



# 2014 Report of the Auditor General of New Brunswick – Volume I & II



# Presentation Agenda

- Report Release Timelines
- Performance Reports:
  - Point Lepreau Refurbishment – Phase II
  - Data Centre Power Interruption
  - Follow-up on Recommendations from Prior Years' Performance Audit Chapters
- Province of New Brunswick Audit:
  - Comments on the Province's Financial Position
  - Comprehensive Long-Term Infrastructure Sustainability Plan
  - Observations on Pension Plans
- Financial Statement Audits - Highlights



# Report Release Timelines

- **Current Release:**
  - Performance Reports:
    - Point Lepreau Refurbishment – Phase II
    - Data Centre Power Interruption
    - Follow-up on Recommendations from Prior Years' Performance Audit Chapters
  - Province of New Brunswick Audit and Observations
  - Financial Statement Audits - Highlights
- **Additional Performance Audit Releases:**
  - Financial Assistance to Atcon Holdings Inc. and to Industry
  - Silviculture
  - Private Wood Supply
  - Patient Safety: Infection Prevention and Control in Hospitals



# Point Lepreau Generating Station Refurbishment – Phase II

## Volume 2 Chapter 2

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## Phase I of our work:

- Described key aspects of NB Power's planning and execution of Point Lepreau refurbishment
- Reported summary-level financial information

## Objective of our Phase II work

- To assess the reasonableness of key project costs of Point Lepreau Generating Station Refurbishment Project



# Areas we focused

- Procurement and contract management
- Key services contracts
- Major component costs
- Overtime charges
- Overhead allocation
- Operations maintenance and administration (OMA) costs



# Results in Brief

- Procurement and contract management
  - Majority of contract administration well handled
  - Lack of competitive bids for some engineering service contracts
  - Lack of systematic approach for post contract review

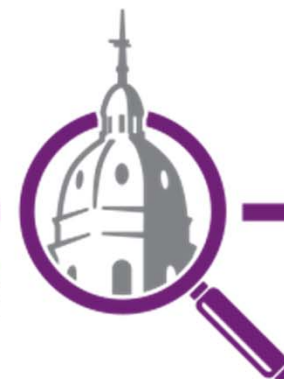




# Results in Brief

## Key Services Contracts

More active NB Power risk management needed for Siemens contract





# Results in Brief

## Key Services Contracts

Insufficient preparatory work on Castle Rock



# Results in Brief

## Key Services Contracts

- Premium rates paid for Acres-Sargent & Lundy (ASL) and Hatch Sargent & Lundy (HSL) services
- 25% to 35% higher than any other engineering firm hired by NB Power during the refurbishment



# Results in Brief

- Overtime charges
  - A total of \$41.2 million in overtime cost
  - A significant portion of the overtime used to unexpected additional work that resulted from an outage of an extended duration
  - On average, overtime pay amounts appeared to be reasonable for the 10 employees we selected to test
  - Careful planning for the restart could have reduced the overtime usage



# Overtime Pay of Top 10 Employees – Total Compensation During Full Refurbishment Period

Exhibit 2.9.1 - condensed

Title/Position	Compensation during the full refurbishment period		% of overtime vs. regular	
	Total pay (\$)	Annualized (\$)	Pay (%)	Hours (%)
Nuclear Fuel Handling	1,364,300	186,100	56	33
Electrical Instrumentation and Controls	1,135,900	155,000	58	31
Nuclear Fuel Handling	1,209,900	165,100	49	28
Operations	1,230,800	167,900	46	24
Operations/ Nuclear Fuel Handling	1,072,500	146,300	53	31
Nuclear Radiation Control	1,146,000	156,400	45	28
Operations/ Nuclear Fuel Handling	1,009,200	137,700	46	27
Operations/ Nuclear Fuel Handling	1,009,300	137,700	44	25
Commissioning	1,043,600	142,400	41	23
Project Lead	943,000	128,700	43	23
<b>Total</b>	<b>11,164,900</b>		<b>48</b>	<b>27</b>

# Results in Brief

- Overhead allocation
  - In general, overhead cost allocated to the PLGS refurbishment appeared reasonable



# Results in Brief

- Operations maintenance and administration (OMA) costs
  - NB Power applied standard nuclear industry practices in managing their OMA costs



# Conclusion

- Key project costs were generally reasonable
- However, we believe NB Power can make improvements in areas such as:
  - Procurement
  - Contract management
  - Active risk management of key contractors





# Recommendations

- We have made 10 recommendations to improve how NB Power carries out future large capital projects





# Data Centre Power Interruption

Volume 2 Chapter 3

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# Background

On June 9<sup>th</sup>, 2014, the Marysville Data Centre experienced a power interruption and a failure of its backup power supply

Major loss of system access for the day and following weeks

We completed a review of the events and circumstances around the interruption in IT services



