Newfoundland
& Labrador

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

IN THE MATTER OF A

GENERAL RATE APPLICATION

FILED BY

NEWFOUNDLAND POWER INC.

DECISION AND ORDER OF THE BOARD

ORDER NO. P.U. 13(2013)

BEFORE:

Andy Wells
Chair and Chief Executive Officer

Dwanda Newman, LL.B.
Commissioner

James Oxford
Commissioner

NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

AN ORDER OF THE BOARD
NO. P.U. 13(2013)

IN THE MATTER OF the *Electrical Power Control Act, 1994*, SNL 1994, Chapter E-5.1 and the *Public Utilities Act*, RSNL 1990, Chapter P-47 as amended, and subordinate regulations;

AND IN THE MATTER OF a general rate application by Newfoundland Power Inc. for approval of, *inter alia*, rates to be charged its customers.

BEFORE:

Andrew Wells
Chair and Chief Executive Officer

Dwanda Newman, LL.B.
Commissioner

James Oxford
Commissioner

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PART ONE. APPLICATION AND PROCEEDING

I. THE APPLICATION

Newfoundland Power Inc. ("Newfoundland Power") filed a general rate application (the "Application") with the Board of Commissioners of Public Utilities (the "Board") on September 14, 2012 for an Order of the Board approving, among other things, an overall average increase in current electricity rates of 6.0% as of March 1, 2013 for the supply of power and energy to its customers. In the Application Newfoundland Power proposes that the Board approve:

1. rates, tolls and charges with effect from March 1, 2013 which result in an overall average increase in current customer rates of 6.0% and average increases in proposed customer rates by class as follows:

Rate Class	Average Increase
Domestic	7.2%
General Service 0-100 kW (110 kVA)	0.6%
General Service 110-1000 kVA	6.0%
General Service 1000 kVA and Over	6.0%
Street and Area Lighting	6.0%

2. certain rate structure changes to all rate classes, with effect from March 1, 2013, including the merger of Rates 2.1 and 2.2 into a single rate class, and changes to the demand and energy charges, the energy block, the early payment discount and the basic customer charge across several rate classes;

3. an increase in the current rate of return on average rate base from 8.14% to 8.64% for 2013 and 8.58% for 2014;

4. a forecast average rate base for 2013 of $917,891,000 and for 2014 of $954,123,000;

5. the approval of an increase in rates based on the forecast revenue requirements from customer rates for 2013 of $601,551,000 and for 2014 of $618,846,000;

6. the discontinuation of using the automatic adjustment formula for setting the allowed rate of return on average rate base for Newfoundland Power;

7. certain amendments to the Rate Stabilization Clause in the rules and regulations governing Newfoundland Power's provision of electrical service to its customers; and

8. several changes in relation to accounting treatments, policies and procedures, including:

(a) the calculation of the depreciation expense with effect from January 1, 2013 by using the depreciation rates recommended in the Depreciation Study filed with the Application and the amortization of the accumulated reserve variance of approximately $2.6 million over the remaining life of the assets;

(b) the calculation of the defined benefit pension expense for regulatory purposes in accordance with United States Generally Accepted Accounting Principles and the amortization over 15 years of the forecast defined benefit pension expense regulatory asset of approximately $12.4 million;

(c) the deferral and amortization with effect from January 1, 2013 of annual customer energy conservation program costs over a seven-year period;

(d) the annual disposition of prior year balances in the Weather Normalization Reserve through the Rate Stabilization Account, with effect from January 1, 2013; and

(e) the recovery over a three-year period, from 2013 through 2015, of:

(i) certain cost recovery deferrals approved in 2011 and 2012;

(ii) an estimated $1.25 million in Board and Consumer Advocate costs related to the Application;

(iii) the outstanding year-end balance for 2011 in the Weather Normalization Reserve of approximately $5.0 million due to customers; and

(iv) a forecast 2013 revenue shortfall of an estimated $980,000.

II. NOTICE AND INTERVENORS

Notice of the Application and pre-hearing conference was published in newspapers throughout the Province beginning on September 29, 2012. The pre-hearing conference was held on October 11, 2012. Order No. P.U. 32(2012) identified intervenors, established procedural rules and set the schedule for the proceeding.

Newfoundland Power was represented by Mr. Ian Kelly, QC, Mr. Gerard Hayes and Mr. Liam O'Brien. Registered intervenors for the proceeding were the Government appointed Consumer Advocate, Mr. Thomas Johnson, assisted by Mr. Greg Kirby, and Newfoundland and Labrador Hydro, represented by Mr. Geoff Young. Newfoundland and Labrador Hydro advised in its Intervenor Submission that it proposed to participate in the proceeding in a limited fashion. It was copied with all the documents throughout the proceeding but did not otherwise participate.

