by employers. A reconciliation of the DC assets was not available at the time this report was prepared.

Table C.2b shows changes to the DB component of Plan assets over the last three year period, based on market values.

**Table C.2b Asset Reconciliation for Recent Years (millions) – DB assets**

	2010	2009	2008
<b>Market Value of Assets at beginning of year</b>	<b>\$559.82</b>	<b>\$479.54</b>	<b>\$600.68</b>
<b>Receipts:</b>			
> Employee contributions	5.70	5.34	5.14
> Employer matching contributions	5.70	5.34	5.14
> Employer contributions toward normal actuarial cost above matching contribution	3.29	3.36	2.97
> Employer special payments	20.50	11.91	1.07
> Investment income and change in market value	55.36	87.52	(103.75)
<b>Total receipts</b>	<b>90.56</b>	<b>113.47</b>	<b>(89.43)</b>
<b>Disbursements:</b>			
> Pensions paid	31.39	28.95	25.56
> Contribution and transfer refunds	0.65	2.03	3.73
> Plan expenses	2.80	2.21	2.42
<b>Total disbursements</b>	<b>34.83</b>	<b>33.19</b>	<b>31.71</b>
<b>Market Value of Assets at end of year</b>	<b>\$615.54</b>	<b>\$559.82</b>	<b>\$479.54</b>

*Figures may not add up exactly due to rounding.*

#### **Return on Assets – DB component**

The DB Plan assets earned the following annualized rates of return, net after investment management fees and other expenses charged to the fund:

**Table C.3 Net Investment Return and Excess Investment Gain (Loss) (millions) – DB component**

Year	Market Value Basis	Excess Investment Gain (Loss)*
2008	-17.92%	(\$146.81)
2009	17.94%	52.68
2010	9.37%	14.09

\* Relative to the going-concern valuation asset return assumption of 6.86%

### Actuarial Value of Assets

For purposes of the going-concern valuation, the actuarial value of assets for the DB component of the Plan is equal to the following:

- > market value of assets (invested assets as at the valuation date plus net payable and receivables); less
- > a smoothing reserve equal to 2/3 of the investment gain (in excess of the going-concern valuation assumption for that particular year) for the most recent year; and 1/3 the investment gain (in excess of the going-concern valuation assumption for that particular year) in the prior year, capped at 20% of market value.

**Table C.4 Actuarial Value of Assets at December 31, 2010 (millions) – DB component**

	NSPI	Emera	Total Plan
Invested Assets	614.39	1.45	615.84
Net payable and receivable	(0.30)	0.00	(0.30)
<b>Market Value of Assets</b>	<b>614.09</b>	<b>1.45</b>	<b>615.54</b>
Less 2/3 investment gain in most recent year*	(9.35)	(0.04)	(9.39)
Less 1/3 of investment gain in prior year*	(17.54)	(0.02)	(17.56)
(a) Calculated Adjustment (prior to cap)	(26.89)	(0.06)	(26.95)
(b) Maximum Limit on Adjustment: 20% of market value	122.82	0.29	123.11
<b>Asset Smoothing Reserve (lesser of (a) or (b))</b>	<b>(26.89)</b>	<b>(0.06)</b>	<b>(26.95)</b>
<b>Actuarial Value of Assets on a Going-Concern Basis</b>	<b>587.20</b>	<b>1.39</b>	<b>588.59</b>

*Figures may not add up exactly due to rounding.*

*\* Division of investment gain/loss between NSPI and Emera for asset smoothing purposes based on end of year asset value*

The asset smoothing adjustment as at December 31, 2010 is a write-down equal to \$26.95 million.

The actuarial value of assets for the DC component is equal to the total market value of member accounts.

### Accumulated Excess Company Contributions

The Accumulated Excess Company Contributions represents the balance, with interest at the same rate employee contributions are credited, of employer contributions made to the fund in excess of matching employee contributions and contributions credited against the 1993 ERIP (there is no remaining outstanding balance with respect to the 1993 ERIP).

Table C.5 shows details of the determination of the amount contributed toward the Accumulated Excess Company Contributions in 2010.

**Table C.5 2010 Contribution Toward Accumulated Excess Company Contributions (millions)**

	NSPI	Emera	Total Plan
Total employer contributions during 2010 (including amounts in-transit)	29.29	0.20	29.49
Less employer matching contributions	(5.56)	(0.14)	(5.70)
Contribution made toward Accumulated Excess Company Contributions during 2010	23.73	0.06	23.79

*Figures may not add up exactly due to rounding.*

Table C.6 shows the calculation of the balance of the Accumulated Excess Company Contributions for the Plan as of December 31, 2010.

**Table C.6 Accumulated Excess Company Contributions Balance (millions)**

	NSPI	Emera	Total Plan
1. Balance as at December 31, 2009	88.29	0.25	88.54
2. Contribution made toward Accumulated Excess Company Contributions during 2010 (see Table C.5)	23.73	0.06	23.79
3. Interest* at 1.81% on [(1) + 0.5 x (2)]	1.81	0.01	1.82
4. Balance as at December 31, 2010	113.83	0.32	114.14

*Figures may not add up exactly due to rounding.*

\* Interest on Accumulated Excess Company Contribution Balance credited at same rate as on member contributions.



## Appendix D– Membership Data

### Description of Membership Data

Morneau Sobeco maintains pension data records for the DB component of the Plan. NSPI provides annual data updates and advises us of changes in status as they occur. Our valuation is based on data compiled as at December 31, 2010. We have taken the following steps to review the data to ensure sufficiency and reliability:

- > each member’s record was reconciled with last year’s record, and the results of this reconciliation was submitted to NSPI;
- > individual benefit statements were distributed to active members who were requested to report any errors;
- > monthly pensioner reports are produced and provided to NSPI for confirmation;
- > the contributions and pensions paid since the last valuation shown in the financial statements were compared with the equivalent values produced by the data;
- > a membership reconciliation was prepared to follow the changes of active members, retirees and vested members;
- > basic data checks were performed to ensure that age, salary and service data were reasonable for the purposes of the valuation.

NSPI provided the total DC account balances as at December 31, 2010 and a breakdown of contributions by participating employer to the DC component of the Plan for 2010. We have relied on this data to prepare this report.

### Summary of Membership Data

The following tables were prepared using data provided by NSPI regarding their active members, retirees and former members. All data shown is in respect of the defined benefit component of the Plan.

These tables show the following:

- D.1 Summary of Membership Data
- D.2 Changes in Plan membership
- D.3 Distribution of active members according to age and service as at the valuation date
- D.4 Distribution of retirees and survivors according to age as at the valuation date

The salary used for purposes of the going concern valuation and shown in the data summary is the annualized pensionable salary for the year ending December 31, 2010.

Table D.1 Summary of Membership Data – DB component

		December 31, 2010	December 31, 2009
Active members	Number	1,573 <sup>1</sup>	1,528
accruing DB benefits	Average age	44.6 years	45.0 years
	Average Credited service	13.1 years	13.9 years
	Average salary	\$65,143	\$62,364
	Average accumulated member contributions with interest	\$49,345	\$52,134
	Total payroll for following year	\$102.83 million	\$96.68 million
Active members with	Number	38	38
DB benefits who switched to DC	Average age	41.8 years	40.7 years
	Average Credited service	3.4 years	3.4 years
	Average salary	\$76,573	\$72,949
Vested members	Number	89	94
	Average age	49.08	48.82
	Average annual pension (full 2%)	\$14,830	\$14,388
Retirees & Beneficiaries	Number	1,218	1,142
	Average age	64.1 years	63.4 years
	Average annual lifetime pension	\$22,715	\$22,152
	Average annual bridge	\$4,470	\$4,635
	Total annual pensions	\$33.12 million	\$30.59 million

1. Includes 36 members on LTD. Also includes the data for 30 members who have service with Emera on or after January 1, 2007.

*Notes:*

The December 31, 2010 pension amount shown includes the cost of living adjustment effective as at January 1, 2011.

Of the 1,611 active members as at December 31, 2010, 1,228 are male and 383 are female.

We do not have membership details for members who participate only under the DC component of the Plan (i.e., members without a DB entitlement).

Table D.2 Changes in Plan Membership – DB component

	Active Members	Vested and Pending Members	Retirees and Beneficiaries	Total
<b>Members as at December 31, 2009</b>	<b>1,566</b>	<b>115</b>	<b>1,142</b>	<b>2,823</b>
New active members	137			137
Retirements	(70)	(4)	74	0
New survivor pensions			9	9
New child pensions			2	2
New pensions due to marriage breakdown			6	6
Terminations:				
> Deferred vested and pending	(8)	14		6
> Lump sums	(13)	(13)		(26)
Deaths:				
> With no death benefit			(9)	(9)
> Refund or transfer	(1)			(1)
> Survivor pension	(1)		(6)	(7)
Pension cessation (Child)				
Adjustment	1	(1)		0
<b>Members as at December 31, 2010</b>	<b>1,611*</b>	<b>111</b>	<b>1,218</b>	<b>2,940</b>

\* Dec 31, 2010 figure includes 36 members on LTD and 38 members who switched to the DC component of the Plan on July 1, 2001.

Table D.3 Age/Service Distribution of Active Members as at December 31, 2010

Age	Credited Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 plus	Total
<b>Under 25</b>	Count	57							57
	Avg Credited	1.6							1.6
	Avg 2010 Earnings	46,874							46,874
<b>25 to 29</b>	Count	109	5						114
	Avg Credited	2.1	5.8						2.2
	Avg 2010 Earnings	50,539	57,994						50,866
<b>30 to 34</b>	Count	111	33	6					150
	Avg Credited	2.3	7.5	10.6					3.8
	Avg 2010 Earnings	55,973	55,105	53,045					55,665
<b>35 to 39</b>	Count	122	43	33	2				200
	Avg Credited	2.4	7.7	11.1	<>				5.1
	Avg 2010 Earnings	63,282	61,643	58,212	<>				62,057
<b>40 to 44</b>	Count	103	34	37	14	49	2		239
	Avg Credited	2.3	7.7	12.0	18.4	21.3	<>		9.6
	Avg 2010 Earnings	66,796	63,102	63,700	62,144	74,206	<>		67,000
<b>45 to 49</b>	Count	60	35	43	11	95	51		295
	Avg Credited	2.5	7.8	11.9	18.2	22.5	27.3		15.8
	Avg 2010 Earnings	66,888	68,074	69,290	62,058	82,703	72,146		73,201
<b>50 to 54</b>	Count	39	29	36	10	60	55	90	319
	Avg Credited	2.6	8.0	11.9	18.3	22.8	27.7	32.7	21.3
	Avg 2010 Earnings	64,245	70,900	72,477	64,770	73,871	77,335	79,857	74,267
<b>55 to 59</b>	Count	19	19	17	11	27	41	57	191
	Avg Credited	2.1	8.4	11.8	18.5	22.7	27.5	33.4	22.2
	Avg 2010 Earnings	60,263	51,976	55,154	58,701	62,377	65,465	74,280	64,492
<b>60 plus</b>	Count	10	6	4	3	5	4	14	46
	Avg Credited	1.8	7.7	10.8	18.8	22.5	27.9	33.6	18.7
	Avg 2010 Earnings	42,882	67,185	66,270	56,419	61,773	54,588	52,704	55,029
<b>Total</b>	Count	630	204	176	51	236	153	161	1611
	Avg Credited	2.2	7.7	11.7	18.4	22.3	27.5	33.0	12.9
	Avg 2010 Earnings	58,867	62,421	64,702	61,463	75,925	71,633	75,521	65,413

*Some earnings figures hidden to protect confidentiality.*

*Age is rounded down to the nearest birthday.*

*Avg. Credited is the number of years credited for pension plan purposes (rounded down to the nearest integer).*

*Includes 36 members on LTD and 38 members who switched to the DC component of the Plan in respect of service after July 1, 2001.*

Table D.4 Retirees and Survivors as at December 31, 2010

Nearest Age	Count	Average Annual Pension	Average Annual Bridge	Average Annual Benefit	Total Benefit Payable
Under 25	13	-	2,145	2,145	27,885
25 to 54	26	14,678	2,369	17,048	443,242
55	20	23,225	7,048	30,273	605,458
56	35	31,646	8,679	40,324	1,411,344
57	63	28,413	8,571	36,984	2,329,986
58	53	28,215	8,266	36,481	1,933,493
59	56	29,949	8,852	38,802	2,172,889
60	51	25,535	8,780	34,315	1,750,061
61	77	26,978	8,379	35,357	2,722,526
62	90	23,495	7,331	30,827	2,774,386
63	100	23,702	7,890	31,592	3,159,234
64	86	21,709	7,466	29,175	2,509,081
65	70	24,618	3,311	27,929	1,955,003
66	68	19,659	76	19,735	1,341,992
67	44	21,346	-	21,346	939,228
68	46	19,334	122	19,456	894,975
69	49	18,487	-	18,487	905,884
70	43	19,953	116	20,069	862,949
71	44	19,209	-	19,209	845,187
72	43	19,854	-	19,854	853,733
73	32	24,191	-	24,191	774,127
74	31	20,500	-	20,500	635,486
75	23	15,017	-	15,017	345,394
76	9	15,650	-	15,650	140,847
77	13	20,855	-	20,855	271,118
78	12	14,944	-	14,944	179,327
79	2	<>	-	<>	<>
80	6	16,130	882	17,012	102,071
81	1	<>	-	<>	<>
82	7	17,836	-	17,836	124,853
83	3	17,129	-	17,129	51,388
84	2	<>	-	<>	<>
<b>Average</b>		<b>22,715</b>	<b>4,470</b>	<b>27,185</b>	
<b>Total</b>	<b>1,218</b>				<b>33,122,371</b>

Figures shown above include January 1, 2011 cost of living adjustment.

\* Bridge payable to surviving spouse. < > Some figures are not shown to protect confidentiality.

## Appendix E– Summary of Plan Provisions

The Pension Plan for Employees of Nova Scotia Power Incorporated (“Plan”), which became effective on August 10, 1992, is registered with Nova Scotia and with the Canada Revenue Agency (registration number 0687210).

On August 10, 1992, Nova Scotia Power became "privatized" and all employees of Nova Scotia Power Corporation (“NSPC”) became employees of Nova Scotia Power Incorporated (“NSPI”).

As a result, employees of NSPC ceased to be covered under the Nova Scotia *Public Service Superannuation Act* (“PSSA”), under which they had been covered for pension purposes since 1942. NSPI established the Pension Plan for Employees of Nova Scotia Power Incorporated (the "Plan") effective August 1, 1992 (i.e. the first of the month closest to August 10).

Effective January 1, 2001, additional participating employers were added to the Plan and a defined contribution component was introduced. Certain participating employers participate in both the defined benefit and defined contribution components while others participate only in the defined contribution component. Effective July 1, 2001, non-union NSPI members who joined the Plan prior to January 1, 2001 were given a one-time option to switch from defined benefit to defined contribution in respect of future service only.

The following is a summary of the main provisions of the Plan established effective August 1, 1992 as outlined in the text dated September 20, 1993 and amended by Amendment No. 1 through 12. Please refer to the official Plan document for legal interpretation.

### **Amendments since the Previous Valuation**

There have been no changes to the Plan terms since the last valuation.

## Summary of Defined Benefit Component of Plan

### Definitions

**Earnings** are basic salaries including shift differentials and retroactive pay increases, and exclude any overtime pay, bonuses, and any other allowances or gratuities of any kind. Effective January 1, 1999, earnings may also include incentive payments received from the Company's incentive program, to a maximum of 5% of regular salary.

**Final Average Earnings** is the average of the member's annual earnings in the 4 best years of earnings on which contributions were made.

**Average YMPE** is the average of the YMPE under the *Canada Pension Plan* in the same years used to calculate Final Average Earnings.

**Credited Service** is the years credited for pension purposes and is limited to 35 years. For benefit purposes, Credited Service is split into two different types:

#### *Original Plan Credited Service:*

- > For a Member who joined the Plan prior to July 1, 2004: Credited Service accrued prior to July 1, 2004 for Union members, and Credited Service accrued prior to October 1, 2004 for Non-Union members
- > For members who joined the Plan on or after July 1, 2004, Original Plan Credited Service is zero.

#### *Revised Plan Credited Service:*

Equal to Credited Service less Original Plan Credited Service.

**Normal retirement age** is 65 for all members.

**Unreduced retirement age** is:

#### *For members who terminate prior to age 55:*

- > For a Member with Original Plan Credited Service:
  - In respect of Original Plan Credited Service, the earlier of:
    - (i) attainment of both age 60 and 2 years of service; or
    - (ii) attainment of age 55, with total age and service of at least 85.
  - In respect of Revised Plan Credited Service:
    - (i) attainment of age 55, with total age and service of at least 85.
- > For a Member who has no Original Plan Credited Service:
  - An unreduced pension is available only at age 65.

*For members who terminate on or after age 55:*

> For a Member with Original Plan Credited Service:

In respect of all Credited Service, the earlier of:

- (i) attainment of both age 60 and 2 years of service; or
- (ii) attainment of age 55, with total age and service of at least 85.

> For a Member who has no Original Plan Credited Service:

In respect of all Credited Service, the earlier of:

- (i) attainment of both age 62 and 15 years of service; or
- (ii) attainment of age 55, with total age and service of at least 85.

### **Eligibility**

All full-time permanent employees become members of the Plan on their date of hire. Full-time employees hired on a term basis become members of the Plan on their date of hire, provided the expected term of employment is 12 months or more.

Effective January 1, 2001, certain new members have the option of choosing between the defined contribution and defined benefit component of the Plan

### **Contributions**

#### *Member Contributions:*

Members are required to contribute 5.4% of earnings up to the YMPE plus 7.0% of earnings in excess of the YMPE. Effective February 1995, member contributions are restricted to the level of earnings that produces the maximum lifetime pension (defined by the Income Tax Act) per year of service. A member ceases to contribute once the member has 35 years of credited service. Interest is credited annually on Member required contributions based on the average rate of interest payable on 5 year personal fixed term chartered bank deposits (CANSIM Series B14045) in effect for the 12 months ending in October of the Plan Year.

#### *Company Contributions:*

The Company contributes the amount necessary to fund the cost of benefits accruing in the year, including any amounts required to amortize any unfunded liability or solvency deficiency over 15 years and 5 years respectively.

Company contributions will match member contributions each year unless a surplus develops. If a sufficient surplus develops, the Company can reduce its contributions to the extent it has an Accumulated Excess Company Contribution (i.e., contributed more than the members in the past plus interest earned on such excess contributions).



### Pension Payable

For a member who retires from active service after his or her unreduced retirement age, the annual pension is as follows, subject to the Income Tax Act maximum pension rules with regard to service after January 1, 1992:

#### *Amount of Pension Payable Prior to Age 65:*

- (a) If the Member (1) has Original Plan Credited Service, or (2) has no Original Plan Credited Service but has completed 15 years of Continuous Service:
  - 2% of the member's Final Average Earnings, multiplied by the member's years of Credited Service.
- (b) If the Member has no Original Plan Credited Service and has not completed 15 years of Continuous Service:
  - 1.3% of the member's Final Average Earnings up to the Average YMPE, plus 2% of the member's Final Average Earnings in excess of the Average YMPE, the total multiplied by Credited Service.

#### *Amount of Pension Payable After Age 65:*

The sum of the following:

- (a) 2% of the member's Final Average Earnings, multiplied by the member's years of Credited Service prior to January 1, 1966; plus
- (b) 1.3% of the member's Final Average Earnings up to the Average YMPE, plus 2% of the member's Final Average Earnings in excess of the Average YMPE, the total multiplied by Credited Service after December 31, 1965.

The pension benefit determined by the above formula is subject to a minimum of \$120 for each year of credited service to a maximum of 20 years, or \$2,400 per year.

Pensions are payable on a monthly basis at the end of each month at the rate of 1/12th of the annual amount.

For a member who retires after being eligible for a reduced pension but before being eligible for an unreduced pension, the pension will be calculated as the amount determined above, but reduced by 0.5% for each month that the member's age at retirement precedes the Unreduced retirement age, provided that the reduction does not exceed 0.5% for each month that the member's age is less than the Normal retirement age.

The maximum lifetime pension payable for service after December 31, 1991 is based on the maximum pension set out in the Income Tax Act. For service prior to January 1, 1992 under this Plan, the Income Tax Act maximum pension limit does not apply.

Please refer to the termination section for details regarding the pension payable to a member who terminates prior to age 55.

### **Disability**

Any employee who is totally and permanently disabled and who qualifies for a disability pension under the Canada Pension Plan, but who does not qualify for benefits under either the Company's LTD program or Worker's Compensation shall be eligible for an immediate unreduced disability pension from this Plan.

Any employee who is totally and permanently disabled and who qualifies for the Company's LTD program continues to accrue Credited Service from this Plan.

### **Pre-Retirement Death Benefits**

#### *Member with a Spouse:*

If a member with a spouse and eligible children dies prior to retirement, the surviving spouse shall receive a pension payable for life equal to 60% of the lesser of:

- (a) the member's pension accrued to date, calculated at the full 2% "pre-65" rate; and
- (b) the member's projected lifetime retirement benefit, determined as the lesser of:
  - (i) the lifetime pension the member would have accrued to age 65 had the member survived and continued as a member to that age, based on the member's earnings and the YMPE in effect immediately prior to death; and
  - (ii) 150% of the YMPE at the time of death.

#### *Member with Eligible Children:*

If a member with eligible children and spouse dies prior to retirement, each eligible child shall receive a monthly pension benefit equal to 10% of the lesser of the amount in (i) above and the amount in (ii) above, subject to a maximum total children's benefit of 40%. Payment of a child's benefit will continue to a child until age 18 (or age 25 if attending a recognized educational institution on a full-time basis).

If a member with eligible children but no spouse dies prior to retirement, the total benefit payable to the surviving children is the 60% spouse's pension described in (a) above, divided equally amongst the eligible children. Payments will continue to each child until that child attains age 18 (or age 25 if eligible as described above in (a)), with the full 60% benefit redistributed among any remaining eligible children.

*Minimum Death Benefit:*

If, in any individual case, the member's contributions with interest to the date of death exceeds the total pension payments received by all eligible beneficiaries, the balance shall be payable in a lump sum to the member's estate.

**Post Retirement Death Benefits**

*Member With a Spouse:*

If a member with a spouse dies after retirement and provided the marriage occurred either before retirement or at least three years prior to the member's death, a pension shall be payable to the spouse equal to 60% of the pension which would have been payable to the member (including bridge benefits).

*Member with Eligible Children:*

Same benefit as described in pre-retirement death benefits.

*Minimum Death Benefits:*

If, in any individual case, the member's contributions with interest to the date of death exceeds the total pension payments received by all eligible beneficiaries, the balance shall be payable in a lump sum to the member's estate.

Notwithstanding the above, in the event of the death of a Member after pension commencement, where the Member did not have a Spouse, if less than 120 lifetime payments are made to the member and all eligible beneficiaries, the balance of the 120 payments shall be payable in a lump sum to the member's estate.

**Termination Benefits**

*Termination Prior to Vesting:*

If a member terminates employment before attaining eligibility for retirement and before completing 2 years of service, the member will receive a refund of his or her contributions, with interest.

*Termination After Vesting:*

If a member terminates employment before attaining eligibility for retirement but after completing 2 years of continuous service, the member will receive, upon attaining Normal retirement age, or earlier if the member qualifies for an earlier Unreduced retirement age (recognizing increases in age subsequent to his date of termination), the pension that had been earned to the date of termination, as follows:

- (a) Amount of Pension Payable Prior to Age 65:

- (i) 2% of the member's Final Average Earnings, multiplied by the member's years of Original Plan Credited Service; plus
  - (ii) 1.3% of the member's Final Average Earnings up to the Average YMPE, plus 2% of the member's Final Average Earnings in excess of the Average YMPE, the total multiplied by Revised Plan Credited Service.
- (b) Amount of Pension Payable After Age 65:
- (i) 1.3% of the member's Final Average Earnings up to the Average YMPE, plus 2% of the member's Final Average Earnings in excess of the Average YMPE, the total multiplied by Credited Service.

For a member who retires after being eligible for a reduced pension but before being eligible for an unreduced pension, the pension will be calculated as the amount determined above, but reduced by 0.5% for each month that the member's age at retirement precedes the Unreduced retirement age, provided that the reduction does not exceed 0.5% for each month that the member's age is less than the Normal retirement age.

A member who is entitled to a deferred pension and who is not entitled to an immediate pension may elect a transfer of the commuted value of the deferred pension to a locked-in RRSP, to the pension plan of another employer, to a LIF (if permissible) or to an insurance company for the purchase of a deferred life annuity.

### Indexing of Benefits

#### *Post-Retirement Indexing:*

Pensions are increased each January 1 after retirement according to the percentage change in the Consumer Price Index for the 12 months ending with the previous October, up to a maximum of 6% in any year.

For members who join the Plan on or after July 1, 2004, the maximum is 4% per year (which may be increased to 6% when the Plan is more than 105% funded on both a going-concern and a wind-up basis in the most recently completed valuation report).

The indexing adjustment in the first year is pro-rated to reflect the actual number of months out of 12 for which payments were received.

#### *Pre-Retirement Indexing:*

There are no pre-retirement pension increases for Union members who terminated on or after July 1, 2004 or Non-Union members who terminated on or after October 1, 2004.

Union members who terminated prior to July 1, 2004 and Non-Union members who terminated prior to October 1, 2004 were eligible for pre-retirement indexing as follows:

- (a) Deferred pensions for service prior to January 1, 1988 are adjusted each January 1 according to the percentage increase in the CPI (as defined above) to a maximum of 6%.
- (b) Any indexing of a deferred pension in the first year is pro-rated to reflect the number of months out of 12 from the date of termination.

**Minimum Pension**

The value of a member's benefits in respect of service prior to January 1, 1988 will be at least equal to the member's contributions made prior to that date, with interest.

Members are also guaranteed that their contributions made on and after January 1, 1988 will not be used to provide more than 50% of the value of the benefits earned for service on and after that date (the "50% Rule"). Any excess contributions will be refunded to the member or transferred to another retirement savings vehicle (where permitted).

## Summary of Defined Contribution Component of Plan

### Eligibility

All full-time permanent employees become members of the Plan on their date of hire. Employees hired on a term basis become members of the Plan following 12 months of employment.

Effective January 1, 2001, certain new members have the option of choosing between the defined contribution and defined benefit component of the Plan. Effective July 1, 2001, non-union NSPI members who joined the Plan prior to January 1, 2001 were given a one-time option to switch from defined benefit to defined contribution in respect of future service only.

### Contributions

#### *Member Contributions:*

Members may make optional contributions between 0 and 6% of earnings.

#### *Employer Contributions:*

The employer contributes 3% of earnings for each member. In addition, members who are employed by employers participating in Option 2 of the DC component receive 50% employer matching on their optional contributions.

Members have investment options in respect of both member and employer contributions.

### Pension Payable

The periodic pension that may be purchased from an insurance company with Member and Company contributions and investment earnings on such amounts.

### Pre-Retirement Death Benefits

A refund of Member and Company contributions and investment earnings on such amounts to the designated beneficiary.

### Post Retirement Death Benefits

Based on the type of annuity purchased at retirement.

### Termination Benefits

The defined contribution plan has immediate vesting.

## Appendix F – Employer Confirmation Certificate

With respect to the actuarial valuation report of the Pension Plan for Employees of Nova Scotia Power Incorporated as at December 31, 2010, we hereby confirm that to the best of our knowledge:

- > the data regarding plan members and beneficiaries provided to Morneau Sobeco constitutes a complete and accurate description of the information contained in our files;
- > copies of the official text of the Plan and all amendments to date were provided to Morneau Sobeco; and
- > there are no subsequent events nor any extraordinary changes to the membership other than those listed in the December 31, 2010 actuarial valuation report on the Plan, which would materially affect the results.

**Nova Scotia Power Incorporated**

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Signature

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Name (printed)

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Title

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Date

Actuarial Valuation for Funding Purposes  
as at December 31, 2010 of the

Nova Scotia Power Incorporated Pension Plan for  
Employees of Certain Acquired Companies

*Prepared December 2011*

*Registration numbers: Nova Scotia and Canada Revenue Agency 0284539*



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## Executive Summary

### Purpose

This report presents the results of the actuarial valuation as at December 31, 2010 of the Nova Scotia Power Incorporated Pension Plan for Employees of Certain Acquired Companies (the “Plan”). Nova Scotia Power Incorporated (“NSPI”) retained the services of Morneau Shepell Ltd. to perform this actuarial valuation. The last valuation of the Plan filed with Nova Scotia and the Canada Revenue Agency was performed as at December 31, 2009.

This report was prepared for Nova Scotia Power Incorporated for the following purposes:

- > to determine the going-concern financial position of the Plan;
- > to determine the solvency financial position of the Plan;
- > to estimate the Employer contributions required under the Plan during the period up until the next valuation in accordance with the Nova Scotia *Pension Benefits Act*; and
- > to provide the information and the actuarial opinion required by Nova Scotia and the Canada Revenue Agency.

### Going-Concern Financial Position

The following table summarizes the change in the going-concern financial position since the previous valuation:

**Table 0-1 Summary Reconciliation of Going-Concern Financial Position (millions)**

Actuarial surplus / (unfunded liability) as at December 31, 2009	<b>(\$0.26)</b>
Special payments and interest items	1.57
Experience gains / (losses)	1.82
Change in actuarial assumptions	(2.07)
Change in asset smoothing reserve	(2.27)
<b>Actuarial surplus / (unfunded liability) as at December 31, 2010</b>	<b>(\$1.21)</b>

*Figures may not add up exactly due to rounding.*

The actuarial value of the Plan assets as at December 31, 2010 is \$32.30 million. This represents 96% of the market value and 96% of the actuarial liability.

The Plan as a whole has an unfunded liability of \$1.21 million, Part I has an unfunded liability of \$6.14 million, and Part II has an actuarial surplus of \$4.93 million. According to the Plan terms, Part I and Part II of the Plan are to be maintained separate and apart and in no event shall assets of either Part be used to provide benefits under the other. As such, special payments towards the unfunded liability are required for Part I of the Plan.

### **Solvency Financial Position**

As at December 31, 2010, the Plan's solvency assets exceed the solvency liabilities by \$6.04 million and the transfer ratio is 1.04. As at December 31, 2009, the Plan had a transfer ratio of 1.01.

### **Wind-Up Financial Position**

As at December 31, 2010, if the Plan had been wound-up, the liabilities would have exceeded the market value of Plan assets by \$5.13 million. This is comprised of a wind-up shortfall of \$9.27 million in Part I of the Plan and a wind-up surplus of \$4.15 million in Part II of the Plan.

### **Contributions – Part I**

As there are no Plan members accruing service under Part I of the Plan, there is no normal actuarial cost.

Due to the unfunded liability and solvency deficiency under Part I of the Plan, until the earlier of the next valuation and December 31, 2013, a minimum monthly special payment of \$145,996 is required for each month in 2011, \$98,913 for each month in 2012, and \$90,880 for each month in 2013. Based on the above, the minimum contribution for Part I of the Plan for 2011 is \$1,751,900.

### **Contributions – Part II**

As there are no Plan members accruing service under Part II of the Plan, and this part of the Plan is fully funded on both a going-concern and solvency basis, there are no required contributions.

### **Changes since the Previous Valuation**

There have been no changes to the Plan terms since the last valuation.

The following changes have been made to the actuarial assumptions and methods since the last valuation:

- > The going concern discount rate has been reduced from 6.86% per year to 5.90% per year.
- > The solvency and wind-up discount rates were reviewed and updated (where necessary) to reflect December 31, 2010 market conditions.

Please refer to Appendices A and B for a detailed description of the assumptions used in the valuation.

## Section 1 – Going-Concern Financial Position

### Statement of Going-Concern Financial Position

The financial position of the Plan on a going-concern basis is determined by comparing the actuarial value of assets to the actuarial liability. This reflects the assets available for the benefits earned up to the valuation date assuming the Plan continues indefinitely.

The following table shows the Plan's going-concern financial position as at December 31, 2010 with comparative figures from the previous valuation as at December 31, 2009.

**Table 1-1 Going-Concern Financial Position (millions)**

	December 31, 2010			December 31, 2009		
	Part I	Part II	Total	Part I	Part II	Total
Actuarial value of assets						
> Market value	\$19.79	\$13.95	\$33.74	\$19.53	\$13.71	\$33.23
> Asset smoothing reserve	(0.80)	(0.63)	(1.44)	0.58	0.26	0.84
<b>Total actuarial value of assets</b>	<b>\$18.98</b>	<b>\$13.32</b>	<b>\$32.30</b>	<b>\$20.11</b>	<b>\$13.96</b>	<b>\$34.07</b>
Actuarial liability						
> Active members	0.00	0.10	0.10	0.00	0.09	0.09
> Terminated vested members	0.00	0.00	0.00	0.00	0.00	0.00
> Retired members and beneficiaries	25.13	8.29	33.41	25.78	8.46	34.24
<b>Total actuarial liability</b>	<b>\$25.13</b>	<b>\$8.39</b>	<b>\$33.52</b>	<b>\$25.78</b>	<b>\$8.55</b>	<b>\$34.33</b>
<b>Actuarial surplus (unfunded liability)</b>	<b>(\$6.14)</b>	<b>\$4.93</b>	<b>(\$1.21)</b>	<b>(\$5.67)</b>	<b>\$5.41</b>	<b>(\$0.26)</b>
<b>Funding ratio</b>	<b>76%</b>	<b>159%</b>	<b>96%</b>	<b>78%</b>	<b>163%</b>	<b>99%</b>

*Figures may not add up exactly due to rounding.*

The Plan as a whole has an unfunded liability of \$1.21 million, Part I has an unfunded liability of \$6.14 million, and Part II has an actuarial surplus of \$4.93 million. According to the Plan terms, Part I and Part II of the Plan are to be maintained separate and apart and in no event shall assets of either Part be used to provide benefits under the other. As such, special monthly payments are required to liquidate the unfunded liability in Part I of the Plan. Please refer to Section 3 for details on the required special payments.

Appendix A and Appendix C provide further details on the determination of the actuarial liabilities and the actuarial value of assets respectively. A summary of membership data can be found in Appendix D. Appendix E contains a summary of the Plan provisions.

The following table shows the going-concern assets, liabilities and financial position as at the last three valuation dates:

**Table 1-2 Going-Concern Assets and Liabilities (millions)**

Valuation Date	Actuarial Value of Assets		Actuarial Liabilities		Actuarial Surplus / (Unfunded Liability)	
	Part I	Part II	Part I	Part II	Part I	Part II
December 31, 2008	22.16	14.97	27.39	9.17	(5.23)	5.80
December 31, 2009	20.11	13.96	25.78	8.55	(5.67)	5.41
December 31, 2010	18.98	13.32	25.13	8.39	(6.14)	4.93

*Figures may not add up exactly due to rounding.*

### **Changes since the Previous Valuation**

There have been no changes to the Plan terms since the last valuation.

The going concern discount rate has been reduced from 6.86% per year to 5.90% per year.

A summary of the going-concern assumptions used can be found in Appendix A.

### **Reconciliation of Going-Concern Financial Position**

An unfunded actuarial liability is the excess of the actuarial liability over the actuarial value of assets. An actuarial surplus is the excess of the actuarial value of assets over the actuarial liability.

The change in the Plan's going-concern financial position is the net result of several factors, which are summarized in the following table:

**Table 1-3 Reconciliation of Going-Concern Financial Position (millions)**

<b>Actuarial surplus / (unfunded liability) as at December 31, 2009</b>	<b>(\$0.26)</b>
Adjustment for asset smoothing reserve as at December 31, 2009	(0.84)
<b>Actuarial surplus / (unfunded liability) as at December 31, 2009 based on market value</b>	<b>(1.10)</b>
Expected changes in financial position:	
> Interest on surplus / (unfunded liability)	(0.08)
> Employer amortization payments with assumed interest	1.64
<b>Expected actuarial surplus / (unfunded liability) as at December 31, 2010 (market value)</b>	<b>\$0.47</b>
Experience gains / (losses) due to:	
> Actuarial gain on investment returns higher than expected	0.57
> Actuarial gain on post-retirement indexing less than assumed *	0.36
> Actuarial gain (loss) on mortality experience	0.71
> Other factors	0.18
Total gain / (loss) due to Plan experience	1.82
<b>Change in actuarial assumptions</b>	<b>(2.07)</b>
<b>Actuarial surplus / (unfunded liability) as at December 31, 2010 based on market value</b>	<b>\$0.22</b>
Adjustment for asset smoothing reserve as at December 31, 2010	(1.44)
<b>Actuarial surplus / (unfunded liability) as at December 31, 2010</b>	<b>(\$1.21)</b>

Figures may not add up exactly due to rounding.

\* Indexing as at January 1, 2011 of 1.6% was less than the assumed increase of 2.75%.

### Sensitivity Analysis on the Going-Concern Basis

The table below illustrates the effect of 1% decrease in the discount rates on the going-concern actuarial liabilities. With the exception of the discount rates, all other assumptions and methods used for this valuation were maintained.

**Table 1.4 – Sensitivity of Actuarial Liabilities on the Going-Concern Basis (millions)**

	December 31, 2010	Discount rates 1% lower	December 31, 2010	Discount rates 1% lower
		Part I		Part II
<b>Actuarial liabilities</b>				
> Active members	0.00	0.00	0.10	0.12
> Retired members and beneficiaries	25.13	26.95	8.29	8.92
> Total	25.13	26.95	8.39	9.04
<b>Increase in actuarial liabilities</b>		1.82		0.65

## Section 2 – Solvency Financial Position

### Statement of Solvency Financial Position

As required by the Nova Scotia *Pension Benefits Act*, we have determined the solvency financial position of the Plan as at the valuation date. The Plan's solvency financial position is the extent to which the actuarial present value of benefits, calculated as if the Plan were wound up on December 31, 2010 (but allowing for the exclusion of escalated adjustments), is guaranteed by the actuarial value of assets and certain amortization payments. For purpose of the valuation, the liability related to indexing effective January 1, 2011 is included in the liabilities. Appendix B provides further details on the determination of solvency liabilities and assets.

The following table shows the Plan's solvency financial position as at December 31, 2010. For comparison, the solvency financial position as at December 31, 2009 is also shown.

**Table 2-1 Solvency Financial Position (millions)**

	December 31, 2010			December 31, 2009		
	Part I	Part II	Total	Part I	Part II	Total
Solvency assets						
> Market value of assets	\$19.79	\$13.95	\$33.74	\$19.53	\$13.71	\$33.23
> Assets smoothing adjustment	(0.80)	(0.63)	(1.44)	0.58	0.26	0.84
> Present value of special payments due in next 5 years	4.76	0.00	4.76	4.00	0.00	4.00
> Wind-up expenses	(0.10)	(0.05)	(0.15)	(0.10)	(0.05)	(0.15)
<b>Total solvency assets</b>	<b>\$23.64</b>	<b>\$13.27</b>	<b>\$36.91</b>	<b>\$24.01</b>	<b>\$13.91</b>	<b>\$37.92</b>
Solvency liability						
> Active members	0.00	0.09	0.09	0.00	0.10	0.10
> Terminated vested and pending members	0.00	0.00	0.00	0.00	0.00	0.00
> Retired members and beneficiaries	23.18	7.60	30.78	25.31	8.27	33.58
<b>Total solvency liability</b>	<b>\$23.18</b>	<b>\$7.69</b>	<b>\$30.87</b>	<b>\$25.31</b>	<b>\$8.36</b>	<b>\$33.67</b>
<b>Solvency excess (deficiency)</b>	<b>\$0.45</b>	<b>\$5.58</b>	<b>\$6.04</b>	<b>(\$1.30)</b>	<b>\$5.55</b>	<b>\$4.25</b>
<b>Transfer ratio*</b>	<b>81%</b>	<b>173%</b>	<b>104%</b>	<b>79%</b>	<b>166%</b>	<b>101%</b>
Assumed discount rate for annuity purchase	4.48% per year			4.49% per year		

*Figures may not add up exactly due to rounding.*

*\* Ratio of market value of assets plus asset smoothing reserve less expenses to solvency liability.*

Based on the Plan's demographics, for purposes of the solvency valuation, we assumed that all members would elect to take an annuity purchase.

Based on the Canadian Institute of Actuaries' (CIA) guidance provided in May 2011 and long term Government of Canada bonds' yield (series V39062) of 3.48% at December 31, 2010, the guidance suggests a 4.48% discount rate used in conjunction with the UP94@2020 mortality table to approximate the cost of purchasing immediate non-indexed annuities as at the valuation date. For additional details on the solvency assumptions and methods, see Appendix B.

### Funding of Grow-in Benefits

On December 9, 2005, the regulations to the Nova Scotia *Pension Benefits Act* (the "Act") were amended to remove the requirement to fund grow-in benefits on a solvency basis. "Grow-in" benefits are legislated under the Act and provide entitlement to early retirement subsidies to pension plan members whose age and service total at least 55 on the wind-up of a pension plan. However, the amendment to the Act has no impact on the Plan's solvency position and funding requirements since all active members have met eligibility requirements for an unreduced pension starting at age 55 in accordance with the Plan terms.

### Present Value of 5 years of Special Payments

As permitted by Section 16(1)(c)(iv) of the Regulations to the Nova Scotia *Pension Benefits Act*, the present value of going-concern special payments that are scheduled for the next five years and any existing schedule of solvency special payments have been included in the value of solvency assets. These schedules of special payments are set out in Section 3 of this report. The present value of payments is calculated using the discount rate in the solvency actuarial basis. In accordance with the Nova Scotia *Pension Benefits Act*, the present value of special payments is excluded from the calculation of the transfer ratio. The following table shows the present value of special payments that have been included:

**Table 2.2 – Present Value of Five Years of Special Payments**

<b>Nature of liability</b>	<b>End of Amortization Period</b>	<b>Annual Amortization Payments</b>	<b>Present Value of 5 Years Special Payments</b>
Going-concern	December 31, 2011	\$351,000	\$343,000
Going-concern	December 31, 2011	\$214,000	\$209,000
Going-concern	December 31, 2012	\$96,400	\$185,000
Going-concern	December 31, 2013	\$85,800	\$241,000
Going-concern	December 31, 2013	\$45,000	\$127,000
Going-concern	December 31, 2014	\$230,200	\$845,000
Going-concern	July 31, 2022	\$140,000	\$629,000
Going-concern	December 31, 2025	\$162,000	\$727,000
Solvency	December 31, 2013	\$137,700	\$387,100
Solvency	December 31, 2014	\$289,800	\$1,063,300
<b>Total</b>		<b>\$ 1,751,900</b>	<b>\$4,756,400</b>

*Figures may not add up exactly due to rounding.*



### Statement of Wind-Up Financial Position

The wind-up position, which takes into account all benefits payable (the differences from solvency being the inclusion of escalated adjustments and the use of market value of assets rather than the solvency value of assets) would be as follows:

**Table 2-3 Wind-up Financial Position (millions)**

	December 31, 2010			December 31, 2009		
	Part I	Part II	Total	Part I	Part II	Total
Wind-up assets						
> Market value of assets	\$19.79	\$13.95	\$33.74	\$19.53	\$13.71	\$33.23
> Wind-up expenses	(0.10)	(0.05)	(0.15)	(0.10)	(0.05)	(0.15)
<b>Total wind-up assets (unadjusted)</b>	<b>\$19.69</b>	<b>\$13.90</b>	<b>\$33.59</b>	<b>\$19.43</b>	<b>\$13.66</b>	<b>\$33.08</b>
Wind-up liability						
> Active members	0.00	0.14	0.14	0.00	0.14	0.14
> Terminated vested and pending members	0.00	0.00	0.00	0.00	0.00	0.00
> Retired members and beneficiaries	28.96	9.62	38.58	30.74	10.19	40.94
<b>Total wind-up liability</b>	<b>\$28.96</b>	<b>\$9.76</b>	<b>\$38.71</b>	<b>\$30.74</b>	<b>\$10.33</b>	<b>\$41.07</b>
<b>Wind-up surplus (shortfall)</b>	<b>(\$9.27)</b>	<b>\$4.15</b>	<b>(\$5.13)</b>	<b>(\$11.32)</b>	<b>\$3.33</b>	<b>(\$7.99)</b>

*Figures may not add up exactly due to rounding.*

Based on the Canadian Institute of Actuaries' (CIA) guidance provided in May 2011 and Government of Canada real return long term bond yield (series V39057) of 1.11% at December 31 2010, the guidance suggests a 1.11% discount rate used in conjunction with the UP94@2020 mortality table to approximate the cost of purchasing CPI indexed annuities at the valuation date.

If the Plan had been wound-up as at December 31, 2010:

- > Part I liabilities would exceed the market value of Part I assets by \$9.27 million.
- > Part II assets on a market value basis would exceed Part II liabilities by \$4.15 million.

The difference between the solvency and wind-up liabilities of \$7.84 million as at December 31, 2010 represents the value of post retirement escalated adjustments (i.e. cost of living indexing) due as at January 1, 2012 and thereafter.

### Sensitivity Analysis on the Solvency Basis

The table below illustrates the effect on the actuarial liabilities of using discount rates 1% lower than those used for the solvency valuation. All other assumptions and methods, as used in this valuation, were maintained.

**Table 2.4 – Sensitivity of Actuarial Liabilities on the Solvency Basis (millions)**

	December 31, 2010	Discount rates 1% lower	December 31, 2010	Discount rates 1% lower
	Part I		Part II	
<b>Actuarial liabilities</b>				
> Active members	0.00	0.00	0.09	0.10
> Retired members and beneficiaries	23.18	24.76	7.60	8.14
> Total	23.18	24.76	7.69	8.24
<b>Increase in actuarial liabilities</b>		1.58		0.55

### Incremental Cost on the Solvency Basis

The incremental cost on the solvency basis represents the present value of the expected aggregate change in the solvency liabilities from December 31, 2010 to December 31, 2011, adjusted for expected benefit payments in the inter-valuation period. This incremental cost is estimated to \$0.85 million as at December 31, 2010.

## Section 3 – Employer Contributions

There are two principal types of Employer contributions. The first one is the contribution that may be required to cover the residual normal actuarial cost; the excess of the total normal cost over employee required contributions. The second one is the amortization payment that is required to liquidate any going-concern unfunded liabilities and/or solvency deficiencies. In addition, other Employer contributions may be required when commuted values are paid from the Plan and the transfer ratio is less than 1.00 or escalated adjustments are excluded from the valuation to determine the transfer ratio.

### Normal Actuarial Cost

As there are no Plan members accruing service under this Plan, there is no normal actuarial cost.

### Amortization Payments – Part I

The schedule of going-concern and solvency special payments for Part I of the Plan is as follows:

**Table 3-1 Amortization Payments and Present Values as at December 31, 2010 for Part I**

Nature of Liability	Date Established	End of Amortization Period	Annual Payment	Monthly Payment	Present Value of Payments as at Dec 31, 2010 (GC Basis)	Present Value of Payments as at Dec 31, 2010 (Solvency)*
Going-Concern	Jan. 1, 2003	Dec. 31, 2011	\$351,000	\$29,250	\$341,000	\$343,000
Going-Concern	Jan. 1, 2004	Dec. 31, 2011	214,000	17,833	208,000	209,000
Going-Concern	Jan. 1, 2005	Dec. 31, 2012	96,400	8,033	182,000	185,000
Going-Concern	Jan. 1, 2006	Dec. 31, 2013	85,800	7,151	237,000	241,000
Going-Concern	Jan. 1, 2008	Dec. 31, 2013	45,000	3,754	124,000	127,000
Going-Concern	Jan. 1, 2009	Dec. 31, 2014	230,200	19,183	823,000	845,000
Going-Concern	Jan. 1, 2010	July 31, 2022	140,000	11,667	1,183,000	629,000
Going-Concern	Jan. 1, 2011	Dec. 31, 2025	\$162,000	\$13,500	\$1,630,000	\$727,000
Going-Concern Subtotal			\$1,324,400	\$110,371	\$4,728,000	\$3,306,000
Solvency	Jan. 1, 2009	Dec. 31, 2013	\$137,700	\$11,475	\$380,000	387,100
Solvency	Jan. 1, 2010	Dec. 31, 2014	289,800	24,150	1,036,000	1,063,300
Solvency Subtotal			\$427,500	\$35,625	\$1,416,000	\$1,450,400
<b>Totals</b>			<b>\$1,751,900</b>	<b>\$145,996</b>	<b>\$6,144,000</b>	<b>\$4,756,400</b>

*Figures may not add up exactly due to rounding.*

*\* Present value on a solvency basis includes a maximum of five years of special payments following the valuation date.*

### Amortization Payments – Part II

As Part II of the Plan is fully funded on both a going-concern and solvency basis, there are no required amortization payments.

### Other Contributions

As the 2 members who have not started their pension entitlement from the Plan are age 55 or over; no portability options will be offered and no commuted value payments are expected. Therefore no other contributions are anticipated in respect of the transfer ratio being less than 1.0 or as a result of the exclusion of escalated adjustments from the solvency valuation.

### Total Contributions – Part I

Part I of the Plan has an unfunded liability on a going-concern basis and a solvency shortfall as described in Sections 1 and 2 respectively. The Nova Scotia *Pension Benefits Act* requires minimum contributions, until the earlier of the next valuation or December 31, 2013, of \$145,996 is required for each month in 2011, \$98,913 for each month in 2012, and \$90,880 for each month in 2013. Such special contributions must be remitted to the fund monthly, within 90 days of the month to which they pertain. The minimum and maximum contributions for 2011 are as follows:

**Table 3-2 2011 Contributions to Part I of the Plan**

	Estimated Minimum Contribution for 2011	Estimated Maximum Contribution for 2011
Current service cost	0	0
One time payment to liquidate greater of unfunded liability and wind-up shortfall	0	9,270,000
Amortization payments		
> Going-concern unfunded liability	1,324,400	0
> Solvency deficiency	427,500	0
Other contributions *	0	0
<b>Estimated Employer contributions</b>	<b>\$1,751,900</b>	<b>\$9,270,000</b>

\* Assuming no commuted value payments from Part I of the Plan in 2011.

The minimum Employer contributions described above are such that Part I of the Plan will have sufficient assets to pay benefits under the Plan and are therefore in accordance with the *Income Tax Act* and Regulations if contributed within the fiscal year or remitted within 120 days after the end of the fiscal year.

If the Employer wishes to fund the Plan on a “termination” basis (i.e., wind-up basis) as described in Regulation 8516(7) of the *Income Tax Act* and Regulations, the Employer may contribute \$9.27 million plus accrued interest, less special amortization payments already made, to Part I of the Plan between December 31, 2010 and December 31, 2013 provided that a more recent valuation has not yet been filed.

The Plan actuary should be consulted for advice regarding maximum contributions in the following years if the total Employer contributions in the year following the valuation date are greater than the estimated minimum annual required contributions.

**Total Contributions – Part II**

The Employer is not required to contribute to Part II until the time of the next valuation. Further, as Part II has an excess surplus of \$2.83 million, as calculated in accordance with section 147.2(2) of the *Income Tax Act*, no employer contributions are permitted to Part II until the next valuation.

## Section 4 – Actuarial Opinion

This opinion is given with respect to the Nova Scotia Power Incorporated Pension Plan for Employees of Certain Acquired Companies (the “Plan”), Registration number 0284539 under the Nova Scotia *Pension Benefits Act* and Canada Revenue Agency. We performed a valuation of each of Part I and Part II of the Plan as at December 31, 2010 based on the Plan provisions and data as at that date. The Employer has confirmed that no modifications, extraordinary changes to the membership, or subsequent events, that would materially affect the results of this actuarial valuation, have occurred during the period from December 31, 2010 to the date of this report.