# Objectives

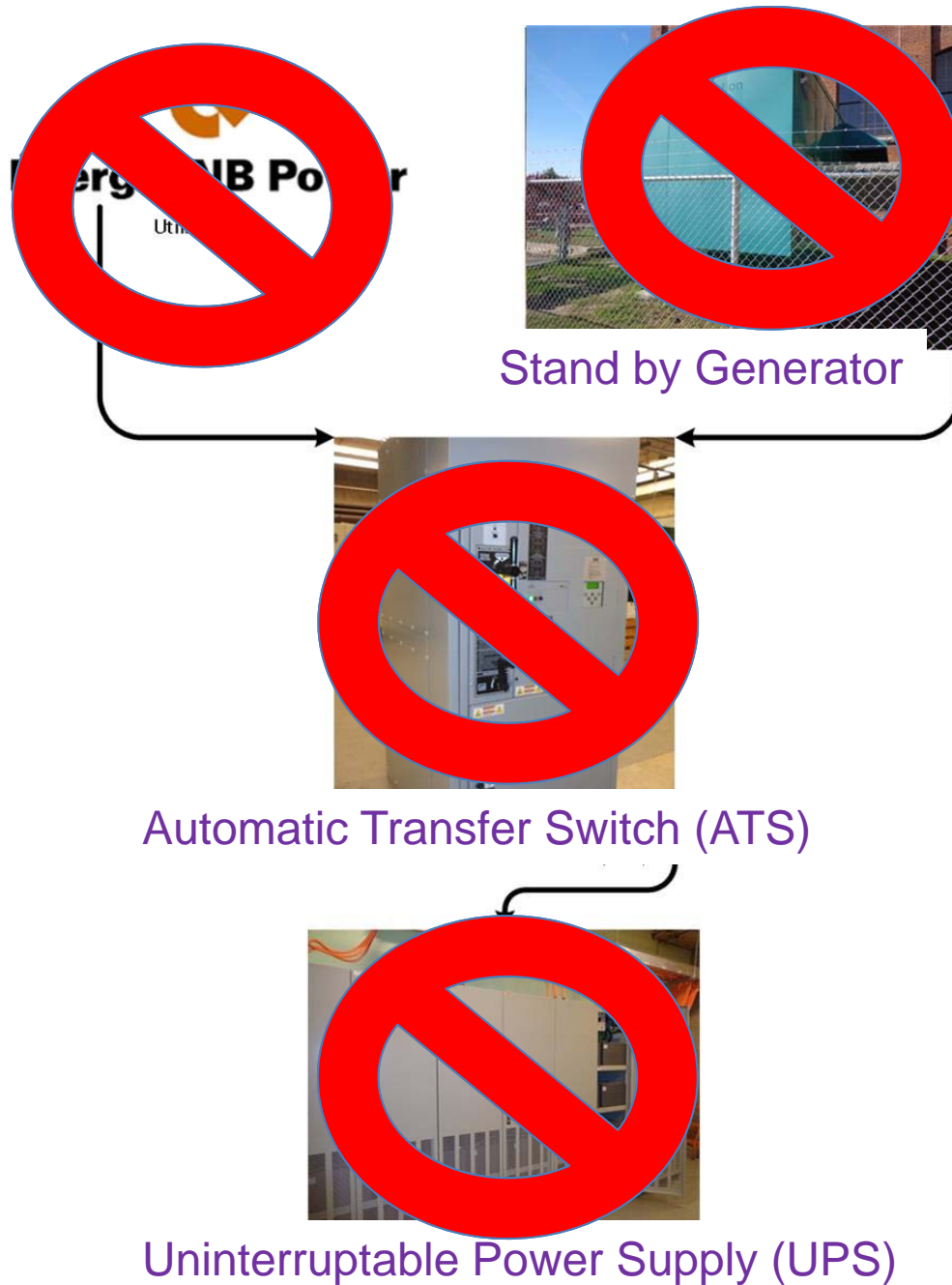
1. To examine the details of the June 9 outage including the causes of service interruption and recovery efforts by the NBISA
2. To examine examples of impacts to the delivery of government programs and services
3. To determine what risk had previously been identified and the extent of effort to mitigate those risks prior to the outage

# Objectives

4. To review the current state of IT risks, specific to the outage of June 9, and determine what improvements have been made or are planned
5. To determine whether the NBISA had business continuity and disaster recovery plan documented, tested and in place for the data centre



# Results in Brief - 1: What Happened on June 9<sup>th</sup>?



# Conclusion - 1

- Pervasive failure of backup system
  - Independent failures (UPS, ATS, standby power generator)
  - Even one component failure would threaten IT services
  - Inadequate preparedness (response was reactive and no evidence of a formal disaster recovery plan)





## Results in Brief - 2

- Departments experienced data loss/corruption
- Loss of access to critical systems
- **Direct** outage related costs app. \$967,000



## Conclusion - 2

- The impact to government services was pervasive and affected all government departments. Government programs and services were severely restricted during the outage and during the subsequent recovery.



# Results in Brief - 3

- In 2009, a third party was contracted by Department of Supply and Services (DSS) to conceptualize a data centre vision
  - Upgrade aged infrastructure at Marysville DC (including replacing UPS and adding a second UPS)
  - Acquire a secondary Data Center



# Results in Brief - 3

- In 2009, DSS submitted, to the government, recommendations including making improvements to the aged infrastructure at the Marysville data centre
  - DSS was directed to return to government by Dec 2009, with a plan for the continued operation of Marysville DC.
  - NBISA management indicated they made various attempts to return to the government, but circumstances existed to prevent this.



## Results in Brief - 3

- In 2010, BellAliant recommended replacing the UPS and adding a second redundant backup UPS



## Results in Brief - 3

- Redundancy between two data centres not yet achieved
- No replacement plans were developed for the UPS prior to the incident
- It is unclear where central authority lies to implement government-wide upgrades to IT systems and equipment.



# Results in Brief - 4

- New UPS and ATS
- The overall configuration of the backup power system remains the same
- Not suitable for critical systems
- Server redundancy between primary and secondary data centres





# Results in Brief - 5

- Recovery of department systems and data in the event of a system outage depends on the availability of services rendered via the Marysville data centre
- No documented IT continuity and disaster recovery plan is in place should the Marysville data centre fail



# Recommendations

- We made 7 recommendations to NBISA / OCIO to address weaknesses.
- Detailed in Volume II Exhibit 3.1





# Follow-Up on Recommendations from Prior Years' Performance Audit Chapters

Volume 2 Chapter 4

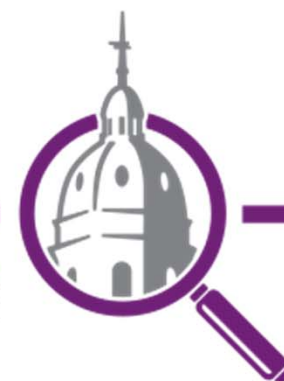
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# Follow-up on Recommendations from Prior Years' Performance Audit Chapters

Follow-up promotes accountability by giving the Legislative Assembly, and the general public, information about how responsive government has been to our performance audit recommendations.