The Board was assisted by Ms. Jacqueline Glynn, Legal Counsel, Ms. Maureen Greene, QC, Board Hearing Counsel, and Ms. Cheryl Blundon, Board Secretary.

On December 14, 2012 notice of the hearing was published inviting participation in the hearing which was scheduled to begin on January 10, 2013.

III. PRE-FILED EVIDENCE

Newfoundland Power filed comprehensive supporting material with the Application including the written evidence of company and expert witnesses and other reports and exhibits.

On November 9, 2012 the Board's financial consultants, Grant Thornton LLP ("Grant Thornton"), completed its review of the Application and filed a report. On November 28, 2012 the Board's cost of capital expert, Mr. Troy MacDonald of Grant Thornton, filed a report.

On November 28, 2012 evidence was filed on behalf of the Consumer Advocate by:

(i) Dr. Laurence Booth of the Rotman School of Management, University of Toronto, in relation to cost of capital; and

(ii) Mr. Jacob Pous of Diversified Utility Consultants Inc., in relation to depreciation.

On December 14, 2012 Newfoundland Power filed Rebuttal Evidence of Mr. John W. Wiedmayer, Jr. of Gannett Fleming Inc. in relation to depreciation.

On January 18, 2013 the Consumer Advocate filed Surrebuttal Evidence of Mr. Jacob Pous.

A total of 955 Requests for Information were filed and answered in the proceeding.

IV. NEGOTIATION AND SETTLEMENT PROCESS

The schedule for the proceeding included a number of negotiation days to enable and/or facilitate discussion between Newfoundland Power and the intervenors to determine what, if any, agreement may be reached. The Board set aside December 17 to December 19, 2012 for negotiations and Board Hearing Counsel facilitated the discussions. Newfoundland and Labrador Hydro advised that it would not participate.

On December 21, 2012 a settlement agreement between Newfoundland Power and the Consumer Advocate was filed with the Board (the "Settlement Agreement"). The Settlement Agreement addressed a range of issues, including forecasting, certain amortizations, accounting changes and rate design issues.

V. THE HEARING

The hearing began as scheduled and testimony was heard on January 10, 14, 15, 16, 17, 18, 23, 24, 25 and 31, 2013. During the hearing the following witnesses testified:

<u>On behalf of Newfoundland Power:</u>

Mr. Earl Ludlow	President and Chief Executive Officer
Ms. Jocelyn Perry	Vice-President, Finance and Chief Financial Officer
Mr. Gary Smith	Vice-President, Engineering and Operations

Ms. Kathleen McShane	President, Foster Associates, Inc.
Dr. James Vander Weide	Research Professor, Finance and Economics Fuqua School of Business, Duke University
Mr. John Wiedmayer, Jr.	Project Manager, Depreciation Studies Valuation and Rate Division Gannett Fleming Inc.

On behalf of the Consumer Advocate:

Dr. Laurence Booth	Professor of Finance Rotman School of Management University of Toronto
Mr. Jacob Pous	Principal, Diversified Utility Consultants Inc.

On behalf of the Board:

Mr. Troy MacDonald	Partner, Advisory Service Grant Thornton LLP

On January 31, 2013 the Board heard a presentation from Mr. Winston Adams. The Board also received six written letters of comment. The Board expresses its appreciation to everyone who took the time to participate in the proceeding, especially Mr. Adams who attended the hearing and made a very comprehensive and informative presentation to the Board.

On February 5, 2013 written submissions were filed by Newfoundland Power and the Consumer Advocate.

On February 8, 2013 oral submissions were presented by Newfoundland Power and the Consumer Advocate.

PART TWO. BOARD DECISIONS

I. SETTLEMENT AGREEMENT

The Settlement Agreement was filed with the Board on December 21, 2012. Newfoundland Power, the Consumer Advocate and Board Hearing Counsel executed the Settlement Agreement. In considering the Settlement Agreement the Board must be satisfied that the proposals are reasonable and consistent with the existing regulatory framework and legislation, with particular reference to the power policy of the Province as set out in section 3 of the *Electrical Power Control Act, 1994*, SNL 1994, Chapter E-5.1.

The Settlement Agreement sets out the following consensus issues:

- 2013 and 2014 Customer, Energy and Demand Forecast;
- accounting treatment of the defined benefit pension expense for regulatory purposes;
- amortization of Conservation Program Costs and an amendment to the definition of the Conservation and Demand Management Cost Deferral Account;
- amendments to the Weather Normalization Reserve account;
- amortization of regulatory deferrals and reserves;
- forecast average rate base;
- rate design and rate structure; and
- changes to the Rate Stabilization Clause.