I hereby certify that, in my opinion, for **Part I** of the Plan as at December 31, 2010:

- a) The going-concern liability exceeds the going concern assets resulting in an unfunded liability of \$6.14 million. Assuming that amortization is over the maximum permitted period, and considering the solvency special payments described in section (c) below, the schedule of minimum monthly amortization payments to liquidate this going-concern unfunded liability is as follows:

Nature of Liability	Date Established	End of Amortization Period	Annual Payment	Monthly Payment	Present Value of Payments as at Dec 31, 2010 (GC Basis)	Present Value of Payments as at Dec 31, 2010 (Solvency)*
Going-Concern	Jan. 1, 2003	Dec. 31, 2011	\$351,000	\$29,250	\$341,000	\$343,000
Going-Concern	Jan. 1, 2004	Dec. 31, 2011	214,000	17,833	208,000	209,000
Going-Concern	Jan. 1, 2005	Dec. 31, 2012	96,400	8,033	182,000	185,000
Going-Concern	Jan. 1, 2006	Dec. 31, 2013	85,800	7,151	237,000	241,000
Going-Concern	Jan. 1, 2008	Dec. 31, 2013	45,000	3,754	124,000	127,000
Going-Concern	Jan. 1, 2009	Dec. 31, 2014	230,200	19,183	823,000	845,000
Going-Concern	Jan. 1, 2010	July 31, 2022	140,000	11,667	1,183,000	629,000
Going-Concern	Jan. 1, 2011	Dec. 31, 2025	\$162,000	\$13,500	\$1,630,000	\$727,000
<b>Totals</b>			<b>\$1,324,400</b>	<b>\$110,371</b>	<b>\$4,728,000</b>	<b>\$3,306,000</b>

\* Present value on a solvency basis includes a maximum of five years of special payments following the valuation date.

- b) There is no normal actuarial cost.

- c) According to the solvency test under the Nova Scotia *Pension Benefits Act*, the solvency assets are less than the solvency liabilities and the transfer ratio is 0.81. The schedule of minimum monthly amortization payments to liquidate previously determined and current solvency deficiencies is as follows:

Date Established	End of Amortization Period	Annual Payment	Monthly Payment	Present Value of Payments as at Dec 31, 2010 (GC Basis)	Present Value of Payments as at Dec 31, 2010 (Solvency)
Jan. 1, 2009	Dec. 31, 2013	\$137,700	\$11,475	\$380,000	387,100
Jan. 1, 2010	Dec. 31, 2014	289,800	24,150	1,036,000	1,063,300
Totals		\$427,500	\$35,625	\$1,416,000	\$1,450,400

- d) Wind-up liabilities would exceed the market value of assets by \$9.27 million if Part I were wound up on the valuation date.
- e) Until the earlier of the next valuation or December 31, 2013, the minimum required Employer contributions to Part I for 2011 is \$1,751,900. For 2012, the minimum required employer contribution is \$1,186,900. And for 2013, the minimum required employer contribution is \$1,090,500.
- f) If the Employer wishes to fund Part I of the Plan on a “termination” basis (i.e., wind-up basis) as described in Regulation 8516(7) of the *Income Tax Act*, the Employer may contribute up to \$9.27 million.

And I hereby certify that, in my opinion, for **Part II** of the Plan as at December 31, 2010:

- a) The actuarial value of assets exceeds the actuarial liabilities, on a going-concern basis, by \$4.93 million.
- b) There is no normal actuarial cost.
- c) The solvency asset exceeds the solvency liability, and the transfer ratio is greater than 1.00.
- d) The market value of assets would exceed the wind-up liabilities by \$4.15 million if Part II were to be wound up on the valuation date.
- e) The Employer is not required to contribute to Part II until the time of the next valuation. Further, as Part II has an excess surplus of \$2.83 million, as calculated in accordance with section 147.2(2) of the *Income Tax Act*, no employer contributions are permitted to Part II until the next valuation.

In my opinion:

- > The data on which the valuation is based are sufficient and reliable for the purposes of the valuation.
- > The assumptions used are appropriate for the purposes of the valuation.

> The methods employed in the valuation are appropriate for the purposes of the valuation.

This report has been prepared, and my opinion given, in accordance with accepted actuarial practice in Canada. The assumptions that form each actuarial basis used in the report were reasonable at the time this actuarial valuation report was prepared and contributions were determined.

This actuarial valuation was performed in accordance with the funding and solvency standards prescribed under the Nova Scotia *Pension Benefit Act*. The calculations in the actuarial valuation report have been prepared in accordance with Subparagraph 147.2(2) of the *Income Tax Act*.

The recommendations and opinions are given exclusively from a financial viewpoint. This valuation report does not constitute a legal opinion on the rights or duties of the Plan administrator, the Employer or the members over the pension funds.

Actuarial valuations are performed based on assumptions and methods that are in accordance with sound actuarial principles. Emerging experience differing from these assumptions may result in gains or losses, which may affect future contribution levels. These will be revealed in future actuarial valuations. The next actuarial valuation should be performed not later than as at December 31, 2013.

Respectfully submitted,



Paul Chang, F.C.I.A.



Don Charlton, F.C.I.A.

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December 2011



## Appendix A – Going-Concern Actuarial Basis

### **Asset Valuation Method**

The actuarial value of invested assets used to determine the going-concern financial position is based on an adjusted value that recognizes the market value, adjusted for payments due to and payable from the pension fund, while smoothing out market fluctuations over a 3-year period. The smoothing is capped at 20% of the market value (including receivables and payables). This method was also used in the previous valuation, and is illustrated in Appendix C.

### **Actuarial Cost Method**

The actuarial liability and normal actuarial cost on a going-concern basis were calculated using the “Projected Accrued Benefit (or Projected Unit Credit) Actuarial Cost Method”. The actuarial liability is equal to the present value of benefits earned by members for service prior to the valuation date, taking relevant factors into account as indicated in the assumptions below.

### **Actuarial Assumptions**

The main actuarial assumptions employed for the going-concern actuarial valuation are summarized in the following table. For comparison, the assumptions used for the last valuation are also included in the table. All rates and percentages are annualized unless otherwise noted.

**Table A-1 Going-Concern Actuarial Assumptions**

	December 31, 2010	December 31, 2009
Discount rate	5.90% (real rate of return (net of all plan expenses) of 3.07%)	6.86% (real rate of return of 4.00%)
Inflation	2.75%	2.75%
Salary increases, including inflation, merit and promotion	3.25% Not applicable to member on LTD	3.25% Not applicable to member on LTD
Maximum pension per year of service	\$2,552 in 2011 and \$2,552 indexed thereafter at 3.25% per annum starting in 2012	\$2,494 in 2010 and \$2,494 indexed thereafter at 3.25% per annum starting in 2011
Interest credited on employee contributions	4.25%	4.25%
Mortality rate	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA (UP94@2020) Post-retirement only	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA (UP94@2020) Post-retirement only
Termination rate	None assumed (all members are over age 55)	None assumed (all members are over age 55)
Disability rate	None assumed	None assumed
Retirement	Age 58. Age 60 for deferred vested and terminating members. Age 65 or upon 35 years of service for Member accruing LTD credits. Members past their assumed retirement age are assumed to retire in one year	Age 58. Age 60 for deferred vested and terminating members. Age 65 or upon 35 years of service for Member accruing LTD credits. Members past their assumed retirement age are assumed to retire in one year
Plan expenses	Discount rate is assumed to be net of all expenses	Discount rate is assumed to be net of all expenses
Married %	At retirement: 85% Pensioners: if there was a spouse at retirement, assumed to be alive unless otherwise notified.	At retirement: 85% Pensioners: if there was a spouse at retirement, assumed to be alive unless otherwise notified.
Spousal age difference	Male is 3 years older than female	Male is 3 years older than female
Children's benefits	None assumed	None assumed

**Choice of assumptions**

The assumptions have been reviewed in light of current economic conditions.

As stated in its monetary policy, the Bank of Canada aims to keep inflation at the 2% target, i.e. the midpoint of the 1% to 3% inflation-control target range. Given historical increases in consumer prices in Canada, the rates expected by the market, portfolio managers' expectations and the Bank of Canada policy, an expected rate of inflation of 2.75% has been used which includes a margin for adverse deviation of 0.25%.

The elements considered in the development of the discount rates assumption for going-concern purposes are summarized in the table below.

**Table A.2 – Discount Rates**

	%
Expected inflation	2.75
Expected real return	3.90
Value added for active management	0.15
Value added for rebalancing and diversification effect	0.48
Margin for adverse deviations	(0.22)
Expected expenses	(1.15) <sup>1</sup>
Discount rate	5.91

<sup>1</sup> Includes 0.15% expense assumption for active management

The return assumptions for bonds have been determined mainly (but not totally) on current market conditions while the return assumptions for equities are based more on long-term expectations.

Portfolio rebalancing will affect the portfolio's expected long-term return. In other words, realigning portfolio's weightings to the target determined in the investment policy from time to time will have an impact on the long-term return. The impact of portfolio rebalancing depends on its frequency, the weightings between asset classes, the level of diversification in the portfolio and the investment horizon. The expected return is also influenced by the level of diversification of the portfolio (this is independent of rebalancing). The expected impact of rebalancing and diversification on the portfolio's return (weighed average of returns of asset categories) was estimated on the basis of stochastic projections.

Discount rates have been adjusted to take into account fees related to asset management and plan administration.

A mortality experience study has not been conducted. As such, we have used a commonly used mortality table and will monitor mortality experience gains & losses in future valuations.

There are only 2 active members in the Plan. Therefore, the exclusion of a specific termination scale is not material to the valuation results.

The vast majority of members are pensioners so the retirement age assumption is not material to the valuation results.

## Appendix B – Solvency and Wind-Up Actuarial Basis

### Asset Valuation Method

The actuarial value of assets used to determine the solvency financial position is based on an adjusted value that recognizes the market value, adjusted for payments due to and payable from the pension fund, while smoothing out market fluctuations over a 3-year period, plus the present value of minimum special amortization payments for the next five years, and less an allowance for wind-up expenses. This method produces the same asset smoothing reserve as determined for the going-concern and is illustrated in Appendix C.

Wind-up assets are equal to the sum of the market value of invested assets, adjusted for amounts payable and receivable, less an allowance for wind-up expenses.

### Actuarial Cost Method

The solvency and wind-up liability is determined using the “Accrued Benefit (or Unit Credit) Actuarial Cost Method”. The solvency liability is equal to the actuarial present value of all benefits earned by members for service prior to the valuation date (but allowing for the exclusion of escalated adjustments) assuming the Plan is wound up on the valuation date. All members are treated as vested in the solvency and wind-up valuations.

### Actuarial Assumptions

As permitted by the Nova Scotia *Pension Benefits Act* and the Regulations, the value of escalated adjustments and grow-in benefits are excluded from the solvency valuation.

The primary actuarial assumptions employed for the solvency actuarial valuation are summarized in the following table. For comparison, the assumptions used for the last valuation are also included in the table.

The escalated adjustment effective January 1 of the year following the valuation date is included in the liabilities. This discount rate excludes the value of future escalated adjustments.

All rates and percentages are annualized unless otherwise noted.

**Table B.1 Solvency Actuarial Assumptions**

	December 31, 2010	December 31, 2009
Discount rate for transfer value	Not applicable	Not applicable
Discount rate for annuity purchase	4.48%	4.49%
Member election	All members are assumed to elect an annuity purchase.	All members are assumed to elect an annuity purchase.
Mortality	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA (UP94@2020) sex distinct for all members	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA (UP94@2020) sex distinct for all members
Salary increases	None	None
Merit and promotional scale	None	None
Increase in maximum pension	None	None
Termination, Disability	None	None
Retirement	Age that maximizes the value of the pension	Age that maximizes the value of the pension
Married %	Active Members: 85% Pensioners: if there was a spouse at retirement, assumed to be alive unless otherwise notified	Active Members: 85% Pensioners: if there was a spouse at retirement, assumed to be alive unless otherwise notified
Difference in age of spouses	Male is 3 years older than female	Male is 3 years older than female
Assets	Actuarial value with 3-year asset smoothing (reserve same as amount determined for going-concern) plus present value of minimum special payments for next 5 years.	Actuarial value with 3-year asset smoothing (reserve same as amount determined for going-concern) plus present value of minimum special payments for next 5 years.
Wind-up expenses	\$150,000	\$150,000

Based on the Canadian Institute of Actuaries' (CIA) guidance provided in May 2011 and long term Government of Canada bonds' yield (series V39062) of 3.48% at December 31, 2010, the guidance suggests a 4.48% discount rate used on conjunction with the UP94@2020 mortality table to approximate the cost of purchasing immediate non-indexed annuities as at the valuation date.

Based on the Plan's demographics - all active members are age 55 or over; we assumed that all members would elect an annuity purchase if the Plan is discontinued.

Allowance has been made for administrative, actuarial and basic legal costs which would be incurred if the Plan were to be wound up in full or in part. No allowance has been made for costs which may be incurred in respect of resolving surplus issues on plan wind up or the costs in respect of assets which cannot be readily realized.

## Incremental Cost

The incremental cost on the solvency basis is based on the actuarial method and assumptions described below.

### *Actuarial Cost Method*

The method used to calculate the incremental cost may be described as follows:

1. Present value of expected benefit payments between December 31, 2010 and December 31, 2011, discounted to December 31, 2010;

Plus

2. Projected solvency liabilities as at December 31, 2011, discounted to December 31, 2010;

Less

3. Solvency liabilities as at December 31, 2010.

The projected liabilities as at December 31, 2011 take into account:

- > accrual of service (if applicable) to December 31, 2011;
- > expected changes in benefits to December 31, 2011; and
- > projection of pensionable earnings (if applicable) to December 31, 2011.

### *Actuarial Assumptions*

- > The assumptions used to calculate the expected benefit payments in item 1. above and service accruals, projected changes in benefits and projected changes in the pensionable earnings in item 2. above correspond to those used in the going-concern valuation as at December 31, 2010.
- > The assumptions used to calculate the projected solvency liabilities as at December 31, 2011 in item 2. above correspond to those used for the solvency valuation as at December 31, 2010, taking into account the method of settlement applicable to each member as at December 31, 2011.

However, we assume that the discount rates remain at the levels applicable as at December 31, 2010 and that the select period is reset as at December 31, 2011 for discount rate assumptions that are select and ultimate.

We also assume that the standards of practice for the calculation of commuted values and the guidance for estimated annuity purchase costs in effect as at December 31, 2010 remain in effect as at December 31, 2011 and as such the mortality table used is the UP-94 projected to 2020 as at December 31, 2010 and as at December 31, 2011 even though the full generational UP-94 table projected with scale AA will have to be used for any valuation after February 1, 2011.

- > The projected solvency liabilities as at December 31, 2011 in item 2. above is calculated using the same postulated scenario as is used for the solvency valuation as at December 31, 2010.
- > The rates used to discount items 1. and 2. above from December 31, 2011 to December 31, 2010 correspond to those used for the solvency valuation as at December 31, 2010. However, these

rates are adjusted to take into account the applicable method of settlement applicable to each member as at December 31, 2011.

The assumptions used for the wind-up valuation are the same as those used for the solvency valuation except for the following:

**Table B.2 Wind-Up Actuarial Assumptions**

	December 31, 2010	December 31, 2009
Assets	Market value adjusted for current payables and receivables*	Market value adjusted for current payables and receivables*
Discount rate for transfer value, net of inflation adjustments (i.e., taking into account indexing after retirement – there is no pre-retirement indexing)	Not applicable	Not applicable
Discount rate for annuity purchase, net of inflation adjustments (i.e., after taking into account indexing )	Before retirement: 4.48% After retirement: 1.11%	Before retirement: 4.49% After retirement: 1.53%

\* Excludes present value of special payments and asset smoothing reserve.

It is difficult to obtain illustrative quotes for fully indexed annuities. Based on the Canadian Institute of Actuaries' (CIA) guidance provided in May 2011 and Government of Canada real return long bond yields (series V39057) of 1.11% at December 31 2010, the guidance suggests a 1.11% discount rate used in conjunction with the UP94@2020 mortality table to approximate the cost of purchasing CPI indexed annuities at the valuation date.

#### *Termination scenario*

The termination scenario used in the solvency and hypothetical wind-up valuations includes the following assumptions:

- > Plan wind-up would not result from employer insolvency.
- > All assets could be realized at their reported market value.

This approach is the same as the one used in the last valuation.

#### *Margin for adverse deviations*

As specified by the Standards of Practice of the Canadian Institute of Actuaries, the solvency assumptions do not include a margin for adverse deviations.

*Provision for fees*

Allowance has been made for administrative, actuarial and legal costs which would be incurred if the Plan were to be wound up, based on sufficient and reliable data. It is assumed that the wind-up date, the calculation date and the settlement date are coincident, and as such, expenses related to investment policy reviews, investment and custodial fees are not included. Expenses related to the resolution of surplus and deficit issues are not taken into account. The amount of expenses is only an approximation and may differ significantly from real expenses incurred on plan wind-up, for example, in case of litigation, bankruptcy and eventual replacement by a third-party administrator.



## Appendix C – Assets

### Description of Plan Assets

Plan assets are under the custody of RBC Dexia Investor Services. The following investment managers are responsible for the Plan assets as at December 31, 2010:

- > *Canadian Fixed Income*: Phillips Hager & North, Letko Brosseau.
- > *Canadian Equity*: PCJ Investment Counsel Ltd., Fidelity Investments Canada, Letko Brosseau.
- > *Foreign Equity*: State Street Global Advisors, American Century, Letko Brosseau.

We have relied upon the information provided in the draft audited financial statements provided to us by NSPI, following tests of reasonableness with respect to contributions, benefit payments and investment income.

### Statement of Market Value

The following table shows the asset mix as at December 31, 2010 and for comparison, the mix as at December 31, 2009:

**Table C.1 Assets at Market Value (millions)**

	December 31, 2010			December 31, 2009		
	Part I	Part II	Total	Part I	Part II	Total
Invested assets						
> Cash and short-term	\$0.15	\$0.16	\$0.31	\$0.36	\$0.26	\$0.62
> Bonds	6.90	4.86	11.76	7.06	5.00	12.06
> Equities	12.76	8.94	21.69	12.14	8.45	20.60
> Accrued investment income	0.02	0.02	0.04	0.03	0.02	0.04
Total invested assets	19.83	13.98	33.81	19.58	13.74	33.32
Net receivables and payable (excluding accrued investment income)	(0.04)	(0.03)	(0.07)	(0.05)	(0.03)	(0.09)
<b>Total Market Value of Assets</b>	<b>\$19.78</b>	<b>\$13.95</b>	<b>\$33.74</b>	<b>\$19.53</b>	<b>\$13.71</b>	<b>\$33.23</b>

*Figures may not add up exactly due to rounding.*

### Changes to Plan Assets

The following table shows changes to the Plan assets during the inter-valuation period, based on market values.

**Table C.2 Asset Reconciliation (millions)**

	2010			2009		
	Part I	Part II	Total	Part I	Part II	Total
Market value of assets at beginning of year	\$19.53	\$13.71	\$33.23	\$18.47	\$12.47	\$30.94
Receipts:						
> Employer special payments	1.59	0.00	1.59	1.22	0.00	1.22
> Investment income	1.83	1.30	3.13	3.17	2.34	5.51
Total receipts	3.42	1.30	4.72	4.39	2.34	6.73
Disbursements:						
> Benefits paid	2.94	0.92	3.86	3.14	0.97	4.11
> Plan expenses	0.22	0.14	0.36	0.20	0.14	0.33
Total disbursements	3.16	1.05	4.21	3.34	1.11	4.44
<b>Market value of assets at end of year</b>	<b>\$19.78</b>	<b>\$13.95</b>	<b>\$33.74</b>	<b>\$19.53</b>	<b>\$13.71</b>	<b>\$33.23</b>

*Figures may not add up exactly due to rounding.*

### Return on Assets

The Plan assets earned the following annualized rates of return, net after investment management fees and other expenses charged to the fund:

**Table C.3 Net Investment Return**

Year	Market Value Basis			Excess Investment Gain (millions)		
	Part I	Part II	Total	Part I	Part II	Total
2008	(15.95)%	(16.05)%	(15.99)%	(\$5.30)	(\$3.54)	(\$8.84)
2009	17.01%	18.41%	17.59%	\$1.78	\$1.38	\$3.16
2010	8.54%	8.78%	8.64%	\$0.32	\$0.25	\$0.57

*Figures may not add up exactly due to rounding.*

**Actuarial Value of Assets**

For purposes of this valuation, the actuarial value of assets is equal to the following:

- > market value of assets (invested assets as at the valuation date adjusted for net payables and receivables); less
- > a smoothing reserve equal to 2/3 of the investment gain (in excess of the most recent year's valuation assumption) for the most recent year; and 1/3 the investment gain (in excess of the prior year's valuation assumption) in the prior year, subject to a reserve not to exceed 20% of the market value.

**Table C.4 Actuarial Value of Assets (millions)**

	December 31, 2010			December 31, 2009		
	Part I	Part II	Total	Part I	Part II	Total
Invested assets	\$19.83	\$13.98	\$33.81	\$19.58	\$13.74	\$33.32
Net payable and receivable	(0.04)	(0.03)	(0.07)	(0.05)	(0.03)	(0.09)
<b>Market Value of Assets</b>	<b>19.78</b>	<b>13.95</b>	<b>33.74</b>	<b>19.53</b>	<b>13.71</b>	<b>33.23</b>
Less 2/3 investment gain in most recent year	(0.21)	(0.17)	(0.38)	(1.19)	(0.92)	(2.11)
Less 1/3 of investment gain in prior year	(0.59)	(0.46)	(1.06)	1.77	1.18	2.95
Smoothing Adjustment (Prior to cap)	(0.80)	(0.63)	(1.44)	0.58	0.26	0.84
Smoothing Adjustment subject to 20% cap	(0.80)	(0.63)	(1.44)	0.58	0.26	0.84
<b>Actuarial Value of Assets</b>	<b>\$18.98</b>	<b>\$13.32</b>	<b>\$32.30</b>	<b>\$20.11</b>	<b>\$13.96</b>	<b>\$34.07</b>

*Figures may not add up exactly due to rounding.*

Based on the above, the asset smoothing adjustment as at December 31, 2010 is a write-down equal to \$1.44 million.

## Appendix D – Membership Data

### Description of Membership Data

Morneau Shepell Ltd. maintains pension data records for the Plan. NSPI provides annual data updates and advises us of changes in status as they occur. Our valuation is based on data compiled as at December 31, 2010. We have taken the following steps to review the data to ensure sufficiency and reliability:

- > each member's record was reconciled and the results of this reconciliation were submitted to NSPI;
- > individual benefit statements were distributed to active members who were requested to report any errors;
- > monthly pensioner reports are produced and provided to NSPI for confirmation;
- > the pensions paid since the last valuation shown in the financial statements were compared with the equivalent values produced by the data;
- > a membership reconciliation was prepared to follow the changes of active members, retirees and vested members; and
- > basic data checks were performed to ensure that age, salary and service data were reasonable for the purposes of the valuation.

### Summary of Membership Data

The following tables were prepared using data provided by NSPI regarding their active members, retirees and former members. These tables show the following:

- D.1 A summary of membership data
- D.2 Changes in Plan membership
- D.3 Distribution of retirees and survivors according to age as at the valuation date

**Table D.1 Summary of Membership Data**

		December 31, 2010			December 31, 2009		
		Part I	Part II	Total	Part I	Part II	Total
Active	Number	0	2	2	0	2	2
Members	Average age	N/A	<>	<>	N/A	<>	<>
	Average credited service	N/A	<>	<>	N/A	<>	<>
	Average salary	N/A	<>	<>	N/A	<>	<>
Vested	Number	0	0	0	0	0	0
Members	Average age	N/A	N/A	N/A	N/A	N/A	N/A
	Average annual pension	N/A	N/A	N/A	N/A	N/A	N/A
Retirees &	Number	429	165	594	456	176	632
Beneficiaries	Average age	76.8	77.6	77.0	76.6	77.2	76.8
	Average annual lifetime pension	\$6,639	\$5,407	\$6,297	\$6,734	\$5,385	\$6,358
	Average annual bridge	0	0	0	0	0	0
	Total annual pensions (millions)	\$2.85	\$0.89	\$3.74	\$3.07	\$0.95	\$4.02

*Figures may not add up exactly due to rounding.*

*<> Certain cells are not shown to protect confidentiality.*

*The pension amounts include the cost of living adjustment effective as at January 1, 2011.*

**Table D.2 Changes in Plan Membership**

	Active Members	Vested Members	Retirees and Beneficiaries	Total
<b>Members as at January 1, 2010</b>	<b>2</b>	<b>0</b>	<b>632</b>	<b>634</b>
New active members	-	-	-	-
Retirements	-	-	3	3
New survivor pensions	-	-	11	11
Terminations:				
> Deferred pensions	-	-	-	-
> Non-vested or lump sums	-	-	-	-
Deaths:				
> With no death benefit	-	-	(41)	(41)
> Refund or transfer	-	-	-	-
> Survivor pension	-	-	(11)	(11)
<b>Members as at December 31, 2010</b>	<b>2</b>	<b>0</b>	<b>594</b>	<b>596</b>

Table D.3 Retirees and Survivors as at December 31, 2010

Part I				Part II		
Nearest Age	Count	Average Annual Benefit	Total Benefit Payable	Count	Average Annual Benefit	Total Benefit Payable
Less than 55	1	<>	<>	0	-	-
55 to 59	7	611	4,279	2	<>	<>
60	2	<>	<>	2	<>	<>
61	5	802	4,009	1	<>	<>
62	4	1,330	5,321	6	1,697	10,181
63	16	663	10,612	1	<>	<>
64	20	1,266	25,324	3	651	1,953
65	14	2,262	31,663	6	2,039	12,235
66	17	2,340	39,778	1	<>	<>
67	14	2,846	39,842	3	1,912	5,737
68	10	2,690	26,900	4	5,718	22,874
69	6	3,402	20,414	2	<>	<>
70	9	3,398	30,585	1	<>	<>
71	8	4,348	34,780	5	4,094	20,472
72	13	4,614	59,982	12	4,792	57,506
73	10	4,212	42,122	5	6,518	32,589
74	12	5,769	69,231	9	3,721	33,489
75	16	6,344	101,502	9	3,514	31,626
76	13	4,817	62,622	5	6,050	30,251
77	24	8,465	203,151	4	6,453	25,811
78	12	9,092	109,100	3	5,124	15,373
79	18	8,963	161,327	7	6,049	42,342
80	18	10,546	189,830	6	11,477	68,863
81	14	6,332	88,652	10	4,814	48,142
82	14	11,184	156,582	11	7,273	80,007
83	17	13,878	235,934	5	4,069	20,345
84	14	8,334	116,677	4	9,137	36,548
85	16	8,017	128,277	5	9,473	47,364
86	12	11,767	141,199	5	7,917	39,585
87	11	13,218	145,403	3	6,289	18,866
88	17	11,313	192,327	1	<>	<>
89	6	6,754	40,526	4	4,255	17,021
90	6	9,774	58,643	6	6,437	38,620
91	5	9,277	46,383	5	9,412	47,058
92	10	9,617	96,168	4	6,607	26,426
93	2	<>	<>	3	5,409	16,228
94	5	6,999	34,993	0	-	-
95 and over	11	6,291	69,205	2	<>	<>
<b>Average</b>		<b>6,639</b>			<b>5,407</b>	
<b>Total</b>	<b>429</b>		<b>2,848,079</b>	<b>165</b>		<b>892,084</b>

The age shown is rounded to nearest year.

<> Certain cells are not shown to protect confidentiality.

The pension amounts include the cost of living adjustment effective as at January 1, 2011.

60% of the pensioners are male and of the 594 pensions currently being paid, 272 are for life and 322 are joint and survivor.

## Appendix E – Summary of Plan Provisions

The Nova Scotia Power Incorporated Pension Plan for Employees of Certain Acquired Companies (the "Plan"), which became effective August 1, 1992, is registered under both the Nova Scotia *Pension Benefits Act* and the *Income Tax Act* (registration number 0284539).

The Plan resulted from a merger and amendment of two previous pension plans of Nova Scotia Power Incorporated ("NSPI"), namely:

- > the Nova Scotia Light and Power Company, Limited Improved Pension Plan (the "Improved Plan");
- and
- > the Supplemental Pension Plan for Certain Employees of the Nova Scotia Power Corporation (the "Supplemental Plan").

While the Improved Plan and the Supplemental Plan have been merged, their two respective trust funds continue to be separate. Pension Fund I, which emanates from the Improved Plan pension fund, is used solely to pay benefits to those persons previously covered under the Improved Plan. Pension Fund II, which emanates from the Supplemental Plan pension fund, is used solely to pay benefits to persons previously covered under the Supplemental Plan.

According to Sections 9.2 and 21.2 of the Plan text, assets of Part I and Part II of the Plan are to be maintained separately and in no event shall assets of either Part be used to provide benefits under the other.

### **Part I - Improved Plan**

The Improved Plan was established by Nova Scotia Light & Power January 1, 1955, replacing a Prior Plan which was effective January 1, 1945. Effective February 1, 1972, Nova Scotia Power Corporation ("NSPC") acquired the Nova Scotia Light and Power Company, Limited and effective April 1, 1973 all former employees of the Nova Scotia Light and Power Company, Limited were eligible for coverage under the Public Service Superannuation Plan (PSSP). The employees continued to contribute to the Improved Plan during the period from February 1, 1972 to March 31, 1973. NSPC continued the Improved Plan as regards credited service to March 31, 1973, and administered the Improved Plan since February 1, 1972.

Benefits for employees, or their surviving beneficiaries in the case of employees who retired, died or terminated prior to August 1, 1992 (the date of privatization), continue to be determined in accordance with the Improved Plan provisions and applicable legislation in effect at that time, or as amended under this Plan, and such benefits are now paid under this Plan.

All of the provisions relating to the rights and benefits of persons formerly covered under the Improved Plan as of July 31, 1992 are contained in Part I of the new Plan.

## Part II - Supplemental Plan

The Supplemental Plan was formed effective January 1, 1971 primarily to provide certain supplemental benefits to employees who had prior service with one of the following 12 acquired companies:

Acquired Company	Date of Acquisition
Bridgewater Electric	January 1, 1970
Caledonia Power & Water	December 30, 1966
Canada Electric	January 1, 1961
Clare Electric	June 2, 1980
Digby County Power	June 2, 1980
Dominion Utilities	December 30, 1966
Eastern Light & Power	December 30, 1966
Liverpool	November 1, 1973
Pictou County Power	December 1, 1963
Town of Pictou	July 1, 1965
Seaboard (Union)	January 1, 1966
Seaboard (Non-Union)	January 1, 1966
Shelburne Electric	October 1, 1974

The Supplemental Plan was formed primarily to provide supplemental benefits to those employees who worked for NSPC after the date of acquisition of their former employer and who joined the PSSP as soon as becoming eligible. The supplemental Plan also provided certain benefits to those employees who worked for NSPC and did not join the PSSP, but rather continued as a member under the former employer's pension plan. The Supplemental Plan also provided certain benefits to certain employees of acquired companies who retired prior to the date of such acquisition.

The Supplemental Plan also provided certain "discretionary" benefits to certain employees who may or may not have worked for an acquired company, where NSPC deemed such benefits to be appropriate in the circumstances. Such benefits are no longer permitted under either the *Income Tax Act* or the Nova Scotia *Pension Benefits Act*, and as a result, such benefits are not provided under this Plan. NSPI, rather than this Plan, directly pays all such discretionary benefits effective from January 1, 1992. In addition, the provisions under the Supplemental Plan relating to war service have been deleted, as such benefits are paid under the PSSP.

NSPC has unilaterally improved benefits under the Supplemental Plan from time to time, with the most recent such amendment being effective January 1, 2005, at which time the small pensions rule was revised to reflect changes in the Nova Scotia *Pension Benefits Act*. Effective June 4, 2001, the definition of "Spouse" was revised to reflect changes in the Nova Scotia *Pension Benefits Act*.

Benefits for employees, or their surviving beneficiaries in the case of employees who retired, died or terminated prior to August 1, 1992, continue to be determined in accordance with the Supplemental



Plan provisions and applicable legislation in effect at that time, or as subsequently amended. Such benefits, with the exception of both the "discretionary" benefits and the war service benefits referred to above, are paid under this Plan.

Any person entitled to benefits under Part II of this Plan was previously entitled to such benefits under the Supplemental Plan as of July 31, 1992.

The following is a summary of the Plan's provisions as of the valuation date. The most recent amendment to the Plan was Amendment No. 7, effective January 1, 2005, which revised the small pension payout rule. This amendment has no impact on the Plan's liabilities.

#### **Effective Date**

The effective date of the Plan was August 1, 1992.

#### **Eligibility**

Each member of the Improved Plan as of July 31, 1992 automatically became a member of Part I of this Plan as of August 1, 1992.

Each member of the Supplemental Plan as of July 31, 1992, other than persons entitled solely to war service benefits or certain discretionary benefits, automatically became a member of Part II of this Plan as of August 1, 1992.

There are no members accruing benefits under the Plan.

#### **Retirement Dates**

The normal retirement age is 65 for all members. A member may retire prior to age 65 on his full accrued pension upon the earlier of (i) attainment of age 60 and (ii) attainment of age 55, with total age and service of at least 85 years, counting completed months in each case (the "Rule of 85").

A member who does not qualify for the Rule of 85 may also retire on a reduced formula provided he has attained age 55; the pension in such case is the amount determined in accordance with the regular formula, reduced by 0.5% for each month by which the member falls short of eligibility for an unreduced pension, i.e. the lesser of:

- > the number of months remaining to age 60, or
- > the number of months by which the total of his age and years of service is less than 85 years.

In addition, there was an early retirement Window in effect from April 1, 1997 to December 31, 2001, which allowed a member who satisfied the Rule of 80 (age plus year of service) during this period to retire on an unreduced pension.

### **Amount of Pension**

A member's annual pension is based upon the following factors:

- > his Final Average Salary, being the average of his annual salary (excluding overtime) during the 5 years of highest salary; and
- > his years of credited service under this Plan.

The amount of pension payable is 1.25% of his Final Average Salary multiplied by his years of credited service, but in any event for a Part I member not less than the minimum pension outlined below. All pensions are payable on a monthly basis at the end of each month at the rate of 1/12th of the annual amount.

This pension is reduced by any pension payable under any prior plan established by the previous employer with regard to service covered under this Plan (applicable to most Part II members). If such prior pension is not indexed, this Plan will provide indexing on the total pension, including the amount payable under the prior plan. (It should be noted that none of the prior plan benefits are indexed.) This Plan also supplements the benefits payable under a prior plan so as to provide the spousal benefits provided under this Plan with respect to such benefits, and also to provide unreduced pensions on early retirement in accordance with the rules under this Plan (i.e., earlier of age 60 or Rule of 85).

### **Death Benefits**

#### *Before Retirement*

In the event that a member with a spouse dies prior to retirement, his surviving spouse shall receive a lifetime pension of 60% of the pension which the member had earned to his date of death (including any pension accrued under a prior plan).

It is further noted that, in the case of Part II members, a pension may also be payable to any eligible child (to a maximum of 4 children) equal to 10% of the pension which the member had earned to his date of death.

If, upon the death of the member, there is no spouse eligible for a pension as described above, the following lump sum amount shall be payable:

- > **Part I members:** an amount of twice the member's contributions with Interest. Interest is compounded annually at the average rate of interest payable on 5 year personal fixed term chartered bank deposits.
- > **Part II members:** nil (although there may be a benefit payable under a prior plan).

#### *After Retirement*

In the event of the death of a retired member with a spouse, provided the marriage occurred either before retirement or at least three years prior to the member's death, a spousal pension shall be

payable equal to 60% of the pension payable to the member (including any pension payable under a prior plan) at the time of his death.

In the case of a Part I member without a spouse at time of retirement, the pension is payable for life with a 5 year guarantee. There is no such applicable guarantee in the case of a Part II member.

In the case of a retired Part II member with eligible children, each eligible child (to a maximum of four children) is entitled, upon the death of the member, to a pension of 10% of the pension which the member would have received if still alive.

Any survivor pensions will be adjusted each January 1 in the normal fashion in accordance with the percentage increase in the Consumer Price Index (maximum increase of 6% in any one year).

### **Indexing of Pensions after Retirement**

After retirement, the pension is eligible for annual increases on each January 1, according to the percentage change in the Consumer Price Index for the 12 months ending with the previous October, up to a maximum of 6% in any year. It may be noted that pensions are not reduced if the CPI should fall. Any survivor pension benefits are also eligible for this indexing.

It may be noted that the indexing adjustment for the part year following retirement is pro-rated to reflect the actual number of months out of 12 for which payments were received.

## Appendix F – Employer Confirmation Certificate

With respect to the actuarial valuation report of the Nova Scotia Power Incorporated Pension Plan for Employees of Certain Acquired Companies as at December 31, 2010, we hereby confirm that to the best of our knowledge:

- > the data regarding plan members and beneficiaries provided to Morneau Shepell Ltd. constitutes a complete and accurate description of the information contained in our files;
- > copies of the official text of the Plan and all amendments to date were provided to Morneau Shepell Ltd.; and
- > there are no subsequent events nor any extraordinary changes to the membership other than those listed in the December 31, 2010 actuarial valuation report on the Plan, which would materially affect the results.

### **Nova Scotia Power Incorporated**

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Signature

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Name (printed)

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Title

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Date

Actuarial Valuation for Accounting Purposes  
as at December 31, 2011 of the

Post-Employment Benefits for Employees of  
Nova Scotia Power Incorporated

*February 2012*

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## Executive Summary

### **Purpose**

This report presents the results of the actuarial valuation of Nova Scotia Power Incorporated (“NSPI”) post-employment benefit plans for accounting purposes as at December 31, 2011. NSPI retained the services of Morneau Shepell to perform this actuarial valuation.

This report presents the results of our calculations, and was prepared:

- > to determine the benefit cost for fiscal 2011 and the required disclosure items for pension and post-employment benefits as at December 31, 2011;
- > to provide the information and the actuarial opinion as at December 31, 2011 as required by NSPI’s auditor under US GAAP.

The following post-employment plans are included as part of this report:

*Pension:* a) Employees’ Pension Plan (both defined contribution and defined benefit), b) the Acquired Companies Pension Plan, c) Supplementary, Executive and Discretionary pensions, and d) War Service, ERIP 86 and 91 pensions.

*Non Pension:* a) Long Service Award, and b) Post-Retirement Health Benefits including the Post-Retirement Life Insurance Plan.

We are not aware of any other post-employment benefit plan sponsored by NSPI.

The benefit cost figures shown in this report exclude the costs in respect of service after January 1, 2007 for employees who have been transferred to Emera Inc. The figures in respect of Emera Inc. are presented in a separate report.

### **Changes since the Previous Valuation**

We are not aware of any material changes to the post-retirement plans during 2011.

We understand that NSPI reports under US GAAP effective January 1, 2011. The main impact of this change is that the net transitional obligation which existed under CICA 3461 is moved onto the balance sheet under US GAAP. Therefore the accrued benefit asset is reduced upon transition, since there were 2 years remaining in the transitional obligation amortization schedule under Canadian GAAP. In addition, the pension costs for 2011 and 2012 reported under US GAAP are slightly lower than it would have been under CICA 3461. All figures shown in this report were determined in accordance with US GAAP.

NSPI’s management reviewed the accounting methods and assumptions and has made the following revision effective December 31, 2011:

- > The underlying assumed inflation rate was updated from 2.50% to 2.25%. As other economic assumptions for valuation purposes are developed using a “building block” approach, other economic assumptions have also been adjusted by the same 0.25% decrease in the assumed inflation rate. Of note, the assumed rate of return assumption for 2012 will be 6.75%.
- > The discount rate of 5.00% per annum as at December 31, 2011 is based on the annualized yield of high quality bonds (AA) with the same duration as the obligations (14 years duration at the valuation date). The prior valuation used a 5.5% discount rate and the duration was 14 years. The method used to determine the discount rate for December 31, 2011 is the same as the method used to determine the discount rate at December 31, 2010.



## Section 1 – Balance Sheet

### US GAAP Adopted By NSPI

Effective January 1, 2011, NSPI will be reporting under US GAAP for its benefit plans. The main impact of this change is that the net transitional obligation which existed under CICA 3461 is moved onto the balance sheet under US GAAP, and therefore there is no longer any unamortized balance with respect to the transitional obligation.

### Benefit Obligation, Plan Assets, and Balance Sheet

The change in Benefit Obligation, Assets, and Funded Status for all plans for the years ended December 31 was as follows:

millions of Canadian dollars	2011		2010	
	Defined benefit pension plans	Non-pension benefits plans	Defined benefit pension plans	Non-pension benefits plans
<b>Reconciliation of Projected Benefit Obligation and Accumulated Post-retirement Benefit Obligation</b>				
Balance, January 1	\$931.5	\$39.8	\$785.2	\$36.3
Service cost	12.6	1.6	9.0	1.4
Plan participant contributions	6.0	-	5.5	-
Interest cost	50.3	2.1	50.0	2.3
Plan amendments	-	-	(1.0)	-
Benefits paid	(44.0)	(3.8)	(39.5)	(4.3)
Actuarial losses (gains)	71.3	0.6	122.3	4.1
Plan curtailments, settlements, combination, divestitures, and special termination benefits	-	-	-	-
Balance, December 31	\$1,027.7	\$40.3	\$931.5	\$39.8
<b>Reconciliation of Plan assets</b>				
Balance, January 1	\$648.4	\$0	\$592.1	-
Employer contributions	41.3	3.8	34.6	4.3
Plan participant contributions	6.0	-	5.5	-
Benefits paid	(44.0)	(3.8)	(39.5)	\$(4.3)
Actual return on assets, net of expenses	(12.0)	-	55.7	-
Plan settlement, divestiture, combination	-	-	-	-
Balance, December 31	639.7	-	\$648.4	-
Funded Status, end of year	\$(388.0)	\$(40.3)	\$(283.1)	\$(39.8)

The aggregate financial position for all pension plans where the Projected Benefit Obligation (PBO) or, for post-retirement benefit plans, the Accumulated Post-retirement Benefit Obligation (APBO), exceeds the plan assets is as follows:

Plans with PBO/APBO in excess of Plan assets millions of Canadian dollars	2011		2010	
	Defined benefit pension plans	Non-pension benefits plans	Defined benefit pension plans	Non-pension benefits plans
PBO/APBO	\$1,027.7	\$40.3	\$931.5	\$39.8
Fair Value of Plan Assets	639.7	-	\$648.4	-
Funded Status	\$(388.0)	\$(40.3)	\$(283.1)	\$(39.8)

The Accumulated Benefit Obligation (“ABO”) for the defined benefit pension plans was \$957.2 as at December 31, 2011 (2010 – \$882.2 million). The aggregate financial position for all plans with an ABO in excess of the Plan assets is as follows:

Pension Plans with ABO in excess of Plan assets millions of Canadian dollars	2011	2010
	Defined benefit pension plans	Defined benefit pension plans
Accumulated Benefit Obligation	\$957.2	\$882.2
Fair Value of Plan Assets	639.7	648.4
Funded Status	\$(317.5)	\$(233.8)

The following shows a reconciliation of the accumulated other comprehensive loss during fiscal 2011:

Accumulated Other Comprehensive loss (income) millions of Canadian dollars	Actuarial losses (gains)	Past service costs (gains)
<b>Defined Benefit Pension Plans</b>		
Start of Period AOCL	\$363.5	\$(1.3)
Amortized in Current Period	(22.6)	0.1
Current Year Addition to AOCL	133.4	0
End of Period AOCL	\$474.3	\$(1.2)
<b>Non-pension benefits plans</b>		
Start of Period AOCL	\$2.1	\$1.4
Amortized in Current Period	(0.3)	(0.2)
Current Year Addition to AOCL	0.6	0
End of Period AOCL	\$2.4	\$1.2

The following shows a summary of the accumulated other comprehensive loss. These figures represent the amounts that have not yet been recognized in NSPI’s net periodic benefit cost as of December 31:

Accumulated Other Comprehensive loss (income) millions of Canadian dollars	2011		2010	
	Defined benefit pension plans	Non-pension benefits plans	Defined benefit pension plans	Non-pension benefits plans
Actuarial losses (gains)	\$474.3	\$2.4	\$363.5	\$2.1
Past service costs (gains)	(1.2)	1.2	(1.3)	1.4
Total AOCL on a pre-tax basis	473.1	3.6	362.2	3.5
Less amount included in deferred tax asset	None*	None*	None*	None*
Net amount in AOCL after tax adjustment	\$473.1	\$3.6	\$362.2	\$3.5

\*Based on information provided by NSPI

The amounts recognized in the Consolidated Balance Sheet are as follows:

<b>Amounts on Balance Sheet</b> millions of Canadian dollars	<b>2011</b>		<b>2010</b>	
	<b>Defined benefit pension plans</b>	<b>Non-pension benefits plans</b>	Defined benefit pension plans	Non-pension benefits plans
Current liability	(4.2)	(4.1)	\$(3.7)	\$(4.5)
Noncurrent liability	(\$383.8)	(\$36.2)	(279.4)	(35.3)
(Noncurrent asset)	None*	None*	None*	None*
Amount included in deferred tax asset	None*	None*	None*	None*
Accumulated other comprehensive loss (income) after tax adjustment	<b>\$473.1</b>	<b>\$3.6</b>	362.2	3.5
Net asset (liability) recognized at end of year	85.1	(36.7)	\$79.1	\$(36.3)

\*Based on information provided by NSPI

## Section 2 – Income Statement

The benefit cost components for fiscal 2010 and 2011 under US GAAP are as follows.

### Benefit Cost

Benefits cost components millions of Canadian dollars	2011		2010	
	Defined benefit pension plans	Non-pension benefits plans	Defined benefit pension plans	Non-pension benefits plans
Service cost	12.6	1.6	9.0	1.4
Interest cost	50.3	2.1	50.0	2.3
Expected return on plan assets	(50.1)	-	(49.5)	-
Current year amortization of:				
Actuarial (gains) losses	22.6	0.3	9.5	(0.2)
Past service (gains) costs	(0.1)	0.2	-	0.2
Settlement, curtailments	-	-	-	-
<b>Total</b>	<b>35.3</b>	<b>4.2</b>	<b>19.0</b>	<b>3.7</b>

The expected return on plan assets is determined based on the market-related value of plan assets of \$714.8 million as at January 1, 2011 (2010 – \$684.6 million), adjusted for interest on certain cash flows during the year. The market related value of assets is based on a five-year smoothed asset value. Any investment gains (or losses) in excess (or less than) of the expected return on plan assets is recognized on a straight line basis into the market related value of assets over a five-year period.

The components of Benefit Cost are discussed below.

### Service Cost

The service cost for the year refers to the employer portion of the service cost and is determined as follows:

- > in respect of active members who are at or past the full eligibility date, and in respect of retirees: none, and
- > in respect of active members who have not reached the full eligibility date: the actuarial present value of future benefits for a member and his/her dependants which is attributed to the year following the valuation date, less the amount of employee contributions expected to be in the year following the valuation date. The actuarial present value is attributed uniformly over the years from the date of hire to the full eligibility date.

The actuarial methodology and assumptions summarized in Appendix A indicate how employer current service costs were computed for each of fiscal 2010 and 2011.

### Interest Cost

To calculate the interest cost, interest for one year is credited on the Projected Benefit Obligation (or Accumulated Postretirement Benefit Obligation), and interest for one-half of one year is credited on the total current service cost. Pension and claim payments are assumed to be made in the middle of the fiscal year.

### **Expected Return on Plan Assets**

To calculate the expected return on a Plan's assets, investment income for one year is credited based on the 5-year market related value of assets, and investment income for one-half of one year is credited on pension or claim payments, and contributions expected to be made during the fiscal year.

### **Amortization of Net Actuarial Loss (Gain)**

Under US GAAP, actuarial gains and losses in a year may be combined with the unamortized balance of gains or losses from prior years. As discussed in FASB 715-30-35-22, actuarial gains and losses on investments that are not yet reflected in the market related value of assets are not subject to amortization. The amount of unamortized gain or loss (net of the investment gain or loss not yet subject to amortization) that exceeds 10% of the greater of the plan's market related value of assets or Projected Benefit Obligation (or Accumulated Postretirement Benefit Obligation) is divided by ARSP and recognized in the current year benefit cost. The ARSP, rounded to the nearest integer, as at both December 31, 2010 and December 31, 2011 is 9 years.

### **Amortization of Past Service Costs**

Past service costs arising from plan amendments are amortized over the average remaining service period (ARSP) until full eligibility. The same ARSP was used for all benefit plans as the membership is materially the same.

## Section 3 – Pension Plan Assets

### Pension Plan Assets

NSPI's defined benefit pension plan employs a long-term strategic approach with respect to asset allocation, real return and risk. The underlying objective is to earn an appropriate return given the Company's goal of preserving capital within an acceptable level of risk for the pension fund investments.

To achieve the overall long-term asset allocation pension assets are overseen by external investment managers per the Plan's investment policy and governance framework. The asset allocation includes investments in the assets of Canadian and global equities, domestic bonds, and short-term investments.

NSPI reviews investment manager performance on a regular basis and adjusts the plans' asset mixes as needed in accordance with the investment policy.

Asset Class	Target Range at Market		
Short term securities	0%	to	5%
Fixed income	25%	to	40%
Equities:			
Canadian	23%	to	33%
Non-Canadian (World)	32%	to	42%

The investment of the pension assets, including the performance of investment managers, is overseen by the NSPI Pension Committee. The fair values of investments as at December 31, 2011, by asset category, are as follows:

millions of Canadian dollars	Level 1	Level 2	Level 3	Total	%
Cash and cash equivalents	15.8	\$-	\$-	15.8	2.5%
Equity Securities:					
Canadian equity	161.8	-	-	161.8	25.3%
International equity	225.9	-	-	225.9	35.3%
Fixed income securities:					
Canadian government (federal, provincial, municipal)	141.3	-	-	141.3	22.1%
Foreign government		-	-		0%
Corporate debt	94.9	-	-	94.9	14.8%
Asset-backed securities	0	-	-	0	0%
Real estate	0	-	-	0	0%
Other	0	-	-	0	0%
Total	\$639.7	0	\$0	\$639.7	100%

The fair values of investments as at December 31, 2010, by asset category, are as follows:

millions of Canadian dollars	Level 1	Level 2	Level 3	Total	%
Cash and cash equivalents	8.2	\$-	\$-	8.2	1.3%
Equity Securities:					
Canadian equity	192.4	-	-	192.4	29.7%
International equity	230.7	-	-	230.7	35.6%
Fixed income securities:					
Canadian government (federal, provincial, municipal)	122.1	-	-	122.1	18.8%
Foreign government	0	-	-	0	0%
Corporate debt	95.0	-	-	95.0	14.6%
Asset-backed securities	0	-	-	0	0%
Real estate	0	-	-	0	0%
Other	0	-	-	0	0%
Total	\$648.4	0	\$0	\$648.4	100%

The following table reconciles the beginning and ending balances for all level 3 pension plan assets measured at fair value for the years ended December 31:

millions of Canadian dollars	2011	2010
Balance, beginning of the year	None	None
Actual return, relating to:		
Assets still held at reporting date	None	None
Assets sold during the period	None	None
Purchases, sales, settlements	None	None
Transfers in or out of Level 3	None	None
Balance, end of the year	None	None

As at December 31, 2010 and 2011, the pension funds do not hold any material investments in Emera or NSPI securities. However, as a significant portion of assets for the benefit plan are held in pooled funds, there may be a small amount of indirect investments in these securities.

#### Other post-retirement benefit plan assets

There are no assets set aside to pay for the post-retirement benefit plans. As is common in Canada, post-retirement health benefits are paid from NSPI's general accounts on a pay as you go basis.

#### Cash flows

The following table shows the expected cash flows for defined benefit pension and other post-retirement benefit plans:

millions of Canadian dollars	Defined benefit pension plans	Non-pension benefits plans
<b>Expected Employer contributions:</b>		
2012	\$66.2	\$4.1
<b>Expected Benefit Payments:</b>		
2012	47.7	4.1
2013	50.8	4.7
2014	54.1	5.0
2015	57.7	5.2
2016	61.6	5.5
2017-2021	374.9	32.8

## Section 4 – Additional Financial Statement Disclosure

The following is a summary of assumptions to be disclosed on the financial statements. Please refer to Appendix A for a comprehensive listing of the actuarial assumptions and methods.

### Assumptions

Assumptions	2011		2010	
	Defined benefit pension plans	Non-pension benefits plans	Defined benefit pension plans	Non-pension benefits plans
<b>Benefit obligation – December 31:</b>				
Discount rate	5.00%	5.00%	5.50%	5.50%
Rate of compensation increase	3.50 %	3.50%	3.75%	3.75%
Health care trend - initial (next year)	-	3.75%	-	4.00%
- ultimate	-	3.75%	-	4.00%
- year ultimate reached	-	-	-	-
<b>Benefit cost for year ending December 31:</b>				
Discount rate	5.50%	5.50%	6.50%	6.50%
Expected long-term return on plan assets	7.00%	-	7.25%	-
Rate of compensation increase	3.75%	3.75%	3.75%	3.75%
Health care trend - initial (current year)	-	4.00%	-	5.00%
- ultimate	-	4.00%	-	4.00%
- year ultimate reached	-	-	-	2011

The expected long-term rate of return on plan assets is based on historical and projected real rates of return for the plan's current asset allocation, and assumed inflation. A real rate of return is determined for each asset class. Based on the asset allocation, an overall expected real rate of return for all assets is determined. The asset return assumption is equal to the overall real rate of return assumption added to the inflation assumption, adjusted for assumed expenses to be paid from the plan.