# Summary Status of Recommendations by Year as Reported by Departments/Agency

Exhibit 4.2

Year	Recommendations					% Implemented
	Total	No longer applicable	Implemented	Agreed/ Not implemented	Disagreed	
2012	32	0	22	10	0	69
2011	24	0	19	5	0	79
2010	44	7	23	11	3	62
Total	100	7	64	26	3	69

# 2010 Follow-up: Economic Development

## Financial Assistance to Industry (2 of 7 implemented)

### Not Implemented:

- Establish additional measurable targets for FAIP
- Report on the Success of FAIP
- Establish policies and procedures:
  - To verify clients' financial information other than their audited financial statements
  - To establish which types of financial analysis should be performed to identify and mitigate risk
- Put in place a monitoring process that directly assesses each forgivable loan recipient's progress

## 2010 Follow-up: Post-Secondary Education, Training and Labour – Immigration with the Provincial Nominee Program (11 of 20 implemented)

### Not Implemented:

- develop and implement appropriate monitoring procedures
- ensure adequate support with documented policies and procedures
- Ensure operations in compliance with the Agreements
- Develop and implement an evaluation plan to determine if the program meets its objective.
- Establish program goals, performance indicators and monitoring procedures for evaluating performance

## **2010 Follow-up: Post-Secondary Education, Training and Labour – Immigration with the Provincial Nominee Program (11 of 20 implemented)**

### **Not Implemented (Continued):**

- Develop and implement an approach to regularly measure performance and compare to the objectives targets
- Review objectives and targets and establish action plan for achieving
- Develop annual operational plans to be used in day-to-day work
- Report on the performance



# Other 2010 Follow-up

- Tourism, Heritage and Culture  
New Brunswick Art Bank 7 of 7 implemented
- New Brunswick Liquor Corporation  
Agency Stores 3 of 3 still applicable implemented



# Heat Map – Online Reporting

Follow up of Recommendations 2014 - 2012					
	Report Release Date & Project Name	Year of AG Report			
		2014	2013	2012	
<b>Departments</b>					
<b>Economic Development</b>	(2010) - Financial Assistance to Industry	●	●	●	
<b>Tourism, Heritage and Culture</b>	(2010) - New Brunswick Art Bank	✓	✓	▽	
<b>Environment and Local Government</b>	(2012) Solid Waste Commission	▲			
	(2011) - Wastewater Commissions	▲	▽		
<b>Executive Council/ Legislative Assembly</b>	(2011) - Constituency Office Costs for MLAs and Executive Council	▽	▽		

**Legend**

- ✓ 100% of Recommendations Implemented
- ▲ 99% - 75 % of Recommendations Implemented
- ▽ 74% - 50% of Recommendations Implemented
- < 50% of Recommendations Implemented

<http://www.agnb-vgnb.ca/content/agnb-vgnb/en/publications/follow-up.html>



# Province of New Brunswick Audit

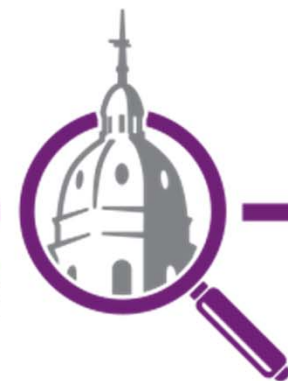
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# Province of New Brunswick Audit

- Unqualified Audit Opinion signed July 17, 2014
- Response to the *Fiscal Transparency and Accountability Act*
- AG prefers early release dates every year





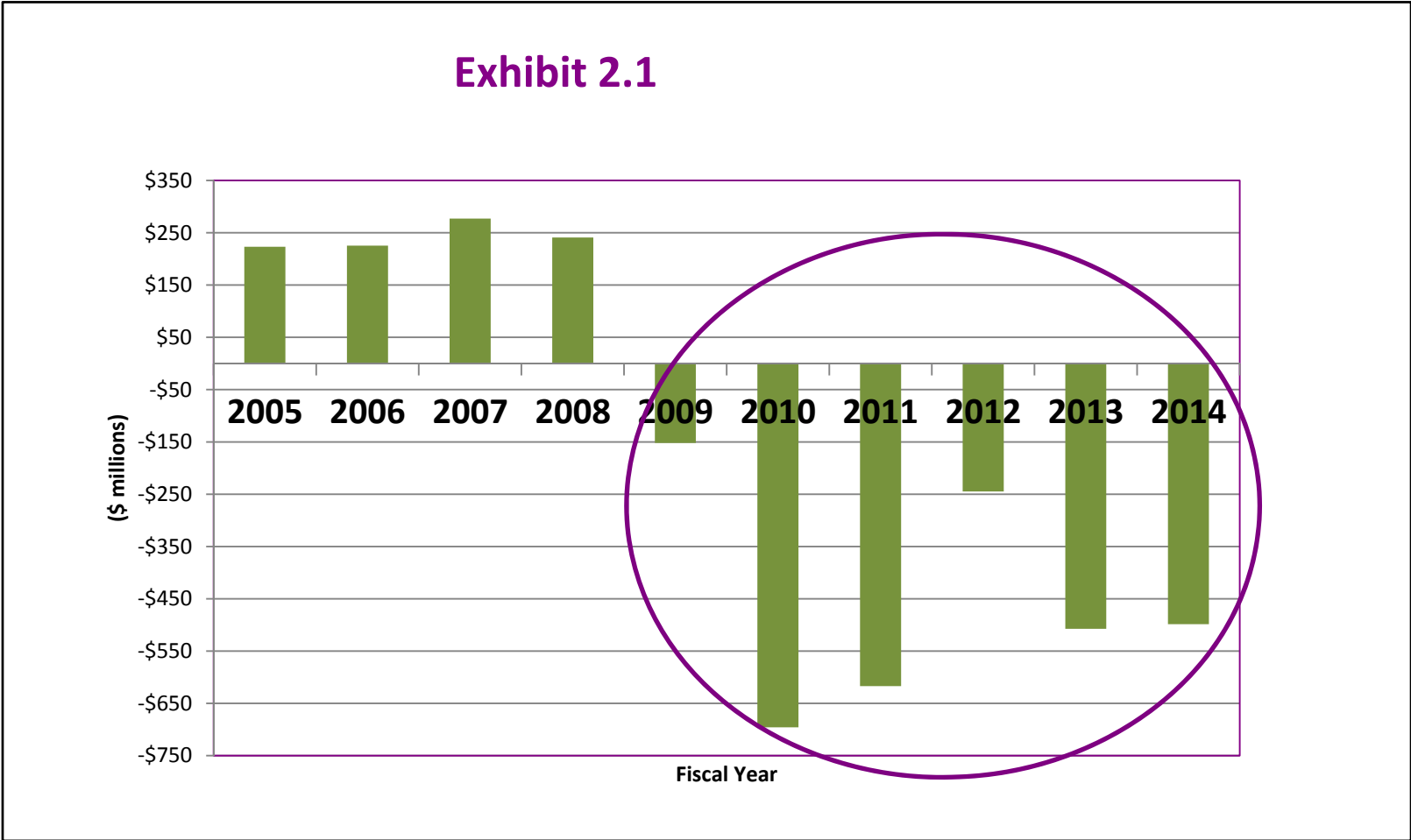
# Comments on the Province's Financial Position - Volume 1 Chapter 2