1. 2013 and 2014 Customer, Energy and Demand Forecast

The parties to the Settlement Agreement agree that the Board may accept and rely upon the 2013 and 2014 Customer, Energy and Demand Forecast, dated August 2012, which was filed with the Application.

Newfoundland Power explains that the number of customers is forecast to increase by approximately 1.3% annually in both 2013 and 2014. Energy sales are forecast to increase by approximately 1.2% annually in both 2013 and 2014. Demand is forecast to increase by approximately 1.6% in 2013 and 1.3% in 2014 and demand purchases from Hydro are forecast to increase by 1.8% in 2013 and 1.4% in 2014.

Grant Thornton explains that the Customer, Energy and Demand Forecast forms the foundation of Newfoundland Power's planning process and is a key input in developing estimates of capital expenditures and revenue from electrical sales and expenditures on purchased power. Grant Thornton confirmed that Newfoundland Power's methodologies for forecasting as described in the Customer, Energy and Demand Forecast are consistent with those used in the last general rate application.

The Board accepts the agreement in relation to the Customer, Energy and Demand Forecast and accepts the 2013 and 2014 Customer, Energy and Demand Forecast, dated August 2012, to be used in calculating the 2013 and 2014 forecasts of revenue requirement, rate base and rate of return on rate base for the purpose of determining customer rates.

2. Defined Benefit Pension Expense

The parties to the Settlement Agreement agree that the Board should approve, with effect from January 1, 2013, Newfoundland Power's proposal to calculate defined benefit pension expense for regulatory purposes in accordance with United States Generally Accepted Accounting Principles, and to amortize over 15 years the forecast defined benefit pension expense regulatory asset of approximately $12.4 million.

In Order No. P.U. 27(2011) the Board approved Newfoundland Power's adoption of United States Generally Accepted Accounting Principles for regulatory purposes. This Order gave Newfoundland Power the authority to calculate its annual defined benefit pension expense for regulatory purposes in accordance with United States Generally Accepted Accounting Principles. In Order No. P.U. 11(2012) the Board approved the creation of a regulatory asset to reflect the 2012 difference in the annual defined benefit pension expense calculated under United States Generally Accepted Accounting Principles and Canadian Generally Accepted Accounting Principles.

Newfoundland Power proposes, effective January 1, 2013, to: (i) calculate annual defined benefit pension expense for regulatory purposes in accordance with United States Generally Accepted Accounting Principles; and (ii) amortize the recovery of the forecast regulatory asset of approximately $12.4 million over 15 years. Newfoundland Power states that the proposal will reduce its revenue requirement since the proposed annual defined benefit pension expense under United States Generally Accepted Accounting Principles, including the amortization of the regulatory asset, is forecast to be lower than it would be under Canadian Generally Accepted Accounting Principles by approximately $0.5 to $0.7 million through 2017. Newfoundland Power explains that the single remaining difference between financial reporting and regulatory reporting which arose with the adoption of United States Generally Accepted Accounting Principles will also be eliminated.

Grant Thornton concurs that the proposed treatment will reduce the revenue requirement for 2013 and 2014 and further that eliminating differences between financial and regulatory reporting will enhance transparency. Grant Thornton advises that it agreed the defined benefit pension expense under both the current and proposed methods to the supporting documentation.

The Board accepts the agreement in relation to defined benefit pension expense and effective January 1, 2013 will approve: i) Newfoundland Power's proposed calculation of this expense; and ii) the amortization over 15 years of the forecast defined benefit pension expense regulatory asset of approximately $12.4 million.

3. Conservation Program Costs

The parties to the Settlement Agreement agree with Newfoundland Power's proposal to defer and amortize annual customer energy conservation program costs, commencing in 2013, over seven years, as well as the proposed change in the definition of the Conservation and Demand Management Cost Deferral Account.

Conservation program costs are forecast to increase by approximately $2.4 million each year. Newfoundland Power currently expenses customer energy conservation program costs in the year in which they are incurred and is proposing to instead defer and amortize these costs over a seven-year period commencing in 2013 with recovery through the Rate Stabilization Account. Newfoundland Power states that this is reasonably consistent with public utility practice in relation to conservation cost recovery.