### Sensitivity analysis for non-pension benefits plans

The health care cost trend significantly influences the amounts presented for health care plans. An increase or decrease of one percentage point of the assumed health care cost trend would have had the following impact in 2011:

millions of Canadian dollars	Increase	Decrease
Service cost and interest cost	\$0.2	\$(0.2)
Accumulated post-retirement benefit obligation, December 31	1.6	(1.5)



**Amounts to be amortized in the next fiscal year**

The following table shows the amount from the accumulated other comprehensive loss (income) which is expected to be recognized as part of the net periodic benefit cost in fiscal 2012:

Portion of AOCL (income) to be recognized in 2012 millions of Canadian dollars	Defined benefit pension plans	Non-pension benefits plans
Actuarial losses (gains)	29.6	0.3
Past service costs (gains)	(0.2)	0.2
<b>Total</b>	<b>\$29.4</b>	<b>\$0.5</b>

**Defined Contribution Plan**

The Company also provides a defined contribution pension plan for certain employees. The Company's contribution for 2011 was \$1.6 million (2010 – \$1.3 million).

**Accumulated Other Comprehensive Loss (Income)**

The components of accumulated other comprehensive loss (income) as at December 31, 2011 and 2010 are as follows:

millions of Canadian dollars	2011			2010		
	Opening Balance	Net Change	Ending Balance	Opening Balance	Net Change	Ending Balance
Reconciliation of unrecognized pension and post-retirement benefit costs	<b>\$365.7</b>	<b>\$111.0</b>	<b>\$476.7</b>	\$256.1	\$109.6	\$365.7

## Section 5 – MDA Disclosure

### **Pension Funding**

For funding purposes, NSPI determines required contributions to its defined benefit pension plans based on smoothed asset values. This reduces volatility in the cash funding requirement as the impact of investment gains and losses are recognized over a three year period. The cash required in 2012 for defined benefit pension plans will be approximately \$66.2 million (2011 – \$41.3 million actual). All pension plan contributions are tax deductible and will be funded with cash from operations.

NSPI's defined benefit pension plan is managed with a diversified portfolio of asset classes, investment managers and geographic investments. NSPI reviews the investment managers on a regular basis, and the plan's asset mix from time to time.

NSPI's projected contribution to defined contribution pension plans is \$1.6 million for 2012 (2011 – \$1.6 million actual).

### **Pension and Other Post-Retirement Employee Benefits**

The Company provides post-retirement benefits to employees, including defined benefit pension plans. The cost of providing these benefits is dependent upon many factors that result from actual plan experience and assumptions of future experience.

The benefit cost and accrued benefit obligation for employee future benefits included in annual compensation expenses are affected by employee demographics, including age, compensation levels, employment periods, contribution levels and earnings on plan assets.

Changes to the provision of the plan may also affect current and future pension costs. Benefit costs may also be affected by changes in key actuarial assumptions, including anticipated rates of return on plan assets and discount rates used in determining the accrued benefit obligation and benefit costs.

The pension plan assets are comprised primarily of equity and fixed income investments. Fluctuations in actual equity market returns and changes in interest rates may result in increased or decreased pension costs in future periods.

Consistent with US GAAP and NSPI's accounting policy, the Company amortizes the net actuarial gain or loss, which exceeds 10 percent of the greater of the projected benefit obligation/accumulated post-retirement benefit obligation ("PBO") and the market-related value of assets, over active plan members' average remaining service period, which is currently 9 years. NSPI's use of smoothed asset values further reduces the volatility related to the amortization of actuarial investment experience. As a result, the main cause of volatility in reported pension cost is the discount rate used to determine the PBO.

The discount rate used to determine benefit costs is based on high quality long-term Canadian corporate bonds. The discount rate is determined with reference to bonds which have the same duration as the PBO as at January 1 of the fiscal year rounded to the nearest 25 basis points. For benefit cost purposes, NSPI's rate was 5.50% percent for 2011 (2010 – 6.50 percent).

The expected return on plan assets is based on management's best estimate of future returns, considering economic and consensus forecasts. The benefit cost calculations assumed that plan assets would earn a rate of return of 7.00% percent for 2011 (2010 - 7.25 percent).

The reported benefit cost for 2011 for all defined benefit and defined contribution plans, based on management's best estimate assumptions, is \$41.1 million. While there are numerous assumptions which are used to determine the benefit cost, the discount rate and asset return assumptions have a significant impact on the calculations.

The following shows the impact on 2011 benefit cost of a 25 basis point change (0.25 percent) in the discount rate and asset return assumptions:

millions of dollars	Increase 0.25%		Decrease 0.25%	
	2011	2010	2011	2010
Discount rate assumption	<b>\$(3.5)</b>	\$(3.0)	<b>\$3.6</b>	\$3.1
Asset return assumption	<b>\$(1.8)</b>	\$(1.7)	<b>\$1.8</b>	\$1.7

## Section 6 – Actuarial Opinion

The following opinion is with respect to the plans providing post-employment benefits for employees of Nova Scotia Power Incorporated (“NSPI”).

Valuations of the Employee and Acquired Companies pension plans, supplemental and executive benefits, long service award, were performed as at December 31, 2011. Each valuation was based on the plan provisions and data as at December 31, 2011. A valuation of the post-employment health benefits including post-employment life insurance was performed at December 31, 2010 and extrapolated to December 31, 2011. A valuation of the ERIP 86 and 91 and War Service pensions was performed as at December 31, 2007 and extrapolated to December 31, 2011. We are not aware of any other post-employment plans sponsored by NSPI.

We have confirmed with NSPI that since the valuation date, there are neither plan modifications nor any extraordinary changes to the membership that would materially affect the results of the actuarial valuations.

We hereby certify that, in our opinion, as at December 31, 2011:

- a) The post-employment benefits for employees of NSPI are defined benefits for purposes of US GAAP.
- b) Our valuation and extrapolation thereof has been made in accordance with the standards of the Canadian Institute of Actuaries. The financial statement items resulting from our valuation and extrapolation thereof have been determined in accordance with our understanding of US GAAP for pension and benefits and the FAS Accounting standards codification. The discount rate selected by NSPI was determined in accordance with the same methodology used in prior years (the PC Bonds method). The resulting discount rate is different than the one that would have been determined based on the guidance provided by the Educational Note published by the Canadian Institute of Actuaries in September 2011.
- c) Our valuation thereof was performed using best-estimate assumptions developed by NSPI management as at December 31, 2011. Since best estimate assumptions were used, we understand that they do not include any margin for adverse deviation. These assumptions are described in our valuation report and are summarized in Appendix A.
- d) We have confirmed with NSPI that the plan provisions are up to date as at the date of this report. We are not aware of any events that could have a significant effect on our valuation or on NSPI’s financial statements.
- e) We are aware that NSPI’s auditors may rely on this report for the preparation of NSPI’s financial statements.

Furthermore, we hereby declare that in our opinion:

- > The data upon which this valuation is based are sufficient and reliable for the purposes of the valuation; and
- > NSPI management have selected the assumptions and they are in accordance with accepted actuarial practice; and
- > This report has been prepared, and our opinion given, in accordance with generally accepted actuarial practice.

Emerging experience, differing from assumptions will result in gains and losses, which will be revealed in future valuations.

We are available, at your convenience, to provide you with any additional information that you may require.

Respectfully submitted,



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Paul Chang, F.C.I.A.



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Don Charlton, F.C.I.A.

MORNEAU SHEPELL  
February 2012

## Appendix A – Actuarial Assumptions and Methods

### **Actuarial Cost Method**

For all active employees, the Projected Benefit Obligation (and the Accumulated Postretirement Benefit Obligation) and the total current service cost were calculated using the “projected benefit method prorated on service”.

According to this method, the Projected Benefit Obligation is equal to the actuarial present value of all future benefits (net of any employee cost sharing for OPEBs), taking into account the assumptions described below, multiplied by the ratio of an employee’s service at the valuation date to total service at the retirement date. The total current service cost for a period is equal to the actuarial present value of benefits attributed to employees’ services rendered in that period. The “current service cost” reported for benefit cost purposes is the total current service cost less the amount of expected employee contributions during the period.

To determine the actuarial present value of post-retirement health benefits, the expected true costs were projected into the future in respect of each member applying both age-related utilization rates and the assumed trend (i.e., health care inflation) rates. In addition, each member’s expected contributions (i.e., premium) was projected into the future based on health care inflation. The actuarial present value of NSPI’s portion of the cost of the post-employment health plan is the difference between the actuarial present value of the total cost and the actuarial present value of the member’s contributions.

### **Assets**

Employee and Acquired pension plan assets are taken at market value from the plan’s financial statements. There are no assets in respect of the other plans.

To determine the expected return on assets, we used a 5 year market-related value of assets and assumed that all cash flows would occur at mid-year.

### **Actuarial Assumptions**

The actuarial assumptions used for the valuation are summarized in the following table. All rates and percentages are annualized unless otherwise noted. All assumptions used are management’s best estimates. The discount rate was based on high quality bonds (AA rated bonds at the valuation date) with the same duration as the obligations (14 years at December 31, 2010 and 14 years at December 31, 2011).

**Table A.1 Actuarial Assumptions – Economic Factors**

	<b>December 31, 2011 Disclosure and 2012 Benefit Cost</b>	<b>December 31, 2010 Disclosure and 2011 Benefit Cost</b>
Discount Rate	<b>5.00%</b>	<b>5.50%</b>
	2.25%	2.5%
General Inflation	War Service and ERIP86 and 91 indexed at 1.25% per year up to 2015 and 50% of inflation thereafter. All other pensions eligible for indexing assumed to be indexed at 2.25% per year.	War Service and ERIP86 and 91 indexed at 1.25% per year. All other pensions eligible for indexing assumed to be indexed at 2.5% per year.
YMPE	2.75%	3.00%
	Under 30: 5.25%	Under 30: 5.50%
	30 to 34: 4.75%	30 to 34: 5.00%
	35 to 39: 4.25%	35 to 39: 4.50%
	40 to 44: 3.75%	40 to 44: 4.00%
	45 to 49: 3.25%	45 to 49: 3.50%
	50 and above: 2.75%	50 and above: 3.00%
Increase in maximum Pension in registered plan per year of service	\$2,647 for 2012 and indexed starting in 2013 at 2.75% per annum	\$2,552 for 2011 and indexed starting in 2012 at 3.00% per annum
Return on Employee Plan Assets	6.75%	7.00%
Return on Acquired Plan Assets	6.75%	7.00%
Extended Health Care Inflation	3.75% per year	5.00% for next year (premium increase effective Jan 2011), and 4.00% per year thereafter
Dental Care Inflation	3.75% per year	4.00% per year

The discount rate selected by NSPI was determined in accordance with the same methodology used in prior years (the PC Bonds method). The resulting discount rate is different than the one that would have been determined based on the guidance provided by the Educational Note published by the Canadian Institute of Actuaries in September 2011.

**Table A.2 Actuarial Assumptions – Demographic Factors**

	<b>December 31, 2011 Disclosure and 2012 Benefit Cost</b>	<b>December 31, 2010 Disclosure and 2011 Benefit Cost</b>
Mortality	1994 Uninsured Pensioners Mortality Table using generational projection with Scale AA (UP94@2020)  Sex Distinct Post-retirement only	1994 Uninsured Pensioners Mortality Table projected to 2020 using Projection Scale AA (UP94@2020)  Sex Distinct Post-retirement only
Termination	5% per annum up to age 50	Same
Disability Rates	None assumed	Same
Retirement Rates	Age 58, Deferred assumed to retire at age 60, Disabled assumed to retire at age 65 or 35 years of service. It was assumed that all members retiring at age 58 would be eligible for the long service award	Same
Spouse Age Difference	Women 3 years younger	Same
Health Care Relative Utilization <sup>1</sup>	Please see table A.3 below	Same
Percentage Married	85% at retirement	Same
Members Electing Life Insurance Benefits at Retirement	100% for any member who has more than 15 years of service at retirement	Same
Members Electing Health Coverage at Retirement	For members who currently have coverage: For member in the new plan, 100% for members with 35 or more years of service at assumed retirement age, 85% for all other members <sup>2</sup>	Same
Coverage Elected at Retirement	Old Plan: 85% Family, 15% Single  New Plan: 35% Family, 50% Couple, 15% Single	Same

1. Used to estimate average medical and drug costs at different ages (drug coverage ceases at age 65). As we did not have reliable data to perform a utilization review, we have continued to use the utilization table from our 2002 study.

2. The data used for the post-employment health care valuation includes only those active members who currently have health coverage – such members represent 90% of all active employees at NSPI – the assumed likelihood that an active employee who currently has coverage and who retires from NSPI takes post-retirement coverage is 85% resulting in an overall take up rate for all employees (with or without current coverage) of 75% (approximately equal to  $0.85 \times 0.9$ ).



**Table A.3 Health Care Relative Utilization Factors**

Age	Hospital & EHB	Drug Coverage	Dental Coverage
40	46%	42%	90%
45	53%	56%	88%
50	61%	74%	86%
55	78%	86%	83%
60	100%	100%	81%
64	122%	113%	80%
65	128%	N/A	N/A
70	163%	N/A	N/A
75	239%	N/A	N/A
80	352%	N/A	N/A
85	517%	N/A	N/A

*Example: The cost for Hospital and EHB for a 64 year old is 122% of the cost for a 60 year old.*

### Calculation of Medical Cost

#### *Development of Utilization Factors*

We did not have data as at December 31, 2010 to perform a utilization review; therefore, we have continued to rely on the utilization table established from our 2002 study.

Manulife Financial provided claims amounts for hospital & EHB, and drugs for the period from August 1, 2001 to July 31, 2002 by quinquennial age bands. Using the number of members within each age band, we determined the amount of claims per member for each age band. From this we found the relative age based utilization factors for each quinquennial age band. We then extrapolated integer age based utilization factors from the quinquennial results. As there were insufficient post-1991 retirees over age 75 to establish a reliable utilization scale over such age, the utilization scales beyond age 75 were estimated based on industry statistics. We did not have details of the dental claims amount and have used utilization factors which are based on industry statistics.

#### *Existing Post-Retirement Health Plan - NSPI members*

Effective 2003, the annualized premiums for retirees are experience rated amongst retirees only. Previously the actives and retiree premiums were experience rated as a single group, and the same premium was paid by both retirees and actives. The member's portion (50% of total cost) of the annualized premiums charged as at January 1, 2011 for the NSPI Health plan is \$818 for single coverage and \$2,047 for family coverage (There was no increase from the January 1, 2010 rates). The experience report also shows that approximately 85% of claims are related to drugs, with the remaining 15% for hospital and extended health care.

Based on the assumed age-related utilization scale described in Table A.3, we estimated the true employer cost (total expected claims at each age less member's paid premium) for 2011 at each age:

Age	Single	Family
50	\$1,123	\$2,805
55	\$1,445	\$3,610
60	\$1,822	\$4,552
65	(\$588)	(\$1,473)
70	(\$524)	(\$1,314)
75	(\$387)	(\$970)
80	(\$184)	(\$464)
85	\$113	\$279

Based on the ratio of the family to the single premium being charged by Manulife, and a fully experienced retiree only group, we continue to assume that the total cost for family coverage is approximately 2.5 times the single cost. A negative amount means that the retiree's premium exceeds the estimated average claims at that particular age.

#### *New Post-Retirement Health Plan - NSPI members*

Effective January 1, 2004, a new health benefit plan for retirees was introduced. Please refer to the Accounting Report for differences between the "existing" and new retiree health plan. We understand that this plan will be rated separately from the existing plan and retirees and actives will be rated as one group within the new plan. As there are currently an insufficient number of retirees under the new plan, we have used the same drug and hospital utilization factors as for the old plan. The dental utilization factors were developed based on the experience under the new plan only.

NSPI provided us with the total annualized premiums charged as at January 1, 2011 for the new NSPI Health plan as \$1,034 for single coverage and \$3,169 for family coverage, and new Dental plan as \$381 for single coverage and \$845 for family coverage. These are the same as the premiums charged as at January 1, 2010. Based on the premiums provided, and the assumed age-related utilization scale described in Table A.3, we estimated the true employer cost (total cost less member's premium) for 2011 at each age for an employee who will pay 50% of the benefit plan premium in retirement:

Age	Health Single	Health Family*	Dental Single	Dental Family*
50	\$680	\$2,008	\$183	\$398
55	\$888	\$2,631	\$174	\$378
60	\$1,134	\$3,369	\$165	\$358
64	\$1,363	\$4,055	\$157	\$342
65**	\$0	\$0	\$0	\$0

\* In addition to family coverage, there is "couple coverage", employer health and dental costs for couple coverage is approximately 2 times the single health cost shown.

\*\* No coverage after age 65.

Note that under the new post-retirement benefit plan, the actual percentage of the costs paid by the employer varies by the member's years of service at retirement. The costs shown above would need to be adjusted accordingly for members who do not receive 50% cost sharing. (Please contact us if you require such figures).

#### *Pre-1992 Retirees*

Since NSPI's liability in respect of former NSPI employees who retired under the PSSP is based on the amount of premium assessed by the Province, we have determined the projected benefit obligation in respect of these members by determining the present value of premiums. Such premiums are assumed to increase at the health inflation rates, but no age utilization factor is applied. Annualized employer (65% of total) premiums as at January 1, 2011 (there was no increase from the January 1, 2010 rates) are as follows:

	<b>Policy 5138</b>	<b>Policy 6000</b>	<b>Policy 6500</b>
Single	\$221	\$740	\$393
Family	\$563	\$1,643	\$789

We assumed that the above premiums for pre-1992 retirees would follow the extended health care inflation assumption set out in table A.1 for future years.

#### **Calculation of Life Insurance Cost**

NSPI provides subsidized post-retirement life insurance up to age 65 for employees who elect to participate under the new health plan equal to 2 times the salary rate at the time of retirement.

We determined the actuarial present value of the true cost of the future post-retirement life insurance for each member. For active employees this value was multiplied by the ratio of their service at the valuation date to total service at their retirement date. The actuarial present value of NSPI's portion of the cost of post-retirement life insurance coverage was determined for each individual based on the plan's cost-sharing formula which uses the employee's expected service at retirement, or the actual cost-sharing percentage as provided by NSPI in the case of the retired members. Please refer to Appendix D for a more detailed description of the provisions of the subsidized post-retirement life insurance.

NSPI also allows retirees in the old health plan to continue post-retirement life insurance up to age 65 equal to 3 times the salary rate at the time of retirement. Retirees under the old plan pay for the unsubsidized full cost of the life insurance premium; therefore, this benefit is not valued for purposes of the accounting valuation.

## Appendix B – Membership Data

### Description of Pension Plan Membership Data

Our valuation of the pension plans as at December 31, 2011 was based on valuation data as at December 31, 2011.

We have performed tests to verify reasonableness and internal consistency and are satisfied that the data is sufficient and reliable for the purposes of this valuation. Basic statistics on the Employee and Acquired plan data are shown in the table below:

**Table B.1**

	Employee Plan (DB)*	Acquired Companies Division 1&2	Exec, Discretionary	War Svc, ERIP 1986, ERIP 1991
<b>Actives (including LTD)</b>				
Number	1,609	0	25	N/A
Average age	44.5	-	47.4	N/A
Average credited service	12.7	-	14.4	N/A
Average 2011 pensionable earnings	69,181	-	<>	N/A
<b>Pensioners (including survivors)</b>				
Number	1,277	413 / 162	316	333
Average age	64.7	77.3 / 78.2	69.5	78.8
Average annual lifetime pension	\$23,785	\$6,796 / \$5,439	\$5,642	\$3,923
Average annual bridge (averaged over all pensioners)	\$4,362	\$0 / \$0	\$407	\$0

\* Includes 33 members on LTD and 35 members who switched to the DC component of the Plan in respect of service after July 1, 2001. Also includes the data for members who have service with Emera on or after January 1, 2007. The figures shown take into account all service with NSPI and Emera Inc.

< > Some earning figures are not shown in order to maintain confidentiality.

Data for the War Service, and ERIP 1986 and 1991 were provided by NSPI as at December 31, 2007.

Pension figures include the January 1, 2012 cost of living adjustment.

Please refer to the actuarial reports for funding purposes as at December 31, 2011 for additional data information for the Employees' Pension Plan and the Acquired Companies Pension Plan.

The following tables summarize the key data used in our valuation.

Table B.2 Employee Plan Active Members

Age	Credited Service	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 plus	Total
Under 25	Count	54	2	-	-	-	-	-	56
	Avg Credited	1.74	<>	-	-	-	-	-	1.86
	Avg 2011 Earnings	52,718	<>	-	-	-	-	-	52,709
25 to 29	Count	96	15	-	-	-	-	-	111
	Avg Credited	2.66	5.62	-	-	-	-	-	3.06
	Avg 2011 Earnings	55,854	61,935	-	-	-	-	-	56,676
30 to 34	Count	107	30	9	-	-	-	-	146
	Avg Credited	2.55	6.57	10.92	-	-	-	-	3.89
	Avg 2011 Earnings	61,425	65,155	66,067	-	-	-	-	62,477
35 to 39	Count	131	48	37	-	-	-	-	216
	Avg Credited	2.41	7.03	11.47	-	-	-	-	4.99
	Avg 2011 Earnings	63,367	63,839	63,490	-	-	-	-	63,493
40 to 44	Count	101	44	52	13	33	1	-	244
	Avg Credited	2.47	6.71	11.97	17.77	21.90	<>	-	8.80
	Avg 2011 Earnings	68,994	64,533	67,926	61,588	77,373	<>	-	68,681
45 to 49	Count	59	33	43	9	88	44	2	278
	Avg Credited	2.81	7.23	12.31	17.95	22.71	27.05	<>	15.63
	Avg 2011 Earnings	76,446	76,112	69,471	57,473	85,947	74,942	<>	77,405
50 to 54	Count	36	31	48	6	59	54	68	302
	Avg Credited	2.88	7.60	12.37	16.99	23.18	27.45	32.33	20.14
	Avg 2011 Earnings	67,680	62,315	79,730	55,207	82,926	83,866	89,586	79,602
55 to 59	Count	17	12	29	9	32	45	62	206
	Avg Credited	3.03	8.24	12.02	18.55	22.67	27.62	33.40	22.84
	Avg 2011 Earnings	57,840	66,471	56,965	51,382	70,918	68,205	77,740	68,223
60 plus	Count	9	2	11	2	5	5	16	50
	Avg Credited	2.85	<>	11.36	<>	23.08	28.70	34.04	20.12
	Avg 2011 Earnings	55,853	<>	58,005	<>	50,687	61,758	55,941	57,253
<b>Total</b>	<b>Count</b>	<b>610</b>	<b>217</b>	<b>229</b>	<b>39</b>	<b>217</b>	<b>149</b>	<b>148</b>	<b>1,609</b>
	<b>Avg Credited</b>	<b>2.51</b>	<b>6.96</b>	<b>11.97</b>	<b>17.95</b>	<b>22.72</b>	<b>27.42</b>	<b>32.94</b>	<b>12.66</b>
	<b>Avg 2011 Earnings</b>	<b>63,088</b>	<b>65,660</b>	<b>68,036</b>	<b>57,986</b>	<b>80,793</b>	<b>75,628</b>	<b>80,663</b>	<b>69,181</b>

Some earnings figures hidden to protect confidentiality. Age is rounded down to the nearest birthday.

Avg. Credited is the number of years credited for pension plan purposes.

Includes 33 members on LTD and 35 members who switched to the DC component of the Plan in respect of service after July 1, 2001.

Table B.3 Employees' Plan Pensioners

Nearest Age	Count	Average Annual Pension	Average Annual Bridge	Average Annual Benefit	Total Benefit Payable
Less than 25	12	-	2,758	2,758	33,102
25 to 54	20	13,302	1,688	14,990	299,795
55	22	24,750	6,887	31,637	696,018
56	38	31,897	8,496	40,393	1,534,941
57	40	32,802	9,007	41,809	1,672,351
58	70	29,585	8,962	38,547	2,698,258
59	55	29,165	8,344	37,509	2,062,994
60	60	30,057	8,785	38,842	2,330,507
61	55	26,887	8,846	35,733	1,965,333
62	82	27,880	8,499	36,379	2,983,089
63	90	23,980	7,479	31,459	2,831,291
64	101	24,273	8,018	32,291	3,261,419
65	87	22,110	4,348	26,458	2,301,883
66	73	25,160	-	25,160	1,836,647
67	66	19,635	80	19,716	1,301,231
68	43	22,269	-	22,269	957,558
69	46	19,875	126	20,001	920,034
70	49	19,005	-	19,005	931,250
71	44	20,256	-	20,256	891,269
72	44	19,747	-	19,747	868,852
73	43	20,205	-	20,205	868,808
74	32	24,869	-	24,869	795,803
75	30	21,215	-	21,215	636,445
76	24	15,219	-	15,219	365,250
77	9	16,088	-	16,088	144,791
78	12	21,675	-	21,675	260,099
79	12	15,362	-	15,362	184,348
80	2	<>	-	<>	<>
81	6	16,582	-	16,582	99,491
82	-	-	-	-	-
83	6	18,979	-	18,979	113,873
84	3	17,609	-	17,609	52,827
85+	1	<>	<>	<>	<>
		23,785	4,362	28,148	
	1277				35,944,393

Figures shown above include January 1, 2012 cost of living adjustment.

\* Bridge payable to surviving spouse.

< > Some figures are not shown to protect confidentiality.

Table B.4 Acquired Plan Pensioners

Part I				Part II		
Nearest Age	Count	Average Annual Benefit	Total Benefit Payable	Count	Average Annual Benefit	Total Benefit Payable
Less than 55	1	<>	<>	0	-	-
55 to 59	2	<>	<>	3	3,763	11,288
60	5	362	1,810	0	-	-
61	2	<>	<>	2	<>	<>
62	5	824	4,121	1	<>	<>
63	4	1,368	5,470	6	1,744	10,466
64	17	637	10,837	1	<>	<>
65	19	1,265	24,042	3	669	2,008
66	14	2,325	32,550	6	1,621	9,726
67	17	2,405	40,891	1	<>	<>
68	14	2,926	40,957	3	1,966	5,898
69	10	2,765	27,653	4	5,894	23,575
70	6	3,498	20,986	2	<>	<>
71	9	3,493	31,441	1	<>	<>
72	8	4,469	35,754	5	4,212	21,059
73	13	4,743	61,662	12	4,926	59,117
74	10	4,330	43,302	5	6,700	33,502
75	13	5,768	74,989	9	3,828	34,452
76	16	6,521	104,344	9	3,623	32,608
77	14	5,406	75,679	5	6,225	31,125
78	24	8,702	208,839	4	6,633	26,534
79	12	9,346	112,155	3	5,270	15,810
80	17	9,388	159,604	8	6,278	50,222
81	16	9,890	158,232	5	12,524	62,620
82	13	6,626	86,140	10	4,950	49,502
83	13	12,294	159,817	10	7,109	71,091
84	17	14,267	242,541	5	4,195	20,973
85	13	8,684	112,890	4	9,393	37,571
86	15	8,318	124,763	5	9,738	48,690
87	9	14,406	129,654	5	8,154	40,772
88	11	13,589	149,484	3	6,476	19,427
89	17	11,631	197,721	1	<>	<>
90	5	7,213	36,066	4	4,374	17,497
91	5	9,003	45,017	6	6,617	39,701
92	5	9,538	47,690	3	8,563	25,688
93	8	10,240	81,924	4	6,791	27,166
94	2	<>	<>	2	<>	<>
95 and over	12	7,474	89,693	2	<>	<>
<b>Average</b>		6,796			5,439	
<b>Total</b>	413		2,806,737	162		881,123

Figures shown above include January 1, 2012 cost of living adjustment.

< > Some figures are not shown to protect confidentiality.

Table B.5 Exec and Discretionary Pensions

Nearest Age	Count	Average Annual Pension	Average Annual Bridge	Average Annual Benefit	Total Benefit Payable
Less than 55	2	<>	<>	<>	<>
55 to 59	10	5,020	1,141	6,162	61,618
60	2	<>	<>	<>	2,991
61	2	<>	<>	<>	4,325
62	4	19,047	500	19,547	78,188
63	19	4,764	1,324	6,088	115,673
64	25	4,122	1,539	5,661	141,526
65	38	4,866	769	5,635	214,129
66	30	6,445	-	6,445	193,357
67	32	3,828	-	3,828	122,511
68	24	4,439	-	4,439	106,538
69	20	3,848	48*	3,897	77,933
70	15	4,487	-	4,487	67,298
71	12	7,279	-	7,279	87,352
72	11	32,389	-	32,389	356,280
73	10	2,944	-	2,944	29,441
74	5	4,028	-	4,028	20,141
75	5	3,216	-	3,216	16,081
76	5	2,281	-	2,281	11,406
77	2	<>	<>	<>	<>
78	1	<>	<>	<>	<>
79	1	<>	<>	<>	<>
80	3	1,795	-	1,795	5,385
81	2	<>	<>	<>	<>
82	3	1,632	-	1,632	4,897
83	5	4,785	-	4,785	23,926
84	5	4,154	-	4,154	20,768
85	4	1,101	-	1,101	4,403
86	1	<>	<>	<>	<>
87	3	891	-	891	2,673
88	2	<>	<>	<>	<>
89	7	3,493	-	3,493	24,451
90 and over	6	2,332	-	2,332	13,992
<b>Average</b>		5,642	407	6,049	
<b>Total</b>	316				1,911,533

Figures shown above include January 1, 2012 cost of living adjustment.

\* Bridge payable to surviving spouse.

< > Some figures are not shown to protect confidentiality.



Table B.6 War Service and ERIP 1986 and 1991 as at December 31, 2007

War Service				ERIP 1986 and 1991			
Nearest Age	Count	Avg. Annual Pension	Total Benefit Payable	Nearest Age	Count	Avg. Annual Pension	Total Benefit Payable
74	1	< >	< >	65	1	< >	< >
76	7	1,746	12,225	66	1	< >	< >
77	1	< >	< >	67	1	< >	< >
78	2	< >	< >	69	3	3,148	9,444
79	3	1,051	3,153	70	1	< >	< >
80	3	1,305	3,914	71	9	4,148	37,335
81	2	< >	< >	72	20	4,331	86,626
82	7	3,036	21,250	73	15	4,366	65,488
83	4	1,347	5,388	74	21	5,015	105,305
84	13	2,826	36,732	75	18	4,647	83,651
85	6	2,984	17,906	76	27	4,531	122,349
86	5	3,109	15,546	77	36	3,857	138,866
87	8	3,417	27,340	78	14	3,556	49,790
88	4	6,337	25,347	79	20	3,630	72,591
89	5	4,156	20,780	80	18	3,756	67,601
90	7	4,538	31,768	81	13	4,143	53,860
91	3	9,891	29,672	82	11	5,389	59,278
92	1	< >	< >	83	9	3,772	33,944
93	1	< >	< >	84	6	2,697	16,184
98	1	< >	< >	85	3	1,886	5,658
100	1	< >	< >	86	1	< >	< >
<b>Average</b>		<b>\$3,330</b>		<b>Average</b>		<b>\$4,127</b>	
<b>Total</b>	<b>85</b>		<b>\$283,009</b>	<b>Total</b>	<b>248</b>		<b>\$1,023,396</b>

Figures shown above include indexing up to and including January 1, 2008. Indexing after January 1, 2008 is not included in the figures shown.

There are no bridge benefits.

< > Some figures are not shown to protect confidentiality.

### Description of Health Plan Membership Data

Employee data for health benefits was provided by NSPI as at December 31, 2010. We have taken the following steps to review the data to ensure sufficiency and reliability:

- > The data for actives and post 1991 pensioners was compared to the pension valuation data as at December 31, 2010 for reasonableness. Approximately 70% of pension plan retirees are enrolled in the health coverage. This is reasonable since there is an employee cost share component for the coverage.
- > The data for selected active members and post 1991 pensioners were cross-referenced with the pension plan data and found to be consistent.
- > We reviewed the data counts and age distributions in respect of pre-1992 retirees for whom NSPI reimburses the Province of Nova Scotia for health benefits against prior year data and they are consistent.

**Table B.7 NSPI Active Members Enrolled in Old Health Program**

Age Band	Number with Coverage
Less than 30	12
30 – 34	17
35 – 39	33
40 – 44	52
45 – 49	86
50 – 54	109
55 – 59	75
60 – 64	16
> 65	3
<b>Total</b>	<b>403</b>

*Includes the data for members who have service with Emera on or after January 1, 2007.*

**Table B.8 NSPI (Post – 91) Pensioners Enrolled in Old Health Program**

Age Band	Number with Single Coverage	Number with Family Coverage
< 50	1	3
50 – 54	3	2
55 – 59	19	42
60 – 64	58	169
65 – 69	44	103
70 – 74	32	53
75 – 79	9	13
> 80	6	2
<b>Total</b>	<b>172</b>	<b>387</b>

**Table B.9 NSPI Active Members Enrolled in New Health Program**

<b>Age Band</b>	<b>Number with Coverage</b>
Less than 30	157
30 – 34	127
35 – 39	151
40 – 44	158
45 – 49	180
50 – 54	177
55 – 59	115
60 – 64	20
<b>Total</b>	<b>1085</b>

*Includes the data for members who have service with Emera on or after January 1, 2007.*

**Table B.10 NSPI Active Members Enrolled in New Dental Program**

<b>Age Band</b>	<b>Number with Coverage</b>
Less than 30	158
30 – 34	131
35 – 39	149
40 – 44	167
45 – 49	180
50 – 54	180
55 – 59	116
60 – 64	20
<b>Total</b>	<b>1101</b>

*Includes the data for members who have service with Emera on or after January 1, 2007.*

**Table B.11 NSPI (Post – 91) Pensioners Enrolled in New Health Program**

<b>Age Band</b>	<b>Number with Single Coverage</b>	<b>Number with Couple Coverage</b>	<b>Number with Family Coverage</b>
< 50	0	0	1
50 – 54	0	3	1
55 – 59	13	84	27
60 – 64	20	78	17
<b>Total</b>	<b>33</b>	<b>165</b>	<b>46</b>

**Table B.12 NSPI (Post – 91) Pensioners Enrolled in New Dental Program**

Age Band	Number with Single Coverage	Number with Couple Coverage	Number with Family Coverage
< 50	0	0	1
50 – 54	0	2	1
55 – 59	14	85	27
60 – 64	18	75	15
<b>Total</b>	<b>32</b>	<b>162</b>	<b>44</b>

*Pre-92 Pensioners – Premium Reimbursement to Province of NS*

We were provided with the counts of members with single and family coverage enrolled in policies 5138, 6000, and 6500 under Province of NS post retirement health plan for who NSPI reimburses the Province of NS for a portion of the premiums. We gathered data provided by the Province of Nova Scotia as at December 31, 2004 for all of the retirees under policies 5138, 6000 and 6500 with single or family coverage who were still enrolled as at that date. We determined the present value of the future premiums as at December 31, 2010 assuming there was no change in the membership during 2005, 2006, 2007, 2008, 2009 and 2010. We then pro-rated the total present value for each group and coverage type based on the membership counts provided by NSPI as at December 31, 2010.

The following table presents the age distribution based on the membership as at December 31, 2004 and also provides the membership counts as at December 31, 2010:

**Table B.13 Distribution of Pre-92 Pensioners based on December 31, 2004 Membership**

Age Band	5138 Single	5138 Family	6000 and 6500 Single	6000 and 6500 Family
50 – 54	0	0	0	0
55 – 59	1	2	0	3
60 – 64	2	0	4	3
65 – 69	1	0	13	2
70 – 74	2	0	47	71
75 – 79	2	0	100	131
80 – 84	8	4	71	75
85 – 89	16	6	72	41
90 – 94	10	1	25	10
95 – 99	2	0	9	4
<b>Total Dec 31, 2004</b>	<b>44</b>	<b>13</b>	<b>341</b>	<b>340</b>
<b>Total Dec. 31, 2010</b>	<b>26</b>	<b>6</b>	<b>322</b>	<b>206</b>

*Dental*

In addition to the employee data for health benefits under the old post-retirement health plan, NSPI provided data for retiree dental benefits. Retiree dental benefits are provided in special circumstances under the old post-retirement health plan, and do not form part of the standard benefits package. (Under the new post retirement benefit plan, dental coverage is provided). There are 5 retirees as at December 31, 2010 who are entitled to dental benefits on a 50/50 cost share under the old post-retirement health plan until they reach age 65. The average age of the 5 retirees is 59.4.

*Life Insurance*

NSPI provides subsidized post-retirement life insurance up to age 65 for employees who elect to participate under the new health plan.

The following table summarizes the data as at December 31, 2010 which was used to determine the Accrued Benefit Obligation in respect of the life insurance benefits. Note that active members who are projected to have less than 15 years of service at the assumed retirement age (and assumed not to elect coverage) are excluded from the data shown below.

**Table B.14 NSPI Active Members Assumed to have Subsidized Post-Retirement Life Insurance**

<b>Age Band</b>	<b>Count</b>	<b>Average Service</b>	<b>Average Projected Coverage at Retirement</b>
Less than 30	173	2.7	379,422
30 to 34	141	4.3	300,220
35 to 39	152	5.8	268,678
40 to 44	172	10.0	232,017
45 to 49	147	18.7	244,912
50 to 54	141	26.8	204,298
55 to 59	76	29.3	146,224
60 to 64	8	31.1	132,250
<b>Totals</b>	<b>1010</b>	<b>12.6</b>	<b>263,065</b>

*Includes the data for members who have service with Emera on or after January 1, 2007.*

**Table B.15 NSPI Retired Members Assumed to have Subsidized Post-Retirement Life Insurance**

<b>Age Band</b>	<b>Count</b>	<b>Average Coverage</b>
Less than 55	5	109,600
55 to 59	141	133,397
60 to 64	101	120,525
<b>Totals</b>	<b>247</b>	<b>127,652</b>

*Long Service Award*

The following table summarizes the data as at December 31, 2011 which was used to determine the Accrued Benefit Obligation in respect of the Long Service Award.

**Table B.16 Employees eligible for Long Service Award**

<b>Age and Service</b>	<b>0 to 4</b>	<b>5 to 9</b>	<b>10 to 14</b>	<b>15 to 19</b>	<b>20 to 24</b>	<b>25 or more</b>	<b>Total</b>
20 to 24	5	1					6
Average Service	4.6	<>					4.7
Average Earnings	63,735	<>					65,582
25 to 29	21	26					47
Average Service	4.4	6.0					5.3
Average Earnings	57,492	59,718					58,724
30 to 34	17	45	17				79
Average Service	4.6	6.7	11.6				7.3
Average Earnings	63,852	64,320	58,263				62,916
35 to 39	17	57	64	3			141
Average Service	4.6	7.0	11.7	15.9			9.1
Average Earnings	64,063	62,453	63,795	63,266			63,274
40 to 44	11	48	65	17	36	2	179
Average Service	4.3	7.1	12.4	17.5	21.8	<>	13.0
Average Earnings	89,784	71,911	67,913	61,939	74,715	<>	71,088
45 to 49	10	34	47	13	88	49	241
Average Service	4.4	7.6	12.3	17.4	22.8	27.2	18.4
Average Earnings	83,190	73,962	75,062	61,108	80,531	72,084	75,883
50 to 54	6	28	58	7	58	123	280
Average Service	4.7	7.5	12.2	17.5	23.2	30.2	21.9
Average Earnings	67,628	73,853	68,822	63,890	78,216	77,942	75,128
55 to 59	4	9	34	10	35	113	205
Average Service	4.7	8.0	12.2	17.4	22.9	31.4	24.6
Average Earnings	63,366	74,184	54,989	59,311	69,941	71,372	67,790
60 to 65		4	9	2	7	22	44
Average Service		8.4	12.3	<>	22.4	34.1	24.7
Average Earnings		52,993	53,743	<>	56,564	55,962	56,811
<b>Total</b>	91	252	294	52	224	309	1,222
<b>Average Service</b>	4.5	7.1	12.1	17.4	22.7	30.4	17.3
<b>Average Earnings</b>	67,905	67,443	65,852	62,585	76,593	72,956	69,959

*Includes the data for members who have service with Emera on or after January 1, 2007.*

*NSPI retains the obligation in respect of all NSPI service.*

## Appendix C – Summary of Plan Provisions

### Employees' Pension Plan

Please refer to the actuarial report for funding purposes as at December 31, 2010 for a summary of plan terms. Effective July 1, 2001, a defined contribution option was offered under the Employee's pension plan. Members who elected to participate in the defined contribution portion of the plan ceased to accrue service under the defined benefit portion of the plan, but retain a defined benefit pension based on final average earnings at termination or retirement in respect of credited service to July 1, 2001.

### Acquired Companies Pension Plan

Please refer to the actuarial report for funding purposes as at December 31, 2010 for a summary of plan terms. Included in the liability is the value of cost of living adjustment and survivor benefits in respect of member's paid up Government of Canada pensions. We note that this is a closed plan and there are no members accruing service.

### Executive Supplements, and Discretionary Benefits

NSPI introduced a Supplementary Executive Retirement Plan ("SERP") as at January 1, 2001 to top-up benefits for all members who are capped under the Employees' Pension Plan by the maximum pension limits set out in the *Income Tax Act*. Previously, only certain executives were covered by the SERP. Generally speaking, the SERP has the same terms as the registered Employees' Pension Plan and pays a pension equal to (a) minus (b):

- a) the pension determined under the Employees' Pension Plan without reference to the *Income Tax Act* limits,
- b) the pension payable under the Employees' Pension Plan.

The SERP benefits cover both defined benefit and defined contribution amounts that would otherwise exceed *Income Tax Act* limits. For the DC SERP, the word "contribution" would replace the word "pension" in the formula above. In addition, the annual rate of return on the DC SERP balances are deemed to be equal to the annual rate of return on the member's actual Employees' Pension Plan DC account balance.

Certain members in the SERP have a different definition of pensionable earnings than that defined in the Employees' Pension Plan. For such members, this would be used to determine (a) above. There is no pre-funding of SERP benefits. Please refer to the SERP plan document for additional information.

In addition to the SERP, any discretionary benefits granted by NSPI are included in this component. Such benefits are not pre-funded.

### **War Service, ERIPs of 1986 and 1991**

War Service liability is in respect of service granted under the Nova Scotia Public Service Superannuation Plan (“PSSP”) to members of Nova Scotia Power Corporation (the predecessor to Nova Scotia Power Incorporated). PSSP is responsible for paying the total pension benefit to such members. NSPI is responsible for reimbursing PSSP the portion of such benefits attributable to war service on a pay as you go basis.

The ERIP 1986 and 1991 liability is in respect of certain additional benefits provided to members who retired under the early retirement incentive program (ERIP) offered in 1986 and 1991. The PSSP is responsible for paying the total pension benefit to such members. NSPI is responsible for reimbursing PSSP the portion of such benefits attributable to additional service granted under the ERIP on a pay as you go basis.

### **Long Service Award**

Employees who retire from active service on an unreduced pension are eligible for a Long Service Award benefit. This benefit is also paid in the event of death in service. No benefit is payable to employees who terminate prior to retirement, or to those who retire early with a reduced pension. A member’s benefit is based on his rate of pay on his retirement date. The benefit amount is 1 week’s salary for each year of service, up to a maximum of 26 years of service. Effective August 1, 2007 the long service award is closed to all new hires.

### **Post-Retirement Health Care Benefits**

#### *Existing (“Old”) Post-Retirement Health Care Plan*

All NSPI employees who retired between privatization and December 31, 2003 receive benefits under the Old post retirement health care plan. Members who were active as at January 1, 2004 may receive benefits based on either the Old or New Plan depending on a one-time coverage election.

The Old Plan provides retired employees and their spouses (and eligible dependent children, if any) with 100% coverage for all prescription drugs up to age 65, 100% of eligible hospital benefit costs, and 80% of extended health benefits. To be entitled to this post-retirement health benefit, employees must retire from active service and be eligible for an unreduced pension from the NSPI Employee’s Pension Plan. Benefits are not provided to those who terminate prior to retirement. It is noted that the Prior Plan documents suggest that spouses and dependents are not eligible for coverage after the death of the member; however, we understand that the practice is to continue to provide coverage, and charge the applicable premium, in any such instance. We have therefore included the cost of lifetime benefits for surviving spouses, in accordance with Company practice.

The cost of the Old Plan is shared on a 50-50 basis between the retired employees (and eligible spouses) and the Company. The premium charged is set by the insurance company considering total expected claims in respect of retired members only. The premium does not reduce at age 65, although drug coverage ceases at that time. Premiums differ between employees only in respect of coverage type, i.e., single or family coverage.



*New Post-Retirement Health Care Plan*

This Plan applies to all non-union employees hired on or after January 1, 2004. Union employees hired after January 1, 2004 may choose between the new and old plans. All active employees as at January 1, 2004 had a one time option to convert to the New Plan.

Compared to the Old Plan, the New Plan adds orthodontic coverage, and caps drug dispensing fees at \$7 per prescription and drug costs to the generic brand cost. Members who enroll in the New Plan are entitled to continue with both health and dental coverage after retirement up to age 65 if they meet eligibility requirements:

- > The member must have at least 10 years of continuous service with the Company to be eligible for the post-retirement benefit.
- > Benefits are not provided to those who terminate prior to retirement.
- > The cost of the New Plan is shared between the employee and the Company, based on the retired member's continuous service at their date of retirement:

<b>Years of Continuous Service at Retirement</b>	<b>Employer Paid Portion</b>
1 – 9	Not eligible to enroll in the Plan
10 – 14	0% paid for by the Employer
15 – 29	50% paid for by the Employer
30 – 34	75% paid for by the Employer
35 +	100% paid for by the Employer

In addition to single and family coverage, the New Plan offers “couple” coverage, whereby any two family members may obtain health and dental coverage. Under the New Plan, no coverage is provided after the former employee attains age 65 (even if the spouse is still under age 65).

*Post-Retirement Health Benefits for pre-privatization retirees*

The cost to NSPI of benefits payable in respect of retired NSPC (the predecessor to Nova Scotia Power Incorporated) members who receive a pension from the PSSA is based on the premium assessed by the Province of Nova Scotia.

*Subsidized Post-Retirement Life Insurance*

NSPI provides subsidized post-retirement life insurance up to age 65 for employees who elect to participate under the new health plan. The cost-sharing of the life insurance premiums is based on the retired member's continuous service at their date of retirement as shown in the table above for the new post-retirement health care plan.

For non-executives the coverage is equal to 2 times the employee's salary at retirement up to a maximum of \$500,000. For executives the coverage is 5 times salary at retirement up to a maximum of \$1,000,000.



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tel.: 902.429.8013 • fax: 902.420.1932

December 28, 2011

Registered Plans Directorate  
Canada Revenue Agency  
3rd Floor, 45 Sacré-Coeur Blvd  
Hull, QC K1A 0L5

Dear Sir or Madam:

**Re: Pension Plan for Employees of Nova Scotia Power Incorporated (the "Plan") –  
Registration No. 0687210**

Please find enclosed, for your review, the Actuarial Valuation Report for the Plan as at December 31, 2010.

A copy of this report has also been filed with the Province of Nova Scotia.

We look forward to receiving your written confirmation that the funding recommendations outlined in the Actuarial Valuation Report have been approved.

Please do not hesitate to contact us if you have questions or require anything further.

Yours truly,

A handwritten signature in black ink that reads 'Don Charlton'.

Don Charlton, F.C.I.A.  
Senior Consultant

Encl.

c.c. Barbara Meens Thistle, Chief Human Resources Officer



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tel.: 902.429.8013 • fax: 902.420.1932

December 28, 2011

Ms. Nancy MacNeill Smith  
Superintendent of Pensions  
Department of the Environment and  
Labour - Pension Regulation Division  
P.O. Box 2531  
Halifax, NS B3J 3N5

Dear Nancy:

**Re: Pension Plan for Employees of Nova Scotia Power Incorporated (the "Plan") –  
Registration No. 0687210**

Please find enclosed, for your review, the Actuarial Valuation Report for the Plan as at December 31, 2010.

A copy of this report has also been filed with the Canada Revenue Agency.

Please do not hesitate to contact us if you have questions or require anything further.

Yours truly,

A handwritten signature in cursive script that reads 'Don Charlton'.

Don Charlton, F.C.I.A.  
Senior Consultant

Encl.

c.c. Barbara Meens Thistle, Chief Human Resources Officer



7071 Bayers Road, Suite 3007  
Halifax, Nova Scotia B3L 2C2

April 15, 2012

**CONFIDENTIAL**

Ms. Mary Agnes Moar  
HR Programs Integration Manager  
Emera Inc.  
P.O. Box 910  
Halifax, NS B3J 2W5

Dear Mary Agnes:

**RE: Nova Scotia Power Incorporated Supplementary Retirement Plan ("SERP")  
Letter of Credit Renewal**

We have determined the Required Face Amount for the SERP letter of credit renewal to be [REDACTED]. The Required Face Amount covers the period June 1, 2012 to May 31, 2013 and was determined in accordance with the Nova Scotia Power Incorporated Supplementary Retirement Plan text and the Nova Scotia Power Incorporated Supplementary Retirement Plan Trust Agreement. The increase in the Required Face Value as compared to last year's amount of [REDACTED] is primarily due to:

- > The use of lower discount rates for this year's valuation relative to last year's calculation;
- > Change in average pensionable earnings for active members; and
- > One additional year of credited service that active members have accrued less the value of benefits that have been settled.

Please find enclosed a Certificate of Actuary that details the purpose, actuarial methodology and assumptions, and liability amount by member.

Please call us if you have any questions.

Yours truly,

Handwritten signature of Don Charlton in black ink.

Don Charlton, F.C.I.A.  
Senior Consultant

Handwritten signature of Ian Claveau in black ink.

Ian Claveau, F.C.I.A.  
Principal

DC/IC/cm

cc: Barbara Meens Thistle

**CERTIFICATE OF ACTUARY**

The attached Appendix is provided in accordance with the requirements of the Nova Scotia Power Incorporated Supplementary Retirement Plan Trust Agreement (the "Trust Agreement") made between Nova Scotia Power Incorporated and Royal Trust Corporation of Canada.

In accordance with the Trust Agreement, the undersigned certifies that, in my opinion:

The Required Face Amount for the Letter of Credit, for the 12-month period from June 1, 2012 to May 31, 2013 is [REDACTED]

In my opinion:

- a) The data on which the valuation is based are sufficient and reliable for the purposes of the valuation.
- b) The assumptions used are, in aggregate, appropriate for the purposes of the valuation.
- c) The methods employed in the valuation are appropriate for the purposes of the valuation.

This letter has been prepared, and my opinion given, in accordance with accepted actuarial practice. The assumptions that form the actuarial basis used in the valuation were reasonable at the time the letter was prepared.

Actuarial valuations are performed based on assumptions and methods that are in accordance with sound actuarial principles. Emerging experience differing from these assumptions may result in gains or losses, which will be revealed in future valuations.


The next actuarial valuation should be prepared prior to April 15, 2013 with an effective date of June 1, 2013.

Respectfully submitted this 15th day of April, 2012.



Don Charlton  
Fellow of the Canadian Institute of Actuaries

This document was peer reviewed by

  
Ian Claveau, F.C.I.A.

**Appendix to Certificate of Actuary  
Nova Scotia Power Incorporated Supplementary Retirement Plan (SERP)**

**Purpose**

To determine the amount of the letter of credit needed to secure the SERP liabilities for the period June 1, 2012 to May 31, 2013.

**Actuarial Assumptions**

The actuarial assumptions used are in accordance with Schedule A of the Nova Scotia Power Incorporated Supplementary Retirement Plan Trust Agreement and are summarized below.

We note that the discount rate and mortality table assumptions used determined based on the Canadian Institute of Actuaries' Standard of Practice for Pension Commuted Values.