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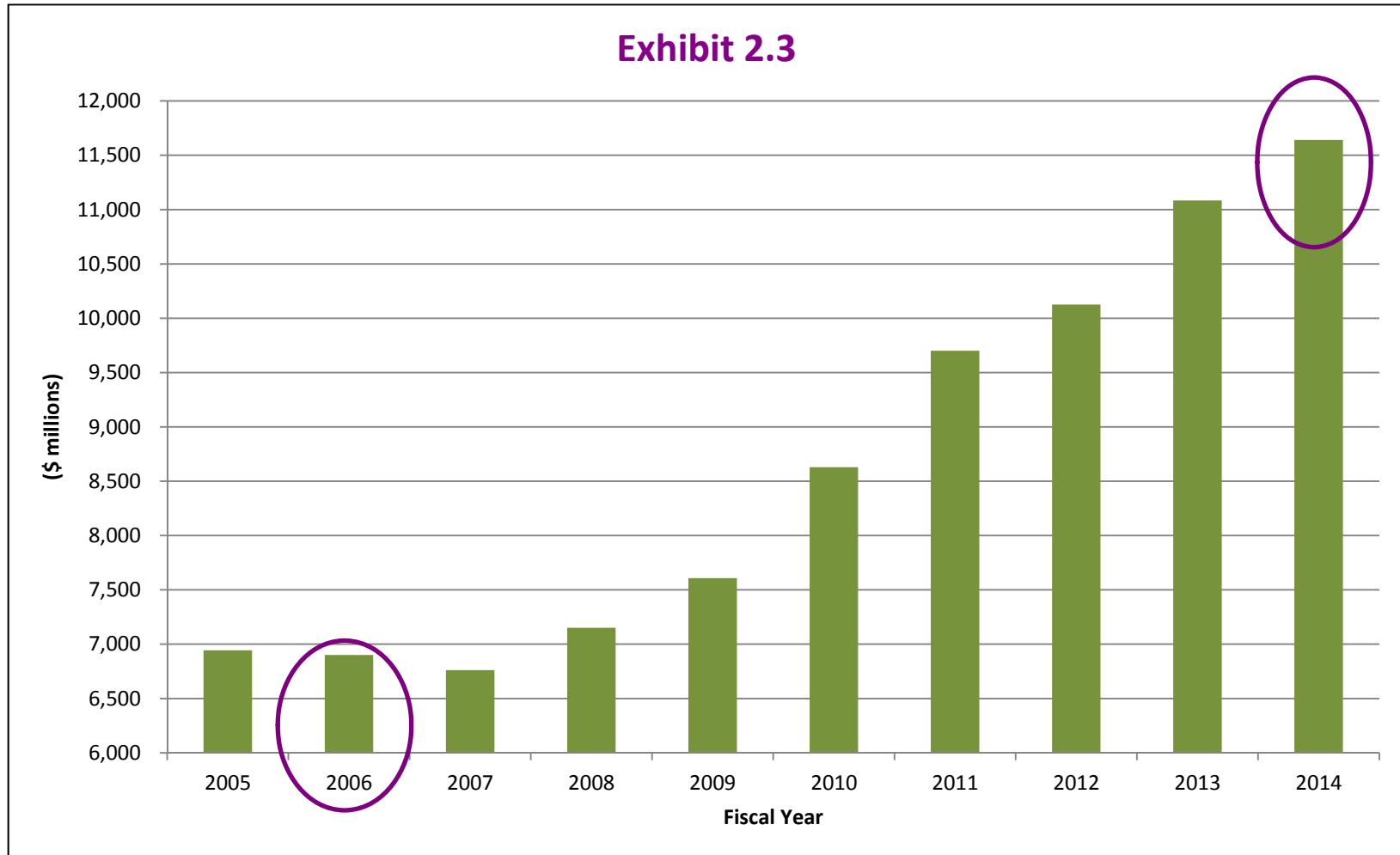


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# Province of New Brunswick Annual Surpluses (Deficits)