Newfoundland Power is also proposing a change in the definition for the Conservation and Demand Management Cost Deferral Account. Newfoundland Power and Newfoundland and Labrador Hydro recently completed an assessment of the portfolio of conservation programs and the jointly prepared report, *Five-Year Energy Conservation Plan: 2012-2016*, was filed with the Application. The principal changes to the conservation programs relate to: (i) the discontinuation of certain residential incentives for new construction; (ii) the introduction of new residential customer programs; and (iii) expansion of commercial customer programs.

Grant Thornton explains that annually recurring general conservation costs relating to providing general customer information, community outreach and planning will continue to be expensed in the year in which costs are incurred. Grant Thornton advises that nothing arose in its review to indicate that regulatory deferrals and amortizations are unreasonable or not in accordance with Board Orders, though Grant Thornton notes that the amortization period is longer than has been used in the past for recovery of costs of this nature.

The Board accepts the agreement in relation to conservation program costs and will approve, effective January 1, 2013,: i) the proposed change in the definition of the Conservation and Demand Management Cost Deferral Account, and ii) the amortization of annual customer energy conservation program costs over seven years with recovery through the Rate Stabilization Account.

4. Weather Normalization Reserve

The parties to the Settlement Agreement agree that the Board should approve Newfoundland Power's proposals that, with effect from January 1, 2013: i) annual balances in the Weather Normalization Reserve be recovered from, or credited to, customers as part of the annual Rate Stabilization Account adjustment to customer rates; and ii) the outstanding year-end balance in 2011 in the Weather Normalization Reserve of approximately $5.0 million due to customers be amortized over three years commencing in 2013.

The Weather Normalization Reserve normalizes the effects of weather and hydrology on Newfoundland Power's sales and power supply costs. The purpose of the reserve is to ensure that Newfoundland Power does not experience an earnings windfall or shortfall as a result of weather conditions. Currently, balances reflecting annual transfers to and from the Weather Normalization Reserve are considered annually by the Board and potential disposition of accrued balances in the reserve have typically been reviewed by the Board during general rate applications.

Newfoundland Power is proposing that annual balances in the reserve be recovered from, or credited to, customers as part of the annual Rate Stabilization Account adjustment on July 1 of each year. Newfoundland Power is also proposing that the outstanding year-end balance in 2011 of approximately $5.0 million after tax due to customers be amortized over three years, commencing in 2013. Newfoundland Power states that the Weather Normalization Reserve is the only regulatory mechanism which does not provide for timely recovery or credit of balances.

Grant Thornton notes that the proposal to include the amortization of the Weather Normalization Reserve in the annual Rate Stabilization Account adjustment would be consistent with the regulatory treatment of Newfoundland Power's other supply cost mechanisms and, according to Newfoundland Power, is consistent with current regulatory practice in Canada.

The Board accepts the agreement in relation to the Weather Normalization Reserve and will approve, with effect from January 1, 2013: i) that annual balances in the Weather Normalization Reserve Account be recovered from or credited to customers through the Rate Stabilization Account; and ii) the amortization over three years of the outstanding 2011 year-end balance due to customers in the Weather Normalization Reserve of approximately $5.0 million.

5. Cost Recovery Deferrals

The parties to the Settlement Agreement agree with Newfoundland Power's proposal that the Board should approve, with effect from January 1, 2013, Newfoundland Power's proposal to amortize and recover over a three-year period, commencing in 2013, the deferrals that were ordered by the Board in Order Nos. P.U. 30(2010), P.U. 22(2011) and P.U. 17(2012).

In Order Nos. P.U. 30(2010) and P.U. 22(2011) the Board approved the deferred recovery of approximately $2.4 million in each of 2011 and 2012, which is the difference between actual regulatory deferrals and the amount that was included in the 2010 test year revenue requirement. In Order No. P.U. 17(2012) the Board approved the deferred recovery of the amount of the difference in revenue for 2012 relating to the determination of Newfoundland Power's 2012 cost of capital estimated to be approximately $2.5 million. Newfoundland Power is proposing to amortize these deferrals using the straight-line method over a three-year period beginning in 2013.

The Board accepts the agreement in relation to previously ordered deferrals, and will approve the amortization over three years, commencing in 2013, of: i) the deferrals approved in Order Nos. P.U. 30(2010) and P.U. 22(2011) in the amount of $4,726,000; and ii) the deferral approved in Order No. P.U. 17(2012) of approximately $2.5 million.

6. Hearing Costs

The parties to the Settlement Agreement agree with Newfoundland Power's proposal that an estimated $1.25 million in Board and Consumer Advocate hearing costs be recovered in customer rates evenly over a three-year period from 2013 to 2015.