Valuation Date	For active and deferred members: June 1, 2013 For retired members: June 1, 2012
Discount Rate for fully indexed pensions	1.20% for 10 years, 1.40% thereafter *
Discount Rate for non-indexed pensions (also used to determine implied inflation rate)	2.50% for 10 years, 4.00% thereafter *
Implied inflation rate to estimate post-retirement indexing for retired members	1.28% for 10 years, 2.56% thereafter *
ITA maximum pension (registered pension plan)	2012: \$2,646.67 2013 and beyond: \$2,646.67 indexed at YMPE increase rate
CPI Increase in most recent calendar year	2.3% (for December 2009 to December 2010)
Salary Increase Rate	5.3% per annum (CPI + 3.0%)
YMPE Increase Rate	2.8% per annum (CPI + 0.5%)
DC Provision Rate of Return	7.3% per annum (CPI + 5.0%)
Expense Assumption	\$35,000 plus \$3,000 for each member with a liability
Mortality Table (after retirement only)	UP-94 table with generational projection using Scale AA Unisex assumption: Member: 80% male, 20% female Spouse: 20% male, 80% female
Married Assumption	For active and deferred: 85% married upon retirement For retired: actual marital status
Age difference between males and females	For active and deferred: 3 years For retired: based on actual age of spouse
Retirement age under both the registered plan and the SERP	Age that maximizes the value of the total benefit (current age for retired members)
Assets (Equal to RCA tax previously remitted to the Receiver General)	\$1,165,000 (based on sum of RCA tax remitted) 2002: \$10,078, 2003: \$14,868, 2004: \$10,616, 2005: \$23,655, 2006: \$28,870, 2007 (estimated): \$30,283, 2008 (estimated): \$35,463, 2009 (estimated): \$391,550, 2010 (estimated): \$282,996, and 2011 (estimated): \$337,000

\* Actuarial basis as at March 2012.

**Actuarial Methodology**

For active and deferred members, the SERP liability was computed on a member by member basis assuming termination of the SERP and registered pension plan as at June 1, 2013. We computed the value of the total entitlement from all Company sources (SERP plus registered pension plan). We then computed the entitlement from the Company's registered pension plan assuming such plan was fully funded. The SERP liability was determined as the difference, if any, between the total liability and the registered plan liability. Consistent with the methodology used in prior years, we have interpreted Section 4 of the SERP text to mean that wind-up grow-in rights that do not form part of the registered plan text are excluded from both the SERP and registered plan components.

For retired members, the value of the benefit currently in payment from the SERP was valued as at June 1, 2012.

**Plan Terms**

Please refer to the Nova Scotia Power Incorporated Supplementary Retirement Plan text for the SERP provisions and the Pension Plan for Employees of Nova Scotia Power Incorporated for the registered plan terms.

**Data**

Our valuation is based on data compiled as at December 31, 2011, adjusted for known status changes to April 12, 2012. We have taken steps to review the data to ensure sufficiency and reliability including reconciling each member's record with last year's record and receiving and implementing data updates since the previous year end.

The following table provides a summary for members who were participating in the DB and DC plans as of December 31, 2011 who are entitled to benefits under the SERP. To maintain confidentiality, individual age, credited service and earnings are not shown. We note that all members of the registered pension plan (the Pension Plan for Employees of Nova Scotia Power Incorporated) are eligible to participate in the SERP, but only members whose registered plan benefits are limited by the ITA limits are entitled to a benefit.

	Count	Average Age (June 1, 2013)	Average Credited Service in Provision (June 1, 2013)	Estimated Average 2012 SERP Earnings	Average 2012 SERP Annual Pension
DB Active	15	52.25	20.29	\$357,055	n/a
DC Active	2	48.19	n/a	*	n/a
DB Deferred	2	55.41	13.167	n/a	*
DB Pensioners	12	63.91	n/a	n/a	\$38,655

*\* Not shown for confidentiality purposes.*

The total SERP liability for active, deferred, and retired members, plus the expense assumption, less any assets (refundable tax), is the Required Face Amount for the Letter of Credit. The table on the following page summarizes the liability.

This page has been removed due to confidentiality



**NON-CONFIDENTIAL**

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1 **Request IR-3:**

2

3 **Please provide the final actuarial report for funding purposes as at December 31, 2010, and**  
4 **the final or draft actuarial report as at December 31, 2011 for the NSPI RPPs.**

5

6 Response IR-3:

7

8 Please refer to Eckler IR-2 Attachment 1 and Attachment 2 for the final actuarial reports for  
9 funding purposes as at December 31, 2010 for the NS Power Registered Pension Plans (RPPs).

10

11 Since privatization, NS Power has filed annual valuation reports with the Superintendent of  
12 Pensions in respect of the NS Power RPPs. A draft report in respect of the December 31, 2011,  
13 valuation has not yet been prepared.

**NON-CONFIDENTIAL**

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1 **Request IR-4:**

2

3 **RB-02 - RB-16, Attachment 2 refers to a “Valuation Report for Accounting Purposes as at**  
4 **December 31, 2011 (‘Accounting Report’)”. Please provide a copy of this report.**

5

6 Response IR-4:

7

8 Please refer to Eckler IR-2 Attachment 3.

**NON-CONFIDENTIAL**

---

1 **Request IR-5:**

2

3 **Please provide a copy of any amendments to the RPPs that have either been filed with the**  
4 **Superintendent of Pensions in 2011 or 2012, or that have been prepared in draft.**

5

6 Response IR-5:

7

8 There have not been any amendments to the Registered Pension Plans filed or drafted in 2011 or  
9 2012.

**CONFIDENTIAL (Attachment Only)**

---

1 **Request IR-6:**

2

3 **Please provide copies of the investment policy, the funding policy, and the benefits policy**  
4 **for the RPPs, noting any changes to these documents that were made in 2011 or 2012, or**  
5 **changes that are being considered.**

6

7 Response IR-6:

8

9 Please refer to Confidential Attachment 1 for the Statement of Investment Policies and  
10 Procedures which was approved by the NS Power Audit Committee in September 2011.

11

12 NS Power's funding policy is to contribute the amount as required by pension legislation and the  
13 Plan Terms. NS Power, from time to time, may decide to contribute additional amounts over and  
14 above the required amount. Please refer to Eckler IR-7 Attachment 1.

15

16 NS Power does not have a formal benefits policy. Pension benefits are identified by the Plan  
17 terms as found in the Pension Plan text. Please refer to Confidential Attachment 2, available for  
18 viewing at NS Power's offices, for the original plan text and a revised plan text dated September  
19 1993.

**CONFIDENTIAL (Attachment Only)**

---

1 **Request IR-7:**

2

3 **Please provide copies of the audited financial statements in respect of the NSPI RPPs for**  
4 **each of 2010 and 2011.**

5

6 Response IR-7:

7

8 Please refer to Confidential Attachment 1 and Confidential Attachment 2, which is NSPI (NPB)  
9 IR-183 from the 2012 General Rate Application.

**NON-CONFIDENTIAL**

---

1 **Request IR-8:**

2

3 **With reference to the GRA, page 84, 2nd bullet point (lines 12-21), please provide the**  
4 **return assumptions used by other Canadian organizations for pension plan accounting**  
5 **purposes that were considered by management in its review of assumptions, and identify**  
6 **the organizations.**

7

8 Response IR-8:

9

10 Please refer to Eckler IR-9 Attachment 2 which outlines summary statistics on rate of return  
11 assumptions used by other Canadian organizations included in the Morneau Shepell Survey. The  
12 survey includes approximately 100 Canadian public companies. Individual company information  
13 from this survey is considered proprietary to Morneau Shepell.

14

15 NS Power also reviewed the results of a survey of pension accounting assumptions expected to  
16 be used by other Canadian utilities. NS Power is not able to provide the results of the survey by  
17 utility. The results indicated based on the responses received that the return assumptions ranged  
18 from 6.25 percent to 7.30 percent with 75 percent of the respondents' return assumptions at 6.75  
19 percent or lower.

**NON-CONFIDENTIAL**

---

1 **Request IR-9:**

2

3 **With reference to the GRA, page 84, 2nd bullet point (lines 12-21), please provide copies of**  
4 **the surveys indicating that, in recent years, rate of return expectations have slowly but**  
5 **steadily declined as plan sponsors take a more conservative view of market performance.**

6

7 Response IR-9:

8

9 Please refer to Attachment 1 and 2 which show a decline in rate of return expectations. For  
10 example, in 2004 only 11 percent of organizations surveyed used an expected rate of return of  
11 6.75 percent or less and this figure has steadily increased to 47 percent for 2010.

Survey of Economic Assumptions - Expected Long-Term Return on Plan Assets

	31-Dec-10	31-Dec-09	31-Dec-08	31-Dec-07	31-Dec-06	31-Dec-05	31-Dec-04
Used for expense in year:	2010	2009	2008	2007	2006	2005	2004
8.25% and higher	N/A	1%	1%	1%	2%	3%	5%
8.00%	1%	1%	6%	6%	11%	9%	8%
7.75%	4%	3%	2%	6%	1%	3%	7%
7.50%	5%	12%	12%	14%	18%	19%	22%
7.25%	5%	18%	13%	11%	13%	19%	16%
7.00%	38%	31%	32%	28%	30%	29%	31%
6.75%	11%	10%	5%	14%	7%	6%	3%
6.50%	9%	9%	11%	8%	4%	6%	3%
6.25% and lower	27%	15%	18%	12%	14%	6%	5%
<b>Median</b>	7.00%	7.00%	7.00%	7.00%	7.00%	7.25%	7.25%

Fiscal Year	6.5% or lower	6.75% or lower	7.00% or lower	7.25% or lower	7.50% or lower	7.75% or lower	8% or lower
2002	N/A	8%	28%	35%	54%	66%	83%
2003	N/A	11%	32%	48%	75%	83%	93%
2004	8%	11%	42%	58%	80%	87%	95%
2005	12%	18%	47%	66%	85%	88%	97%
2006	18%	25%	55%	68%	86%	87%	98%
2007	20%	34%	62%	73%	87%	93%	99%
2008	29%	34%	66%	79%	91%	93%	99%
2009	24%	34%	65%	83%	95%	98%	99%
2010	36%	47%	85%	90%	95%	99%	100%



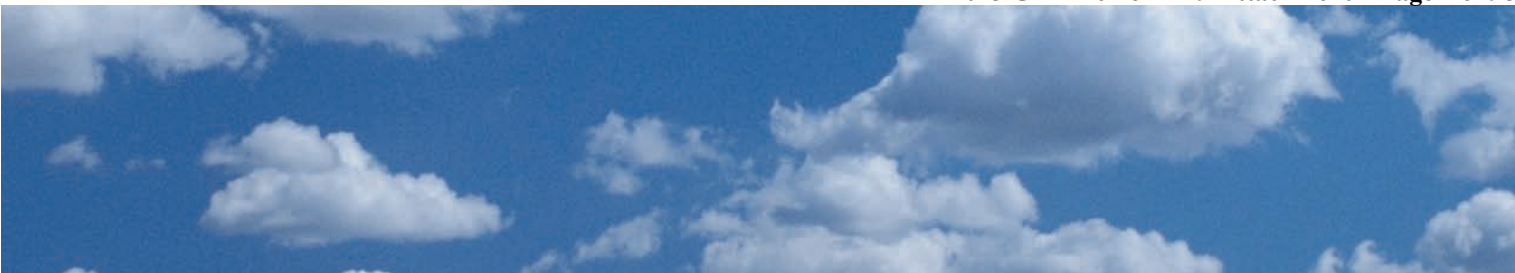


2011 Survey of Economic Assumptions  
in Accounting for Pensions and Other  
Post-Retirement Benefits

*Highlights of our annual survey results*

SPECIAL REPORT

MORNEAU  
SHEPELL



*In this report, Morneau Shepell is pleased to provide information on the assumptions being used by approximately 100 Canadian public companies in accounting for the costs of their defined benefit plans. This information is based on audited financial statements as at December 31, 2010. This is the eleventh year that the survey has been produced.*

*Accounting for publicly accountable enterprises (PAE) has moved to International Financial Reporting Standards (IFRS) for fiscal years beginning on or after January 1, 2011. As such, next year survey will reflect assumptions and figures in line with IFRS. Note that international accounting for pension and benefits is also undergoing significant changes that will apply starting in 2013. A special section later in this survey highlights the key items.*

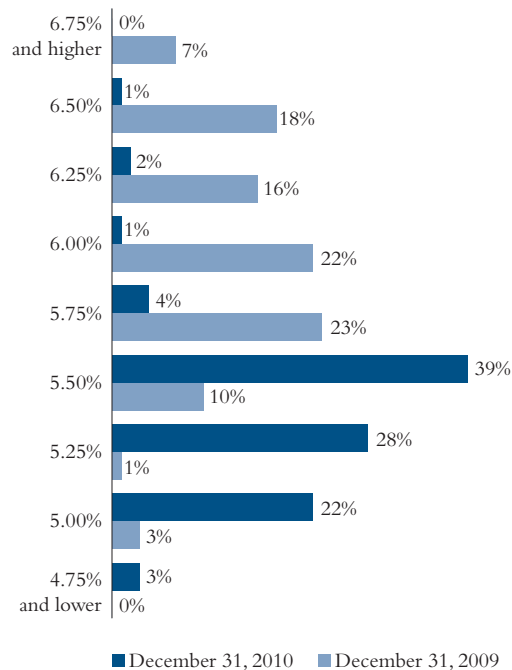
## Discount Rate for Pension Plans

The year 2009 had seen an important decrease in discount rates used in determining pension costs for accounting purposes (see the Appendix for a description of “discount rate”), after the unusual increase that followed the financial crisis in 2008. For 2010, this downward trend has continued and the decrease is as significant as last year’s. The range in discount rates used however has narrowed, compared to last year.

The following chart summarizes the discount rates used in the valuation of defined benefit pension plans. The median discount rate was 5.25% as at December 31, 2010 compared to 6.00% a year earlier.

About 89% of the companies used a discount rate between 5.00% and 5.50%.

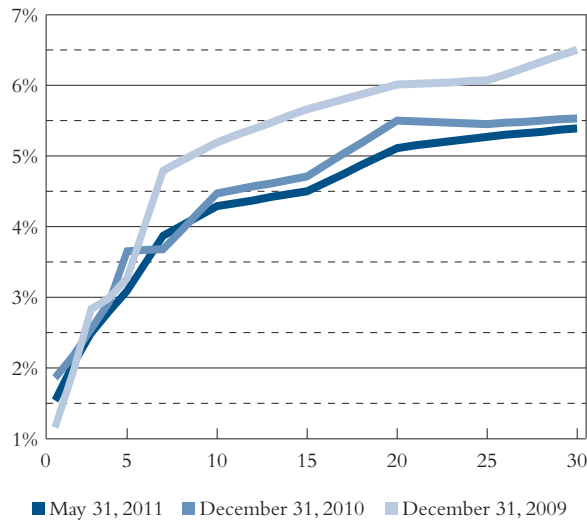
**Discount Rate / Pension Plans**



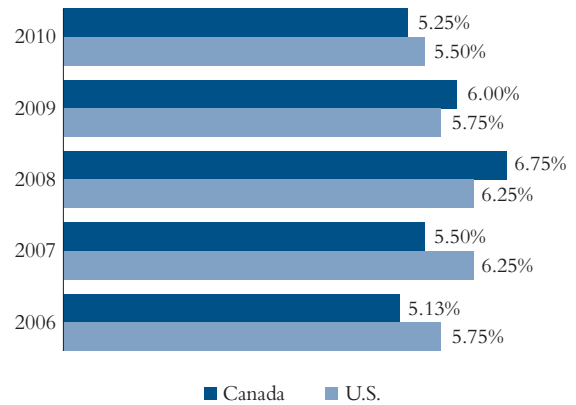
Roughly 90% of companies surveyed reduced their discount rate in 2010 with the typical reduction being 50 to 100 basis points.

Over time, the yields on high quality long term corporate bonds may vary considerably. The discount rate should be expected to vary in a similar fashion. For illustration, the graph below compares the yield curves as at December 31 for the years 2009, 2010, and May 2011.

*High-Quality Corporate Bonds*



*Median Discount Rate by Country*



If the yield curve were to remain at the May 2011 levels until the end of the year, we would expect discount rates at December 31, 2011 to be about 20 basis points lower on average than those used at December 31, 2010.

The following chart compares the median discount rates in our survey to those from a U.S. survey<sup>1</sup>. We see that the rates in Canada this year are slightly lower than the estimated U.S. rates.

## Discount Rate for Non-Pension Benefits

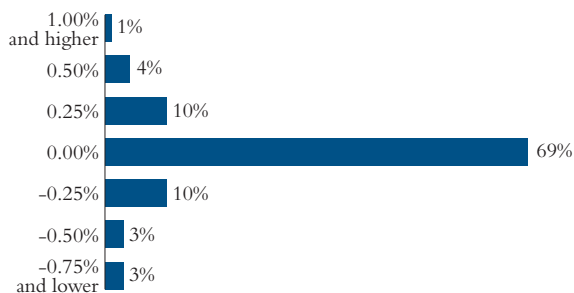
The duration of non-pension post-employment benefits is often significantly different from that for pensions. For example, the duration of the accrued benefit obligation (ABO) for a retiree medical plan is often higher than that for pensions. As a result, the choice of discount rate for the valuation of post-employment benefits can be different in theory than it is for pensions. (See the Appendix on selecting the discount rate for more on this.) While some companies use different rates for the different types of plans, many companies elect to use a single blended rate, or else they simply use the rate for the most material plan.

<sup>1</sup> Source : *Survey of Economic Assumptions used for SFAS No. 87 and SFAS No. 106 Purposes*, prepared by Deloitte & Touche Human Capital Advisory Services (U.S.). (Estimate for 2010)

The median rate used as at December 31, 2010, for non-pension benefits is 5.4%, which is slightly higher than the median rate used for pensions.

The following chart shows the difference between the discount rate used in the valuation of non-pension benefits and that used for pension plans. (A positive value indicates a higher rate for non-pension benefits than for pensions and vice versa.)

***Difference in Discount Rates  
(Non-Pension Benefits vs. Pensions)***



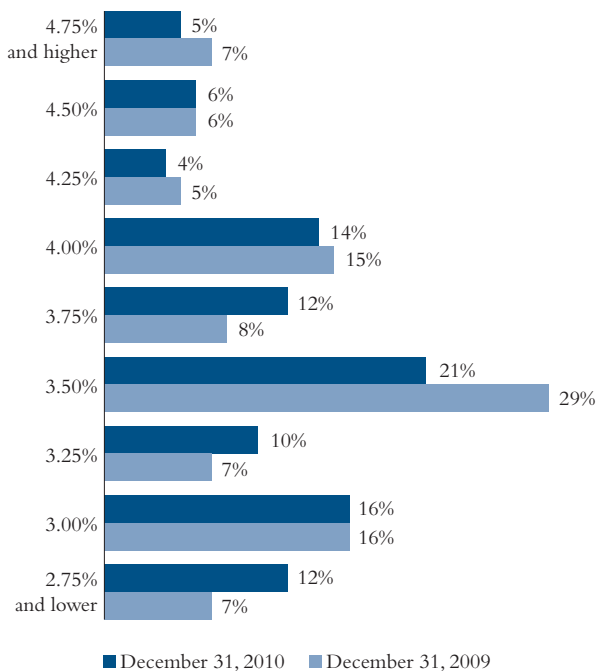
While in most cases companies have used the same discount rate for pensions and non-pension benefits, 15% used a higher discount rate for non-pension benefits (compared to 23% in our previous survey).

## Rate of Compensation Increase

Plans that provide pay-related benefits are required to make an assumption about the rate of compensation increases. CICA 3461 indicates that it should reflect “future changes attributed to general price levels, productivity, seniority, promotion, and other factors”.

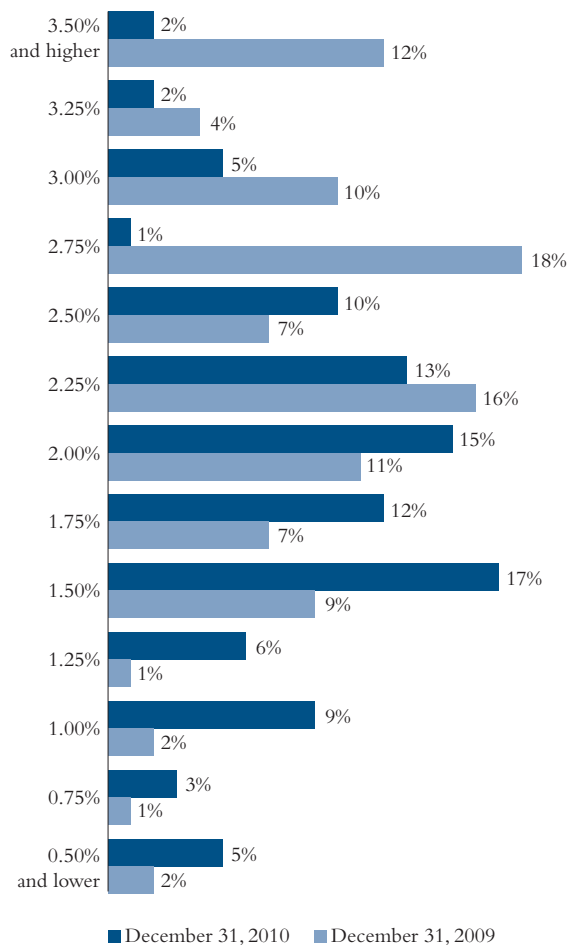
The median compensation increase assumption as at December 31, 2010, was 3.5%, identical to last year’s median, with 73% of companies using rates between 3.0% and 4.0%. Given how low this assumption is in some cases, it is quite likely that some companies are not properly reflecting the impact of individual job progression in their disclosed assumption.

***Rate of Compensation Increase***



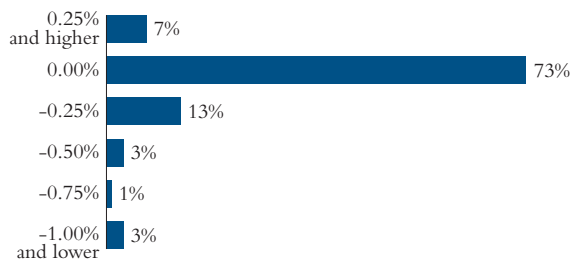
The following graph shows the spread between the discount rate and the rate of compensation increase. The spread generally has a significant impact on the ABO for defined benefit pension plans. The median spread is 1.8% as at December 31, 2010, which is about 60 basis points lower than last year. The decrease in the spread will result in higher ABO.

*Spread: Discount Rate / Compensation*



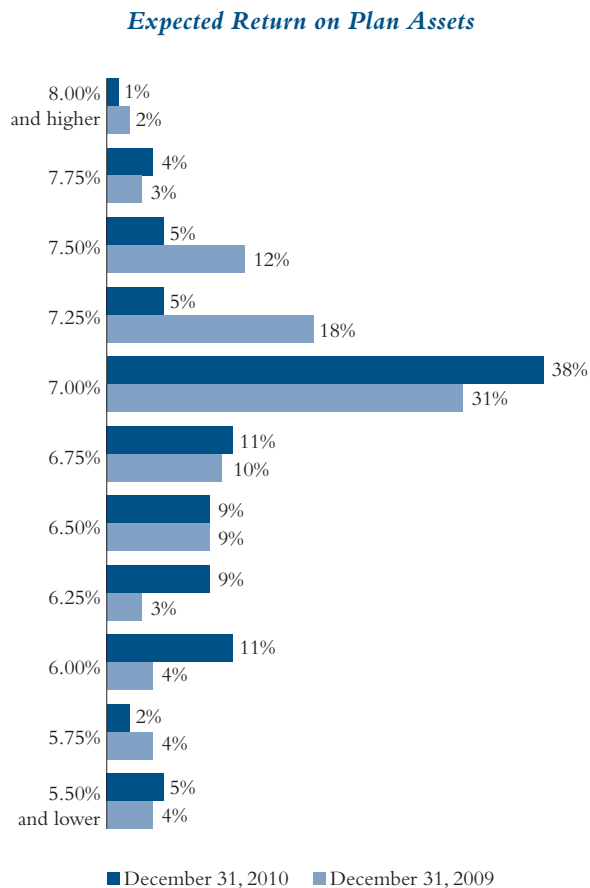
Our survey shows that 27% of companies changed the rate of compensation increase assumption by at least 0.25% (up or down) at December 31, 2010. There is some debate over how frequently this assumption should be changed. In the “Supplement to the Employee Future Benefits Implementation Guide” the CICA states that the requirement to be internally consistent applies to all assumptions except for the discount rate. Assumptions other than the discount rate should be based on a long-term view and should be revised only when a significant change in expected long-term economic conditions occurs.

*Change in Compensation Increase Assumption (2010 vs. 2009)*



## Expected Long-Term Return on Plan Assets

CICA 3461 specifies that the expected rate of return on plan assets should reflect a long-term view. The following chart shows the return assumption disclosed at the end of 2010 versus 2009.

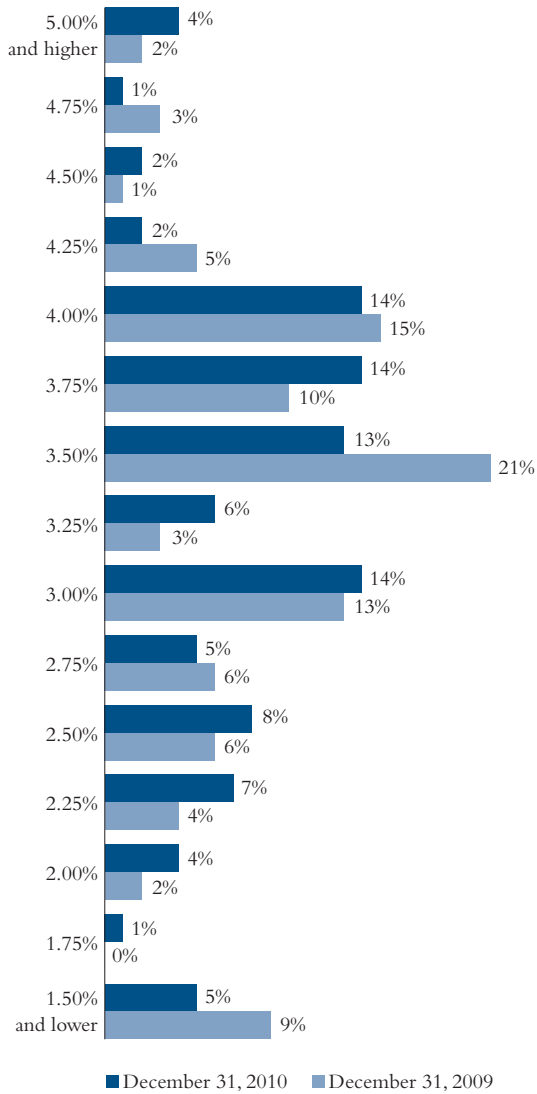


The median expected long-term rate of return on plan assets is 7.0%, the same as in the December 31, 2009 survey. However, the distribution of rates has expanded somewhat compared to last year and 47% of companies have used rates below 7.0% (34% in 2009). In recent years, there has been a very slow but steady decline in this assumption.

For most pension plans, the actual return earned in 2010 was higher than the assumed long-term rate of return on assets. The actual median return for diversified pension funds was 10.6 in 2010 according to the *Performance Universe of Pension Managers' Pooled Funds* produced by Morneau Shepell.

The following graph shows the spread between the expected return on plan assets and the rate of compensation increase. The median spread was 3.25% as at December 31, 2010, a small decrease from last year's median at 3.5%. It is expected that this spread will be fairly stable from one year to the next.

*Spread: Expected return on plan assets / Compensation*

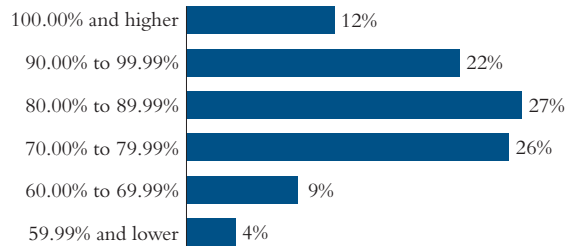


Our survey results show that about 41% of companies reduced the spread by at least 0.25% as at December 31, 2010.

## Pension Plans Financial Situation and Financial Assumptions

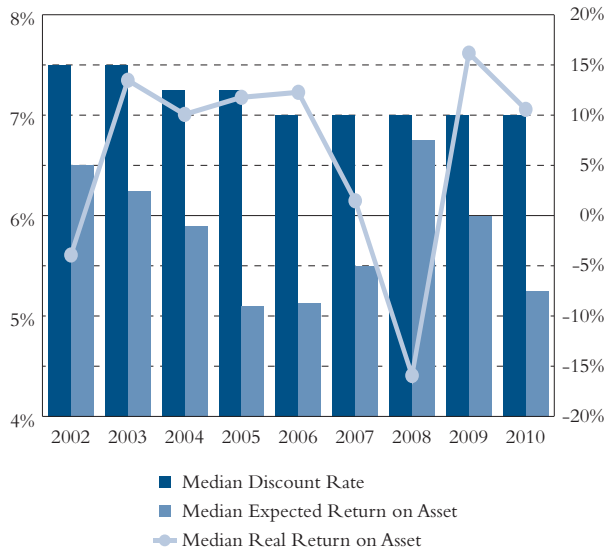
The companies in our survey show an 85% overall ratio of pension assets to ABO for accounting purposes. This result may be viewed as a little understated since it includes some non-registered plans for which no funding is legally enforced under Canadian regulatory environment. The ratio is highly influenced by the actual return on plan assets, the discount rate assumption and special contributions made to cover pension plan deficits. The distribution of companies based on their overall ratio at December 31, 2010 is shown in the following chart.

*Pension plans ratio of asset value to accounting ABO (distribution of companies)*



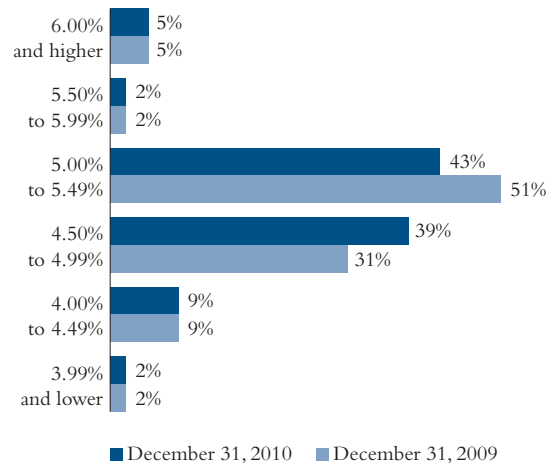
As mentioned, the ratio is highly influenced by return on assets and discount rate, for which we have summarized historical data.

*Key financial assumptions and actual return on assets*



The following charts show the December 31, 2010 medical cost trend assumption compared to December 31, 2009. About 82% of companies used an ultimate trend rate between 4.5% and 5.5%. The median is unchanged at 5.0%.

*Ultimate Medical Cost Trend*



## Medical Cost Trend

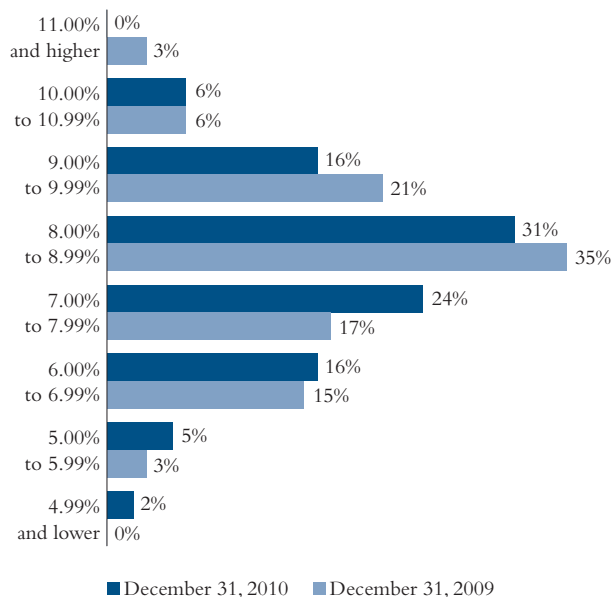
Where retiree medical coverage is offered, a key assumption in the valuation of the ABO is the rate of future medical cost increases. CICA 3461 provides guidance on factors that companies should consider in selecting this assumption.

Often, medical costs are assumed to increase at a higher rate in the short term, declining in steps to an ultimate rate over a period of several years.

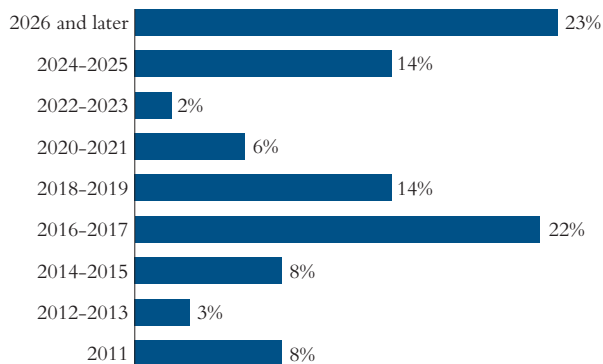
The median assumption for the short-term medical cost trend rate was 8.0%, unchanged from last year. There has been a continuing decrease in the number of companies using an assumption of 10% or higher, with just 6% of the companies now in this category compared with 9%, 19%, 28%, 36% and 45% respectively in the previous 5 years. 47% of companies used an assumption of less than 8% (compared to 35% last year).



*Short-Term Medical Cost Trend*



*Ultimate Medical Cost Trend  
(year in which ultimate rate is attained)*



## Asset and Obligation Measurement Date

The median year in which the medical cost increase rate reaches the ultimate rate is 2019. We have seen an increase in recent 2 years in the period used for medical cost to reach ultimate trend. This situation may reflect the conclusion by some that the medical cost has not necessarily reduced significantly over the years since introduction of the accounting standards and that ultimate rate will in fact be reached at a later date than initially expected. We will carefully follow up on this assumption in future surveys.

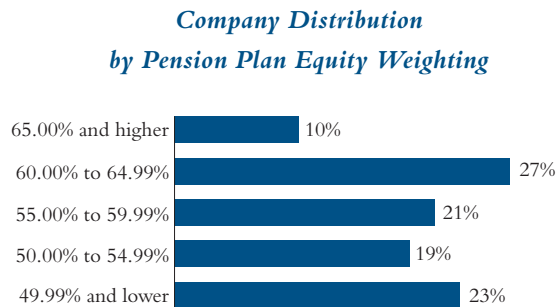
CICA 3461 requires that the employee future benefits be measured at fiscal year end or at a date up to three months prior to that date. All companies in our survey have a December 31 fiscal year end and 93% of them used December 31 as their measurement date. Among the other 7%, September 30 and November 30 dates were used.

It should be noted that IFRS does not permit early measurement dates. As such, this section will no longer apply next year.

## Pension Plan Asset Allocation

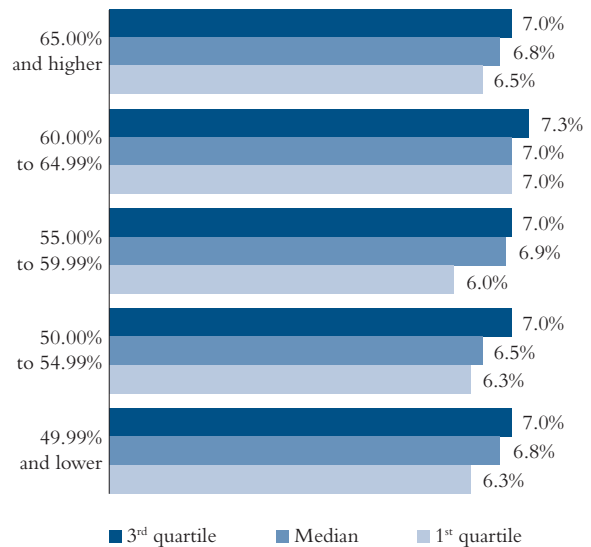
The allocation of pension fund assets between equities, fixed income and other assets must be disclosed. Additional categories may be added if it helps to improve the reader’s understanding of the investment risks faced by the fund.

The average asset allocation as at December 31, 2010, was 54% in equities, 40% in fixed income and 6% in other assets. The distribution of the proportion of funds invested in equities is shown below:



Since the expected long-term return on assets assumption is based in part on asset allocation, we have compared the assumption used to the equity weighting. Theoretically, a pension plan holding a higher proportion of its assets in equities should have a higher expected rate of return on assets than a pension plan with a lower equity allocation. However, based on this year’s survey, our findings make it difficult to support that theory.

**Long-Term Rate of Return Assumption  
for Varying Levels of Equity**

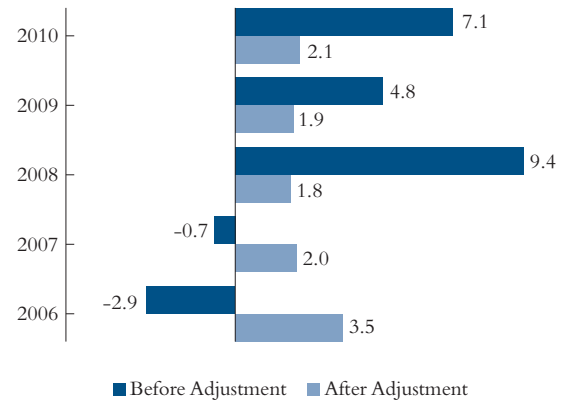


## Pension Expense Before and After Adjustment

This 2011 survey presents results for companies with a total of \$128 billion in pension assets. The following graph shows the difference between the pension expense before and after adjustment for each year since 2006 in aggregate for all companies in our survey. The expense after adjustment represents the actual expense found in the financial statements. The expense before adjustment is the notional expense one would experience in a full mark-to-market accounting environment (i.e. one in which there is immediate recognition of all changes in assets and ABO). In 2010, the total recognized expense amounted to \$2.1 billion (i.e. expense after adjustment). In the absence of any amortization, the expense before adjustment would have been \$7.1 billion.

As it was the case in 2009, gains occurred in 2010 on plan assets, but more important losses were suffered on ABO by the decreasing discount rate. Therefore, the impact of this year's adjustments was generally to defer the actuarial loss, and to reduce the pension expense.

*Pension Expense (Income) Before/After Adjustment  
(in billions of dollars)*



The “pension expense before adjustment” illustrates the expense volatility that would be experienced if the accounting rules for employee future benefits were changed to require full mark-to-market accounting without amortizations.

## Upcoming Changes to International Accounting Standards

As mentioned earlier, accounting for Canadian publicly accountable enterprises has moved to International Accounting Standards, leading to a transition process.

Another transition is expected in 2013 as changes to pension and benefits accounting will apply. Based on IASB publications, here are the key modifications:

- > No more deferral of gains and losses and past service costs;
- > Increased volatility in the statement of financial position through other comprehensive income;
- > Different presentation of pension and benefit plans expense components (operating, financing, remeasurements);
- > No more use of expected return on assets assumption (replaced by use of the discount rate);
- > More comprehensive disclosure requirements (mostly related to risks).

Keep on following our edition of *News & Views* on our Web site to get a more detailed view of the changes.

## For More Information

This survey is intended to provide information regarding the assumptions disclosed by a wide range of companies and, as such, can provide an indication of trends. The assumptions used for your own employee benefit plans will depend on a number of factors.

For more information, speak to your Morneau Shepell consultant.

## Appendix – Selecting the Discount Rate

In general, the ABO is highly sensitive to the discount rate assumption. For example, a 25 basis point decrease in the discount rate can increase the ABO by as much as 5%, which would in turn increase the annual expense.

CICA 3461 provides general guidance for the selection of the discount rate assumption. The discount rate should be determined by reference to market interest rates on high-quality debt instruments or to the interest rate at which the ABO could be settled. However, the precise methodology for computing this rate is not prescribed.

Since Canadian standards are similar to those of the United States, standard practice is to consider guidance provided by the Securities and Exchange Commission (“SEC”). The SEC has determined that the discount rate should reflect the yield of a portfolio of high quality fixed income instruments (rated as AA or better by Moody’s) that have the same duration as the plan’s ABO.

Information on high quality Canadian corporate bonds (rated AA or higher) is generally available from independent sources, and can serve as a starting point in the determination of the discount rate.



HUMAN RESOURCE CONSULTING AND ADMINISTRATIVE SOLUTIONS

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*Highlights of our annual survey results*

SPECIAL REPORT

MORNEAU  
SOBECO

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*Accounting for publicly accountable enterprises (PAE) will move to International Financial Reporting Standards (IFRS) for fiscal years beginning on or after January 1, 2011. We have included a special section later in this survey with some insights as to the expected transition impact based on this year's survey results. That section also covers some of the key changes proposed in a recent IASB exposure draft on IAS19 (employee benefits).*

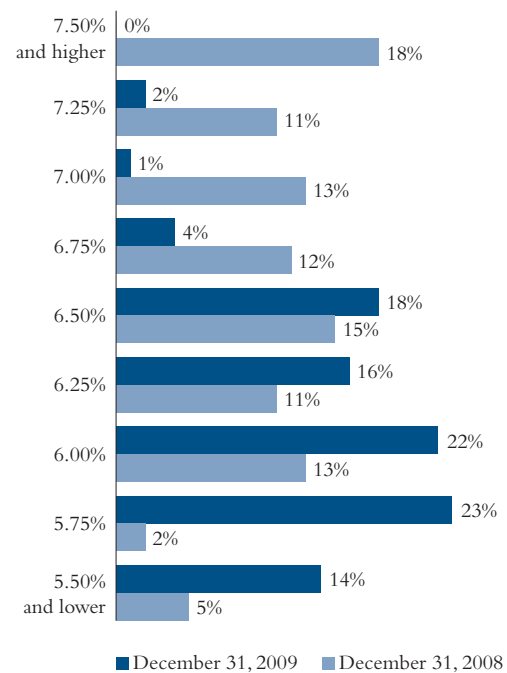
## Discount Rate for Pension Plans

The financial crisis that prevailed during last year's survey led to a significant increase in corporate bond yields which affected the discount rates used in determining pension costs for accounting purposes (see the Appendix for a description of "discount rate"). Conditions have returned to normal more or less and as a result, the discount rates used for accounting purposes this year have declined significantly compared to last year. The range in discount rates has also narrowed slightly.

The following chart summarizes the discount rates used in the valuation of defined benefit pension plans. The median discount rate was 6.00% as at

December 31, 2009 compared to 6.75% a year earlier. About 79% of the companies used a discount rate between 5.75% and 6.5%.

*Discount Rate / Pension Plans*

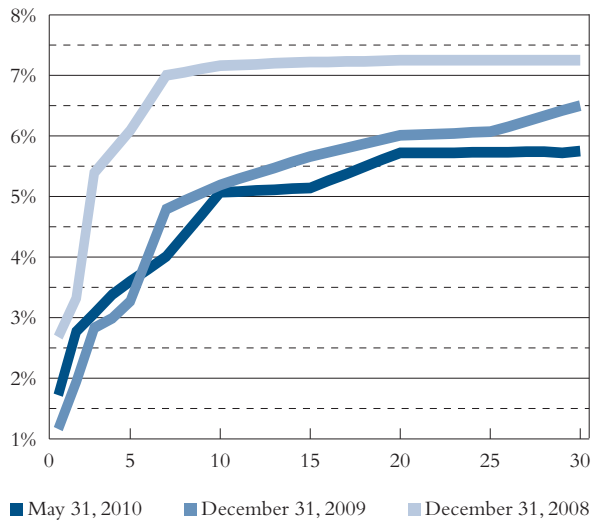


Roughly 90% of companies reduced their discount rate in 2009 with the typical reduction being 50 to 100 basis points.

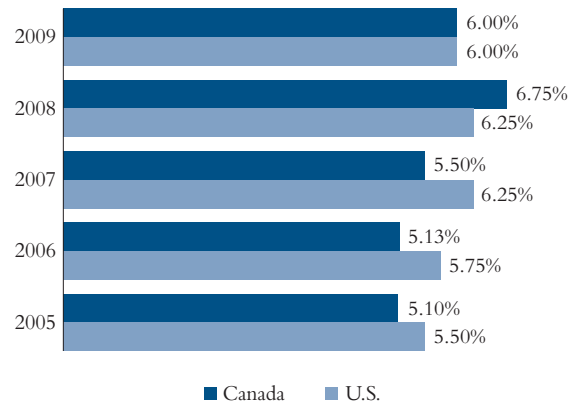
Over time, the yields on high quality long term corporate bonds may vary considerably. The discount rate should be expected to vary in a similar fashion. For illustration, the graph below compares the yield curves as at December 31 for the years 2008, 2009, and May 2010.



*High-Quality Corporate Bonds*



*Median Discount Rate by Country*



If the yield curve were to remain at the May 2010 levels until the end of the year, we would expect discount rates at December 31, 2010 to be about 50 basis points lower on average than those used at December 31, 2009.

The following chart compares the median discount rates in our survey to those from a U.S. survey<sup>1</sup>. We see that the rates in Canada this year are similar to the estimated U.S. rates.

## Discount Rate for Non-Pension Benefits

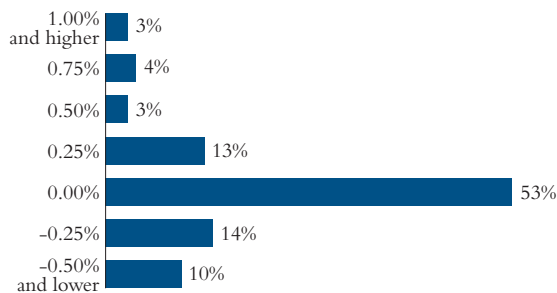
The duration of non-pension post-employment benefits is often significantly different from that for pensions. For example, the duration of the accrued benefit obligation (ABO) for a retiree medical plan is often higher than that for pensions. As a result, the choice of discount rate for the valuation of post-employment benefits can be different in theory than it is for pensions. (See the Appendix on selecting the discount rate for more on this.) While some companies use different rates for the different types of plans, many companies elect to use a single blended rate, or else they simply use the rate for the most material plan.

<sup>1</sup> Source : *Survey of Economic Assumptions used for SFAS No. 87 and SFAS No. 106 Purposes*, prepared by Deloitte & Touche Human Capital Advisory Services (U.S.). (Estimate for 2009)

The median rate used as at December 31, 2009, for non-pension benefits is 6.0%, which is identical to the median rate used for pensions.

The following chart shows the difference between the discount rate used in the valuation of non-pension benefits and that used for pension plans. (A positive value indicates a higher rate for non-pension benefits than for pensions and vice versa.)

***Difference in Discount Rates  
(Non-Pension Benefits vs. Pensions)***



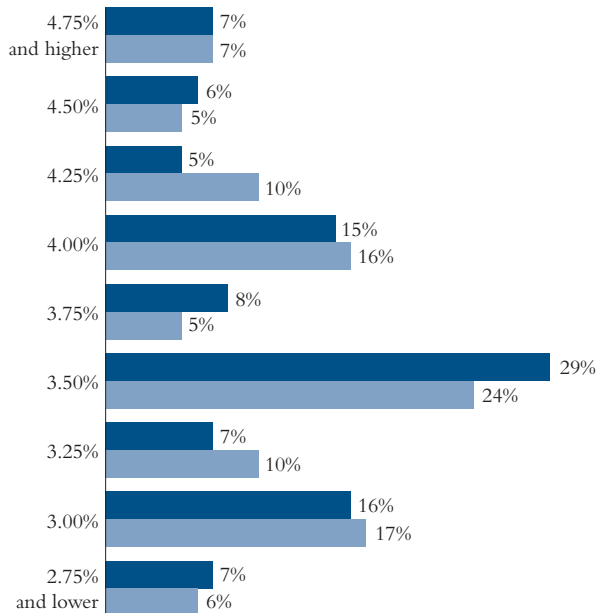
While in most cases companies have used the same discount rate for pensions and non-pension benefits, 23% used a higher discount rate for non-pension benefits (compared to 24% in our previous survey).

## Rate of Compensation Increase

Plans that provide pay-related benefits are required to make an assumption about the rate of compensation increases. CICA 3461 indicates that it should reflect “future changes attributed to general price levels, productivity, seniority, promotion, and other factors.”

The median compensation increase assumption as at December 31, 2009, was 3.5%, identical to last year’s median, with 75% of companies using rates between 3.0% and 4.0%. Given how low this assumption is in some cases, it is quite likely that some companies are not properly reflecting the impact of individual job progression in their disclosed assumption.

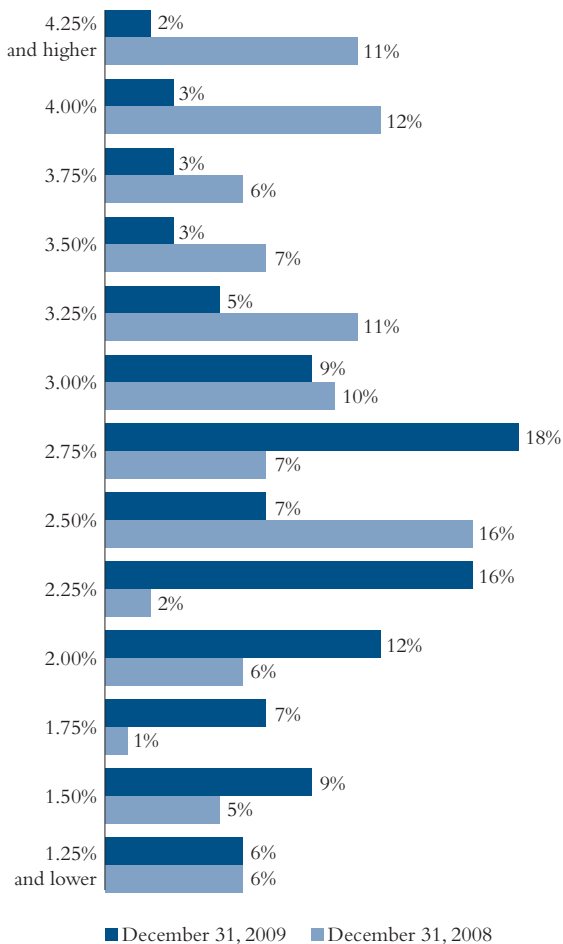
***Rate of Compensation Increase***



■ December 31, 2009   ■ December 31, 2008

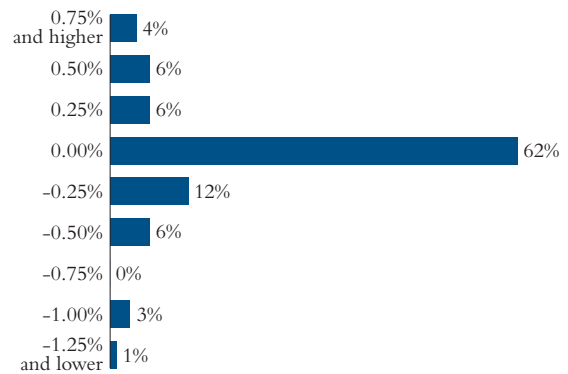
The following graph shows the spread between the discount rate and the rate of compensation increase. The spread generally has a significant impact on the ABO for defined benefit pension plans. The median spread is 2.4% as at December 31, 2009, which is about 60 basis points lower than last year. The decrease in the spread will result in higher ABO.

*Spread: Discount Rate / Compensation*



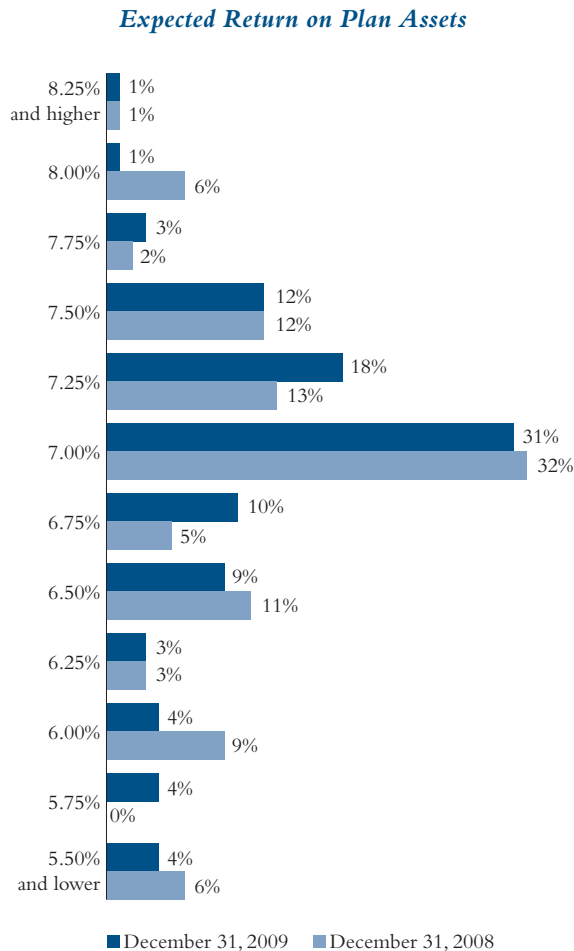
Our survey shows that 38% of companies changed the rate of compensation increase assumption by at least 0.25% (up or down) at December 31, 2009. There is some debate over how frequently this assumption should be changed. In the “Supplement to the Employee Future Benefits Implementation Guide” the CICA states that the requirement to be internally consistent applies to all assumptions except for the discount rate. Assumptions other than the discount rate should be based on a long-term view and should be revised only when a significant change in expected long-term economic conditions occurs.