# Province of New Brunswick Net Debt



# Net Debt Comparison to Other Provinces (\$ millions)

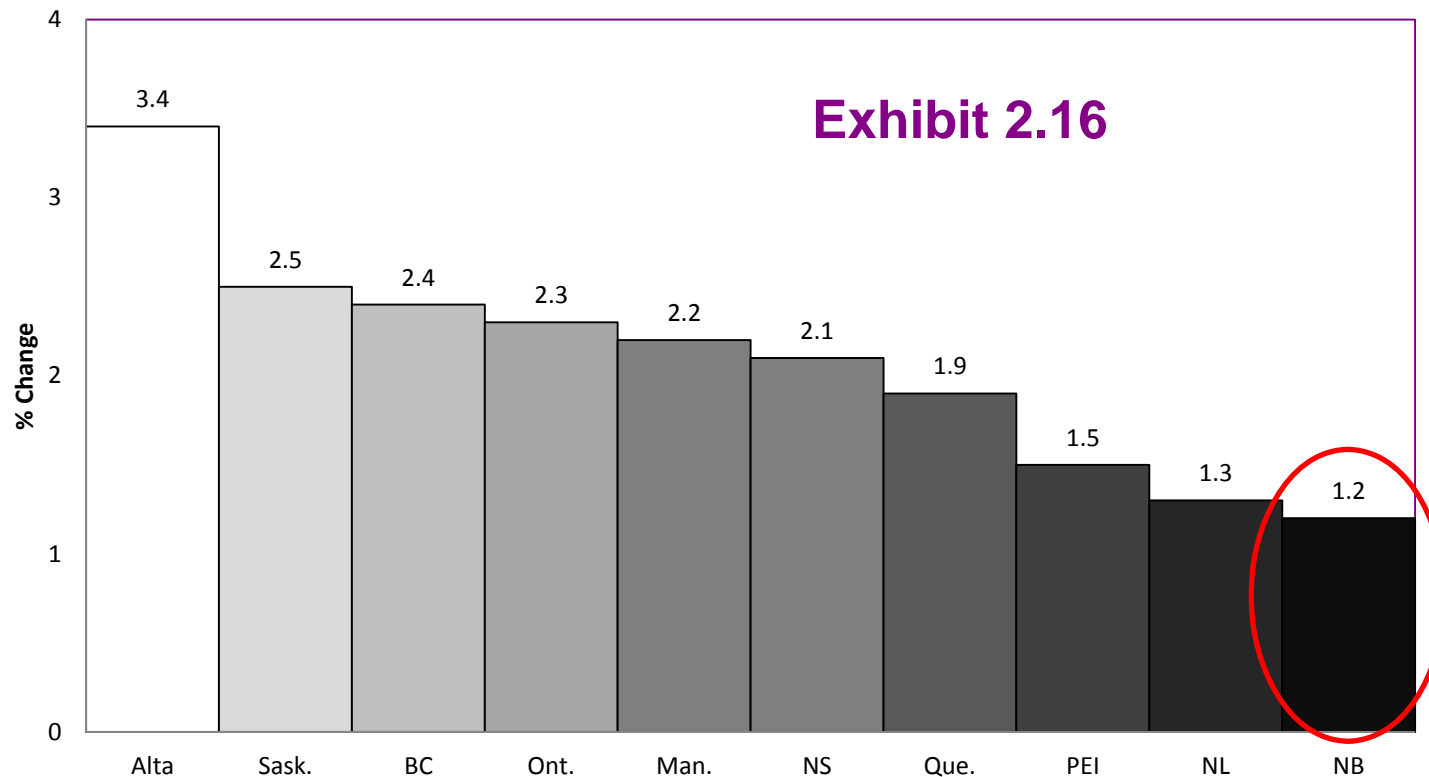
Exhibit 2.11

Province	Increase 2006 to 2014	2006	2010	2014
New Brunswick	69%	6,901	8,629	11,641
Saskatchewan	-41%	7,870	3,560	4,615
Manitoba	58%	10,952	11,643	17,344
Nova Scotia	21%	12,239	13,045	14,762
Newfoundland and Labrador	-22%	11,680	8,220	9,085





# Expected Real GDP % Change 2014-2015



Source: Department of Finance, Province of New Brunswick



# Net Debt per Capita Comparison to Other Provinces (\$)

Exhibit 2.13

Province	2010	2013	2014
Nova Scotia	13,847	14,820	15,712
New Brunswick	11,459	14,661	15,400
Manitoba	9,633	12,714	13,711
Saskatchewan	3,440	4,698	4,164
Newfoundland and Labrador	15,748	15,804	17,240



# Expense Trends by Function

Exhibit 2.34 (condensed)

	(\$ millions)	(percentage)
Function	2014 Expense Amount	Three year average growth rate (%)
Education and Training	1,821.8	1.9
Health	2,789.9	1.2
Service of the Public Debt	661.9	1.1
Social Development	1,076.6	1.4
Transportation and Infrastructure	577.9	13.4
Protection Services	235.2	(3.2)
Resources	212.7	(1.5)
Central Government	536.5	(7.9)
Labour and Employment	118.3	(4.4)
Economic Development	231.4	(10.2)
<b>Total</b>	<b>8,262.2</b>	<b>(0.8)</b>

# Revenue Trends by Source

## Exhibit 2.35 (condensed)

	(\$ millions)	(% percentage)
Source	2014 Revenue Amount	Three year average growth rate
<b>Provincial Sources</b>		
Taxes	3,595.3	1.6
Licenses and Permits	148.7	3.4
Royalties	90.9	1.4
Other Provincial Revenue	849.4	6.4
Sinking Fund Earnings	204.5	(2.9)
<b>Federal Sources</b>		
Fiscal Equalization Payments	1,562	(2.0)
Unconditional Grants	948.9	4.4
Conditional Grants	363.8	(1.5)
<b>Total</b>	<b>7,763.5</b>	<b>1.4</b>

# Summary of Indicators of Financial Condition

## Exhibit 2.17 (condensed)

	Indicator	Short-term Trend	Long-term Trend
<b>Sustainability</b>	Assets-to-liabilities	Unfavourable	Unfavourable
	Financial asset-to-liabilities	Unfavourable	Unfavourable
	Net Debt-to-total annual revenue	Unfavourable	Unfavourable
	Expense by function-to-total expenses	Neutral	Neutral
	Net Debt-to-GDP	Unfavourable	Unfavourable
	Accumulated deficit-to-GDP	Unfavourable	Unfavourable
	Total expenses-to-GDP	Neutral	Unfavourable