*Change in Compensation Increase Assumption (2009 vs. 2008)*



## Expected Long-Term Return on Plan Assets

CICA 3461 specifies that the expected rate of return on plan assets should reflect a long-term view. The following chart shows the return assumption disclosed at the end of 2009 versus 2008.

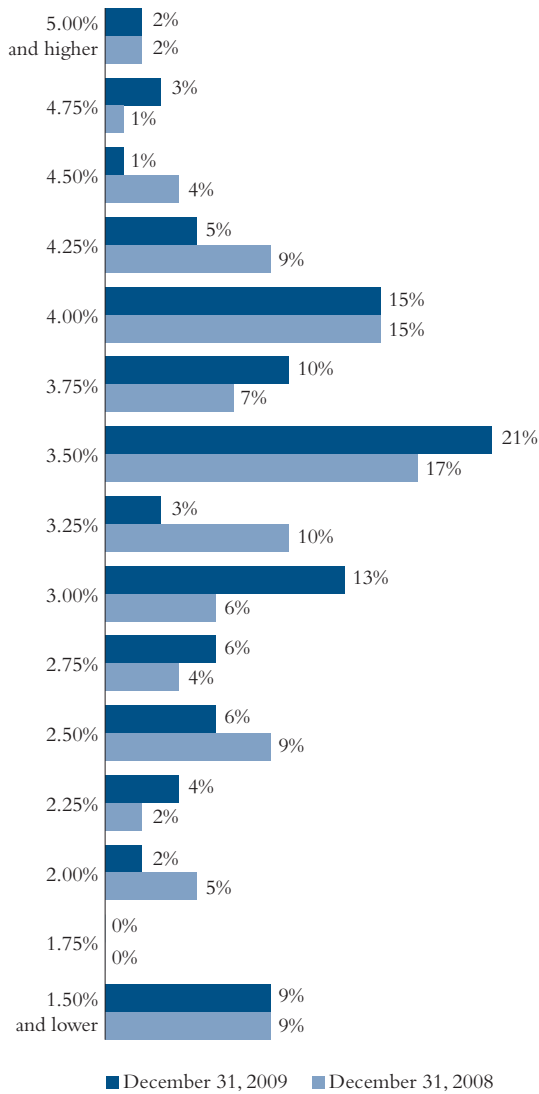


The median expected long-term rate of return on plan assets is 7.0%, the same as in the December 31, 2008 survey. The distribution of rates was very nearly the same at December 31, 2009 as it was at December 31, 2008 with 61% (57% in 2008) of the companies having used rates between 7.0% and 7.5%. In recent years, there has been a very slow but steady decline in this assumption.

For virtually all pension plans, the actual return earned in 2009 was much higher than the assumed long-term rate of return on assets. The actual median return for diversified pension funds was 17.9% in 2009 according to the *Performance Universe of Pension Managers' Pooled Funds* produced by Morneau Sobeco.

The following graph shows the spread between the expected return on plan assets and the rate of compensation increase. The median spread was 3.5% as at December 31, 2009, identical to last year's median. It is expected that this spread will be fairly stable from one year to the next.

*Spread: Expected return on plan assets / Compensation*

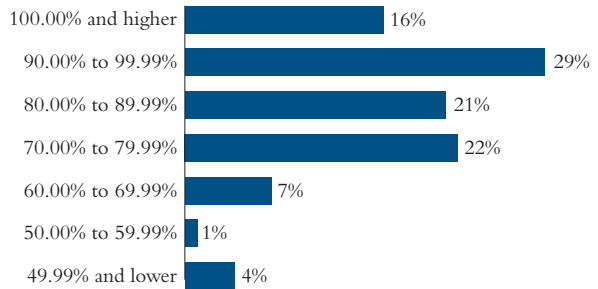


Our survey results show that about 27% of companies reduced the spread by at least 0.25% as at December 31, 2009.

## Pension Plans Financial Situation and Financial Assumptions

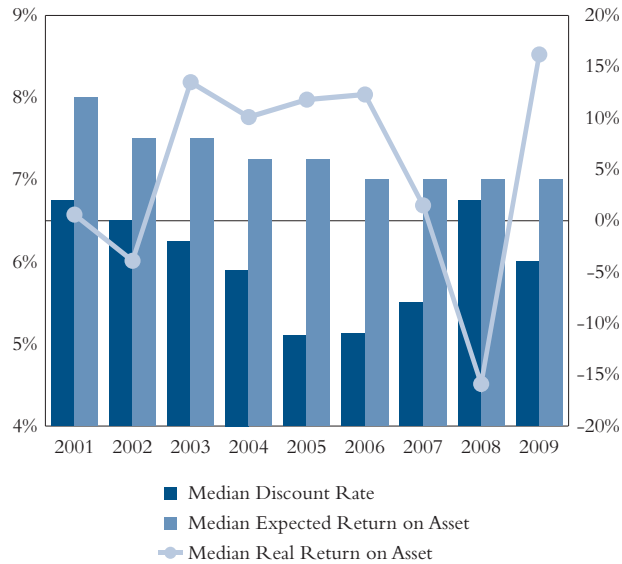
The companies in our survey show an 88% overall ratio of pension assets to ABO for accounting purposes. This result may be viewed as a little understated since it includes some non-registered plans for which no funding is legally enforced under Canadian regulatory environment. The ratio is highly influenced by the actual return on plan assets, the discount rate assumption and special contributions made to cover pension plan deficits. The distribution of companies based on their overall ratio at December 31, 2009 is shown in the following table.

*Pension plans ratio of asset value to accounting ABO (distribution of companies)*



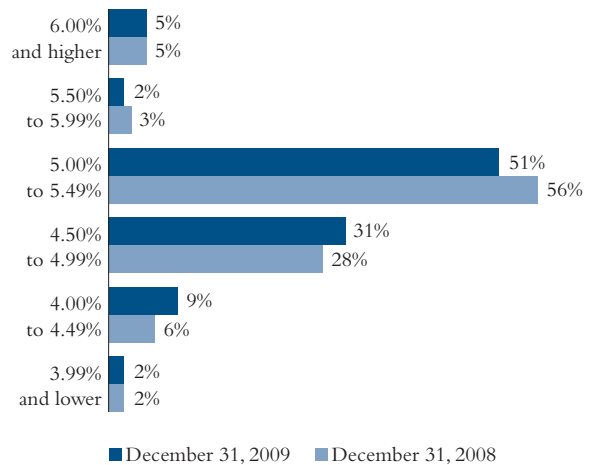
As mentioned, the ratio is highly influenced by return on assets and discount rate, for which we have summarized historical data.

*Key financial assumptions and actual return on assets*



The following charts show the December 31, 2009 medical cost trend assumption compared to December 31, 2008. About 82% of companies used an ultimate trend rate between 4.5% and 5.5%. The median is unchanged at 5.0%.

*Ultimate Medical Cost Trend*



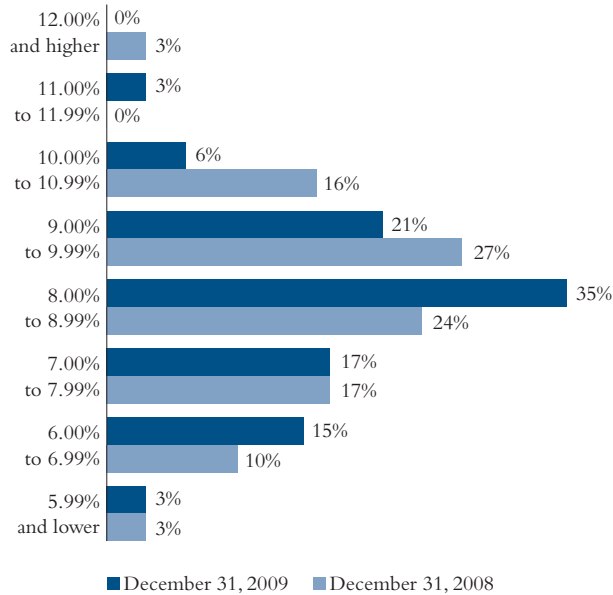
## Medical Cost Trend

Where retiree medical coverage is offered, a key assumption in the valuation of the ABO is the rate of future medical cost increases. CICA 3461 provides guidance on factors that companies should consider in selecting this assumption.

Often, medical costs are assumed to increase at a higher rate in the short term, declining in steps to an ultimate rate over a period of several years.

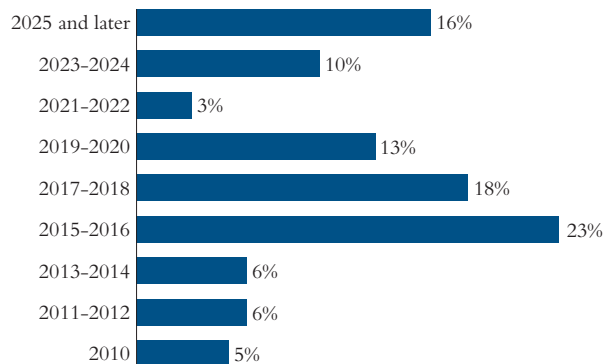
The median assumption for the short-term medical cost trend rate was 8.0%, which is about 50 basis points lower than last year. There has been a continuing decrease in the number of companies using an assumption of 10% or higher, with just 9% of the companies now in this category compared with 19%, 28%, 36%, 45% and 50% respectively in the previous 5 years. 35% of companies used an assumption of less than 8%.

*Short-Term Medical Cost Trend*



The median year in which the medical cost increase rate reaches the ultimate rate is 2018.

*Ultimate Medical Cost Trend  
(year in which ultimate rate is attained)*



## Asset and Obligation Measurement Date

CICA 3461 requires that the employee future benefits be measured at fiscal year end or at a date up to three months prior to that date. All companies in our survey have a December 31 fiscal year end and 86% of them used December 31 as their measurement date. Among the other 14%, a September 30 date is used most often.

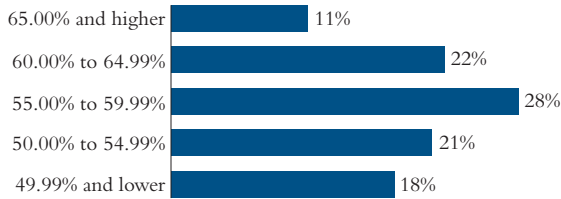
It should be noted that IFRS does not permit early measurement dates. As such, adjustment to accounting process for companies that are using early measurement will be needed once IFRS is fully implemented in 2011 (including comparative results at January 1st, 2010).

## Pension Plan Asset Allocation

The allocation of pension fund assets between equities, fixed income and other assets must be disclosed. Additional categories may be added if it helps to improve the reader's understanding of the investment risks faced by the fund.

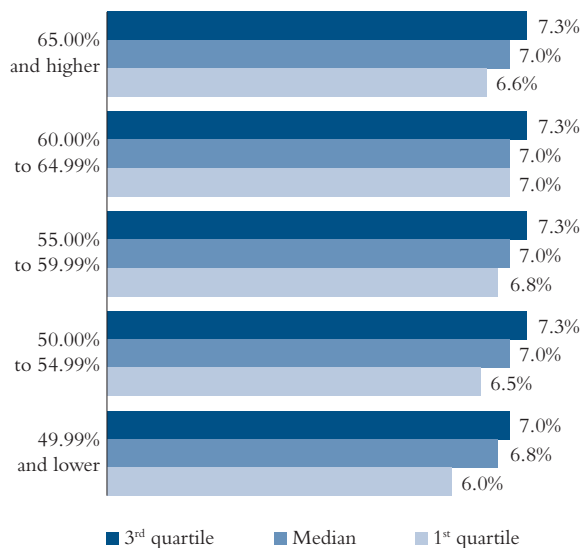
The average asset allocation as at December 31, 2009, was 59% in equities, 37% in fixed income and 4% in other assets. The distribution of the proportion of funds invested in equities is shown below:

*Company Distribution  
by Pension Plan Equity Weighting*



Since the expected long-term return on assets assumption is based in part on asset allocation, we have compared the assumption to the equity weighting. Theoretically, a pension plan holding a higher proportion of its assets in equities should have a higher expected rate of return on assets than a pension plan with a lower equity allocation. The results from our survey, in the graph below, indicate that this is generally true.

*Long-Term Rate of Return Assumption  
for Varying Levels of Equity*



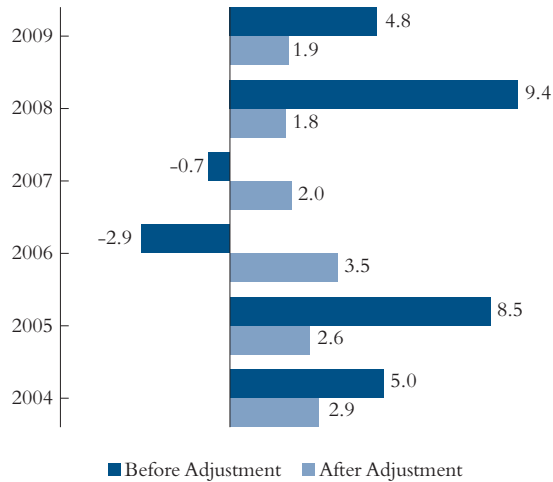
**Pension Expense Before and After Adjustment**

This 2010 survey presents results for companies with a total of \$114 billion in pension assets. The following graph shows the difference between the pension expense before and after adjustment for each year since 2004 in aggregate for all companies in our survey. The expense after adjustment represents the actual expense found in the financial statements. The expense before adjustment is the notional expense one would experience in a full mark-to-market accounting environment (i.e. one in which there is immediate recognition of all changes in assets and ABO). In 2009, the total recognized expense amounted to \$1.9 billion (i.e. expense after adjustment). In the absence of any amortization, the expense before adjustment would have been \$4.8 billion.

In 2008, losses on assets mostly exceeded the gains on ABO from increasing discount rate. As for this year, gains occurred on plan assets but more important losses were suffered on ABO from decreasing discount rate. Therefore, the impact of this year's adjustments was generally to defer the actuarial loss, and to reduce the pension expense.



*Pension Expense (Income) Before/After Adjustment  
(in billions of dollars)*



The “pension expense before adjustment” illustrates the expense volatility that would be experienced if the accounting rules for employee future benefits were changed to require full mark-to-market accounting without amortizations.

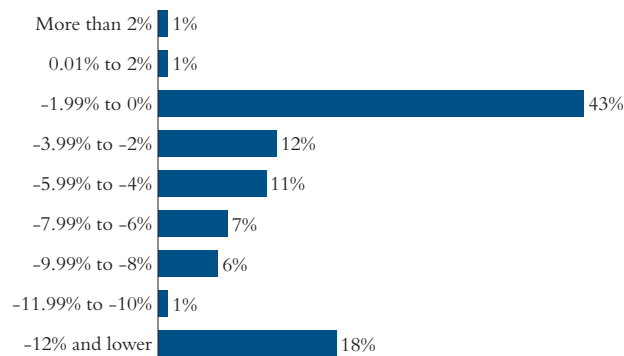
## Imminent Transition to International Accounting Standards

As mentioned earlier, accounting for Canadian publicly accountable enterprises will move to International Accounting Standards. For many employers, the transition to international accounting will initially lead to full recognition on the balance sheet of the financial position of the pension plans and non-pension employee future benefits. To the extent that this position differs from the current accrued benefit liability at transition date, an adjustment to the shareholders’ equity will also be required, net of any deferred taxes. Comparative figures will be required at January 1st, 2010 for most companies. As such, for illustration purposes, we have estimated what the impact of transition to IFRS would be, including both pension and non-pension benefits, using this year results. Since the effective tax rate will vary by company, our results are shown on a pre-tax basis.

Based on the companies in our survey, the proposed changes would reduce shareholders’ equity by \$19.3 billion, on a pre-tax basis. The median reduction represents about 2.5% of shareholders’ equity.

Depending on a company's financial situation and the relative size that their pension and benefit plans represent relative to the rest of their operation, the impact may be significantly different. The following table illustrates the distribution of companies based on expected impact relative to shareholders' equity.

***IFRS estimated transition impact relative to shareholders' equity (distribution of companies)***



The ultimate impact may also vary widely due to asset ceiling considerations under IAS19 and IFRIC14. This is an important issue of international accounting standards. The asset ceiling may further increase the impact illustrated above on shareholders' equity.

Note that in April 2010, the IASB published an exposure draft on proposed changes to IAS19. Comments are being solicited until September 6, 2010 and the final document is expected by June 30, 2011. First application is likely to be in 2013 which will entail a second transition in only a few years for Canadian PAEs. In brief, the proposed changes will mainly lead to:

- > no more deferral of gains and losses and past service costs;
- > increased volatility in the statement of financial position through other comprehensive income;
- > different presentation of pension and benefit plans expense components (operating, financing, remeasurements);
- > more comprehensive disclosure requirements (mostly related to risks).

You can consult the May 2010 edition of *News & Views* on our Web site to get a more detailed view of the proposed changes.

## Appendix – Selecting the Discount Rate

In general, the ABO is highly sensitive to the discount rate assumption. For example, a 25 basis point decrease in the discount rate can increase the ABO by as much as 5%, which would in turn increase the annual expense.

CICA 3461 provides general guidance for the selection of the discount rate assumption. The discount rate should be determined by reference to market interest rates on high-quality debt instruments or to the interest rate at which the ABO could be settled. However, the precise methodology for computing this rate is not prescribed.

Since Canadian standards are similar to those of the United States, standard practice is to consider guidance provided by the Securities and Exchange Commission (“SEC”). The SEC has determined that the discount rate should reflect the yield of a portfolio of high quality fixed income instruments (rated as AA or better by Moody’s) that have the same duration as the plan’s ABO.

Information on high quality Canadian corporate bonds (rated AA or higher) is generally available from independent sources, and can serve as a starting point in the determination of the discount rate.

## For More Information

This survey is intended to provide information regarding the assumptions disclosed by a wide range of companies and, as such, can provide an indication of trends. The assumptions used for your own employee benefit plans will depend on a number of factors.

For more information, speak to your Morneau Sobeco consultant.



HUMAN RESOURCE CONSULTING AND ADMINISTRATIVE SOLUTIONS

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2009 Survey of Economic Assumptions  
in Accounting for Pensions and Other  
Post-Retirement Benefits

*Highlights of our annual survey results*

SPECIAL REPORT

MORNEAU  
SOBECO

## Introduction

*In this report, Morneau Sobeco has compiled information on the assumptions being used by approximately 100 Canadian public companies in accounting for the costs of their defined benefit plans. This information is based on audited financial statements as at December 31, 2008. This is the ninth year that the survey has been produced.*

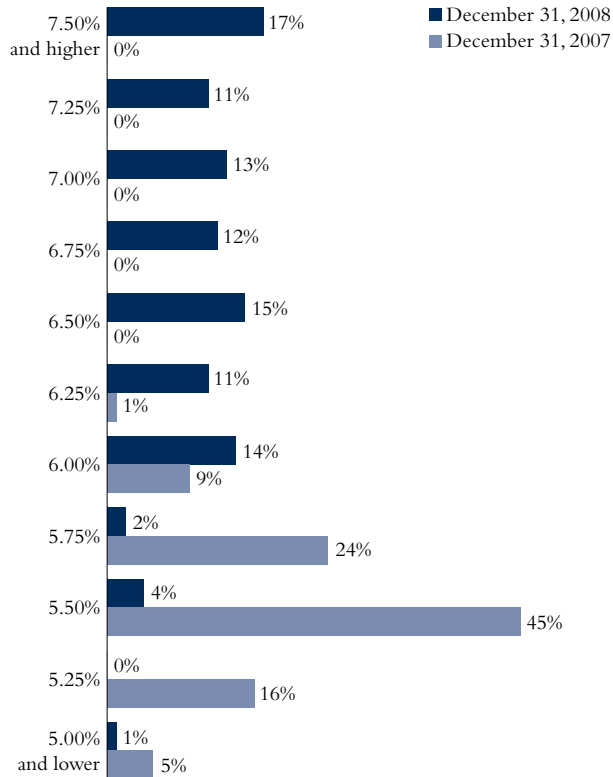
*Accounting for publicly accountable entities (PAE) will move to International Financial Reporting Standards (IFRS) for fiscal years beginning on or after January 1, 2011. As IFRS requires comparative results in financial statements, we can expect that figures will be needed by January 1, 2010 under the new standard. For details, please refer to our Vision newsletter dated May, 2009. We have included a special section later in this survey with some insights as to the impact if transition had occurred on December 31, 2008.*

## Discount Rate for Pension Plans

The ongoing credit crisis has led to a significant increase in the corporate bond yields which has affected the discount rates to be used in determining pension costs for accounting purposes (see the Appendix for a description of “discount rate”). Most of the change has occurred since October 2008 and still prevails as of May 2009. As a result, the range in discount rates used for accounting purposes is greater than it has been in past surveys.

The following chart summarizes the discount rates used in the valuation of defined benefit pension plans. The median discount rate was 6.75% as at December 31, 2008 compared to 5.50% a year earlier. About 65% of the companies used a discount rate between 6.0% and 7.0%.

*Discount Rate / Pension Plans*

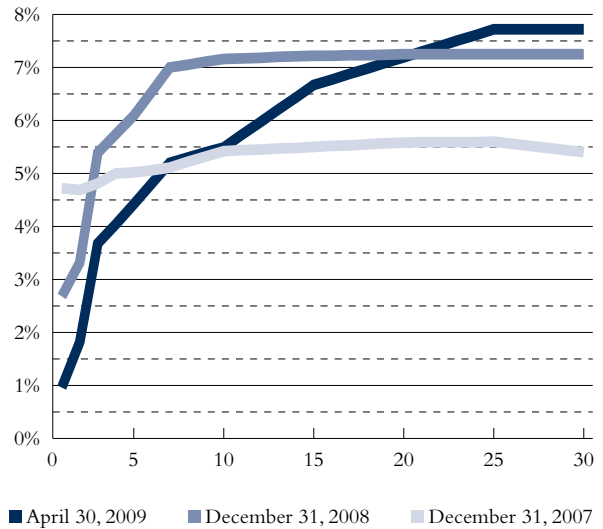


Roughly 90% of companies increased their discount rate in 2008 with the typical increase being 100 to 200 basis points.

Over time, the yields on high quality long term corporate bonds may vary considerably. The discount rate should be expected to vary in a similar fashion. For illustration, the graph below compares the yield curves as at December 31 for the years 2007, 2008, and April 2009.

In recent years, the yield curves had been fairly “flat” – particularly for durations of 10 years or more. Consequently, discount rates have been concentrated within a narrower range. Since 2008, yield curves have started sloping upward as illustrated by the April 30, 2009 curve.

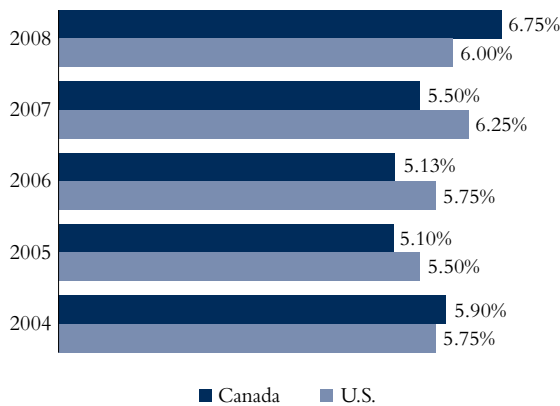
*High-Quality Corporate Bonds*



If the yield curve were to remain at the April 2009 levels until the end of the year, we would expect discount rates at December 31, 2009 to be about 25 basis points higher on average than those used at December 31, 2008.

The following chart compares the median discount rates in our survey to the median discount rates from a U.S. survey<sup>1</sup>. We see that the rates in Canada this year are higher than in the U.S. Since the adoption of CICA 3461, it is only the second time this has occurred (the other year being 2004).

*Median Discount Rate by Country*

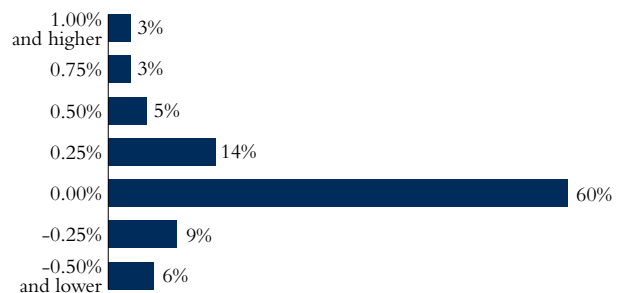


the choice of discount rate for the valuation of post-employment benefits can be different in theory than it is for pensions. (See the Appendix on selecting the discount rate for more on this.) While some companies use different rates for the different types of plans, many companies elect to use a single blended rate, or else they simply use the rate for the most material plan.

The median rate used as at December 31, 2008, for non-pension benefits was 6.78%, which is 3 basis points higher than the median rate used for pensions.

The following chart shows the difference between the discount rate used in the valuation of non-pension benefits and that used for pension plans. (A positive value indicates a higher rate for non-pension benefits than for pensions and vice versa.)

*Difference in Discount Rates  
(Non-Pension Benefits vs. Pensions)*



## Discount Rate for Non-Pension Benefits

The duration of non-pension post-employment benefits is often significantly different from that for pensions. For example, the duration of the accrued benefit obligation (ABO) for a retiree medical plan is often higher than that for pensions. As a result,

<sup>1</sup> Source : *Survey of Economic Assumptions used for SFAS No. 87 and SFAS No. 106 Purposes*, prepared by Deloitte & Touche Human Capital Advisory Services (U.S.). (Estimates for 2008)



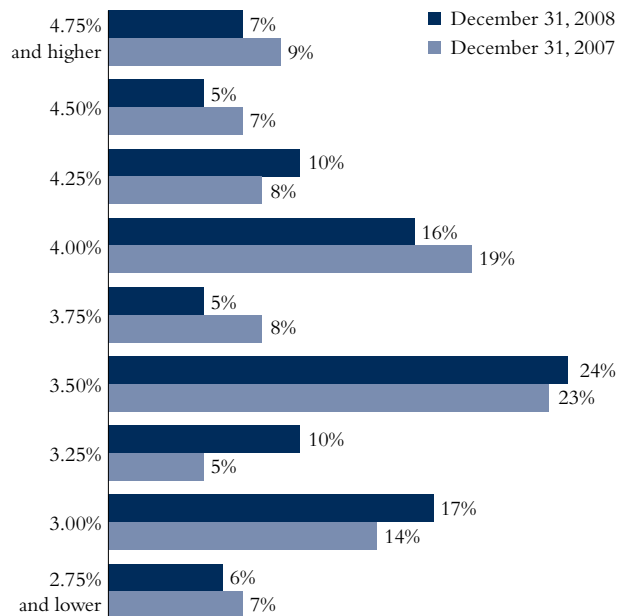
While in most cases companies have used the same discount rate for pensions and non-pension benefits, 24% used a higher discount rate for non-pension benefits (compared to 16% in our previous survey).

## Rate of Compensation Increase

Plans that provide pay-related benefits are required to make an assumption about the rate of compensation increases. CICA 3461 indicates that it should reflect “future changes attributed to general price levels, productivity, seniority, promotion, and other factors.”

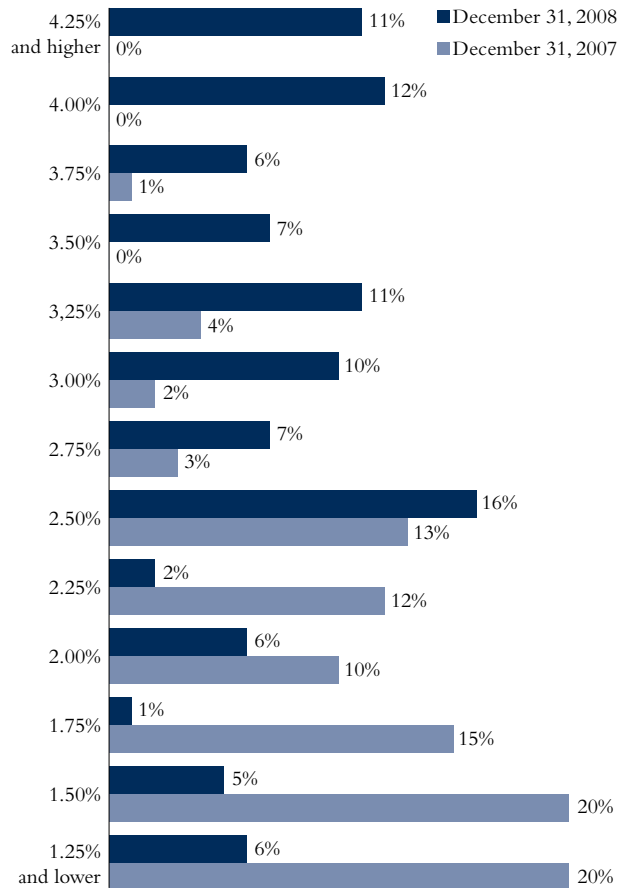
The median compensation increase assumption as at December 31, 2008, was 3.5%, 20 basis points lower than last year’s median, with 72% of companies using rates between 3.0% and 4.0%. Given how low this assumption is in most cases, it is quite likely that many companies are not properly reflecting the impact of individual job progression in their assumption.

*Rate of Compensation Increase*



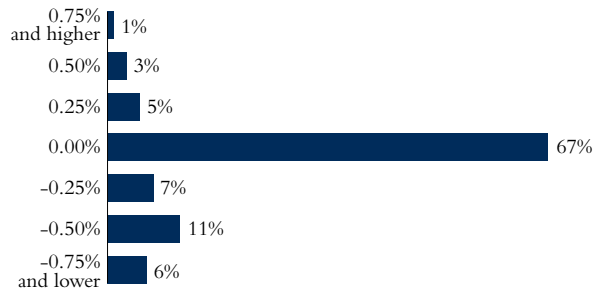
The following graph shows the spread between the discount rate and the rate of compensation increase. The spread generally has a significant impact on the ABO for defined benefit pension plans. The median spread is 3.0% as at December 31, 2008, which is about 120 basis points higher than last year. The sharp increase in the spread results in a substantially lower ABO.

**Spread: Discount Rate / Compensation**



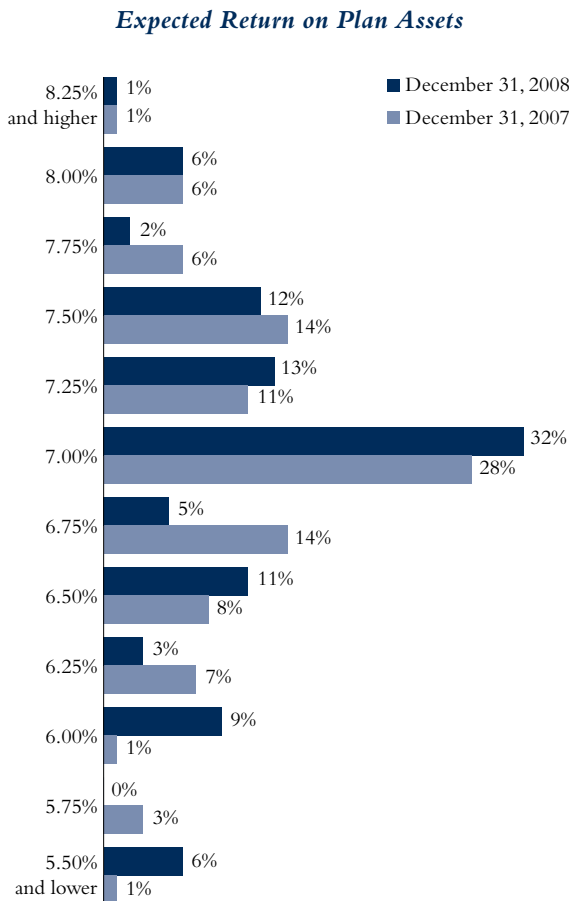
Our survey shows that 33% of companies changed the rate of compensation increase assumption by at least 0.25% (up or down) at December 31, 2008. There is some debate over how frequently this assumption should be changed. In the “Supplement to the Employee Future Benefits Implementation Guide” the CICA states that the requirement to be internally consistent applies to all assumptions except for the discount rate. Assumptions other than the discount rate should be based on a long-term view and should be revised only when a significant change in expected long-term economic conditions occurs.

**Change in Compensation Increase Assumption (2008 vs. 2007)**



## Expected Long-Term Return on Plan Assets

CICA 3461 specifies that the expected rate of return on plan assets should reflect a long-term view. The following chart shows the return assumption disclosed at the end of 2008 versus 2007.

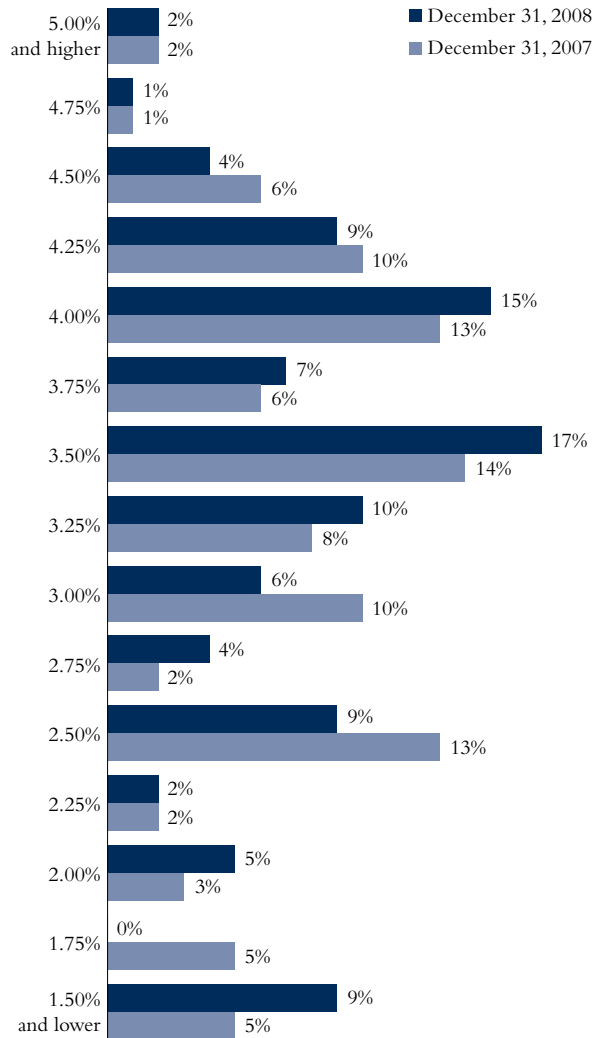


The median expected long-term rate of return on plan assets is 7.0%, the same as in the December 31, 2007 survey. The distribution of rates was very nearly the same at December 31, 2008 as it was at December 31, 2007 with 57% (53% in 2007) of the companies having used rates between 7.0% and 7.5%. In recent years, there has been a slow but steady decline in this assumption.

For virtually all pension plans, the actual return earned in 2008 was much lower than the assumed long-term rate of return on assets. The actual median return for diversified pension funds was -16.5% in 2008 according to the *Performance Universe of Pension Managers' Pooled Funds* produced by Morneau Sobeco.

The following graph shows the spread between the expected return on plan assets and the rate of compensation increase. The median spread was 3.5% as at December 31, 2008, identical to last year's median. It is expected that this spread will be fairly stable from one year to the next.

*Spread: Expected return on plan assets / Compensation*



Our survey results show that about 26% of companies reduced the spread by at least 0.25% as at December 31, 2008.

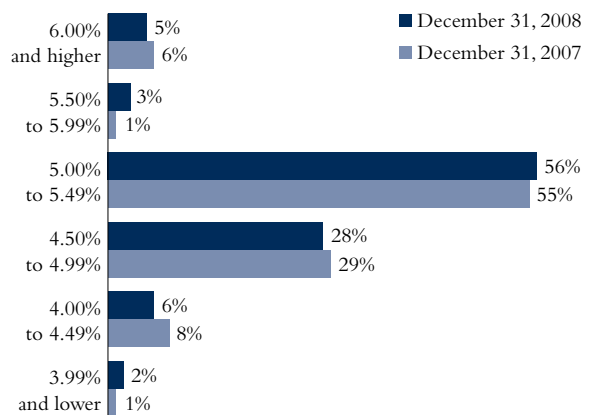
## Medical Cost Trend

Where retiree medical coverage is offered, a key assumption in the valuation of the ABO is the rate of future medical cost increases. CICA 3461 provides guidance on factors that companies should consider in selecting this assumption.

Often, medical costs are assumed to increase at a higher rate in the short term, declining in steps to an ultimate rate over a period of several years.

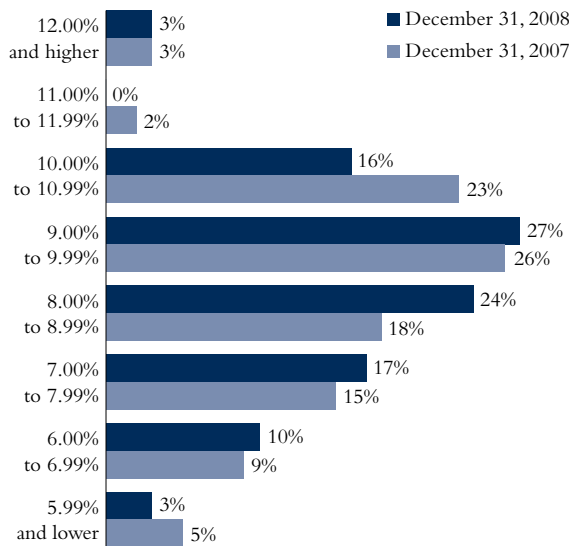
The following charts show the December 31, 2008 medical cost trend assumption compared to December 31, 2007. About 87% of companies used an ultimate trend rate between 4.5% and 5.5%. The median is unchanged at 5.0%.

*Ultimate Medical Cost Trend*



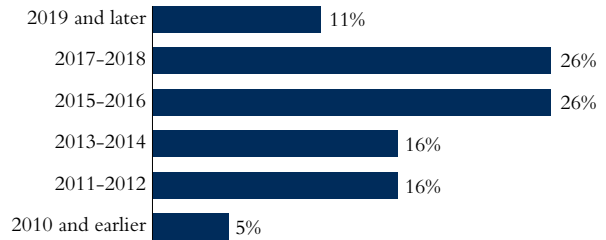
The median assumption for the short-term medical cost trend rate was 8.5%, about 50 basis points lower than last year. There has been a continuing decrease in the number of companies using an assumption of 10% or higher, with just 19% of the companies now in this category compared with 28% last year, 36% the year before, 45% three years ago and 50% four years ago. 30% of companies used an assumption of less than 8%.

**Short-Term Medical Cost Trend**



The median year in which the medical cost increase rate reaches the ultimate rate is 2015.

**Ultimate Medical Cost Trend**  
(year in which ultimate rate is attained)



## Asset and Obligation Measurement Date

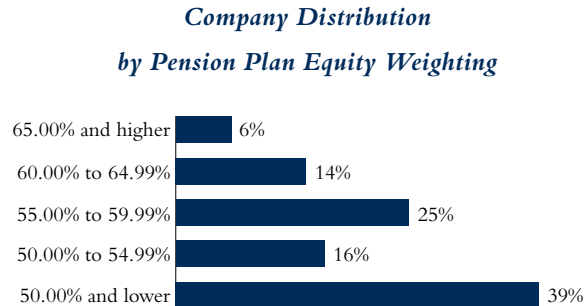
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It should be noted that IFRS will no longer permit early measurement dates once the new standard is fully implemented in 2011.

## Pension Plan Asset Allocation

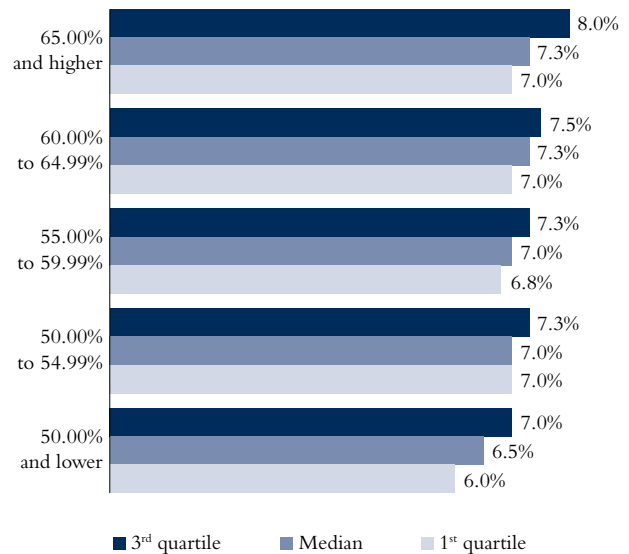
The allocation of pension fund assets between equities, fixed income and other assets must be disclosed. Additional categories may be added if it helps to improve the reader’s understanding of the investment risks faced by the fund.

The average asset allocation as at December 31, 2008, was 52% in equities, 42% in fixed income and 6% in other assets. The distribution of the proportion of funds invested in equities is shown below:



Since the expected long-term return on assets assumption is based in part on asset allocation, we have compared the assumption to the equity weighting. Theoretically, a pension plan holding a higher proportion of its assets in equities should have a higher expected rate of return on assets than a pension plan with a lower equity allocation. The results from our survey, in the graph below, indicate that this is generally true.

**Long-Term Rate of Return Assumption  
for Varying Levels of Equity**



## Pension Expense Before and After Adjustment

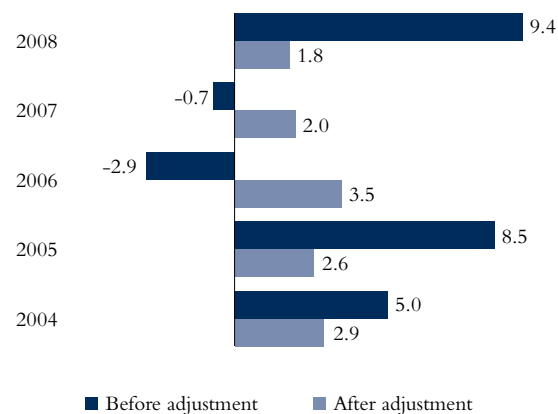
This 2009 survey presents results for companies with a total of \$112 billion in pension assets. The following graph shows the difference between the pension expense before and after adjustment for each year since 2003 in aggregate for all companies in our survey. The expense after adjustment represents the actual expense found in the financial statements. The expense before adjustment is the notional expense one would experience in a full mark-to-market accounting environment (i.e. one in which there is immediate recognition of all changes in assets and ABO). In 2008, the total recognized expense amounted to \$1.8 billion (i.e. expense after adjustment). In the absence of any amortization, the expense before adjustment would have been \$9.4 billion, mostly due to the significant losses on plan assets. This notional expense may become reality by 2013 if the International Accounting Standards Board proceeds with proposed changes to IFRS.

From 2003 to 2005, the difference between the pension expense before and after adjustment was mainly due to the declining discount rates that increased the ABO, and this generally outweighed the impact of the investment gains that were experienced. In 2006, the discount rate remained

relatively stable, while investment returns generally produced gains versus the assumption.

In 2007, the discount rate increased, outweighing the negative impact of poor investment returns. This year, losses on assets mostly exceeded the gains on ABO from increasing discount rate. Therefore, the impact of this year's adjustments was generally to defer the actuarial loss, and to reduce the pension expense.

*Pension Expense (Income) Before/After Adjustment  
(in billions of dollars)*



The “pension expense before adjustment” illustrates the expense volatility that would be experienced if the accounting rules for employee future benefits were changed to require mark-to-market accounting without amortizations.

## Upcoming Transition to the International Accounting Standards

As mentioned earlier, accounting for Canadian publicly accountable entities will move to International Accounting Standards. For many employers, the transition to international accounting will initially lead to full recognition on the balance sheet of the financial position of the pension plans and non-pension employee future benefits. To the extent that this position differs from the current accrued benefit liability at transition date, an adjustment to the shareholders' equity will also be required, net of any deferred taxes. For illustration purposes, we have considered what the impact would be, including both pension and non-pension benefits, if these changes had been in effect as at December 31, 2008. Since the effective tax rate will vary by company, our results are shown on a pre-tax basis.

Based on the companies in our survey, the proposed changes would have reduced shareholders' equity by \$16.5 billion, on a pre-tax basis.

The ultimate impact of these changes will depend largely on investment performance in 2009, as well as on any changes to the discount rate until December 31, 2009. The impact may vary significantly, even for relatively modest discount rate changes or investment gains or losses.

## Appendix – Selecting the Discount Rate

In general, the ABO is highly sensitive to the discount rate assumption. For example, a 25 basis point decrease in the discount rate can increase the ABO by as much as 5%, which would in turn increase the annual expense in subsequent years.

CICA 3461 provides general guidance for the selection of the discount rate assumption. The discount rate should be determined by reference to market interest rates on high-quality debt instruments or to the interest rate at which the ABO could be settled. However, the precise methodology for computing this rate is not prescribed.

Since Canadian standards are similar to those of the United States, standard practice is to consider guidance provided by the Securities and Exchange Commission ("SEC"). The SEC has determined that the discount rate should reflect the yield of a portfolio of high quality fixed income instruments (rated as AA or better by Moody's), which has the same duration as the plan's ABO.

Information on high quality Canadian corporate bonds (rated AA or higher) is generally available from independent sources, and can serve as a starting point in the determination of the discount rate.



## For More Information

This survey is intended to provide information regarding the assumptions disclosed by a wide range of companies and, as such, can provide an indication of trends. The assumptions used for your own employee benefit plans will depend on a number of factors. For more information, speak to your Morneau Sobeco consultant.



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2008 Survey of Economic Assumptions  
in Accounting for Pensions and Other  
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*Highlights of our annual survey results*

SPECIAL REPORT

MORNEAU  
SOBECO

## Introduction

*Section 3461 of the Canadian Institute of Chartered Accountants Handbook (CICA 3461) requires that the management of a company sponsoring a defined benefit plan measure the plan's accrued benefit obligation (ABO) and annual expense using assumptions that individually reflect best estimates and are "internally consistent with each other."*

*In this report, Morneau Sobeco has compiled information on approximately 100 Canadian public companies in their most recent audited financial statements as at December 31, 2007. This is the eighth year that this survey has been produced.*

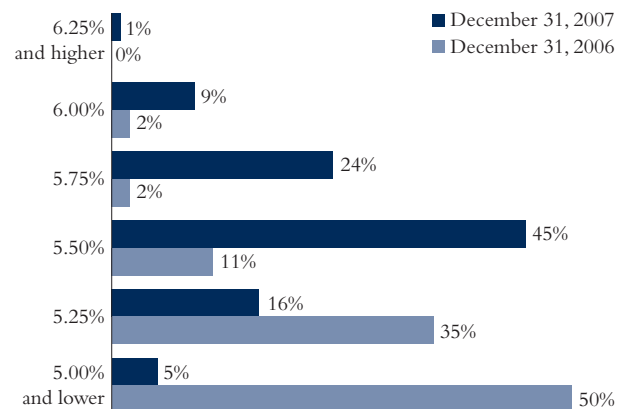
*The CICA announced recently that accounting for publicly accountable enterprises (PAE) will move to International Accounting Standard (IAS) for fiscal years beginning on or after January 1, 2011. For pension and benefits, CICA 3461 will be changed for consistency with IAS19. As international accounting requires comparative results in financial statements, we can expect that figures will be needed by January 1, 2010 under IAS19 standards. Based upon the current international standard that applies to first-time adoption, we can assume that for most employers, transition will require a "fresh-start" approach. Therefore, the financial situation of plans will flow onto the balance sheet at transition and shareholders' equity will be impacted as well.*

*We have included a special section later in this survey with some insights as to the impact if transition had occurred on December 31, 2007.*

## Discount Rate for Pension Plans

The following chart summarizes the discount rates used in the valuation of defined benefit pension plans (see the Appendix for a description of "discount rate"). The median discount rate was 5.50% as at December 31, 2007, compared to 5.13% as at December 31, 2006. About 85% of the companies used a discount rate between 5.25% and 5.75%. These results are consistent with CICA 3461 requirements for a typical defined benefit pension plan.

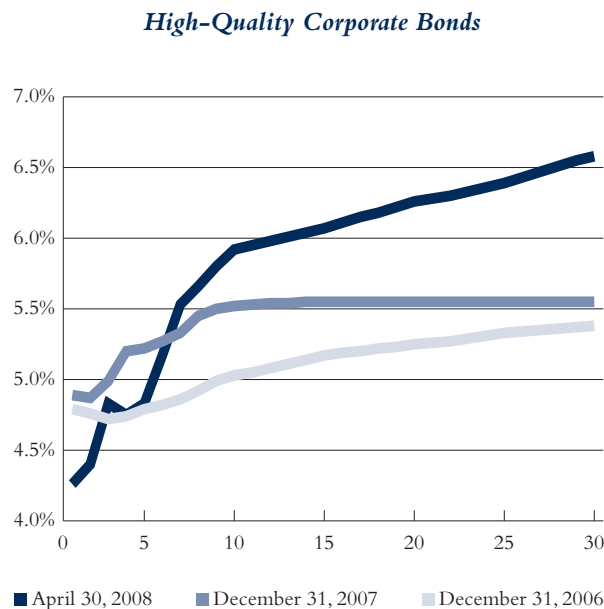
**Discount Rate / Pension Plans**



Roughly 80% of companies increased their discount rate in 2007 with the typical increase being 25 to 50 basis points.

Over time, the yields on high quality long term corporate bonds may vary considerably. The discount rate should be expected to vary in a similar fashion. For illustration, the graph below compares the yield curves as at December 31, 2006, December 31, 2007, and April 30, 2008.

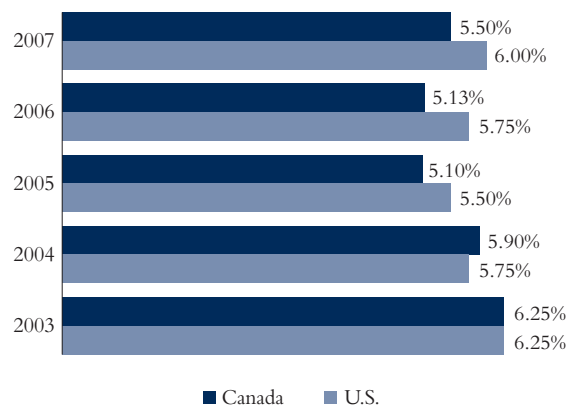
In recent years, the yield curves have been fairly “flat” – particularly for durations of 10 years or more. Consequently, discount rates have been concentrated within a narrower range. In the first few months of 2008, we have observed yield curves that have been much more of the upward sloping shape as illustrated by the April 30, 2008 curve.



If the yield curve were to remain at the April 2008 levels until the end of the year, we would expect discount rates at December 31, 2008 to be about 50 basis points on average higher than as at December 31, 2007.

The following chart compares the median discount rates in our survey to the median discount rates from a U.S. survey<sup>1</sup>. We see that the rates in Canada this year are once again lower than in the U.S. Since the adoption of CICA 3461, rates in Canada were higher than the U.S. rates only once, in 2004.

**Median Discount Rate by Country**



<sup>1</sup> Source : Survey of Economic Assumptions used for SFAS No. 87 and SFAS No. 106 Purposes, prepared by Deloitte & Touche Human Capital Advisory Services (U.S.). (Estimates for 2007)

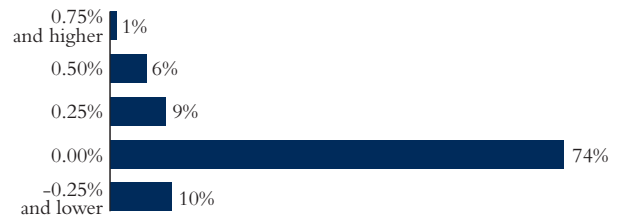
## Discount Rate for Non-Pension Benefits

Because the duration of non-pension benefits is often significantly different from that for pensions, some companies may choose to use a different discount rate in their valuation of post-employment benefits. (See the Appendix on selecting the discount rate for more on this.) For example, the duration of the ABO for a retiree medical plan is often higher than the duration of a pension ABO for the same population resulting in slightly higher discount rates for benefits ABO as compared with pension when the yield curve slopes upward. However, many companies elect to use a single blended rate, or simply the rate for the most material plan, for all benefits.

The median rate used as at December 31, 2007, for non-pension benefits was 5.58%, which is 8 basis points higher than the median rate used for pensions.

The following chart shows the difference between the discount rate used in the valuation of non-pension benefits and the discount rate used for pension plans. (A positive value indicates a higher rate for non-pension benefits than for pension and vice versa.)

*Difference in Discount Rates  
(Non-Pension Benefits vs. Pensions)*



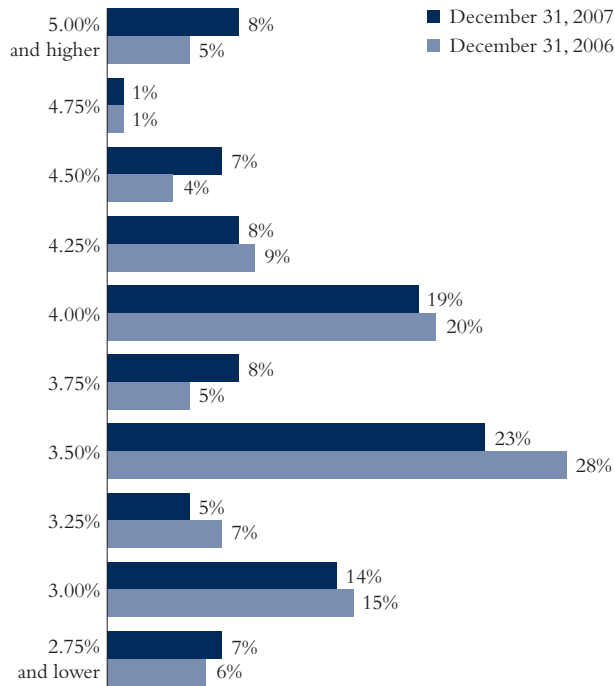
While in most cases companies have used the same discount rate for pensions and non-pension future benefits, 16% used a higher discount rate assumption for non-pension employee future benefits (compared to 23% in our previous survey).

## Rate of Compensation Increase

Plans that provide pay-related benefits are required to make an assumption about the rate of compensation increases. CICA 3461 indicates that it should reflect “future changes attributed to general price levels, productivity, seniority, promotion, and other factors.”

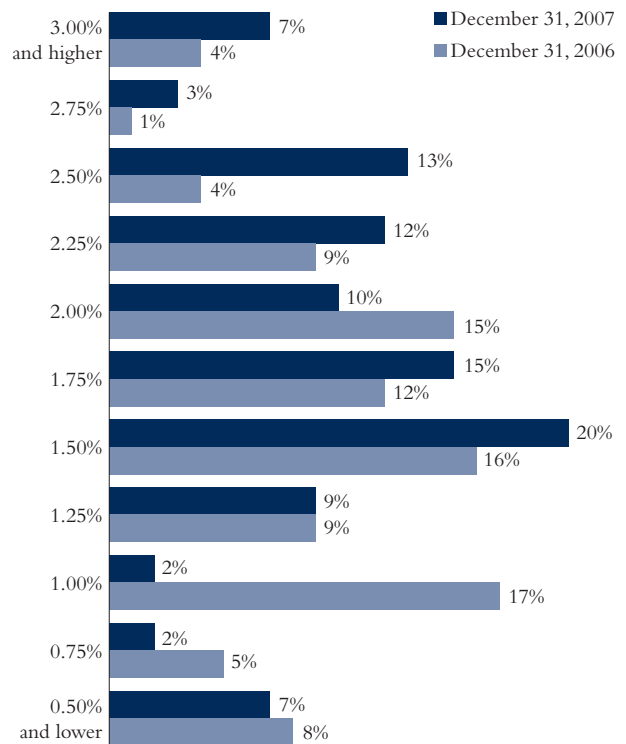
The median compensation increase assumption as at December 31, 2007, was 3.7%, 20 basis points higher than last year’s median, with 69% of companies using rates between 3.0% and 4.0%.

**Rate of Compensation Increase**



About 66% of companies used a spread of between 1.25% and 2.25%. Only 10% of companies used a spread that was 2.75% or higher.

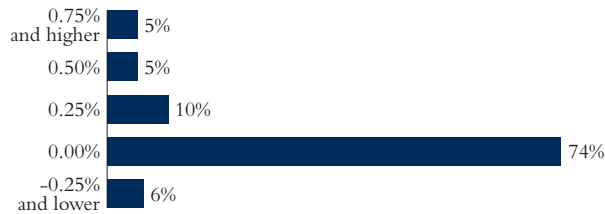
**Spread: Discount Rate / Compensation**



The following graph shows the spread between the discount rate and the rate of compensation increase. The spread between these two assumptions generally has a significant impact on the ABO for defined benefit pension plans. The median spread was 1.8% as at December 31, 2007, about 30 basis points higher than last year. This increase in the spread is consistent with the observed increase in the median discount rate.

There is some debate among practitioners and management regarding the frequency of changes in the rate of compensation increase assumption. The CICA provides additional guidance on this issue, in the “Supplement to the Employee Future Benefits Implementation Guide” in which it states that the requirement to be internally consistent applies to all assumptions except for the discount rate. Assumptions other than the discount rate should be based on a long-term view and should be revised only with a significant change in expected long-term economic conditions. Our survey results show that 26% of companies changed the rate of compensation increase assumption by at least 0.25% (up or down) as at December 31, 2007.

**Change in Compensation Increase Assumption  
(2007 vs. 2006)**

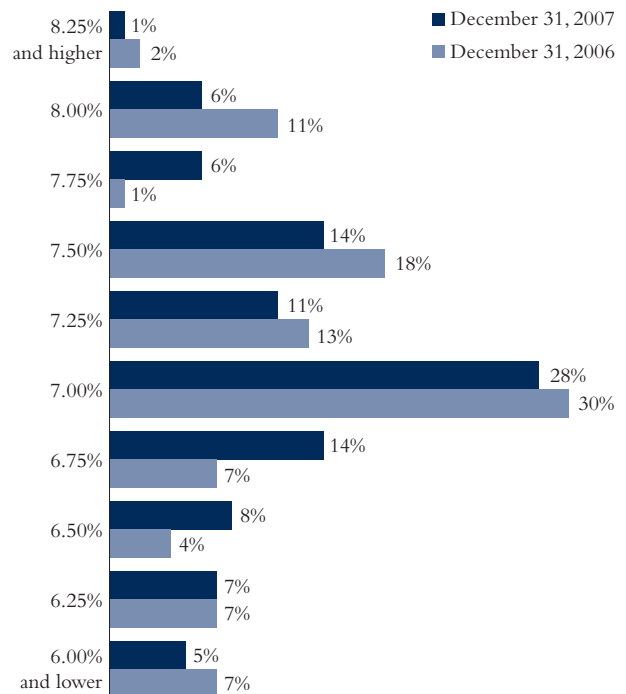


## Expected Long-Term Return on Plan Assets

CICA 3461 specifies that the expected rate of return on plan assets should reflect a long-term view.

The following chart shows the assumptions disclosed as at December 31, 2007, and as at December 31, 2006.

**Expected Return on Plan Assets**



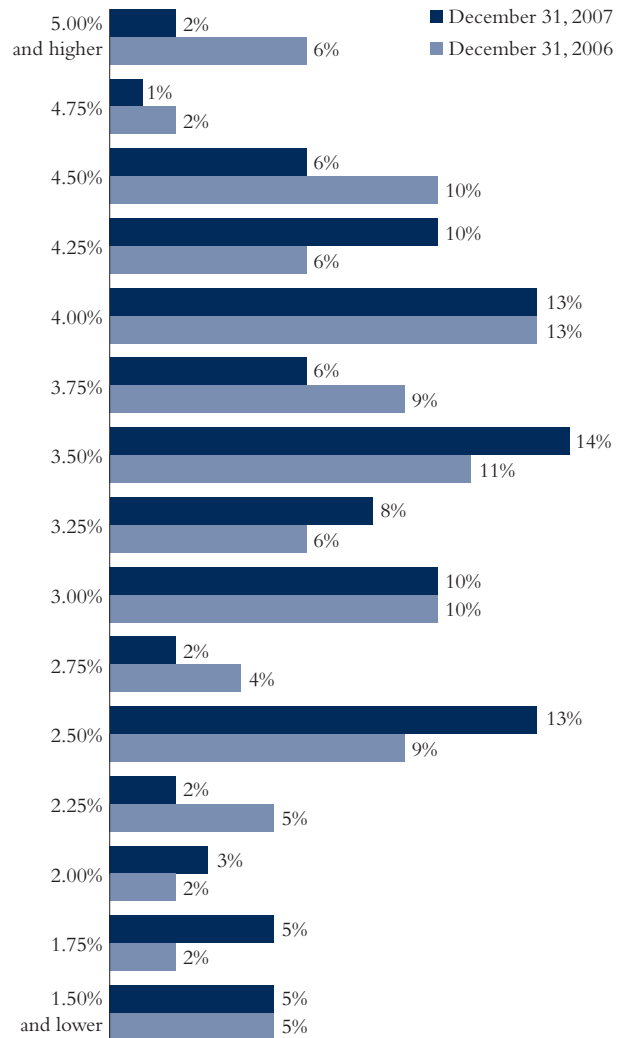


The median expected long-term rate of return on plan assets is 7.0%, which is identical to the December 31, 2006 survey. The distribution of rates was slightly different as at December 31, 2007 with 53% (61% in 2006) of the companies having used rates between 7.0% and 7.5% inclusively, 13% (14% in 2006) having used rates higher than 7.5%, and 34% (25% in 2006) having used rates lower than 7.0%.

For most pension plans, actual return earned in 2007 was significantly lower than the long-term rate of return on assets assumption. The actual median return for diversified pension funds was 2.1% in 2007 according to the Performance Universe of Pension Managers' Pooled Funds produced by Morneau Sobeco.

The following graph shows the spread between the expected return on plan assets and the rate of compensation increase, two assumptions established with a long-term view. Those assumptions are described in the accounting standards as independent from discount rate changes. Therefore, the spread between these two assumptions should generally stay constant unless there is a change in the long term fundamentals underlying the assumptions. The median spread was 3.5% as at December 31, 2007, identical to last year.

**Spread: Expected return on plan assets / Compensation**



Our survey results show that about 34% of companies reduced the spread by at least 0.25% as at December 31, 2007.

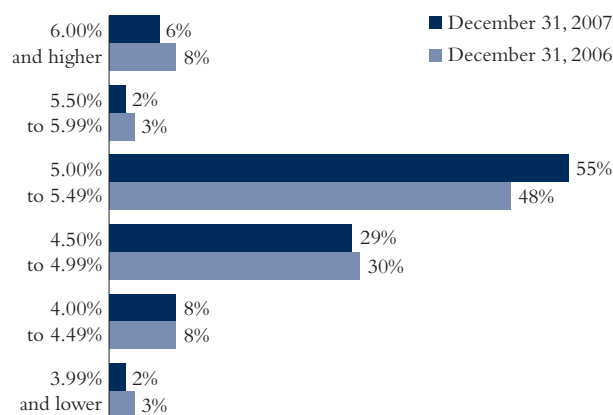
## Medical Cost Trend

Where retiree medical coverage is offered, a key assumption in the valuation of the ABO is the rate of future medical cost increases. CICA 3461 provides guidance on factors that companies should consider in selecting this assumption.

Often, medical costs are assumed to increase at a higher rate in the short term, gradually declining to an ultimate rate over a period of several years.

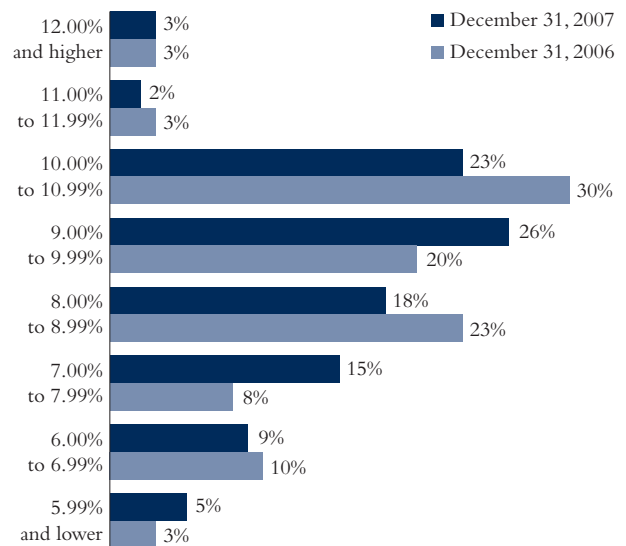
The following charts show the December 31, 2007 medical cost trend assumptions compared to the December 31, 2006 assumptions. About 84% of companies used an ultimate trend rate between 4.5% and 5.5%. The median is unchanged at 5.0%.

*Ultimate Medical Cost Trend*



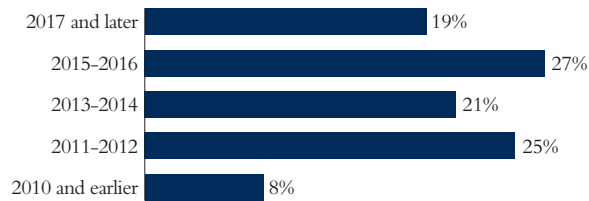
The median assumption for the short-term medical cost trend rate was 9.0%, identical to last year. There has been a continuing decrease in the number of companies using an assumption of 10% or higher, with 28% of the companies now in this category compared with 36% of companies last year, 45% the year before and 50% three years ago. 29% of companies used an assumption of less than 8%. These ratios are consistent with the lower trends experienced by group benefit plans over the last few years.

*Short-Term Medical Cost Trend*



The median year in which the medical cost increase rate reaches the ultimate rate is 2013, same as last year.

*Ultimate Medical Cost Trend  
(year in which ultimate rate is attained)*



## Asset and Obligation Measurement Date

CICA 3461 requires that the employee future benefits be measured at fiscal year end or at a date up to three months prior to that date. All companies in our survey have a December 31 fiscal year end; 77% of them used December 31 as their measurement date. Among the other 23%, a September 30 date is used most often, at 11%.

It should be noted that once the upcoming transition to the International Accounting Standards applies, early measurement dates will no longer be permitted, and measurement will, therefore, be required to be made as of the fiscal year end. Companies who have been using an early measurement date will reflect the change at transition. More critically, these companies will have to adjust their planning to ensure that they will be able to measure these results at the year end and still meet their financial reporting deadlines.

## Pension Plan Asset Allocation

The allocation of pension fund assets among the following asset classes must be disclosed: equities, fixed income and other assets. Additional categories may be added if it helps to improve the reader's understanding of the investment risks faced by the fund.

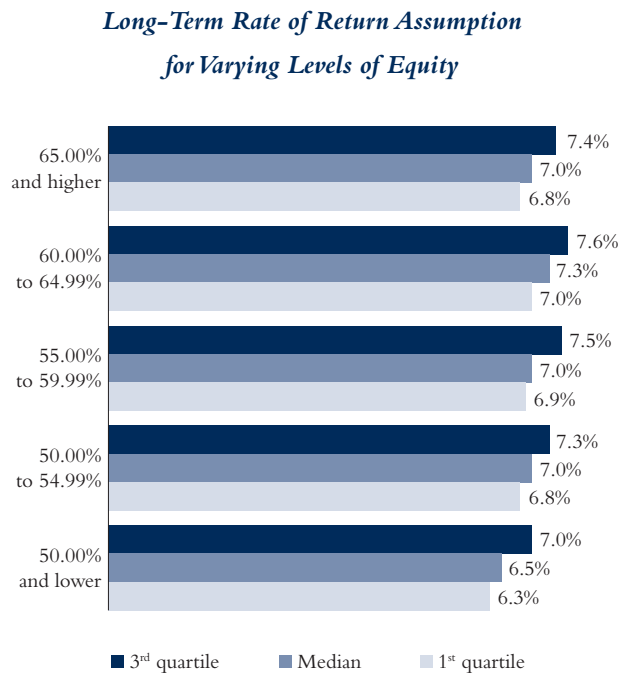
The average asset allocation as at December 31, 2007, was 56% in equities, 39% in fixed income and 5% in other assets. The distribution of the proportion of funds invested in equities is shown below:

*Company Distribution  
by Pension Plan Equity Weighting*



Since the expected long-term return on assets assumption is based in part on asset allocation, we have compared the assumption to the equity weighting. Theoretically, a pension plan holding a higher proportion of its assets in equities should have a higher expected rate of return on assets assumption than a pension plan with a smaller equity allocation.

The results from our survey, in the graph below, indicate that this appears to be true, with the possible exception of the highest equity weighting.



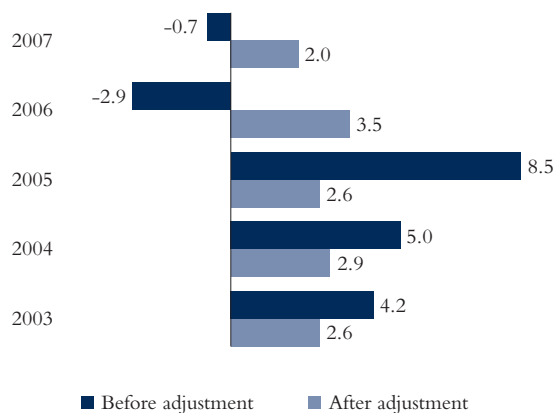
## Pension Expense Before and After Adjustment

This 2008 survey presents results for companies with a total of \$128 billion in pension assets. The following graph shows the difference between the pension expense before and after adjustment for each year since 2003 in aggregate for all companies in our survey. The expense after adjustment represents the actual expense found in the financial statements. The expense before adjustment is the “fictional” expense that would prevail in a full marked-to-market accounting environment that would require immediate recognition of all changes in asset and ABO during the year. We found that, in 2007, the total recognized expense amounted to \$2.0 billion (i.e. expense after adjustment). In the absence of any amortization mechanisms, the expense before adjustment would have been an income (i.e. a negative expense) of \$0.7 billion.

From 2003 to 2005, the difference between the pension expense before and after adjustment was mainly due to the declining discount rates that increased the ABO, and generally outweighed the impact of the investment gains that were experienced. In 2006, the discount rate remained relatively stable, while investment returns generally produced gains versus the assumption.

This year, the discount rate increased, outweighing the negative impact of investment returns that generally produced losses versus the assumption. Therefore, the impact of the adjustments for this year was generally to defer the actuarial gain, and to increase the pension expense.

***Pension Expense (Income) Before/After Adjustment***  
***(in billions of dollars)***



The “pension expense before adjustment” illustrates the expense volatility that would be experienced if the accounting rules for employee future benefits were changed to require mark-to-market accounting without amortizations. This is shown by the sharp contrast between 2005, 2006 and 2007 results.

## Upcoming Transition to the International Accounting Standards

As mentioned earlier, accounting for Canadian publicly accountable enterprises will move to International Accounting Standards. In early 2008, the IASB introduced a discussion paper on proposed amendments to IAS19. If adopted, these amendments, combined with the transition to international accounting, will eventually lead to full recognition on the balance sheet of the financial position of the pension plans and non-pension employee future benefits (both on and after transition). To the extent that this position differs from the current accrued benefit liability at transition date, an adjustment to the shareholders’ equity will also be required, net of any deferred taxes. For illustration purposes, we have considered what the impact would be, including both pension and non-pension benefits, if these changes had been in effect as at December 31, 2007. Since the effective tax rate will vary by company, our results are shown on a pre-tax basis.

Based on the companies in our survey, the proposed changes would have reduced shareholders' equity by \$9.6 billion, on a pre-tax basis.

The ultimate impact of these changes will depend largely on investment performance until transition date, as well as on any changes to the discount rate. The impact may vary significantly, even for relatively modest discount rate changes or investment gains or losses.

## Appendix – Selecting the Discount Rate

In general, the ABO is most sensitive to the discount rate assumption. For example, a 25 basis point decrease in the discount rate can often increase the ABO by as much as 5%. This increase would in turn increase the annual expense in subsequent years.

CICA 3461 provides general guidance for the selection of the discount rate assumption. It should be determined by reference to market interest rates on high-quality debt instruments or to the interest rate at which the ABO could be settled. However, the precise methodology for computing this rate is not prescribed.

Since Canadian standards are similar to those of the United States, standard practice is to consider guidance provided by the Securities and Exchange Commission ("SEC"). The SEC has determined that the discount rate should reflect the yield of a portfolio of high quality fixed income instruments (rated as AA or better by Moody's), which has the same duration as the plan's ABO. The duration of a plan's ABO is determined based on certain demographic characteristics such as average age, average service or proportion of retirees, and consequently it should be expected that plans with similar demographics would use similar discount rates.

Information on high quality Canadian corporate bonds (rated AA or higher) is generally available from independent sources, and can serve as a starting point in the determination of the discount rate.

## For More Information

This survey is intended to provide information regarding the assumptions disclosed by a wide range of companies and, as such, can provide an indication of trends. The assumptions used for your own employee benefit plans will depend on a number of factors. For more information, speak to your Morneau Sobeco consultant



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2007 Survey of Economic Assumptions  
in Accounting for Pensions and Other  
Post-Retirement Benefits

*Highlights of our annual survey results*

SPECIAL REPORT

MORNEAU  
SOBECO

## Introduction

Section 3461 of the Canadian Institute of Chartered Accountants Handbook (CICA 3461) requires that the management of a company sponsoring a defined benefit plan measure the plan's accrued benefit obligation (ABO) and the resultant annual expense using assumptions that individually reflect best estimates and are "internally consistent with each other."

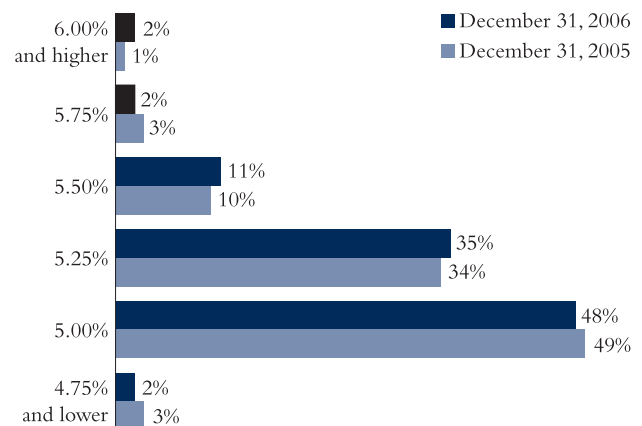
Morneau Sobeco has compiled in this report information disclosed by approximately 100 Canadian public companies in their most recent audited financial statements as at December 31, 2006. This is the seventh year that this survey has been produced.

The CICA published an exposure draft in March 2007 that, once formally adopted, will change accounting requirements for employee future benefits, similarly to the changes adopted by the Financial Accounting Standard Board (FASB) in the United States. The effective date of these changes is expected to be December 31, 2007, for public companies, and likely one year later for other organizations. The Office of the Superintendent of Financial Institutions (OSFI) has recently indicated that it will delay the impact of these changes in the case of adequacy of capital and assets requirements. We have included a special section later in our survey with some insights on the impact of these changes, based on companies' December 31, 2005 and December 31, 2006 financial statements.

## Discount Rate for Pension Plans

The following chart summarizes the discount rates used for defined benefit pension plan accounting (see the appendix for a description of the discount rate). The median discount rate was 5.13% as at December 31, 2006, compared to 5.10% as at December 31, 2005. About 83% of the companies used a discount rate between 5.00% and 5.25%. This range is consistent with CICA 3461 requirements for a typical defined benefit pension plan.

*Discount Rate / Pension Plans*

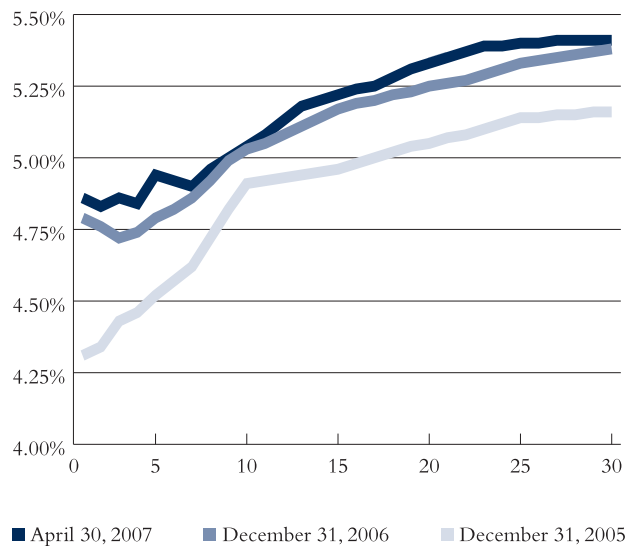


Roughly two-thirds of the companies did not change their discount rate in 2006.

Over time, the yields on high quality long term corporate bonds may vary considerably. The discount rate should be expected to vary in a similar fashion. For illustration purposes, the graph below compares the yield curves as at December 31, 2005, December 31, 2006, and April 30, 2007.

The yield curves at these dates are fairly “flat” – particularly for durations of 10 years or more. Consequently, discount rates have been concentrated within a narrow range over the last couple of years.

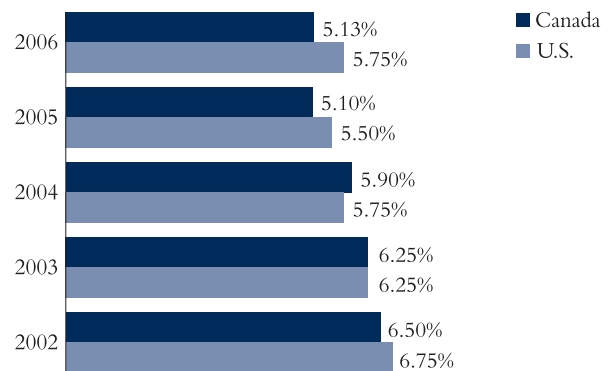
**High-Quality Corporate Bonds**



If the yield curve remains at the April 2007 levels until the end of the year, we would expect the December 31, 2007, discount rates to be similar to those as at December 31, 2006.

The following chart compares the median discount rates in our survey to the median discount rates from a U.S. survey<sup>1</sup>. We see that the rates in Canada this year are once again lower than the U.S. rates. Since the adoption of CICA 3461, the rates in Canada were higher than the U.S. rates only in 2004.

**Median Discount Rate by Country**



<sup>1</sup> Source: *Survey of Economic Assumptions used for SFAS No. 87 and SFAS No. 106 Purposes*, prepared by Deloitte & Touche Human Capital Advisory Services (US). (Estimate for 2006)

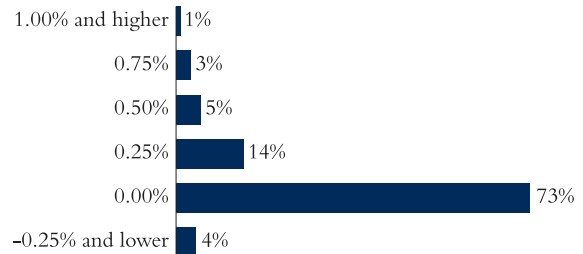
## Discount Rate for Non-Pension Benefits

Because the duration of these benefits' ABO is often significantly different from that of the pension ABO, some companies may choose to use a different discount rate in their valuation. (See the Appendix on selecting the discount rate for more on this.) For example, the duration of the ABO for a retiree medical plan is often higher than the duration of a pension ABO for the same population. However, many companies elect to use a single blended rate, or simply the rate for the most material plan, for all benefits.

The median rate used as at December 31, 2006, for these benefits was 5.25%, which is 12 basis points higher than the median pension rate.

The following chart shows the difference between the discount rate used in the valuation of non-pension employee future benefits and the discount rate used for pension plans. (A positive value indicates a higher rate for non-pension benefits than for pension and vice versa.)

*Difference in Discount Rates  
(Post-Retirement Benefits vs. Pensions)*



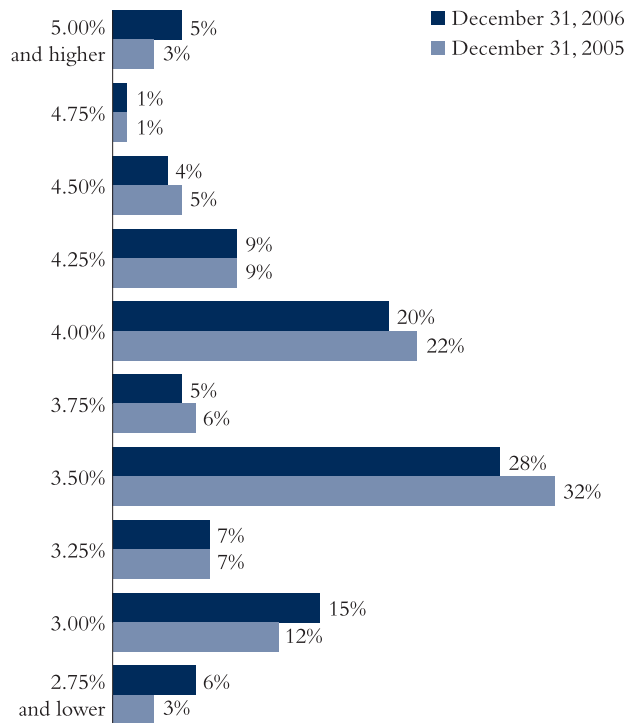
While in most cases companies have used the same discount rate for pensions and non-pension future benefits, 23% used a higher discount rate assumption for non-pension employee future benefits (same as our previous survey).

## Rate of Compensation Increase

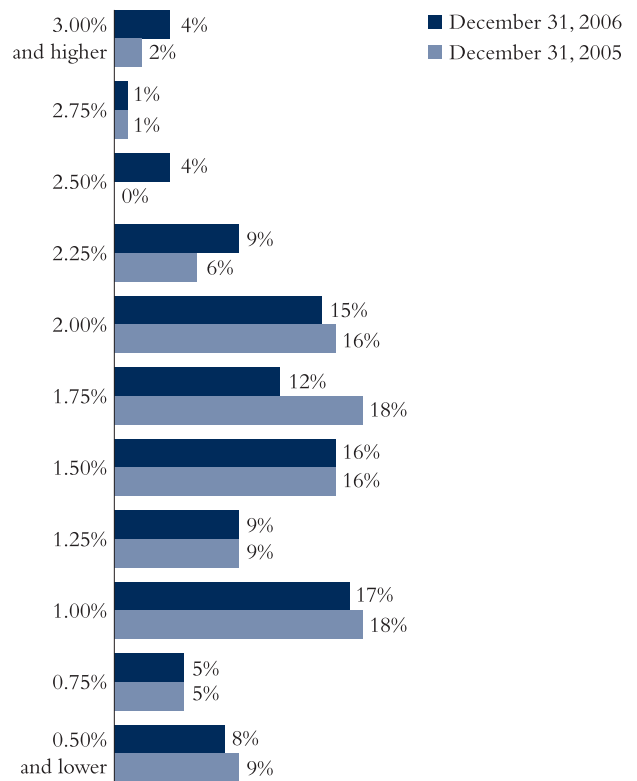
Plans that provide pay-related benefits are required to make an assumption about the rate of compensation increases. CICA 3461 indicates that it should reflect “future changes attributed to general price levels, productivity, seniority, promotion, and other factors.”

The median compensation increase assumption as at December 31, 2006, was 3.5%, identical to last year's median, with 75% of companies using rates between 3.0% and 4.0%.

**Rate of Compensation Increase**



**Spread: Discount Rate / Compensation**



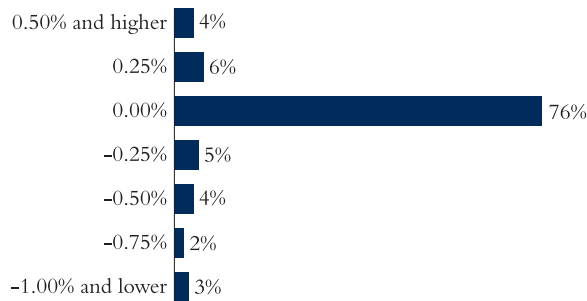
The following graph shows the spread between the discount rate and the rate of compensation increase. The spread between these two assumptions generally has a significant impact on the ABO for defined benefit pension plans. The median spread was 1.5% as at December 31, 2006, unchanged from last year. The stability in the spread is consistent with the observed median discount rate that was almost unchanged.

About 69% of companies used a spread of between 1% and 2%. Only 9% of companies used a spread that was 2.5% or higher.

There is some debate among practitioners and management regarding the frequency of changes in the rate of compensation increase assumption. The CICA provides additional guidance on this issue, in the “Supplement to the Employee Future Benefits Implementation Guide” in which it states that the requirement to be internally consistent applies to all assumptions except for the discount rate. Assumptions other than the discount rate should be based on a long-

term view and should be revised only with a significant change in expected long-term economic conditions. Our survey results show that 24% of companies have changed the rate of compensation increase assumption by at least 0.25% (up or down) as at December 31, 2006.

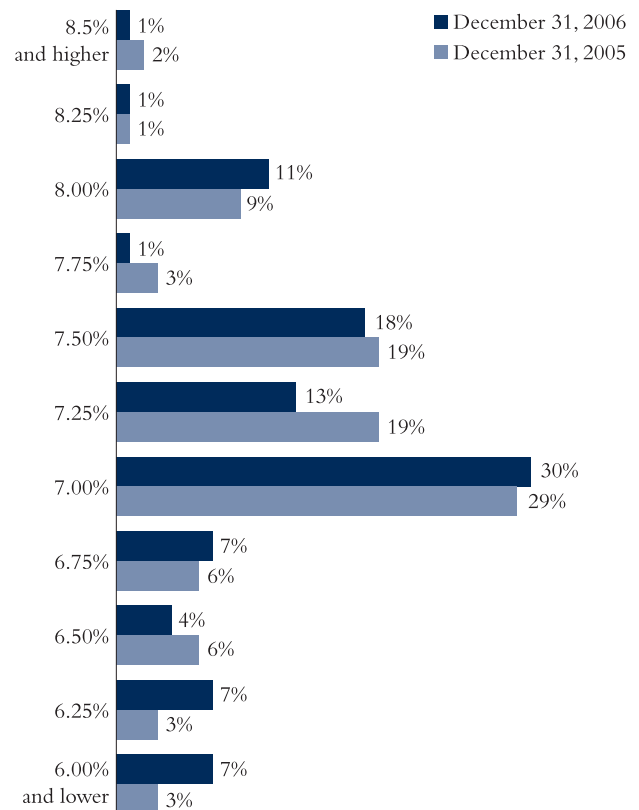
**Change in Compensation Increase Assumption (2006 vs. 2005)**



## Expected Long-Term Return on Plan Assets

CICA 3461 specifies that the expected rate of return on plan assets should reflect a long-term view. The following chart shows the assumptions disclosed as at December 31, 2006, and as at December 31, 2005.

**Expected Return on Plan Assets**



The median expected long-term rate of return on plan assets is 7.0%, which is 25 basis points lower than the December 31, 2005 survey. The distribution of rates was slightly more spread out as at December 31, 2006, than as at December 31, 2005, with 61% (67% in 2005) of the companies having used rates between 7.0% and 7.5% inclusively, 14% (15% in 2005) having used rates higher than 7.5%, and 25% (18% in 2005) having used rates lower than 7.0%.

For most pension plans, actual returns earned in 2006 significantly exceeded the long-term rate of return on assets assumption. The actual median return for diversified pension funds was 12.7% in 2006 according to the *Performance Universe of Pension Managers' Pooled Funds* produced by Morneau Sobeco. This good investment performance with mostly unchanged discount rates should result in many companies experiencing a decrease in their pension expense in 2007.

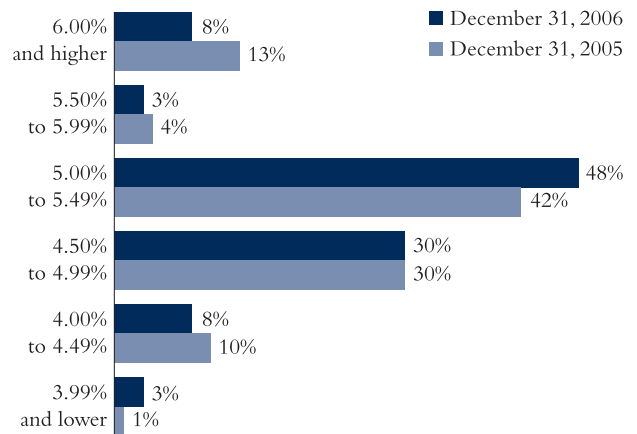
## Medical Cost Trend

Where retiree medical coverage is offered, a key assumption in the valuation of the ABO is the rate of future medical cost increases. CICA 3461 provides guidance on factors that companies should consider in selecting this assumption.

Often, medical costs are assumed to increase at a higher rate in the short term, gradually declining to an ultimate rate over a period of several years.

The following charts show the December 31, 2006, medical cost trend assumptions compared to the December 31, 2005, assumptions. About 78% of companies used an ultimate trend rate between 4.5% and 5.5%. The median is unchanged at 5.0%.

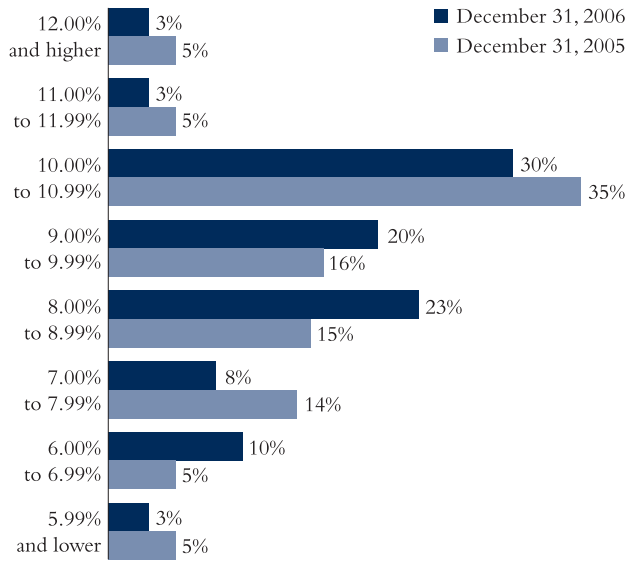
*Ultimate Medical Cost Trend*



There was a slight decrease in the initial short-term assumption. The median assumption was 9.0% compared to 9.5% as at December 31, 2005. This decrease is consistent with the lower trends experienced by group benefit plans over the last few years. Specifically, there has been a decrease in the number of companies using an assumption of 10% or higher, with 36% of companies in this category, compared with 45% last year and 50% two years ago. 21% of companies used an assumption of less than 8%.

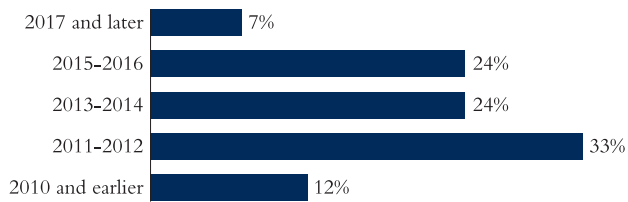


**Short-Term Medical Cost Trend**



The median year in which the medical cost increase rate reaches the ultimate rate is 2013. As at December 31, 2005, this assumed year was 2012.

**Ultimate Medical Cost Trend  
(year in which ultimate rate is attained)**



## Asset and Obligation Measurement Date

CICA 3461 requires that the employee future benefits be measured at fiscal year end or at a date up to three months prior to that date. All companies in our survey have a December 31 fiscal year end; therefore, some companies may use a measurement date as early as September 30.

We find that 88% of companies in our survey used December 31 as their measurement date. Among the others, a September 30 date is used most often at 7%.

It should be noted that based on the CICA exposure draft, beginning December 31, 2008, early measurement dates will no longer be permitted, and measurement will, therefore, be required to be as of the fiscal year end. Companies who have been using an early measurement date will need to make an adjustment to reflect the change in their measurement date at that time. (The CICA exposure draft proposes two methods for dealing with this adjustment.) More critically, these companies will have to adjust their planning to ensure that they will be able to measure these results at the year end and still meet their reporting deadlines.



## Pension Plan Asset Allocation

The allocation of pension fund assets among the following asset classes must be disclosed: equities, fixed income and other assets. Additional categories may be added if it helps to improve the reader’s understanding of the investment risks faced by the fund.

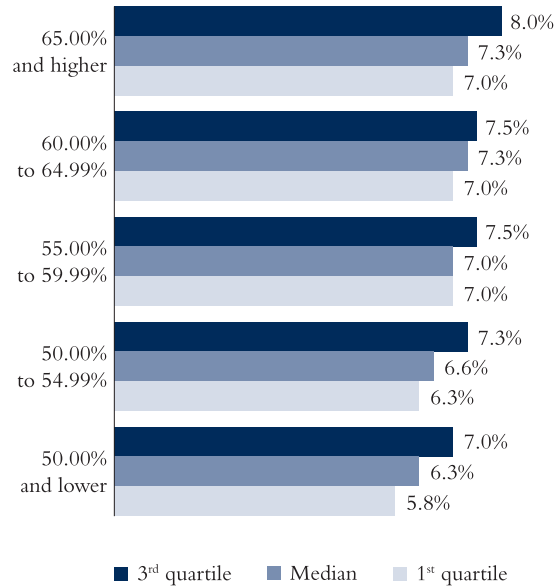
The average asset allocation as at December 31, 2006, was 59% in equities, 37% in fixed income and 4% in other assets. The distribution of the proportion of funds invested in equities is shown below:

**Company Distribution  
by Pension Plan Equity Weighting**



Since the expected long-term return on assets assumption is based in part on asset allocation, we have compared the assumption to the equity weighting. Theoretically, a pension plan holding a higher proportion of its assets in equities should have a higher expected rate of return on assets assumption than a pension plan with a smaller equity allocation. The results from our survey, in the graph below, indicate that this appears to be true.

**Long-Term Rate of Return Assumption  
for Varying Levels of Equity**

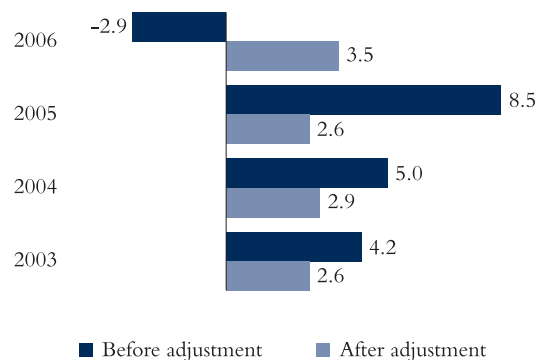


## Pension Expense Before and After Adjustment

This 2006 survey presents results for companies with a total of \$155 billion in pension assets. The following graph shows the difference between the pension expense before and after adjustment for each year since 2003, in aggregate for all companies in our survey. We found that, in 2006, the total recognized expense amounted to \$3.5 billion (i.e. expense after adjustment). In the absence of any amortization mechanisms, the expense before adjustment would have been an income (i.e. a negative expense) of \$2.9 billion.

From 2003 to 2005, the difference between the pension expense before and after adjustment was mainly due to the declining discount rates that increased the ABO, and generally outweighed the impact of the investment gains that were experienced. This year, the discount rate remained relatively stable, while investment returns generally produced gains versus the assumption. Therefore, in contrast to prior years, the impact of the adjustments was generally to defer the current investment gains, and to recognize a portion of the losses that were amortized in the past, such that the impact of the adjustments was to significantly increase the pension expense, rather than decrease it.

***Pension Expense (Income) Before/After Adjustment  
(in billions of dollars)***



The “pension expense before adjustment” illustrates the expense volatility that would be experienced, if the accounting rules for employee future benefits were changed to require mark-to-market accounting without amortizations. This is shown by the sharp contrast between 2005 and 2006 results.

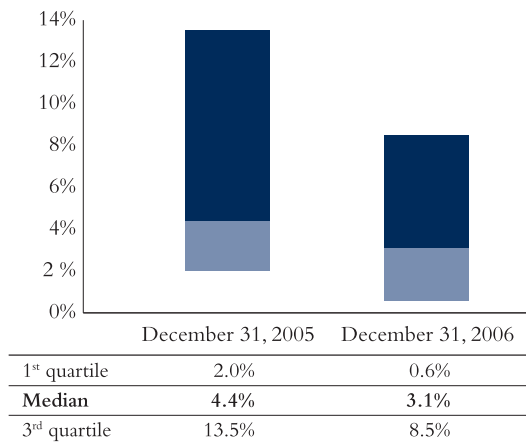
## Impact of Proposed Changes to Employee Future Benefits Accounting

Other than the elimination of early measurement dates (discussed earlier), the principal impact of the changes to the accounting rules for employee future benefits, described in the CICA exposure draft, will be on companies’ balance sheets where recognition of the financial position of the pension plans and non-pension employee future benefits will be required. To the extent that this position differs from the current accrued benefit liability, an adjustment to the “accumulated other comprehensive income” (AOCI), a component of the shareholder equity, will also be required, net of any deferred taxes. This change is expected to be required for publicly traded companies for fiscal year ending on or after December 31, 2007. For illustration purposes, we have considered what the impact would be, including both pension and non-pension benefits, if these changes were already in effect as at December 31, 2006. Since the effective tax rate will vary by company, all our results are determined on a pre-tax basis.

Based on the companies in our survey, as at December 31, 2006, the proposed changes would have reduced total AOCI by \$17.4 billion, on a pre-tax basis. The median impact on the shareholder equity would have been a gross reduction of roughly 3.1%. The 1<sup>st</sup> and 3<sup>rd</sup> quartile impacts are gross reductions in equity of 0.6% and 8.5% respectively, indicating that the impact varies considerably from one company to another.

We performed a similar analysis as at December 31, 2005. The chart below presents the results for 1<sup>st</sup> quartile, median and 3<sup>rd</sup> quartile as at December 31, 2005, and as at December 31, 2006:

**Illustration: impact relative to company equity (2005 and 2006)**



The decline in the impact reflects the strong investment performance experienced in 2006.

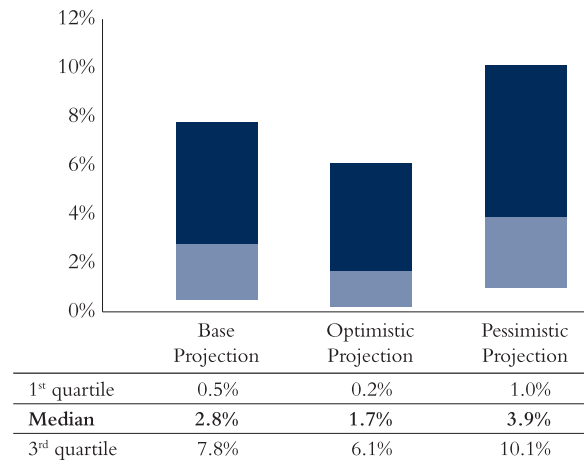
The impact of these changes as at December 31, 2007, will depend largely on investment performance during 2007, as well as on any changes to the discount rate.

We have estimated the potential impact for three scenarios in 2007. Based on historical data, the Optimistic or Pessimistic scenarios each happen about once every 3 years.

- > Base Projection – no significant gains or losses in 2007
- > Optimistic Projection – a 25 basis point increase in the discount rate or 4% investment gains (versus assumptions)
- > Pessimistic Projection – a 25 basis point decrease in the discount rate or 4% investment losses (versus assumptions)

Simulated results are as follows:

**Simulated impact relative to company equity (2007)**



As can be seen, the impact will vary significantly, even for relatively modest discount rate changes or investment gains or losses. Also, the results are quite varied in each scenario indicating that for some companies the impact will not be a large one, while for others it will be very significant.

## Appendix – Selecting the Discount Rate

In general, the ABO is most sensitive to the discount rate assumption. For example, a 25 basis point decrease in the discount rate can often increase the ABO by as much as 5%. This increase would in turn increase the annual expense in subsequent years.

CICA 3461 provides general guidance for the selection of the discount rate assumption. It should be determined by reference to market interest rates on high-quality debt instruments or to the interest rate at which the ABO could be settled. However, the precise methodology for computing this rate is not prescribed.

Since Canadian standards are similar to those of the United States, standard practice is to consider guidance provided by the Securities and Exchange Commission (“SEC”). The SEC has determined that the discount rate should reflect the yield of a portfolio of high quality fixed income instruments (rated as AA or better by Moody’s), which has the same duration as the plan’s ABO. The duration of a plan’s ABO is determined based on certain demographic characteristics such as average age, average service or proportion of retirees, and consequently it should be expected that plans with similar demographics would use similar discount rates.

Information on high quality Canadian corporate bonds (rated AA or higher) is generally available from Scotia Capital and other sources, and may serve as a starting point in the determination of the discount rate.

## For More Information

This survey is intended to provide information regarding the assumptions disclosed by a wide range of companies and, as such, can provide an indication of trends. The assumptions used for your own employee benefit plans will depend on a number of factors. For more information, speak to your Morneau Sobeco consultant.



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2006 Survey of Economic Assumptions  
in Accounting for Pensions and Other  
Post-Retirement Benefits

*Highlights of our annual survey results*

SPECIAL REPORT

MORNEAU  
SOBECO

## Introduction

Section 3461 of the Canadian Institute of Chartered Accountants Handbook (CICA 3461) requires that the management of a company sponsoring a defined benefit plan measures the plan's accrued benefit obligation (ABO) and annual expense using assumptions that individually reflect best estimates and are "internally consistent with each other."

Morneau Sobeco has compiled information disclosed by about 100 Canadian public companies in their most recent audited financial statements as at December 31, 2005. This is the sixth year our survey has been produced.

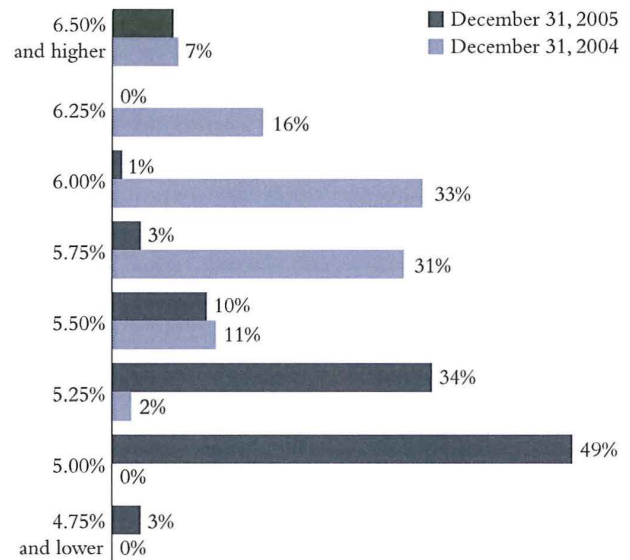
We have added a new item to this year's survey:

- > Year in which the ultimate rate for medical cost trend assumption is reached.

## Discount Rate for Pension Plans

The following chart summarizes the discount rate used for defined benefit pension plan accounting (see the appendix for a description of the discount rate). The median discount rate is 5.10% as at December 31, 2005, compared to 5.90% as at December 31, 2004. About 83% of the companies used a rate of 5.00% or 5.25%. This range is consistent with CICA 3461 recommendations.

Discount Rate / Pension Plans



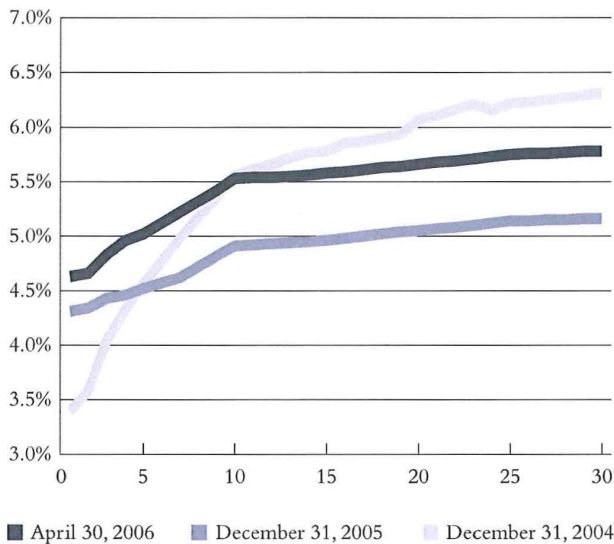
About 95% of the companies have revised their discount rate downward in 2005.