# Comprehensive Long-Term Infrastructure Sustainability Plan

*“Our Province needs a comprehensive long-term infrastructure plan that will ensure the sustainability and safety of all essential infrastructure, including highways, hospitals, schools, bridges, etc. while respecting the fiscal challenges faced by the Province.”*

*– 2012 Auditor General Report*



## Key elements of the plan should include:

1. The rationalization of assets
2. Long-term approach to budgeting with life cycle maintenance of capital assets
3. Protected stream of a base level of funding: adequate to maintain assets in service
4. A 20 year planning horizon
5. New assets are constructed only when there is a business case to support the need
6. Apply the current DTI strategy and asset management system to all essential assets
7. Provide annual public performance reporting
8. Ensure fiscal discipline is adhered to over the long-term

# Conclusion

- Structural deficit remains
- Need for:
  - Continued diligence
  - Return to balanced budgets and control growth in Net Debt
  - Long term infrastructure plan







# Observations on Pension Plans

Volume 1 Chapter 3

- Impact to Province
- Impact on the Province's Employees
  - Accounting for Shared Risk Plan

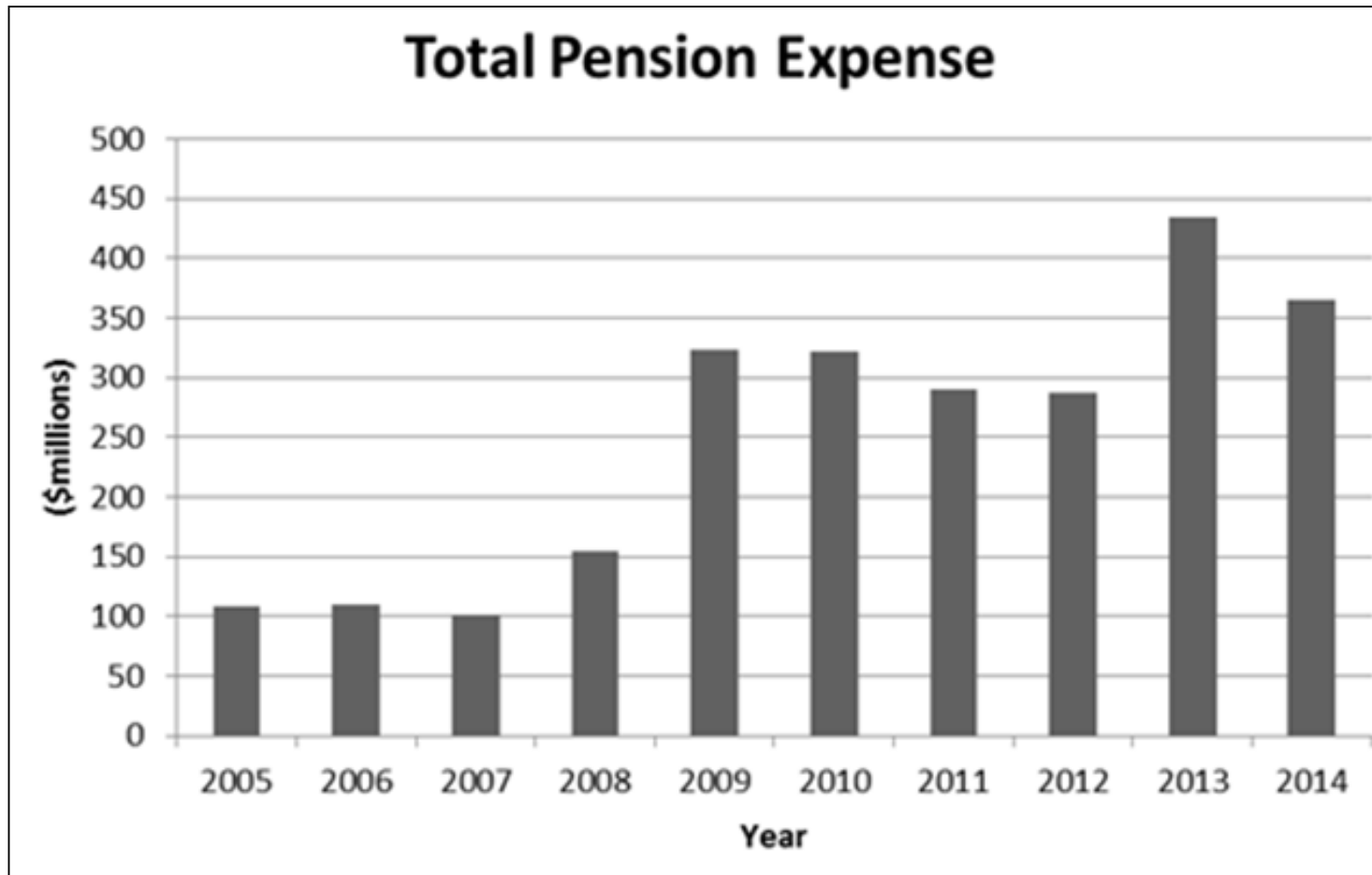
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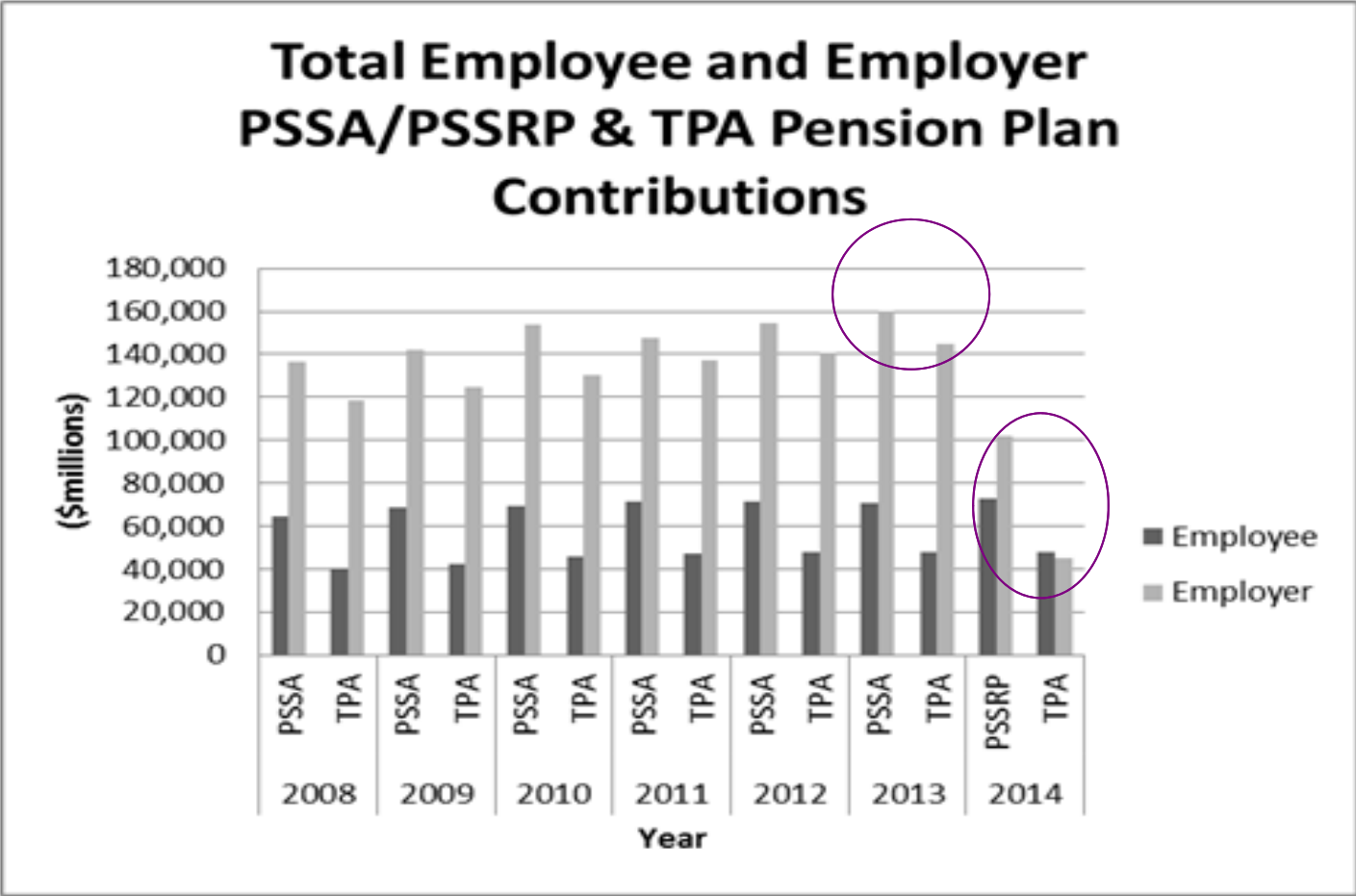
# Total Pension Expense