Over time, the yields on high-quality corporate bonds may vary considerably. The discount rate should be expected to vary in a similar fashion. For illustration purposes, we have included the yield curve as at April 30, 2006. It is about 60 basis points higher than the December 31, 2005 rates. The rates have been rising in the first few months of 2006 after reaching their lowest level as at December 31, 2005.

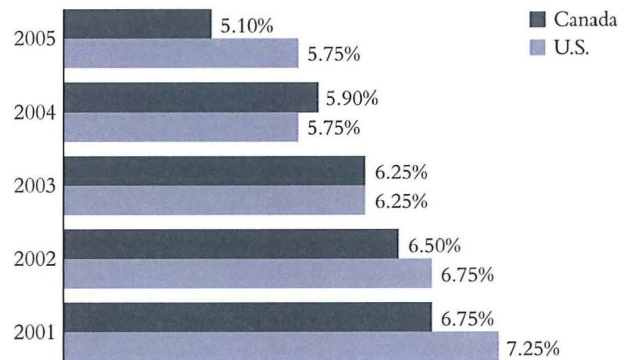
The December 31, 2005 yield curve is fairly "flat" and as a result the discount rates are concentrated within a narrow band.



*High-Quality Corporate Bonds*



*Median Discount Rate by Country*



If the yield curve were to remain at the April 2006 level until the end of the year, we could expect the December 31, 2006 discount rate to be about 60 basis points higher than the December 31, 2005 rate. It would be the first increase after 6 years of consecutive declines.

The following chart compares the median discount rates in our survey to the median discount rates from a U.S. survey<sup>1</sup>. We see that the rates in Canada have once again fallen below the U.S. rates as at December 31, 2005, after being higher for the first time as at December 31, 2004.

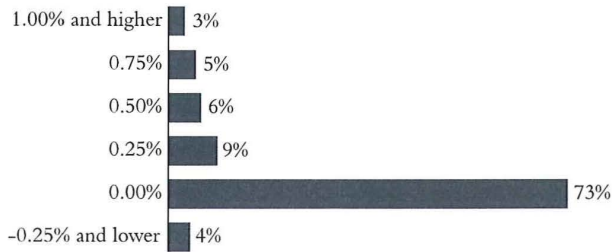
## Discount Rate for Non-Pension Benefits

Because of the different nature of employee future benefits other than pensions, some companies may choose to use a different discount rate in their valuation of other benefits. The ABO may have a different duration because it applies to a different population, or because of the nature of the benefits offered. For example, the duration of the ABO for a retiree medical plan is often higher than the duration of a pension ABO for the same population.

The following chart shows the difference between the discount rate used in the valuation of employee future benefits other than pensions and the discount rate used for pension plans.

<sup>1</sup> Source: *Survey of Economic Assumptions used for SFAS No. 87 and SFAS No. 106 Purposes*, prepared by Deloitte & Touche Human Capital Advisory Services (US).

*Difference in Discount Rates  
(Post-Retirement Benefits vs. Pensions)*



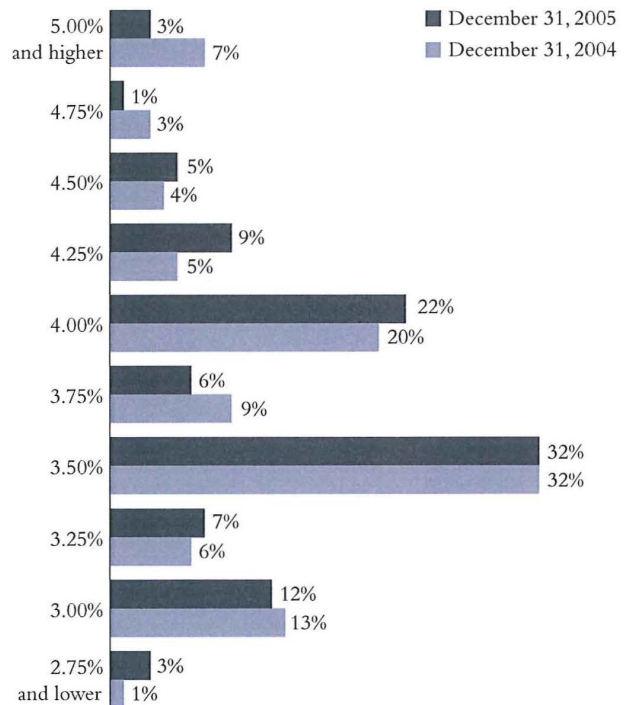
While in most cases management selects identical assumptions for pensions and other employee benefits, 23% use a higher discount rate assumption for employee future benefits (versus 29% in our previous survey).

## Rate of Compensation Increase

Plans that provide pay-related benefits are required to make an assumption about the rate of compensation increases. CICA 3461 indicates that it should reflect “future changes attributed to general price levels, productivity, seniority, promotion, and other factors.”

The median compensation increase assumption as at December 31, 2005, was 3.5%, identical to last year’s median. It should be noted that 60% of companies used rates between 3.5% and 4.0%.

*Rate of Compensation Increase*

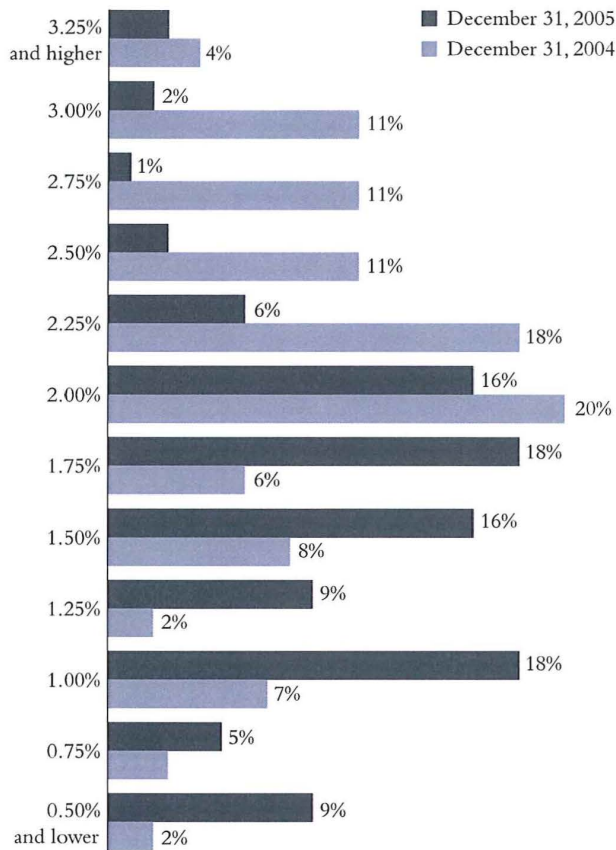


The following graph shows the spread between the discount rate and the rate of compensation increase. The spread between these two assumptions generally has a significant impact on the ABO calculated for defined benefit pension plans. The median is 1.5% as at December 31, 2005, compared to 2.3% in the previous year.

This reduction in the spread is in line with the observed decrease of 0.8% in the median discount rate and should have a measurable impact on the plan ABO.

About 57% of companies have a discount rate vs. compensation spread of 1.5% or less, compared to 19% last year. Also, only 3% of companies have a spread of 2.5% or more.

*Spread: Discount Rate / Compensation*

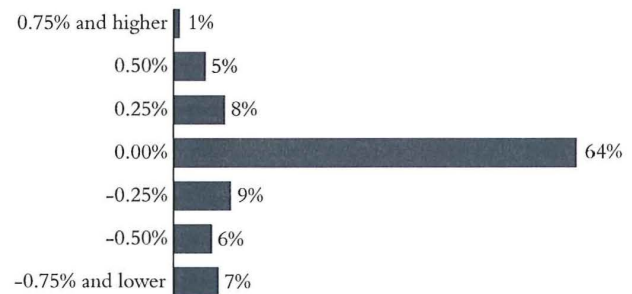


There is some debate among practitioners and management regarding the frequency of changes in the rate of compensation increase assumption. The standards provide additional guidance on this issue, especially in the CICA “Supplement to the Employee Future Benefits Implementation Guide.” It states that the requirement to be internally consistent applies to all assumptions except for the discount rate. Assumptions other than the discount rate

should be based on a long-term view and should be revised only with a significant change in expected long-term economic conditions.

Our survey results show that, while the discount rate has generally declined, 64% of companies have kept the same rate of compensation increase assumption as last year. About 22% of companies adjusted their assumption downward.

*Change in Compensation Increase Assumption (2005 vs. 2004)*

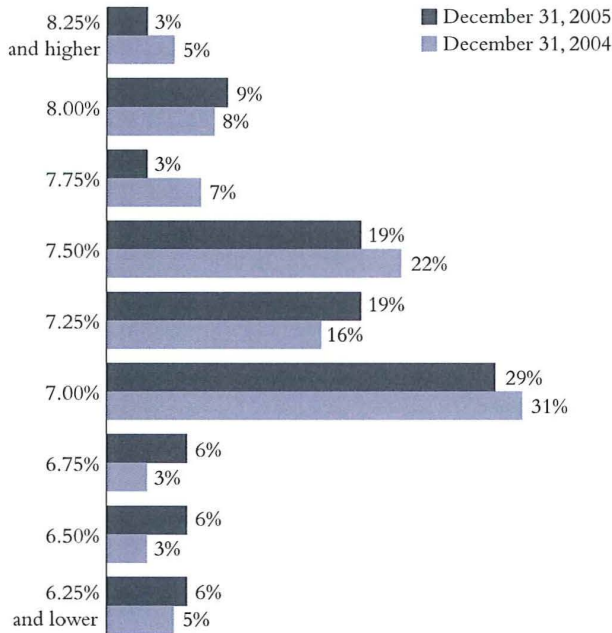


## Expected Long-Term Return on Plan Assets

CICA 3461 specifies that the assumed rate of return on plan assets should also reflect a long-term view. The following chart shows the assumptions disclosed as at December 31, 2005 and as at December 31, 2004.



*Expected Return on Plan Assets*



The median expected long-term rate of return on plan assets is 7.25% which is similar to the December 31, 2004 survey. About 67% of the companies use rates between 7.0% and 7.5% inclusive.

For most plans, actual returns earned in 2005 by pension funds exceeded the accounting assumption. In fact, the actual median return for diversified pension funds was 11.9% in 2005 according to the *Performance Universe of Pension Managers' Pooled Funds* produced by Morneau Sobeco. Even with this good performance, the decline in discount rate outweighs the impact of positive investment results and should increase the pension expense in 2006 in many cases.

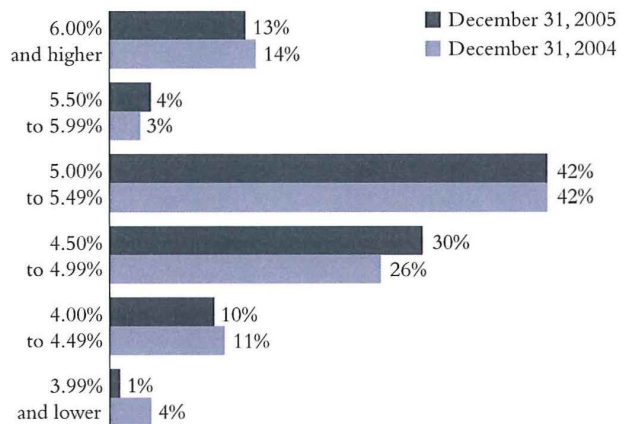
## Medical Cost Trend

Where retiree medical coverage is offered, a key assumption in the valuation of the ABO is the rate of future medical cost increases. CICA 3461 provides guidance on factors that companies should consider in selecting this assumption.

Often, medical costs are assumed to increase at a higher rate in the short term. The rate of these increases is then assumed to decline gradually over time to an ultimate level.

The following charts show the December 31, 2005 medical cost trend assumptions compared to the December 31, 2004 assumptions. About 72% of companies used an ultimate trend rate between 4.5% and 5.5%. The median is 5.0%, unchanged from last year's survey.

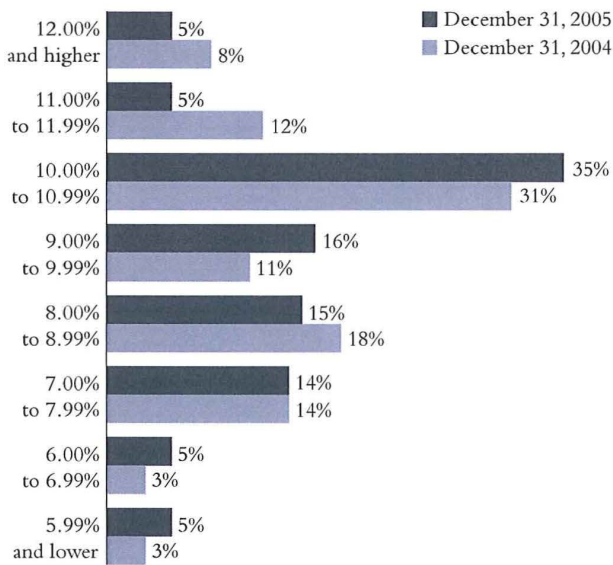
*Ultimate Medical Cost Trend*



There has been a slight decrease in the short-term assumption. The median is 9.5% compared to 9.9%, as at December 31, 2004. This decrease is consistent with the lower trends experienced by group benefit plans over the last two years.

After three straight years of increase, there has been a decrease in the number of companies using an assumption of 10% or higher. In fact, 45% fall in that category compared to 50% last year. About 24% of companies have opted for an assumption below 8%.

*Short-Term Medical Cost Trend*



This year, we have added to our survey the year in which the medical cost reaches the ultimate rate. The median year is 2012 and the distribution is as follows:

*Ultimate Medical Cost Trend  
(year in which ultimate rate is attained)*



## Asset and Obligation Measurement Date

CICA 3461 requires that the employee future benefits be measured at fiscal year end or at a date up to three months prior to that date. All companies in our survey have a December 31<sup>st</sup> fiscal year end; therefore, some companies may use a measurement date as early as September 30<sup>th</sup>.

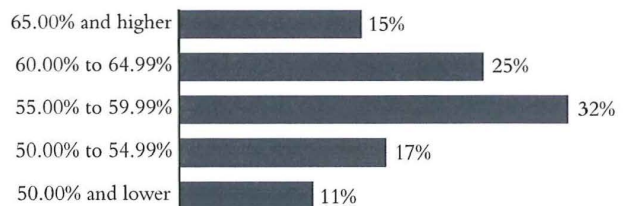
We find that 89% use December 31<sup>st</sup> as a measurement date. Among the others, a September 30<sup>th</sup> date is used most often at 9%.

## Pension Plan Asset Allocation

It is required that asset allocation be disclosed by the following categories: equity, fixed income and other assets. Additional categories may be added if it helps the user of the financial statement improve his understanding of the investment risk.

The average asset allocation as at December 31, 2005, is 58% in equities, 38% in fixed income and 4% in other assets. The actual proportion of equities is shown below:

*Company Distribution  
by Pension Plan Equity Weighting*

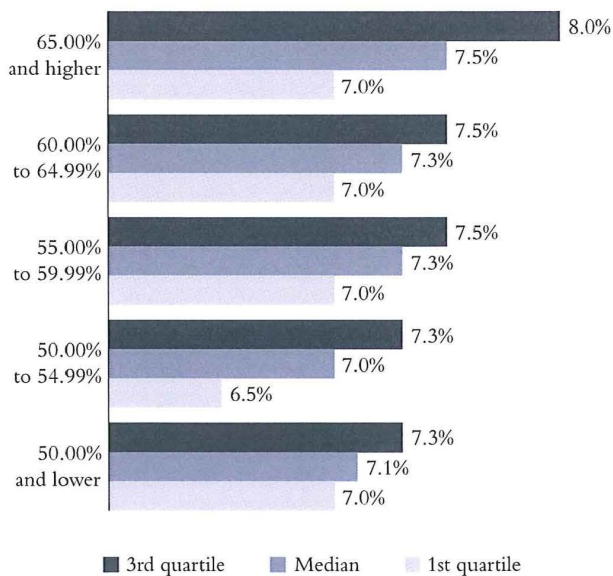




Since the assumption for expected long-term return on assets is based on asset allocation and expectations for future growth of these assets, we have compared the rate of return on asset assumption to the equity weighting.

Theoretically, a pension plan holding a higher percentage of equities should have a higher rate of return on asset assumption. The results from our survey, in the graph below, show that the asset return assumption generally declines with lower levels of equity held.

*Long-Term Rate of Return Assumption for Varying Levels of Equity*



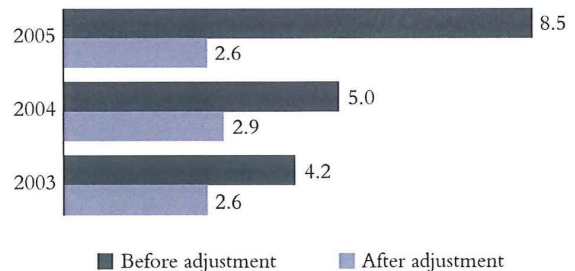
## Pension Expense Before and After Adjustment

CICA 3461 allows companies to amortize the different gains and losses, past service costs and transitional liability (asset) over future fiscal periods. These amortizations are permitted due to the long-term nature of employee future benefits. It is required to disclose the difference between the expense recognized in the income statement and the expense that would prevail if there were no amortization.

In CICA 3461, we refer to “expense before adjustment” and “expense after adjustment.” The latter represents the company’s recognized expense presented in the income statement. The difference between these two shows the market volatility that is present in defined benefit plans.

Our 2005 survey is based on companies that have funds with pension assets totaling \$138 billion. The following graph shows the difference between the pension expense before and after adjustment since 2003 in aggregate for all companies in our survey. We find that, in 2005, they have recognized a total of \$2.6 billion in expense, whereas it would have been approximately \$8.5 billion without any amortization mechanisms.

*Pension Expense Before/After Adjustment (in billion of dollars)*



The difference between \$2.6 billion and \$8.5 billion illustrates that, even with good returns on assets in 2005, the drop in the discount rate outweighs the impact of the gains that were realized on the asset side.

## Appendix – Selecting the Discount Rate

In general, the ABO is most sensitive to the discount rate assumption. For example, a 25 basis-points decrease in the discount rate may increase the ABO by 5%. This increase could, in turn, impact the annual expense in subsequent years.

CICA 3461 provides general guidance as to the selection of the discount rate assumption. It should be determined by reference to market interest rates on high-quality debt instruments or to the interest rate at which the ABO could be settled. Although the discount rate is defined in CICA 3461, it does not prescribe a precise methodology for computing this rate.

Since Canadian standards are similar to the United States equivalent, one may look for guidance provided by the Securities and Exchange Commission (“SEC”) staff. The SEC has determined that the discount rate should reflect the yield of a portfolio of high-quality fixed-income instruments (rated as AA or better by Moody’s), which has the same duration as the plan’s ABO. Since the duration of the plan’s ABO is affected by certain demographic characteristics such as average age, average service or proportion of retirees, it should be expected that plans with similar demographics would use similar discount rates.

Information on high-quality Canadian corporate bonds (rated AA or more) is generally available and may serve as a starting point in the determination of the discount rate. Sources such as Scotia Capital provide information on high-quality corporate bond yields.

## For More Information

This survey is intended to provide information regarding the assumptions disclosed by a wide range of companies and, as such, can provide an indication of trends. The assumptions used for your own employee benefits plans will depend on a number of factors. For more information, speak to your Morneau Sobeco consultant.





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2005 Economic  
Assumptions  
CICA Section 3461

*Integrating*

*Highlights of our annual survey results*

*Design*

SPECIAL REPORT

*& Delivery*

MORNEAU  
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## Introduction

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Morneau Sobeco has compiled information disclosed by about 100 Canadian public companies in their most recent audited financial statements as at December 31, 2004. This is the fifth year our survey has been produced.

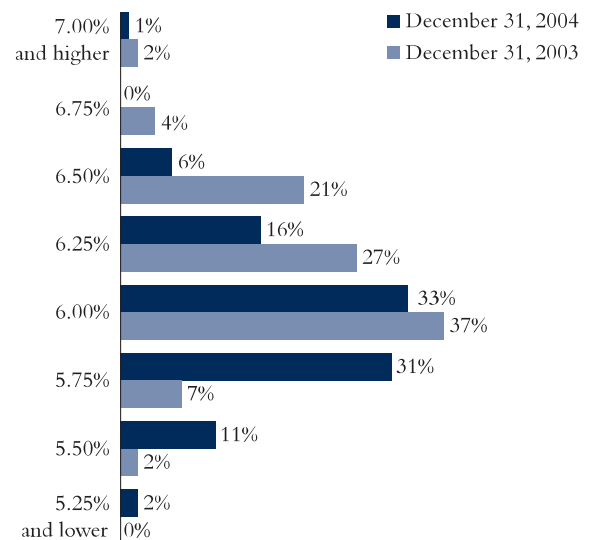
In light of new disclosure requirements of Section 3461, we have added some items to our survey:

- > measurement date of assets and benefit obligation;
- > pension asset allocation;
- > pension expense before and after consideration of long-term nature of employee future benefits.

## Discount Rate for Pension Plans

The following chart summarizes the discount rate used for defined benefit pension plan accounting (see the appendix for a description of the discount rate). The median discount rate is 5.90% as at December 31, 2004, compared to 6.25% as at December 31, 2003. About 80% of the companies used a rate between 5.75% and 6.25%. This range is consistent with CICA 3461 recommendations.

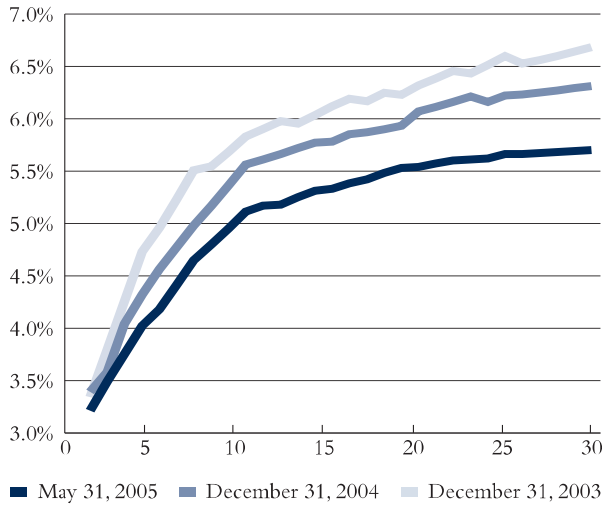
*Discount Rate / Pension Plans*



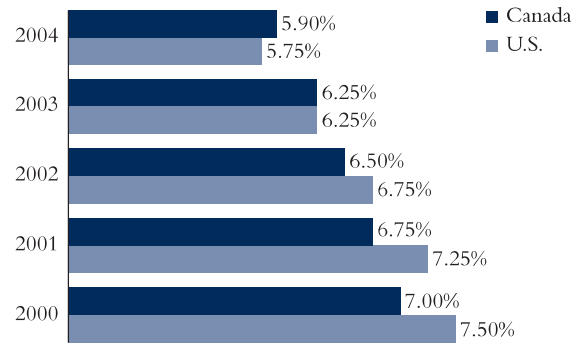
Even though the median discount rate has decreased by 35 basis points, 22% of the companies maintained the same discount rate as last year.

Over time, the yields on high-quality corporate bonds may vary considerably. The discount rate should be expected to vary in a similar fashion. For illustration purposes, we have included the yield curve as at May 31, 2005. It is about 45 basis points lower than the December 31, 2004 rates. The May 31, 2005 rates are at their lowest level since CICA 3461 was adopted.

*High-Quality Corporate Bonds*



*Discount Rate by Country*



## Discount Rate for Non-Pension Benefits

If the yield curve should remain at the May 2005 level until the end of the year, we could expect the December 31, 2005, discount rate to be about 45 basis points lower than the December 31, 2004, rate.

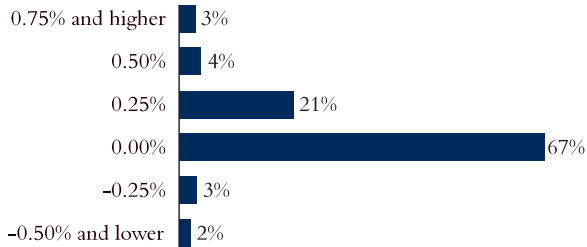
The following chart compares the median discount rates in our survey to the median discount rates from the U.S. survey<sup>1</sup>, including discount rates that are expected as at December 31, 2004. We see that the rates in the U.S. have fallen below the Canadian rates as at December 31, 2004, for the first time since adoption of CICA 3461.

Because of the different nature of employee future benefits other than pensions, some companies may choose to use a different discount rate in their valuation of other benefits. The ABO may have a different duration because it applies to a different population, or because of the nature of the benefits offered. For example, the duration of the ABO for a retiree medical plan is often higher than the duration of a pension ABO for the same population.

The following chart shows the difference between the discount rate used in the valuation of employee future benefits other than pensions and the discount rate used for pension plans.

<sup>1</sup> Source: Survey of Economic Assumptions used for SFAS No. 87 and SFAS No. 106 Purposes, prepared by Deloitte & Touche Human Capital Advisory Services (US).

*Difference in Discount Rates  
(Post-retirement benefits vs. pensions)*



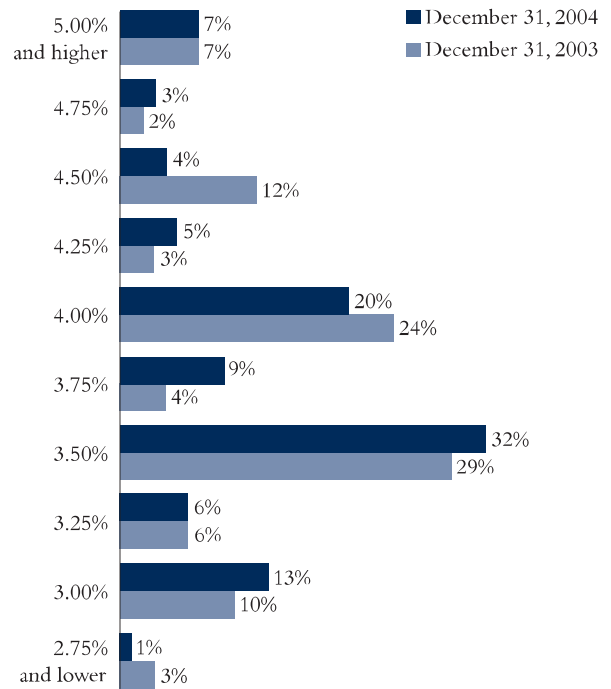
While in most cases management selects identical assumptions for pensions and other employee benefits, 29% use a higher discount rate assumption for employee future benefits (an increase from the 20% of our previous survey).

## Rate of Compensation Increase

Plans that provide pay-related benefits are required to make an assumption about the rate of compensation increases. CICA 3461 indicates that it should reflect “future changes attributed to general price levels, productivity, seniority, promotion, and other factors”.

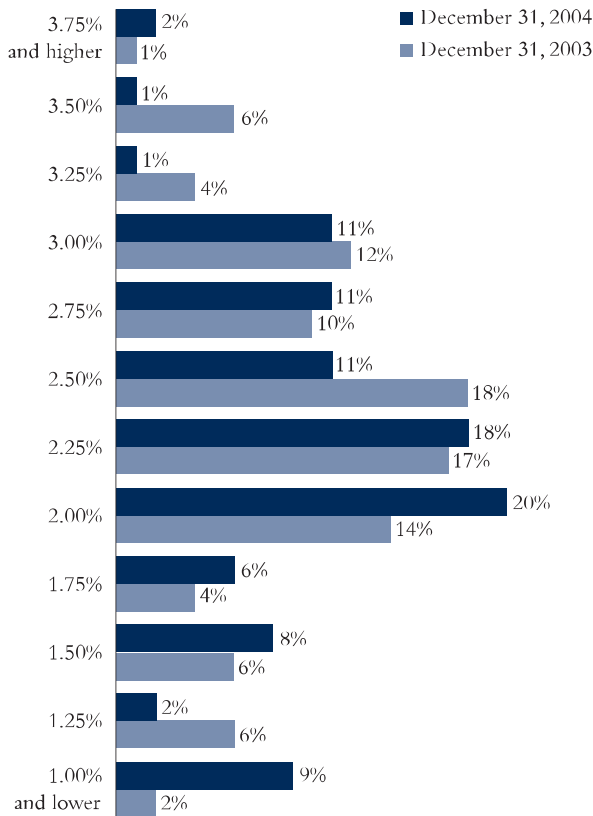
The median compensation increase assumption as at December 31, 2004, was 3.5%, 30 basis points lower than last year. It should be noted that 61% of companies used rates between 3.5% and 4.0%.

*Rate of Compensation Increase*



The following graph shows the spread between the discount rate and the rate of compensation increase. The spread between these two assumptions generally has an important impact on the ABO calculated for defined benefit pension plans. The median is 2.3% as at December 31, 2004, compared to 2.4% last year.

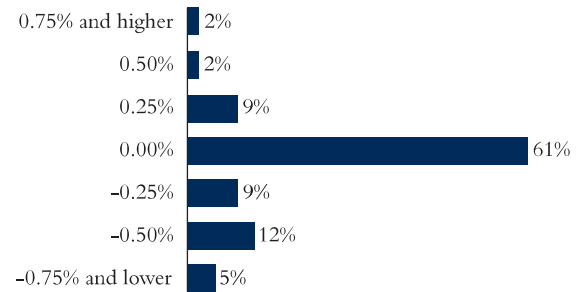
**Spread: Discount Rate / Compensation**



There is some debate among practitioners and management regarding the frequency of changes in the rate of compensation increase assumption. The standards provide additional guidance on this issue, especially in the CICA “Supplement to the Employee Future Benefits Implementation Guide”. It states that the requirement to be internally consistent applies to all assumptions except for the discount rate. Assumptions other than the discount rate should be based on a long-term view and should be revised only with a significant change in expected long-term economic conditions.

Our survey results show that, while the discount rate has generally declined, 61% of companies have kept the same rate of compensation increase assumption as last year. About 26% of companies adjusted their assumption downward.

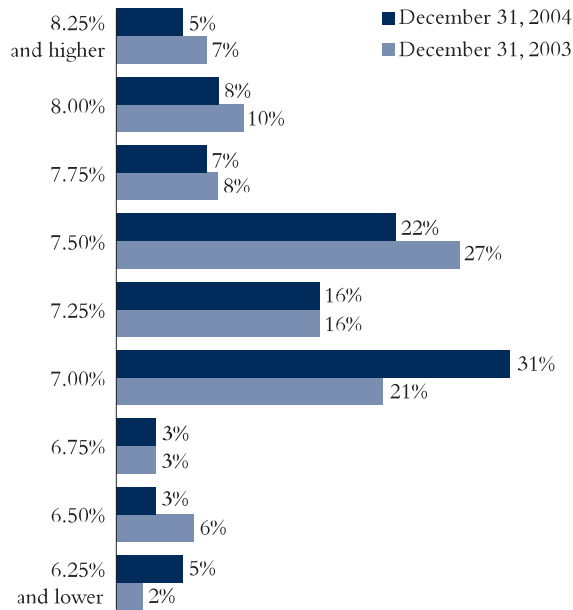
**Change in Compensation Increase Assumption (2004 vs. 2003)**



**Expected Long-Term Return on Plan Assets**

CICA 3461 specifies that the assumed rate of return on plan assets should also reflect a long-term view. The following chart shows the assumptions disclosed as at December 31, 2004.

**Expected Return on Plan Assets**



The median expected long-term rate of return on plan assets is 7.25% which is 25 basis points below the December 31, 2003 survey. About 69% of the companies use rates between 7.0% and 7.5%.

For most plans, actual returns earned in 2004 by pension funds exceeded the assumption for expected long-term return on plan assets. The actual median return for diversified pension funds was 10.2% in 2004 according to the “Performance Universe of Pension Managers’ Pooled Funds” prepared by Morneau Sobeco. Even with this good performance, the decline in discount rate should still increase the pension expense in 2005 in many cases.

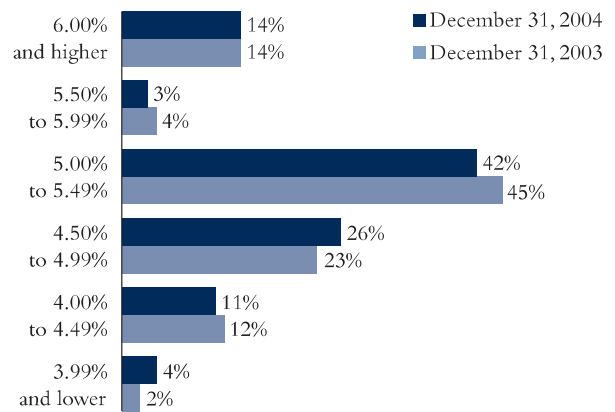
**Medical Cost Trend**

Where retiree medical coverage is offered, a key assumption in the valuation of the ABO is the rate of future medical cost increases. CICA 3461 provides guidance on factors that companies should consider in selecting this assumption.

Often, medical costs are assumed to increase at a higher rate in the short term. The rate of these increases is then assumed to decline gradually over time to an ultimate level.

The following charts show the December 31, 2004, medical cost trend assumptions compared to the December 31, 2003, assumptions. About 70% of companies used an ultimate trend rate between 4.5% and 5.5%. The median is 5.0%, unchanged from last year’s survey.

**Ultimate Medical Cost Trend**

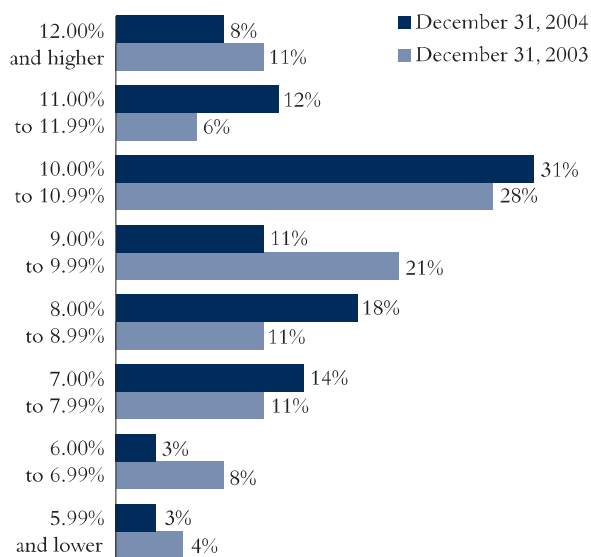


There has been a slight increase in the short-term assumption. The median is 9.9% compared to 9.7%, as at December 31, 2003.



For the third straight year, there has been an increase in the number of companies using an assumption of 10% or higher. In fact, 50% fall in that category. Only 20% of companies have opted for an assumption below 8%.

**Short-Term Medical Cost Trend**



## New CICA 3461 disclosures

This year marks the adoption of new disclosures in companies' financial statements. Our survey was expanded to provide you with additional information on these new disclosures.

### ASSET AND OBLIGATION MEASUREMENT DATE

CICA 3461 requires that the employee future benefits be measured at fiscal year end or at a date up to 3 months prior to that date. All companies in our survey have a December 31 fiscal year end; therefore, some companies may use a measurement date as early as September 30.

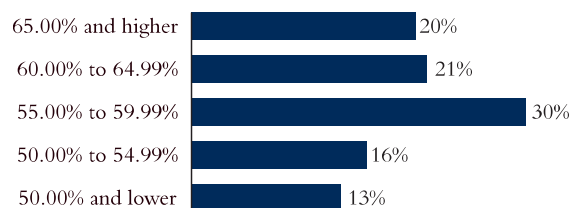
We find that 86% use December 31 as a measurement date. Among the others, September 30 date is used most often at 9%.

### PENSION PLAN ASSET ALLOCATION

It is now required that asset allocation be disclosed by the following categories: equity, debt and other assets. Additional categories may be added if it helps the user of the financial statement improve his understanding of the investment risk. We find that almost all companies have elected to show only the minimum allocation categories: equity, debt and other assets (no additional categories were added).

The average asset allocation as at December 31, 2004, is 58% in equity, 38% in debt and 4% in other assets. The actual proportion of equity held by pension plans is shown below:

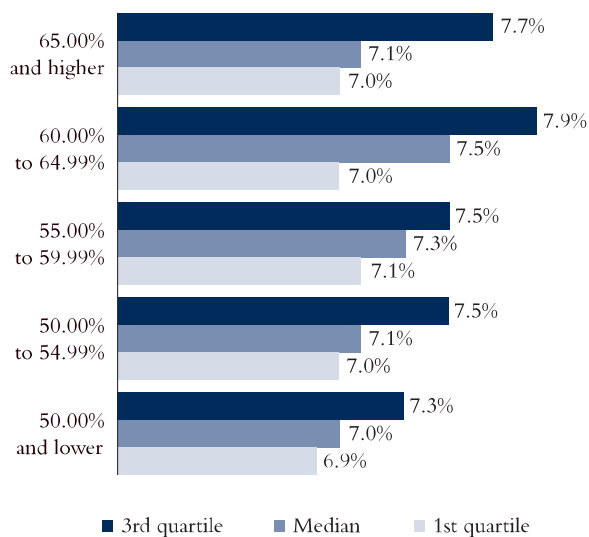
#### Company distribution by their pension plans' equity level



Since the assumption for expected long-term return on assets is based on asset allocation and expectations for future growth of these assets, we have compared the rate of return on asset assumptions to the level of equity held by pension plans.

Theoretically, a pension plan holding more equity should have a higher rate of return on asset assumption while a plan with a lower proportion of equity should have a lower assumption. The results from our survey, in the graph below, show that the asset return assumption is similar even with varying levels of equity held. Note that the plans with equity levels between 60% and 65% have a median and third quartile higher than others.

*Long-term rate of return assumption for varying levels of equity*



**PENSION EXPENSE BEFORE AND AFTER ADJUSTMENT**

CICA 3461 allows companies to amortize the different gains and losses, past service costs and transitional liability (asset) over future fiscal periods. These amortizations are permitted due to the long-term nature of employee future benefits. With the new disclosures, it is required to differentiate the expense recognized in the income

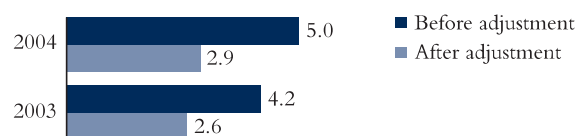
statement from the expense that would prevail if there were no amortization.

We note that, in our survey, about 75% of companies have presented this information retroactively for 2003 (for comparison purposes). Our analysis is based on those companies. They have funds with pension assets of \$88 billion, about 89% of pension assets of all companies in our survey.

In CICA 3461, we refer to “expense before adjustment” and “expense after adjustment”. The latter represents the company’s recognized expense presented in the income statement. The difference between these two shows the market volatility that is present in defined benefit plans.

The following graph shows the difference between a pension expense before and after adjustment for 2003 and 2004 in aggregate for all companies that provided this information. We find that, in 2004, they have recognized a total of \$2.9 billion in expense, whereas it would have been approximately \$5 billion without any amortization mechanisms. It will be interesting to follow the evolution of these results in future years.

*Pension expense before/after adjustment (in billion of dollars)*





## Appendix – Selecting the Discount Rate

In general, the ABO is most sensitive to the discount rate assumption. For example, a 25-basis-point decrease in the discount rate may increase the ABO by 5%. This increase could, in turn, impact the annual expense in subsequent years.

CICA 3461 provides general guidance as to the selection of the discount rate assumption. It should be determined by reference to market interest rates on high-quality debt instruments or to the interest rate at which the ABO could be settled. Although the discount rate is defined in CICA 3461, it does not prescribe a precise methodology for computing this rate.

Since Canadian standards are similar to the United States equivalent, one may look for guidance provided by the Securities and Exchange Commission (“SEC”) staff. The SEC has interpreted that the discount rate should reflect the yield of a portfolio of high-quality fixed-income instruments (rated as AA or better by Moody’s), which has the same duration as the plan’s ABO. Since the duration of the plan’s ABO is affected by certain demographic characteristics such as average age, average service or proportion of retirees, it should be expected that plans with similar demographics would use similar discount rates.

Information on high-quality Canadian corporate bonds (rated AA or more) is generally available and may serve as a starting point in the determination of the discount rate. Sources such as Scotia Capital provide information on high-quality corporate bond yields.

## For More Information

This survey is intended to provide information regarding the assumptions disclosed by a wide range of companies and, as such, can provide an indication of trends. The assumptions used for your own employee future benefits plans will depend on a number of factors. For more information, speak to your Morneau Sobeco consultant.



HUMAN RESOURCE CONSULTING AND ADMINISTRATIVE SOLUTIONS

*Morneau Sobeco is the industry leader in helping organizations deliver their human resource programs. For more than four decades, we have teamed up with North American companies to help them conceive and implement effective business solutions. The size and diversity of our client base gives our consultants a unique, forward-looking perspective on all compensation, retirement, and employee benefits issues.*



<u>CALGARY</u> 403.267.1717	<u>FREDERICTON</u> 506.458.9081	<u>HALIFAX</u> 902.429.8013	<u>LONDON</u> 519.438.0193	<u>MONTRÉAL</u> 514.878.9090
<u>OTTAWA</u> 613.782.2955	<u>QUÉBEC</u> 418.529.4536	<u>ST. JOHN'S</u> 709.753.4500	<u>TORONTO</u> 416.445.2700	<u>VANCOUVER</u> 604.642.5200
<u>PITTSBURGH</u> 412.687.3236				



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2004 Economic  
Assumptions  
CICA Section 3461

*Integrating*

*Highlights of our annual survey results*

*Design*

SPECIAL REPORT

*& Delivery*

MORNEAU  
SOBECO

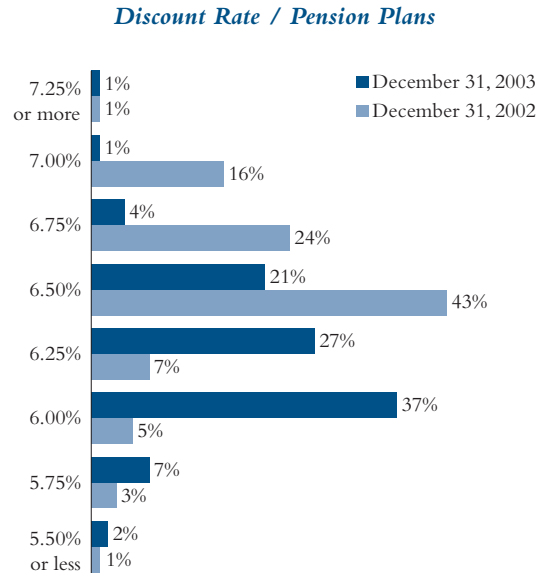
## Introduction

Section 3461 of the Canadian Institute of Chartered Accountants Handbook (CICA 3461) requires that the management of a company sponsoring a defined benefit plan measure the plan's accrued benefit obligation (ABO) and annual expense using assumptions that individually reflect best estimates and are "internally consistent with each other".

Morneau Sobeco has compiled information disclosed by about 100 Canadian public companies in their most recent audited financial statements, as of December 31, 2003. Assumptions for the fiscal year ending December 31, 2003 have also been compared to the previous year. This is the fourth year our survey has been produced.

## Discount Rate for Pension Plans

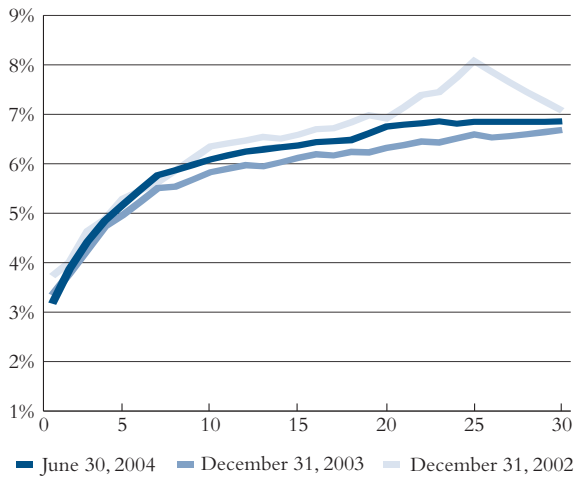
The following chart summarizes the discount rate used for defined benefit pension plan accounting (see the appendix for a description of the discount rate). The median discount rate is 6.25% at December 31, 2003 compared to 6.50% at December 31, 2002. About 85% of the companies used a rate between 6.00% and 6.50%. This range is consistent with CICA 3461 recommendations.



Even though the median discount rate has decreased by 25 basis points, 21% of the companies maintained the same discount rate as last year.

Over time, the yields on high-quality corporate bonds may vary considerably. The discount rate should be expected to vary in a similar fashion. For illustration purposes, we have included the yield curve at June 30, 2004. It is very similar to the December 31, 2003 curve for all durations.

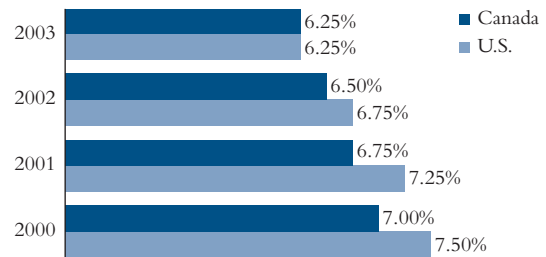
*High-Quality Corporate Bonds*



If the yield curve should remain at the June 2004 level until the end of the year, we could expect the December 31, 2004 discount rate to be very similar to the December 31, 2003 discount rate.

The following chart compares the median discount rates in our survey to the median discount rates from the U.S. survey<sup>1</sup>, including discount rates that are expected as at December 31, 2003. In recent years, the median rate in the U.S. has generally been higher than the median rate in Canada but there is no spread at December 31, 2003 anymore. The yield curve for corporate bonds rated AA or better and for durations between 10 and 17 years has been about 25 to 50 basis points higher in the U.S. over the last few years prior to 2003.

*Discount Rate by Country*

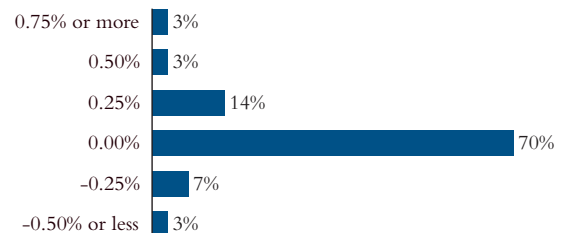


## Discount Rate for Non-Pension Benefits

Because of the different nature of employee future benefits other than pensions, some companies may choose to use a different discount rate in their valuation of other benefits. The ABO may have a different duration because it applies to a different population, or because of the nature of the benefits offered. For example, the duration of the ABO for a retiree medical plan is often higher than the duration of a pension ABO for the same population.

The following chart shows the difference between the discount rate used in the valuation of employee future benefits other than pensions, and that used for pension plans.

*Difference in Discount Rates*



While in most cases management selects identical assumptions for pensions and other employee benefits, 20% use a higher discount rate assumption for employee future benefits.

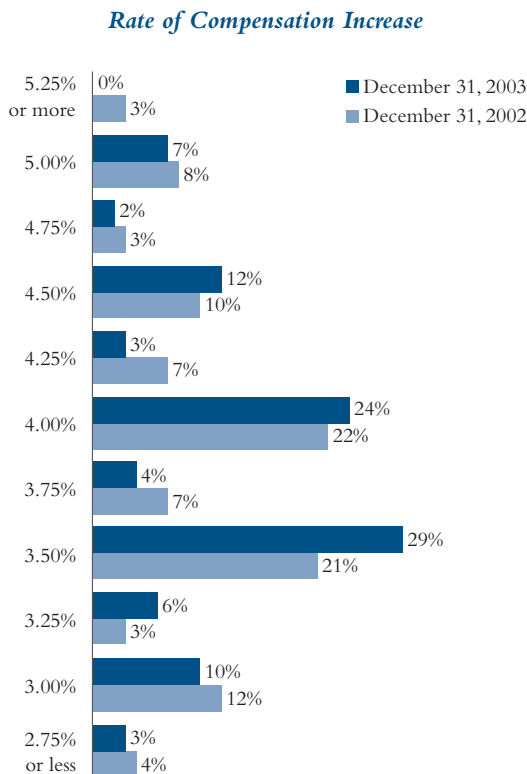
<sup>1</sup> Source : Survey of Economic Assumptions used for SFAS No. 87 and SFAS No. 106 Purposes, prepared by Deloitte & Touche Human Capital Advisory Services (US).

## Rate of Compensation Increase

Plans that provide pay-related benefits are required to make an assumption about the rate of compensation increases.

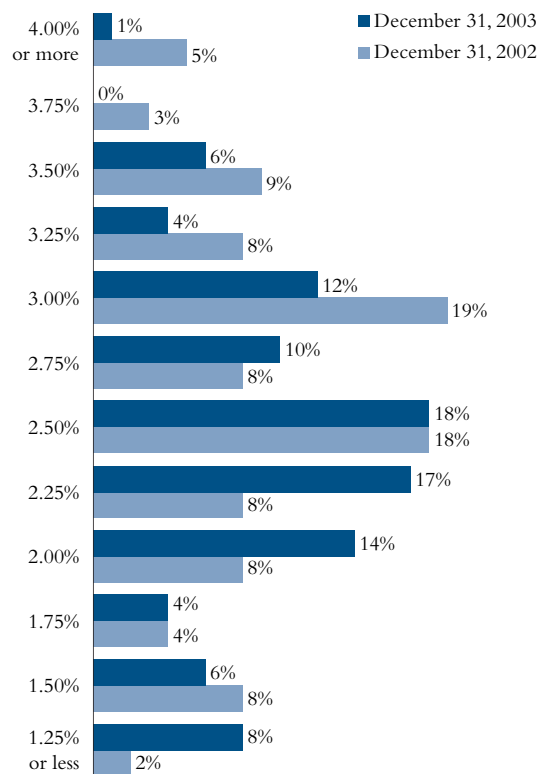
CICA 3461 indicates that it should reflect "future changes attributed to general price levels, productivity, seniority, promotion, and other factors".

The median compensation increase assumption at December 31, 2003 was 3.8%, 10 basis points lower than last year. It should be noted that 57% of companies used rates between 3.5% and 4.0%.



The following graph shows the spread between the discount rate and the rate of compensation increase. The spread between these two assumptions generally has an important impact on the ABO calculated for defined benefit pension plans. The median is 2.4% at December 31, 2003 compared to 2.8% last year.

**Spread Discount Rate / Compensation**

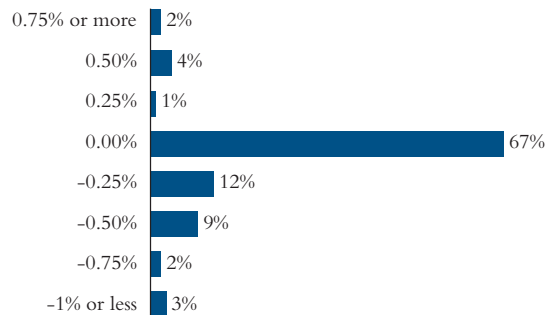


There is some debate among practitioners and management regarding the frequency of changes in the rate of compensation increase assumption. The standards provide additional guidance on this issue, especially in the CICA "Supplement to the Employee Future Benefits Implementation Guide". It states that the requirement to be internally consistent applies to all

assumptions except for the discount rate. Assumptions other than the discount rate should be based on a long-term view and should be revised only with a significant change in expected long-term economic conditions.

Our survey results show that, while the discount rate has generally declined, 67% of companies have kept the same rate of compensation increase assumption as last year. About 25% of companies adjusted their assumption downward.

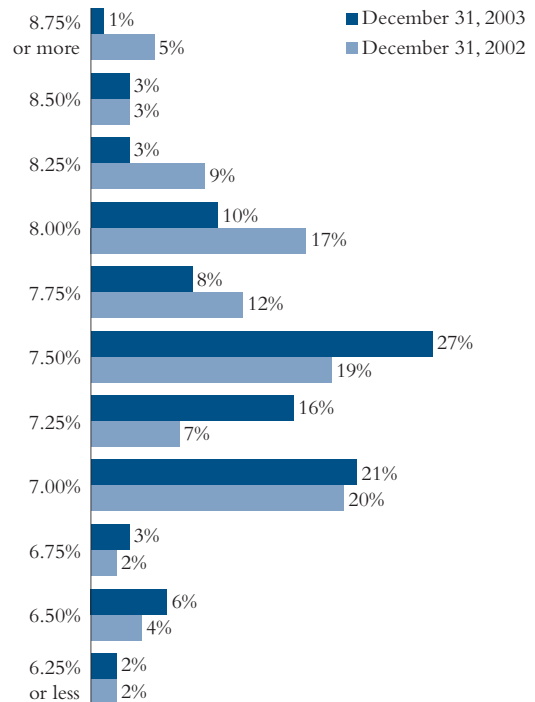
*Change in Compensation Increase Assumption (2003 vs 2002)*



## Expected Long-Term Return on Plan Assets

CICA 3461 specifies that the assumed rate of return on plan assets should also reflect a long-term view. The following chart shows the assumptions disclosed at December 31, 2003.