Exhibit 3.2



# PSSA/PSSRP & TPA - plan contributions

Exhibit 3.5



# Actuarial valuations - PSSA / PSSRP

Date	Funded %	PSSA / PSSRP Funding position (\$ millions)
April 1, 2012	83.6	<1,022>
January 1, 2014	100.3	18.9



# Why the change in funding status?

- The calculation method changed.
- This required significant assumption changes:
  - Removal of automatic indexing and no anticipation of salary increases
  - Change in the retirement age assumption
  - Discount rate change.



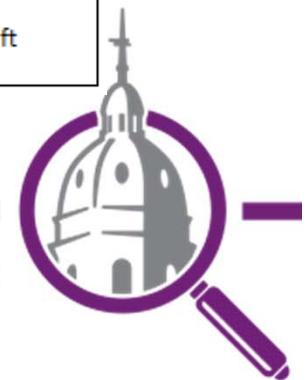
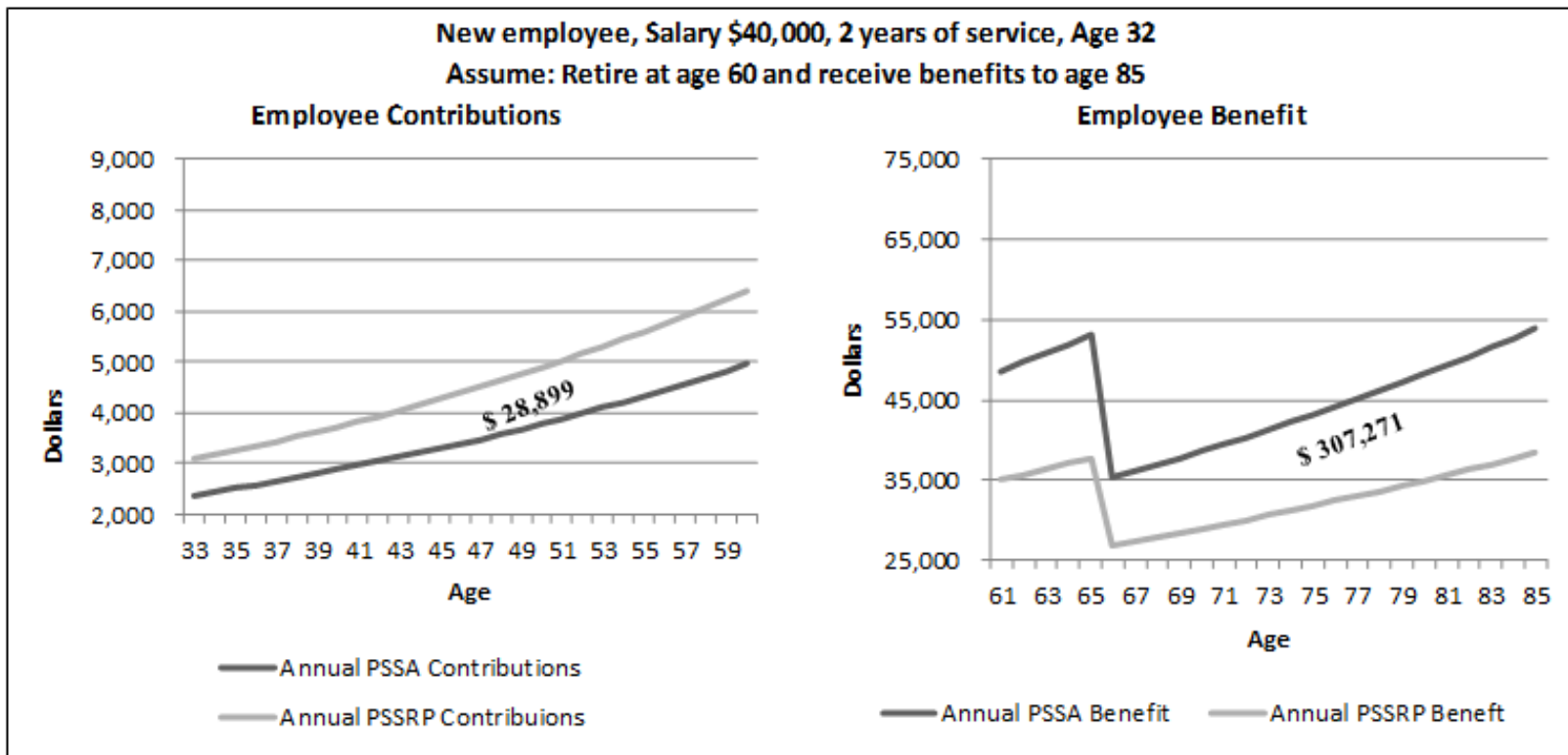
# Employee Impact

## Exhibit 3.6 condensed

	Decrease in total benefit accumulated if benefit paid to age 85	Increased contributions required during working life	Total employee impact of pension plan changes	Present Value of total employee impact to age 85
<b><i>Employee near retirement salary \$66,500, 25 years of service at start of new plan, 55 years old</i></b>				
Retirement at age 55 (2014)	42,628	-	<b>42,628</b>	13,165
Retirement at age 60 (2019)	111,059	7,391	<b>118,449</b>	43,508
Retirement at age 65 (2024)	67,040	15,855	<b>82,895</b>	29,674
<b><i>Experienced employee salary \$66,500, 15 years of service at start of new plan, 45 years old</i></b>				
Retirement at age 55 (2024)	278,304	15,855	<b>294,159</b>	75,849
Retirement at age 60 (2029)	285,499	25,549	<b>311,048</b>	71,095
Retirement at age 65 (2034)	99,983	36,651	<b>136,634</b>	34,651
<b><i>New employee salary \$40,000, 2 years of service at start of new plan, 32 years old</i></b>				
Retirement at age 55 (2037)	386,091	22,010	<b>408,101</b>	53,386
Retirement at age 60 (2042)	307,271	28,899	<b>336,170</b>	40,095
Retirement at age 65 (2047)	44,671	36,788	<b>81,459</b>	16,332

# New employee

## Exhibit 3.7



# Impact Summary

## **Employer:**

- Significant estimated annual cash flow savings of over \$150 million from stopping “special payments” to the Public Service and Teachers pension plans.

## **Employee:**

- Employees will pay more in contributions, receive lower benefits, work longer or a combination of all three of these outcomes.
- Pension plan changes are impacting the new and middle career employees the most, with employees near retirement being less affected by plan changes.
- Those with the longest time to plan for retirement can react to their changed circumstances for retirement planning purposes.



# Shared Risk Plans – Accounting

- Public Sector Accounting Standard on pensions (*PS 3250 - Retirement Benefits*) does not fully address unique arrangements such as shared risk pension plans.
- Persuasive arguments could be made for various accounting options.
- We agree with the overall plan classification as a defined benefit plan



# Accounting Conclusion

- It is important to note accounting standards are in the process of evolving.
- We will continue to monitor accounting standards as they evolve, and our conclusion on the appropriate accounting treatment for the PSSRP, H-CUPE and H-CBE plans may change in future depending on the changes in accounting standards.
- Given that more pension plans may convert to shared risk pension plans we believe the question of appropriate accounting treatment will continue to be an issue in future audits.





# Financial Statement Audits - Themes

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# *Province's Highlights and Recurring Themes*

- **Accounting Concerns**
- **Governance / Oversight Concerns**
- **Concerns with Estimates**
- **Segregation of Duties**
- **IT Security**
- **Data Integrity/Accuracy/ Completeness**
- **Disaster Recovery / Backup of Key Staff**
- **Non-compliance with policies/standards/ guidelines**
- **Documentation Deficiencies**
- **Approvals**



# 20 Audits of Crown corporations, Boards, Commissions and other agencies

- Centre communautaire Sainte-Anne
- Collège communautaire du Nouveau-Brunswick
- Energy Efficiency and Conservation Agency of New Brunswick
- Financial and Consumer Services Commission (formerly New Brunswick Securities Commission)
- Invest New Brunswick
- Kings Landing Corporation
- New Brunswick Agricultural Insurance Commission
- New Brunswick Community College
- New Brunswick Electric Finance Corporation
- New Brunswick Highway Corporation
- New Brunswick Immigrant Investor Fund (2009) Ltd.
- New Brunswick Internal Services Agency
- New Brunswick Legal Aid Services Commission
- New Brunswick Lotteries and Gaming Corporation
- New Brunswick Municipal Finance Corporation
- New Brunswick Research and Productivity Council
- Premier's Council on the Status of Disabled Persons
- Provincial Holdings Ltd.
- Public Trustee - Trusts administered
- Regional Development Corporation

# *Crown Agencies' Highlights and Recurring Themes*

- **Accounting Concerns**
- **Lack of Segregation of Duties**
- **Oversight/Governance Concerns**
- **Concerns With Estimates**
- **Management of Agreements or Third Party Arrangements**



Q&A