*Expected Return on Plan Assets*



The median expected long-term rate of return on plan assets is 7.5% which is identical to the December 31, 2002 survey. About 65% of the companies use rates between 7.0% and 7.5%.

Actual returns earned by pension funds were far better in 2003 than in 2001 and 2002. The actual median return for diversified pension funds was 13.9% in 2003 compared to 0.2% in 2001 and -5.1% in 2002 according to the "Performance Universe of Pension Managers' Pooled Funds" prepared by Morneau Sobeco. This 2003 excess return compared to the expected return assumption will ease the pressure on pension expense that followed the weak 2001 and 2002 asset performance.

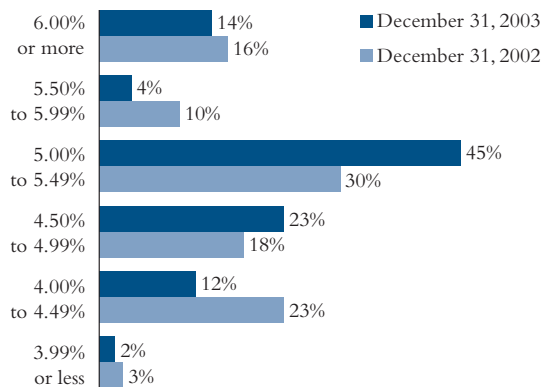
## Medical Cost Trend

Where retiree medical coverage is offered, a key assumption in the valuation of the ABO is the rate of future medical cost increases. CICA 3461 provides guidance on factors that companies should consider in selecting this assumption.

Often, medical costs are assumed to increase at a higher rate in the short term. The rate of these increases is then assumed to decline gradually over time to an ultimate level.

The following charts show the December 31, 2003 medical cost trend assumptions compared to the December 31, 2002 assumptions. About 70% of companies used an ultimate trend rate between 4.5% and 5.5%. The median is 5.0%, unchanged from last year's survey.

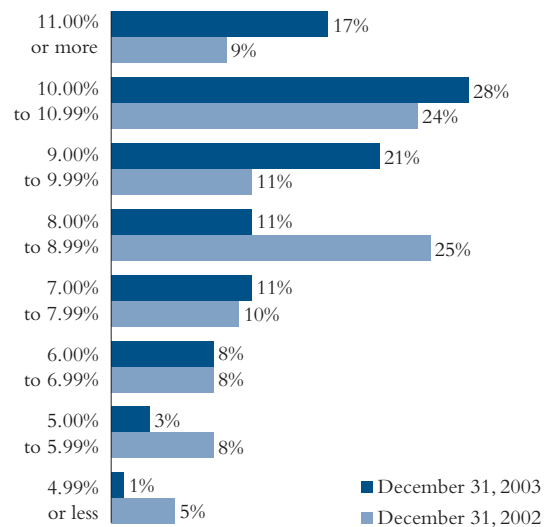
*Ultimate Medical Cost Trend*



There has been a significant increase in the short-term assumption. The median is 9.7% compared to 8.6% at December 31, 2002.

For the second straight year, there has been a substantial increase in the number of companies using an assumption of 10% or above. In fact, 45% fall in that category. Only 23% of companies have opted for an assumption below 8%.

*Short-Term Medical Cost Trend*





## Appendix – Selecting the Discount Rate

In general, the ABO is most sensitive to the discount rate assumption. For example, a 25-basis-point decrease in the discount rate may increase the ABO by as much as 5%. This increase could, in turn, impact the annual expense in subsequent years.

CICA 3461 provides general guidance as to the selection of the discount rate assumption. It should be determined by reference to market interest rates on high-quality debt instruments or to the interest rate at which the ABO could be settled. Although the discount rate is defined in CICA 3461, it does not prescribe a precise methodology for computing this rate.

Since Canadian standards are similar to the United States equivalent, one may look for guidance provided by the Securities and Exchange Commission ("SEC") staff. The SEC has interpreted that the discount rate should reflect the yield of a portfolio of high-quality fixed-income instruments (rated as AA or better by Moody's), which has the same duration as the plan's ABO. Since the duration of the plan's ABO is affected by certain demographic characteristics such as average age, average service or proportion of retirees, it should be expected that plans with similar demographics would use similar discount rates.

Information on high-quality Canadian corporate bonds (rated AA or more) is generally available and may serve as a starting point in the determination of the discount rate. Sources such as Scotia Capital provide information on high-quality corporate bond yields.

## For More Information

This survey is intended to provide information regarding the assumptions disclosed by a wide range of companies and as such can provide an indication of trends. The assumptions used for your own employee future benefits plans will depend on a number of factors. For more information, speak to your Morneau Sobeco consultant or call one of the following Morneau Sobeco specialists: Richard Béliveau (514.392.7853), Jean-Guy Gauthier (514.392.7843), Paul Nock (416.383.2125), Martin Raymond (514.392.7831) and Gary Stoller (416.383.6440).



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**CONFIDENTIAL (Attachment Only)**

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1 **Request IR-10:**

2

3 **With respect to the GRA, please provide all documents and correspondence to and from**  
4 **the actuary related to the accounting assumptions referenced therein.**

5

6 Response IR-10:

7

8 NS Power meets with the actuary in early January of each calendar year to set the assumptions  
9 (including the discount rate) at December 31 of the prior fiscal year and to set the asset return  
10 assumption for the benefit cost calculation for the upcoming year.

11

12 The following information was exchanged between NS Power and our actuary to assist in setting  
13 the December 31, 2011, accounting assumptions:

14

15 • Accounting discount rates at various durations under the Canadian Institute of Actuaries  
16 (CIA) Educational Note method and the Morneau Shepell PC Bonds method. Please  
17 refer to Confidential Attachment 1 and note the highlighted information in yellow.

18

19 • Anecdotal information regarding the proportion of plan sponsors, and specific examples  
20 of plan sponsors, adopting the CIA Educational Note method or an alternative method for  
21 purposes of December 31, 2011, accounting disclosure and 2012 pension cost  
22 calculations

23

24 • Excerpt from the December 31, 2009, actuarial report on the Canada Pension Plan in  
25 regards to assumed inflation rate and historical inflation. Please refer to Attachment 2.

26

27 • Bank of Canada release on inflation control target dated November 9, 2011. Please refer  
28 to Attachment 3.

2013 General Rate Application (NSUARB P-893)  
NSPI Responses to Eckler Information Requests

**CONFIDENTIAL (Attachment Only)**

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- 1 • 2011 Morneau Shepell Survey of Economic assumptions and summary of prior years.  
2 Please refer to Eckler IR-9 Attachments 1 and 2.  
3
- 4 • Summary of actual December 31, 2010, accounting disclosure assumptions and  
5 December 31, 2011, assumptions that needed to be reviewed and discussed. Please refer  
6 to Confidential Attachment 4 and note the highlighted information in yellow.  
7
- 8 • Historical annual inflation rates from 1986 to 2011. Please refer to Attachment 5.  
9
- 10 • Morneau Shepell range of best estimate returns for various asset classes for purposes of  
11 setting accounting asset return assumptions. Please refer to Booth IR-5 Confidential  
12 Attachment 1.  
13
- 14 • NS Power confirms agreement with assumptions on management's best estimates  
15 including termination and retirement assumptions provided by Actuary.

## **ACTUARIAL REPORT**

### **CANADA PENSION PLAN**

as at 31 December 2009

#### **B. Annual Increase in Prices (Inflation Rate)**

The inflation rate assumption is needed to determine the Pension Index for any given calendar year. It is also used in the determination of the annual nominal increase in average employment earnings, the Year's Maximum Pensionable Earnings, and the nominal rates of return on investments.

Price increases, as measured by changes in the Consumer Price Index tend to fluctuate from year to year. Over the last 50 years, the trend was generally upward through the early 1980s and downward since. For example, the average annual increase in the CPI for the 50, 20 and 10-year periods ending in 2009 were 4.1%, 2.2% and 2.1%, respectively. Going forward, the Bank of Canada has reaffirmed its objective of keeping the inflation rate within a target range of 1% to 3% until the end of 2011.

For 2010 to 2016, it is assumed that the Bank of Canada will maintain its inflation target policy. An assumption of 2.0% is set for this period, which corresponds to the average forecast from various economists and falls in the middle of the Bank of Canada target range. On the other hand, the ultimate assumption for price increases for 2019 and thereafter has been set at 2.3%. This is lower than the assumption of 2.5% used in the 23<sup>rd</sup> CPP Actuarial Report but remains higher than the level of inflation that has been experienced over the last decade, and is in the upper part of the current Bank of Canada target range. The main reasons for the choice of an ultimate assumption of 2.3% are as follows:

- The Bank of Canada's long-term monetary policy is known only until the end of 2011. When compared to the 75-year projection period of the CPP, the monetary policy of the Bank of Canada could be viewed as short-term.
- The expected upward pressure on real wages due to a possible labour shortage may create upward pressure on prices.
- There is uncertainty about future energy costs.

Finally, for years 2017 to 2019 the inflation rate assumption is projected to increase gradually from 2.0% to 2.3% by increments of 0.1% each year.

# Bank of Canada Releases Background Information on Renewal of the Inflation-Control Target

FOR IMMEDIATE RELEASE

9 November 2011

Contact: Jeremy Harrison

613 782-8782

Ottawa, Ontario -

The Bank of Canada today released the document *Renewal of the Inflation-Control Target: Background Information*, which summarizes the key elements of Canada's inflation-targeting framework. The document describes Canada's 20-year experience with inflation targeting, provides a detailed explanation of the Bank's flexible approach to inflation targeting, and discusses the results of the Bank's research program since the previous renewal in 2006.

This release follows the 8 November announcement by the Government of Canada and the Bank of Canada that the inflation-control target agreement has been renewed for five years, to the end of 2016. Under the agreement, the Bank will continue to conduct monetary policy aimed at keeping inflation, as measured by the total consumer price index (CPI), at 2 per cent, with a control range of 1 to 3 per cent around this target.

Highlights of the *Background Information* document include:

**Inflation targeting has served the Canadian economy well.** Since Canada adopted an inflation target in 1991, inflation has averaged 2 per cent, and its variability has fallen by roughly two-thirds. Canadians have benefited from low, stable and predictable inflation in a number of important ways:

- consumers and businesses have enjoyed greater certainty about the future purchasing power of their savings and income;
- nominal and real interest rates have been lower; and
- Canada has experienced more stable economic growth and lower, less-variable unemployment.

Low inflation is not an end in itself, but rather the means to an end – a stable, well-functioning economy.

**The inflation target is symmetric**, which means that the Bank is equally concerned about inflation rising above or falling below the 2 per cent target. The Bank continues to use core inflation as an operational guide for its monetary policy because it is an effective indicator of the underlying trend in CPI inflation. Core inflation, along with other measures of inflationary pressures, is monitored to help achieve the target for total CPI inflation: it is not a replacement for the latter.

**The inflation-targeting framework is flexible.** Typically, the Bank seeks to return inflation to target over a horizon of six to eight quarters. However, over the past 20 years, there has been considerable variation in the horizon, in response to different circumstances and economic shocks. At times, the horizon over which inflation was projected to return to the 2 per cent target has been as short as two quarters and as long as 11 quarters. There have been nine occasions when the Bank has extended the target horizon beyond eight quarters.

**Canada's monetary policy framework includes a flexible exchange rate.** A floating Canadian dollar plays a key role in the transmission of monetary policy and allows the Bank to pursue an independent monetary policy focused on achieving the inflation target. It also helps to absorb shocks to the economy.

The relative stability of Canada's economy during the recent global economic and financial crisis has underscored the benefits of inflation targeting. The crisis of 2008-09 was larger than any shock the Canadian economy had previously experienced under inflation targeting and put the regime to an unprecedented test. It proved to be a solid framework within which the Bank provided an aggressive monetary stimulus response to the crisis that helped to mitigate its effects on the Canadian economy. This experience reinforced the value of flexibility in the inflation-targeting framework and provided notable lessons for the future.

The crisis experience has shaped the Bank's perspective on two questions it has been studying over the past five years, and added a third. The *Background Information* document highlights the results of those studies.

- **Targeting a lower rate of inflation:** While the prospective net benefits of a lower inflation target are believed to be greater than previously estimated, recent experience and ongoing research point to sizable risks associated with the zero lower bound (ZLB) on interest rates. Before the benefits of a lower target can be confidently pursued, central banks must find a way to limit the probability of hitting the ZLB, and to manage more effectively when they do.
- **Price-level targeting (PLT):** Recent research and theoretical modelling have shown that PLT could potentially deliver gains in terms of increasing both long-term certainty about the price level and short-term macroeconomic stability. However, given the current state of knowledge, the potential benefits of PLT over the inflation-targeting framework do not clearly outweigh the costs and risks of moving away from a policy framework that has resulted in well-anchored expectations and strong central bank credibility.
- **Monetary policy and financial stability:** The global financial crisis has reinforced the reality that economic stability and financial stability are inextricably linked. In some exceptional circumstances, monetary policy might itself be the appropriate tool to support financial stability. A framework anchored on a solid and credible inflation target provides the flexibility for monetary policy to play an occasional role in supporting financial stability.

<u>Year</u>	<u>Annual CPI</u>	<u>Avg CPI to 2011</u>
1986	4.21	2.47%
1987	4.19	2.40%
1988	3.88	2.33%
1989	5.26	2.26%
1990	4.99	2.13%
1991	3.75	1.99%
1992	2.17	1.90%
1993	1.65	1.89%
1994	0.23	1.90%
1995	1.74	2.00%
1996	2.16	2.02%
1997	0.78	2.01%
1998	1.00	2.10%
1999	2.63	2.18%
2000	3.20	2.15%
2001	0.72	2.05%
2002	3.80	2.19%
2003	2.08	2.01%
2004	2.13	2.00%
2005	2.09	1.98%
2006	1.67	1.96%
2007	2.38	2.02%
2008	1.16	1.93%
2009	1.32	2.19%
2010	2.35	2.63%
2011	2.90	2.90%



**NON-CONFIDENTIAL**

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1 **Request IR-11:**

2

3 **Please provide copies of any Management Pension Committee Minutes in respect of 2011**  
4 **and/or 2012, and copies of any documents circulated to the Management Pension**  
5 **Committee in advance of any 2011 and/ or 2012 meetings or presented at the 2011 and/or**  
6 **2012 meetings of the Management Pension Committee.**

7

8 Response IR-11:

9

10 Due to the large volume of material, please refer to Confidential Attachments 1-6, available for  
11 viewing at NS Power's offices. Please note that non NS Power information has been removed.

**NON-CONFIDENTIAL**

**Request IR-12:**

**Please provide asset allocation reports or SIP&P compliance reports for the period ending December 31, 2011 showing the asset allocation for NSPI RPPs as of December 31, 2011, and how this allocation compares to the asset allocation provided for in the SIP&P.**

**Response IR-12:**

Due to the large volume of material, please refer to Confidential Attachments 1-5, available for viewing at NS Power's offices.

The December 31, 2011 asset allocations compared to the asset allocations in the SIP&P are as follows:

<b>Main Plan</b>	<b>Main</b>	<b>Legacy SIP&amp;P</b>	<b>New SIP&amp;P<sup>i</sup></b>
Cash	2.56%	0.00%	0.00%
Canadian Equities	24.75%	27.50%	22.00%
Global Equities	35.90%	37.50%	43.00%
Fixed Income	36.79%	35.00%	35.00%
<b>Acquired I Plan</b>	<b>Acquired I</b>	<b>Legacy SIP&amp;P</b>	<b>New SIP&amp;P<sup>ii</sup></b>
Cash	3.09%	3.00%	0.00%
Canadian Equities	32.41%	32.00%	22.00%
Global Equities	28.24%	28.00%	43.00%
Fixed Income	36.27%	37.00%	35.00%
<b>Acquired II Plan</b>	<b>Acquired II</b>	<b>Legacy SIP&amp;P</b>	<b>New SIP&amp;P<sup>iii</sup></b>
Cash	2.93%	3.00%	0.00%
Canadian Equities	32.53%	32.00%	7.00%
Global Equities	27.88%	28.00%	13.00%
Fixed Income	36.65%	37.00%	80.00%

Note: Figures presented reflect whole numbers which may cause rounding differences on some line items.

<sup>i</sup>A new SIP&P was approved in September 2011. Currently in the process of migrating assets to the new asset mix.

<sup>ii</sup>A new SIP&P was approved in September 2011. Currently in the process of migrating assets to the new asset mix.

<sup>iii</sup>A new SIP&P was approved in September 2011. Currently in the process of migrating assets to the new asset mix.

**NON-CONFIDENTIAL**

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1 **Request IR-13:**

2

3 **Please provide Relevant Minutes (NSPI RPP and NSPI SERP related extracts) for 2010**  
4 **through 2012 inclusive, for the Board, Executive Committee, Audit Committee and**  
5 **Management Resources & Compensation Committee in respect of the sponsorship or**  
6 **administration of the NSPI RPPs and NSPI SERPs. Please include any reports from the**  
7 **Management Pension Committee or any other source to the Board, Executive Committee,**  
8 **Audit Committee and Management Resources & Compensation Committee in respect of**  
9 **the sponsorship or administration of the NSPI RPPs and NSPI SERPs that are referenced**  
10 **in the Relevant Minutes.**

11

12 Response IR-13:

13

14 NS Power will provide this information to the Board upon request.

**NON-CONFIDENTIAL**

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1 **Request IR-14:**

2  
3 **Please identify all actions either taken or under consideration as a result of actuarial**  
4 **valuations received in 2011 or 2012.**

5  
6 Response IR-14:

7  
8 The VP of Human Resources ensures that the following actions are taken after receiving each  
9 valuation report:

- 10
- 11 • Meets with the actuary to review the report and financial and demographic implications.
  - 12
  - 13 • Discusses any issues identified by the actuary during the valuation process and follow-up  
14 as necessary.
  - 15
  - 16 • Signs the employer's confirmation certificate which forms part of the valuation report.
  - 17
  - 18 • Arranges for the actuary to make a presentation to the pension committee regarding the  
19 results of the valuation report and financial projections for upcoming years.
  - 20
  - 21 • Arranges for the actuary to meet with the union executive board to review the report.
  - 22
  - 23 • Distributes the report to internal stakeholders (union, finance, HR and others as  
24 necessary).
  - 25
  - 26 • Ensures that the valuation report is filed with the pension regulator.
  - 27
  - 28 • Updates the employer contribution remittance requirements and ensures that updated  
29 contribution requirements are met.
-

2013 General Rate Application (NSUARB P-893)  
NSPI Responses to Eckler Information Requests

**NON-CONFIDENTIAL**

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- 1 The collective agreement between NS Power and the IBEW Local 1928 expired March 31, 2012.
- 2 Negotiations for the new collective agreement commenced in March 2012. Management and the
- 3 union continue to meet in an effort to reach an agreement.

**NON-CONFIDENTIAL**

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1 **Request IR-15:**

2

3 **Please identify all actions either taken or under consideration as a result of changes to**  
4 **Nova Scotia's Pension Benefits Act and Regulations introduced in 2011 and 2012.**

5

6 Response IR-15:

7

8 The Company reviewed the changes with its pension consultant and provided comments to its  
9 pension consultant to be incorporated to the pension consultant's submission to the Nova Scotia  
10 government regarding the proposed changes. Please refer to Eckler IR-14.

**NON-CONFIDENTIAL**

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1 **Request IR-16:**

2

3 **Please provide a copy of any correspondence that the Company sent to employees and/or**  
4 **pensioners in respect of pension issues during 2011 or 2012.**

5

6 Response IR-16:

7

8 Please refer to Attachment 1 which provides the template pension statements sent to all active  
9 defined benefit pension plan members for 2010 (provided in 2011) and 2011 (provided in 2012).

10 The letter on the first page of the statements provides an overview of the status of the plan.

11 There was no communication sent to pensioners in 2011 or 2012 in respect of pension issues.

**YOUR 2010 ANNUAL PENSION STATEMENT****PENSION PLAN FOR EMPLOYEES OF NOVA SCOTIA POWER INCORPORATED  
(DEFINED BENEFIT PROVISION)**

**NOVA SCOTIA  
POWER**  
An Emera Company

**PRIVATE AND CONFIDENTIAL****«FirstName» «LastName»****Employee ID: «EeNo»****Location: «Location»****Dear «SalutationName»,**

I am pleased to provide your personalized annual pension statement for 2010.

The net investment return for 2010 was a solid 9.4%. Combined with the net investment return of 17.9% during 2009, the returns over the last 2 years offset the investment losses experienced during 2008.

During 2010, we undertook a third party review of our Plan's long-term asset mix. This review confirmed that our current asset mix of 65% equities and 35% bonds continues to be appropriate. The plan will continue to have a focus on achieving solid investment returns while at the same time understanding and managing risk.

Nova Scotia Power is proud to sponsor one of the largest corporate defined benefit plans in Atlantic Canada. As at December 31, 2010, the Plan:

- Has \$615 million in assets;
- Covers more than 1,600 active employees; and,
- Provides pension income to over 1,200 retirees and beneficiaries.

At Nova Scotia Power and Emera, we are working hard to manage and maintain the health of our Plan. We conduct an annual financial review and update our contribution requirements annually. For 2011, employer contributions to the plan are expected to exceed \$30 million. Employee contributions for the same period will be approximately \$6 million. A summary of the financial position of the Plan at December 31, 2010 is shown on page 3.

Your personal pension entitlement is shown on page 2 of the statement and a summary of your personal information, including your beneficiary designation, is shown on page 3. You'll also find our informative "Did You Know" section on page 3, featuring a discussion on planning for retirement.

Should you have any questions on your Pension Statement please contact Morneau Shepell at 1-888-735-7444 or [nspinfo@morneausobeco.com](mailto:nspinfo@morneausobeco.com).

A handwritten signature in cursive script that reads "Sarah MacDonald".

Sarah MacDonald  
Executive Vice President, Human Resources

**About this Statement**

This statement covers the period January 1, 2010 to December 31, 2010 under the defined benefit provision of the Plan. If you switched to the defined contribution (DC) provision of the Plan, your DC benefits are payable in addition to the benefits shown below.

Under a defined benefit pension plan, a set amount of monthly pension is defined and payable to you, when you retire, for your lifetime. If you die before your spouse, and your spouse is entitled to a continuing pension, your spouse's pension will also be payable for his or her lifetime.





### A: Your accrued pension entitlement to December 31, 2010

Based on your Credited Service and Best Average Earnings as at December 31, 2010, you have accrued an **annual pension**, payable starting at age 65, of **\$«TerminationPension»**. If you had terminated on December 31, 2010 and had been a member of the Plan for two years, you would have been entitled to choose (1) or (2) below:

- 1) an **annual pension** of **\$«TerminationPension»** payable for your lifetime starting at age 65; or
- 2) «TerminationBenefit».

If you had terminated on December 31, 2010 and had not been a member of the Plan for two years, you would have been entitled to a return of your contributions with interest.

«Pg2\_Format1»If you are under age 55 at the date of termination, you are eligible for a **lump sum transfer**. In accordance with pension legislation, the **lump sum transfer** amount is determined based on interest rate assumptions which are updated monthly. The **lump sum transfer** amount will increase or decrease based on changes in the assumed interest rate.«Pg2\_Format2»



### B: Your projected pension if you retire at your unreduced retirement date

If you continue participating in the Plan to «URD», you will be entitled to an unreduced pension. If you continue participating in the Plan on a «Full\_Time\_Comment» basis to «URD», you are projected to be entitled to an **immediate annual pension** of **\$«Total\_LifePen\_at\_URD»** payable for your lifetime.

In addition to the above annual amount payable for your lifetime, you will receive an annual **bridge benefit** payable until you are age 65 of **\$«Final\_Tot\_Bridge\_at\_URD»**. The **bridge benefit** is a benefit that bridges the gap between your retirement date and age 65 – the age you qualify for unreduced Canada Pension Plan (CPP) benefits.

### C: Your projected pension if you retire at your normal retirement date

If you continue participating in the Plan on a «Full\_Time\_Comment» basis to your normal retirement date («NRD») and retire on that date, you are projected to be entitled to an **immediate annual pension** of **\$«Total\_Pension\_at\_NRD»** payable for your lifetime.

Old Age Security is payable starting at age 65 and CPP is payable on an unreduced basis if you start receiving it at age 65.

### Additional Information

The earliest age at which you can start receiving your pension is age 55. If you start your pension prior to your unreduced retirement date, the annual amount of pension payable will be reduced.

«SERP\_Comment»«SERP\_Comment2»«Acquired\_Comment1»«Acquired\_Comment2»«Emera\_Fuels\_Comment»



**NOVA SCOTIA  
POWER**  
An Emera Company

## Did You Know...

There are many issues to be considered when planning for retirement, not the least of which is when you can afford to do so.

Conventional wisdom suggests you need a retirement income of between 60% and 70% of your gross pre-retirement income to maintain your standard of living. To determine whether this is appropriate in your situation, you need to consider your expenses after retirement and the actual income available to you.

Certain expenses you currently have may no longer exist after retirement. For example: CPP and EI deductions, pension contributions, child-related expenses, employment-related expenses, mortgage payments, etc.

Your post-retirement income may come from a number of sources in addition to your pension benefit from the Plan. For example: personal savings through RRSPs, and/or TFSA's, government-sponsored benefits from CPP and/or OAS, or other pension benefits from previous employers. Amounts payable to your spouse should also be taken into account.

Retirement planning is important to ensure you are on track to be able to retire when you want and to be able to pursue the lifestyle you wish after retirement.

## Personal Information

The following information is a concise summary of your current personal data recorded for pension plan purposes:

Plan Member:	«FirstName» «LastName»
Date of Birth:	«DoB»
Date of Hire:	«DoH»
Date of Plan Entry:	«DoE»
Spouse:	«Spouse»
Spouse's Date of Birth:	«SpouseDoB»
Beneficiary:	«Ben2» «Ben3» «Ben4» «Ben5» «Ben6» «Ben1»
Vesting Date:	«VestingDate»
<b>Credited Service to December 31, 2010:</b>	«CreditedService» Years
Annualized Pensionable Earnings for 2010:	\$«M_20XXAnnualSa lary»*
<b>Best Average Earnings as at Dec 31, 2010:</b>	\$«BAE4»

For projection purposes, it is assumed that your Best Average Earnings at retirement is the same as it is at December 31, 2010. Your Best Average Earnings is determined using an averaging period of 4 years.

The following summarizes your contributions to the Plan:

Your Contributions with Interest to Jan 1, 2010:	\$«Total_CWI_a t_BoY»
Current Year Contributions:	«CurrentCont»
Current Year Interest (1.81% per annum):	«Interest»
Your Contributions with Interest to Dec 31, 2010:	\$«Total_CWI_a t_EoY»

Your contributions help pay for the cost of Plan benefits. In no event will the benefits provided by the Plan be less than the value of your contributions with interest.

## Financial Position

Based on the actuarial valuation report as at December 31, 2010, the Plan liabilities on a "going-concern" basis exceed the market value of fund assets. NSPI expects to make over \$20 million in annual contributions for the next few years to pay down this shortfall. The following figures are expressed in millions:

	2010	2009
<b>Market Value of Fund Assets as at January 1<sup>st</sup></b>	<b>\$559.82</b>	<b>\$479.54</b>
Contributions – Emera and NSPI	29.49	20.61
Contributions – Emera and NSPI Employees	5.70	5.34
Income / Unrealized Gains/(Losses), net of expenses	52.57	85.31
Pension Benefits Paid and Termination Transfers	(32.04)	(30.98)
<b>Market Value of Fund Assets as at December 31<sup>st</sup></b>	<b>\$615.54</b>	<b>\$559.82</b>
<b>Plan Liabilities on a Going-Concern Basis as at December 31<sup>st</sup></b>	<b>\$732.99</b>	<b>\$697.56</b>
<b>Surplus (Shortfall) on a Market Value of Fund Assets Basis</b>	<b>(\$117.45)</b>	<b>(\$137.74)</b>

## General Plan Summary

The following is a summary of Plan benefits. Please refer to the HR website at <http://hr.emera.com/intranet/pension/index.shtml> for a copy of the employee booklet.

### Lifetime Pension Formula

Your years of Credited Service multiplied by the sum of (a) and (b):

- (a) 1.3% multiplied by the lesser of your Best Average Earnings or the Average Year's Maximum Pensionable Earnings (YMPE),
- (b) 2.0% multiplied by the amount your Best Average Earnings exceeds the Average YMPE.

### Bridge Formula

Your years of Credited Service to July 1, 2004 multiplied by 0.7% of the lesser of your Best Average Earnings or the Average YMPE. You may qualify for additional bridge benefits in respect of Credited Service after July 1, 2004 based on the rules set out in the Plan document.

### Unreduced Retirement Date

If you joined the Plan prior to July 1, 2004 and you retire from active employment with Emera, you are eligible for an unreduced pension if you are age 60 and have completed 2 years of service or have attained age 55 and have accumulated 85 points (age plus years of continuous service).

If you joined the Plan on or after July 1, 2004 and you retire from active employment with Emera, you are eligible for an unreduced pension if you are age 62 and have completed 15 years of service, or have attained age 65, or have attained age 55 and accumulated 85 points.

If you wish to start your pension and bridge prior to your unreduced retirement date, your pension and bridge will be reduced based on the Plan's early retirement rules.

### Indexing of Lifetime Pension and Bridge

After retirement, your pension and bridge is increased annually for the change in the consumer price index to a maximum of 6% per year. (The maximum may be capped at 4% per year for members who joined the Plan on or after July 1, 2004.)

### Annual Member Contribution

While you are actively employed and accruing benefits under the Plan, you are required to contribute 5.4% of your Earnings up to the YMPE, plus 7% of your Earnings above the YMPE. The YMPE for 2011 is \$48,300. Your contribution is capped at \$9,343 for 2011.

### Spouse

When you die, your "Spouse" has priority for the death benefits payable from the Plan. For purposes of the Plan, a Spouse is a) someone you are legally married to, or b) someone whom you have been in a common-law relationship with for at least 2 years while not legally married to someone else.

### Death Benefits if you die before Retirement

Your Spouse will receive an annual pension payable for life equal to 60% of the lesser of:

- (a) Credited Service multiplied by 2%, multiplied by Best Average Earnings; and,
- (b) the lifetime pension the member would have accrued to age 65 had the member survived and continued as a member to that age, based on the member's earnings and the YMPE in effect immediately prior to death; and,
- (c) 150% of the YMPE at the time of death

In addition, each dependant child will receive an annual pension of 10% of the lesser of (a), (b), and (c) as described above for as long as they are dependant. If you have no spouse or dependants, your estate will receive a refund of your contributions made to the Plan, with interest.

### Death Benefits if you die after Retirement

Your Spouse will receive an annual lifetime pension for their lifetime equal to 60% of the pension you were receiving immediately prior to death. In addition, dependant child benefits may be payable.

If you die and you do not have a Spouse or dependants, a lump sum will be payable to your beneficiary such that the total pension payments made to you and your beneficiary is equal to 120 monthly payments of the lifetime pension.

### Government-Sponsored Benefits

In addition to the Plan benefits previously described, you may be eligible for certain government benefits from Old Age Security (OAS) and the Canada/Quebec Pension Plan (CPP/QPP).

OAS benefits are payable starting at age 65. The maximum OAS benefit payable as at January 1, 2011 is \$6,291 per year. If your total retirement income exceeds a certain threshold (\$67,668 for 2011), your OAS benefit will be clawed back.

The maximum CPP/QPP benefit payable as at January 1, 2011 for someone retiring at age 65 is \$11,520 per year. CPP/QPP benefits are payable on a reduced basis as early as age 60.

You should apply for OAS and CPP/QPP benefits six months before you wish to receive these benefits. For more information on government benefits, you can visit their website at [www.hrsdc.gc.ca](http://www.hrsdc.gc.ca).

## Accuracy

The Plan is registered with the Nova Scotia Department of Environment and Labour and the Canada Revenue Agency under registration number 0687210. This statement was prepared by Morneau Shepell Limited and presents a summary of your Plan benefits. While every effort has been made to report information accurately, in the event of any differences between this statement and the Plan document, the provisions of the Plan document shall apply. If you have any questions regarding this statement or would like a copy of the official Plan document, please contact Morneau Shepell toll free at (888) 735-7444 or by e-mail at [nspinfo@morneausobeco.com](mailto:nspinfo@morneausobeco.com).

YOUR 2011 ANNUAL PENSION STATEMENT

# Pension Plan for Employees of Nova Scotia Power Incorporated (Defined Benefit Provision)

PRIVATE AND CONFIDENTIAL

&lt;&lt;FirstName&gt;&gt; &lt;&lt;LastName&gt;&gt;

Employee ID: &lt;&lt;EeNo.&gt;&gt;

Location: &lt;&lt;Location&gt;&gt;



Dear &lt;&lt;SalutationName&gt;&gt;,

We are pleased to provide your personalized annual pension statement for 2011. This Statement provides an update on the benefits you have accrued under the Plan as well as a summary of the Plan features.

Following the Plan's strong investment performance in 2009 (17.9%) and 2010 (9.4%), the Plan's net investment return for 2011 was -1.8%. The average compounded annual return over the last 3 years was 8.2%. The asset mix for the Plan continues to be 65% equities and 35% bonds with a focus on achieving solid investment returns while at the same time understanding and managing risk.

The Plan is overseen by a Pension Committee that employs third-party investment managers, investment consultants, asset custodians, and actuaries to manage the Plan. The Pension Committee receives quarterly reports on the Plan's investment performance and annual reviews of the Plan's financial position. For 2011, NSP contributions to the plan were about \$36 million. Employee contributions for the same period were about \$6 million. A summary of the financial position of the Plan at December 31, 2011 is shown on page 3.

Defined benefit pension plans have been in the news lately as both employers and employees work to manage rising costs. There are a number of factors contributing to rising costs including: lower returns on long-term bonds, lower expectations for future equity returns, asset returns that have been less than expected over the last 10 years; and aging workforces. Nova Scotia Power's pension plan shares these same challenges. The Company, in consultation with the Pension Committee, continually look for options as to how best to manage current and future costs while still delivering pension benefits. I want to assure you that any changes to Plan terms would be communicated to all employees before they took effect.

Your personal pension entitlement is shown on page 2 of the statement and a summary of your personal information, including your beneficiary designation, is shown on page 3. You'll also find our informative "Did You Know" section on page 2, featuring a discussion on investments and changes to Old Age Security benefits.

Should you have any questions on your Pension Statement, or are considering retirement in the near future and would like a more detailed projection of your retirement benefits please contact Morneau Shepell at 1-888-735-7444 or [nspinfo@morneaushepell.com](mailto:nspinfo@morneaushepell.com).

Barbara Meens Thistle  
VP HR, NSPI & Chief HR Office, Emera

## About this Statement

This statement covers the period January 1, 2011 to December 31, 2011 under the defined benefit provision of the Plan. If you switched to the defined contribution (DC) provision of the Plan, your DC benefits are payable in addition to the benefits shown below.

Under a defined benefit pension plan, a set amount of monthly pension is defined and payable to you, when you retire, for your lifetime. If you die before your spouse, and your spouse is entitled to a continuing pension, your spouse's pension will also be payable for his or her lifetime.

## Accuracy

The Plan is registered with the Nova Scotia Department of Environment and Labour and the Canada Revenue Agency under registration number 0687210. This statement was prepared by Morneau Shepell and presents a summary of your Plan benefits. While every effort has been made to report information accurately, in the event of any differences between this statement and the Plan document, the provisions of the Plan document shall apply. If you have any questions regarding this statement or would like a copy of the official Plan document, please contact Morneau Shepell, toll free at (888) 735-7444 or by e-mail at [nspinfo@morneaushepell.com](mailto:nspinfo@morneaushepell.com).

energy everywhere.™



## Your accrued pension entitlement to December 31, 2011

Based on your Credited Service and Best Average Earnings as at December 31, 2011, you have accrued an **annual pension**, payable starting at age 65, of **\$<<TerminationPension>>**. If you had terminated on December 31, 2011 and had been a member of the Plan for two years you would have been entitled to choose (1) or (2) below:

- 1) an **annual pension** of **\$<<TerminationPension>>** payable for your lifetime starting at age 65.
- 2) <<TerminationBenefit>>

If you had terminated on December 31, 2011 and had not been a member of the Plan for two years, you would have been entitled to a return of your contributions with interest.

## Your projected pension if you retire at your unreduced retirement date

If you continue participating in the Plan to <<URD>>, you will be entitled to an unreduced pension. If you continue participating in the Plan on a <<Full Time Comment>> basis to <<URD>>, you are projected to be entitled to an **immediate annual pension** of **\$<<Total LifePen at URD>>** payable for your lifetime.

In addition to the above annual amount payable for your lifetime, you will receive an annual bridge benefit payable until you are age 65 of **\$<<Final Tot Bridge at URD>>**. The bridge benefit is a benefit that bridges the gap between your retirement date and age 65 - the age you qualify for unreduced CPP benefits.

## Your projected pension if you retire at your normal retirement date

If you continue participating in the Plan, on a <<Full Time Comment>> basis, to your normal retirement date (<<NRD>>) and retire on that date, you are projected to be entitled to an **immediate annual pension** of **\$<<Total Pension at NRD>>** payable for your lifetime.

Old Age Security is payable starting at age 65 and Canada Pension Plan is payable on an unreduced basis if you start receiving it at age 65.

### <<Add\_Info>>

<<SERP Comment>><<SERP Comment2>>

The earliest age at which you can start receiving your pension is age 55. If you start your pension prior to your unreduced retirement date, the annual amount of pension payable may be reduced. If you are under age 55 at the date of termination, you are eligible for a **lump sum transfer**. In accordance with pension legislation, the **lump sum transfer** amount is determined based on interest rate assumptions which are updated monthly. The **lump sum transfer** amount will increase or decrease based on changes in the assumed interest rate.

## Did You Know...

- ▶ Because of the size of the fund, the investment management fees charged each year are significantly less than the average fees charged to individuals who invest in mutual funds offered by banks and investment advisors.
- ▶ The investment management fees charged to the Plan each year totals between 0.30% and 0.35% of assets. This compares to average annual fees of between 1.75% and 2.25% of assets for mutual funds with similar investment goals.
- ▶ The Canadian government recently announced changes to the Old Age Security (OAS) benefit in the 2012 budget. The age to be eligible to start receiving OAS will increase from 65 to 67. This increase in age will be phased in starting 2023. Anyone born before April 1, 1958 will not be affected by this change.
- ▶ The maximum monthly benefit payable under OAS is \$540 at Jan 1, 2012. If you are planning to retire on or after 2023, you should take into account the potential financial impact of the change in OAS. For a couple, the change could mean as much as \$26,000 less in total pre-tax OAS payments over their lifetime.
- ▶ The federal government also introduced a voluntary deferral option for OAS. Starting in July 2013, you will have the option to defer the commencement of your OAS pension by up to five years beyond your eligibility age, in which case your OAS pension will be increased by 0.6% per month of deferral.
- ▶ Retirement planning is important to ensure you are on track to be able to retire when you want and to be able to pursue the lifestyle you wish after retirement.



### Personal Information

The following information is a concise summary of your current personal data recorded for pension plan purposes:

Plan Member:	<<FirstName>> <<LastName>>
Date of Birth:	<<DoB>>
Date of Hire:	<<DoH>>
Date of Plan Entry:	<<DoE>>
Spouse:	<<Spouse>>
Spouse's Date of Birth:	<<SpouseDoB>>
Beneficiary:	<<Ben1>> <<Ben2>> <<Ben3>> <<Ben4>> <<Ben5>> <<Ben6>>
Vesting Date:	<<VestingDate>>
<b>Credited Service to December 31, 2011:</b>	<<CreditedService>> Years
Annualized Pensionable Earnings for 2011:	\$<<20XXAnnualSalary>>*
<b>Best Average Earnings as at Dec 31, 2011:</b>	\$<<BAE4>>

\*For projection purposes, it is assumed that your Best Average Earnings at retirement is the same as it is at December 31, 2011. Your Best Average Earnings is determined using an averaging period of 4 years.

The following summarizes your contributions to the Plan:

Your Contributions with Interest to Jan 1, 2011:	\$<<Total CWI at BoY>>
Current Year Contributions:	<<CurrentCont>>
Current Year Interest (1.75% per annum):	<<Interest>>
Your Contributions with Interest to Dec 31, 2011:	\$<<Total CWI at EoY>>

Your contributions help pay for the cost of Plan benefits. In no event will the benefits provided by the Plan be less than the value of your contributions with interest.

### Financial Position

Based on the actuarial valuation report as at December 31, 2011, the Plan liabilities on a "going-concern" basis exceed the market value of fund assets. NSPI expects to make over \$30 million in annual contributions for the next few years to pay down this shortfall. The following figures are expressed in millions:

	2011	2010
<b>Market Value of Fund Assets as at January 1<sup>st</sup></b>	<b>\$615.54</b>	<b>\$559.82</b>
Contributions - Emera and NSPI	35.94	29.49
Contributions - Emera and NSPI Employees	6.21	5.70
Income / Unrealized Gains/(Losses), net of expenses	(10.92)	52.57
Pension Benefits Paid and Termination Transfers	(36.49)	(32.04)
<b>Market Value of Fund Assets as at December 31<sup>st</sup></b>	<b>\$610.28</b>	<b>\$615.54</b>
<b>Plan Liabilities on a Going-Concern Basis as at December 31<sup>st</sup></b>	<b>\$795.10</b>	<b>\$732.99</b>
<b>Surplus (Shortfall) on a Market Value of Fund Assets Basis</b>	<b>(\$184.32)</b>	<b>(\$117.45)</b>



## General Plan Summary

The following is a summary of Plan benefits. Please refer to the HR website at <http://hr.emera.com/intranet> for a copy of the employee booklet.

### Lifetime Pension Formula

Your years of Credited Service multiplied by the sum of (a) and (b):

- (a) 1.3% multiplied by the lesser of your Best Average Earnings or the Average YMPE,
- (b) 2.0% multiplied by the amount your Best Average Earnings exceeds the Average YMPE.

### Bridge Formula

Your years of Credited Service to July 1, 2004 multiplied by 0.7% of the lesser of your Best Average Earnings or the Average YMPE. You may qualify for additional bridge benefits in respect of Credited Service after July 1, 2004 based on the rules set out in the Plan document.

### Unreduced Retirement Date

If you joined the Plan prior to July 1, 2004, and you retire from active employment with Emera, you are eligible for an unreduced pension if you are age 60 and have completed 2 years of service or have attained age 55 and have accumulated 85 points (age plus continuous service).

If you joined the Plan on or after July 1, 2004, and you retire from active employment with Emera, you are eligible for an unreduced pension if you are age 62 and have completed 15 years of service, or have attained age 65, or have attained age 55 and accumulated 85 points.

If you wish to start your pension and bridge prior to your unreduced retirement date, your pension and bridge will be reduced based on the Plan's early retirement rules.

### Indexing of Lifetime Pension and Bridge

After retirement, your pension and bridge is increased annually for the change in the consumer price index to a maximum of 6% per year. (The maximum may be capped at 4% per year for members who joined the Plan on or after July 1, 2004).

### Annual Member Contribution

While you are actively employed and accruing benefits under the Plan, you are required to contribute 5.4% of your Earnings up to the YMPE; plus 7% of your Earnings above the YMPE. The YMPE for 2012 is \$50,100. Your contribution is capped at \$9,238 for 2012.

### Spouse

When you die, your "Spouse" has priority for the death benefits payable from the Plan. For purposes of the Plan, a Spouse is a) someone you are legally married to, or b) someone whom you have been in a common-law relationship with for at least 2 years while not legally married to someone else. Your spouse may be a same-sex partner.

### Death Benefits if you die before Retirement

Your Spouse will receive an annual pension payable for life equal to 60% of the lesser of:

- (a) Credited Service multiplied by 2%, multiplied by Best Average Earnings; and
- (b) the lifetime pension the member would have accrued to age 65 had the member survived and continued as a member to that age, based on the member's earnings and the YMPE in effect immediately prior to death; and
- (c) 150% of the YMPE at the time of death

In addition, each dependant child will receive an annual pension of 10% of the lesser of (a), (b), and (c) for as long as they are dependant. If you have no spouse or dependants, your estate will receive a refund of your contributions made to the Plan, with interest.

### Death Benefits if you die after Retirement

If you die, your Spouse will receive an annual lifetime pension for their lifetime equal to 60% of the pension you were receiving immediately prior to death. In addition, dependant child benefits may be payable.

If you die, and you do not have a Spouse or dependants, a lump sum will be payable to your beneficiary such that the total pension payments made to you and your beneficiary is equal to 120 monthly payments of the lifetime pension.

### Government Sponsored Benefits

In addition to the Plan benefits previously described, you may be eligible for certain government benefits from Old Age Security (OAS) and the Canada/Quebec Pension Plan (CPP/QPP).

OAS benefits are payable starting at age 65. The maximum OAS benefit payable as at January 1, 2012 is \$6,481 per year. If your total retirement income exceeds a certain threshold (\$69,562 for 2012), your OAS benefit will be clawed back.

The maximum CPP/QPP benefit payable as at January 1, 2012, for someone retiring at age 65, is \$11,840 per year. CPP/QPP benefits are payable on a reduced basis as early as age 60.

You should apply for OAS and CPP/QPP benefits six months before you wish to receive these benefits. For more information on government benefits, you can visit their website at [www.hrsdc.gc.ca](http://www.hrsdc.gc.ca).

**CONFIDENTIAL (Attachment Only)**

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1 **Request IR-17:**

2

3 **Please identify any proposals made by NSPI management to seek changes regarding**  
4 **pensions during the last round (or current round, if applicable) of collective bargaining.**

5

6 Response IR-17:

7

8 Please refer to Eckler IR-14.

9

10 For the last round of collective bargaining in 2007, please refer to Confidential Attachment 1  
11 which outlines the management proposal notes. In the notes, details regarding pension changes  
12 proposed are provided. Current negotiations are ongoing.



**NON-CONFIDENTIAL**

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1 **Request IR-18:**

2

3 **Please identify any changes that address pensions made during 2011 or 2012 to collective**  
4 **agreements.**

5

6 Response IR-18:

7

8 There are no changes to the collective agreement in 2011 or to date in 2012.

**CONFIDENTIAL (Attachment only)**

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1 **Request IR-19:**

2

3 **Has there been any consideration to establishing a separate pension plan for non-unionized**  
4 **employees?**

5 **a) If yes, please provide all documents related to that consideration.**

6 **b) If no, why not?**

7

8 Response IR-19:

9

10 (a-b) Please refer to Partially Confidential Attachment 1, which are the responses to NSPI  
11 (NPB) IR-202, NSPI (NPB) IR-203, and NSPI (NPB) IR-205 from the 2012 General  
12 Rate Application.

2012 General Rate Application (NSUARB P-892)  
NSPI Responses to NPB Information Requests

**NON-CONFIDENTIAL**

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1 **Request IR-202:**

2

3 (a) **Has there been any consideration to establishing a separate pension plan for non-**  
4 **unionized employees?**

5

6 (b) **If yes, please provide all documents related to that consideration?**

7

8 (c) **If not, why not?**

9

10 **Response IR-202:**

11

12 (a) There has been no consideration to establishing a separate pension plan for non-unionized  
13 employees.

14

15 (b) N/A.

16

17 (c) Please refer to NBP IR-205.

2012 General Rate Application (NSUARB P-892)  
NSPI Responses to NPB Information Requests

**NON-CONFIDENTIAL**

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1 **Request IR-203:**

2  
3 **Why has NSPI not closed the DB Plan for non unionized employees for future service in**  
4 **order to reduce pension costs?**

5  
6 Response IR-203:

7  
8 NSPI active employees accrue benefits under the NSPI Employees pension plan. Please refer to  
9 NPB IR-99 Attachment 24 for internal NSPI discussions and analysis regarding the NSPI  
10 Employees pension plan.

11  
12 NSPI has traditionally provided the identical pension plan and health benefit plan to union and  
13 non-union employees. To the extent possible, any amendment to the plan terms are made at the  
14 same time for all plan members. Any substantive changes to the pension for union members  
15 would have to be negotiated with NSPIs unionized employees represented by IBEW Local 1928.

16  
17 The most recent negotiations with the union occurred late 2007/early 2008 and resulted in an  
18 agreement signed in May 2008 covering the period August 2007 to March 31, 2012. NSPI rarely  
19 approaches the union to negotiate substantive changes during the period covered by an existing  
20 collective agreement. Based on prior discussions with the union, the union opposes any changes  
21 which would reduce benefits or increase employee contributions to the defined benefit pension  
22 plan. Furthermore, even if the union were to agree to any pension changes, it is likely that the  
23 union would want concessions in exchange for the pension plan changes – these concessions  
24 would likely be comparable in value to the pension plan changes and so there would be no net  
25 savings to NSPI.

2012 General Rate Application (NSUARB P-892)  
NSPI Responses to NPB Information Requests

**REDACTED**

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1 **Request IR-205:**

2

3 **During the Applicable Years, considering the financial crisis of 2008, and resulting**  
4 **substantial changes to pension plans in the private sector and public sector, please identify**  
5 **all steps taken by NSPI to reduce the funding requirements in respect of the NSPI RPPs**  
6 **both during the Applicable Years and for future years.**

7

8 Response IR-205:

9

10 Please refer to NPB IR-203.

11

12

13

14

[REDACTED]

[REDACTED]

[REDACTED].

**NON-CONFIDENTIAL**

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1 **Request IR-20:**

2  
3 **What funding, if any, is being undertaken by NSPI beyond the minimum funding**  
4 **requirements of the Pension Benefits Act and Regulations?**

5  
6 Response IR-20:

7  
8 NS Power's policy is to fund the minimum required under the Pension Benefits Act.<sup>1</sup> More  
9 specifically, in addition to current service cost and going concern funding contributions, NS  
10 Power has been amortizing solvency deficiencies over a five year period in equal monthly  
11 amounts.

12  
13 Under the Pension Benefits Act and Regulations, the value of escalated adjustments may be  
14 excluded from the solvency valuation calculation. This has the effect of minimizing solvency  
15 special funding payments. In general terms, if a plan sponsor chooses to exclude the value of  
16 escalated adjustments from the valuation, the plan cannot include the value of the escalated  
17 adjustments in commuted value payments from the pension fund until an amount equal to the  
18 value of the escalated adjustments in respect of such payment is paid into the fund (Regulation  
19 19(12)). The plan sponsor has up to five years to contribute the value of the escalated  
20 adjustments into the fund (Regulation 19(10)). NS Power's practice is to contribute the value of  
21 the escalated adjustment immediately, rather than deferring up to five years. This simplifies  
22 recordkeeping and enables full settlement of the pension entitlement.

23  
24 In general terms, when the transfer ratio is less than one, the plan may transfer the full commuted  
25 value only if the plan sponsor has remitted the amount of the transfer deficiency (generally:  $(1 -$   
26  $\text{transfer ratio}) * \text{commuted value}$ ) into the pension fund (Regulation 19(9)). While there are  
27 some specific exclusions to this rule, many terminating NS Power members are affected by this

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<sup>1</sup> *Pension Benefits Act*, RSNS 1989, c. 340.

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1 rule. The plan sponsor has up to five years to contribute the value of the transfer deficiency into  
2 the fund (Regulation 19(10)). NS Power's practice is to contribute the value of the deficiency  
3 immediately, rather than deferring up to five years. This simplifies recordkeeping and enables  
4 full settlement of the pension entitlement.

5

6 NS Power's accelerated contribution in respect of the escalated adjustment and transfer ratio,  
7 made in the current year rather than over a five year period, has been approximately \$1 million  
8 per year over the last few years.

**NON-CONFIDENTIAL**

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1 **Request IR-21:**

2

3 **Please identify all steps taken by NSPI to reduce the funding requirements in respect of the**  
4 **NSPI RPPs.**

5

6 Response IR-21:

7

8 Please refer to Eckler IR-1, Eckler IR-14 and Eckler IR-15.