Newfoundland Power estimates that it will be billed approximately $1.25 million for Board and Consumer Advocate costs related to the Application.

Grant Thornton notes that the proposal is consistent with previous Board Orders and that it will have a forecast annual revenue requirement impact of approximately $417,000.

The Board accepts the agreement in relation to hearing costs and will approve the amortization over three years, commencing in 2013, of costs billed to Newfoundland Power for Board and Consumer Advocate hearing costs related to the Application, estimated to be $1.25 million.

7. 2013 Revenue Shortfall

The parties to the Settlement Agreement agree with Newfoundland Power's proposed amortization from the effective date of the new rates to December 31, 2015 to provide for recovery in customer rates of any 2013 revenue shortfall.

Newfoundland Power explains that, based upon a March 1, 2013 implementation, customer rates designed to recover the 2013 revenue requirement would result in an estimated $980,000 shortfall in recovering the 2013 revenue requirement. Newfoundland Power is proposing a revenue amortization to recover this shortfall.

The parties agree with the proposed amortization and further that the amount of the 2013 revenue shortfall will be affected with a later implementation date than March 1, 2013 and that the amortization should provide for recovery of any 2013 revenue shortfall.

The Board accepts the agreement in relation to the 2013 revenue shortfall and will approve the amortization over three years, commencing in 2013, of the 2013 revenue shortfall resulting from the implementation of rates after January 1, 2013.

8. Forecast Average Rate Base

The parties to the Settlement Agreement agree that Newfoundland Power's forecast 2013 and 2014 average rate base, as set out in the Application, should be used for ratemaking purposes, subject to adjustment by the Board in relation to issues not addressed in the Settlement Agreement.

The parties also agree that Newfoundland Power's forecast 2013 and 2014 rate base, as set out in the Application, is calculated in accordance with Board Orders and regulatory practice.

Grant Thornton concludes that the forecast average rate base is in accordance with established practice and accurately reflects Newfoundland Power's proposals with respect to the updated depreciation study, pension costs under United States Generally Accepted Accounting Principles, customer energy conservation programs, regulatory deferral accounts and the updated calculations related to the rate base allowances.

The Board accepts the agreement in relation to forecast average rate base and will approve the proposed forecast average rate base for 2013 and 2014 to be used for ratemaking purposes, incorporating the determinations of the Board in this Order.

9. Rate Design and Rate Structure

The parties to the Settlement Agreement agree that the Board should approve Newfoundland Power's proposed changes to rate design and rate structure as set out in the Application.

Newfoundland Power proposes to vary the rate increase by customer rate class so cost recovery for each class is within the target revenue to cost ratio range of 90% to 110%. Newfoundland Power uses an embedded cost of service study to assess the fairness of its rates by comparing the revenue collected from each class with the cost to serve that class. Newfoundland Power states that maintaining revenue to cost ratios for each class within a range of 90% to 110% has been an accepted approach to avoiding undue cross-subsidization among the various classes.

Newfoundland Power also proposes to implement changes in customer rate design in accordance with a review of the retail rates undertaken following Newfoundland Power's 2007 general rate application. The Retail Rate Review involved a comprehensive review of the rates with the participation of Newfoundland Power, the Consumer Advocate and Newfoundland and Labrador Hydro. A detailed report was filed in 2009 and in 2010 it was agreed that consideration of overall rate structure changes would be deferred until Newfoundland Power's next general rate application.

Newfoundland Power now proposes to implement the recommendations arising from the Retail Rate Review, including changes in relation to the basic customer charge, the merger of Rates 2.1 and 2.2, modifications to demand and energy charges to better reflect marginal costs, changes to the energy block sizes in Rates 2.3 and 2.4 and changes to the Maximum Monthly Charge and the Early Payment Discount.

The Board accepts the agreement in relation to rate design and rate structure and will approve rates based on Newfoundland Power's proposal to: i) vary the rate increase by customer class so cost recovery for each class is within the target revenue to cost ratio range of 90% to 110%; and ii) implement the proposed changes to rate design and structure as follows:

- **(i) merge existing Rates 2.1 and 2.2 into a single General Service Rate for all customers with demand of less than 100kW;**
- **(ii) modify demand and energy charges to better reflect marginal costs;**
- **(iii) change energy block sizes in Rates 2.3 and 2.4;**
- **(iv) make changes to the basic customer charge;**
- **(v) apply the average rate increase to the Maximum Monthly Charge;**
- **(vi) maintain the Curtailable Service Option with the current credit;**
- **(vii) modify the Early Payment Discount;**
- **(viii) maintain the Optional Seasonal Rate Revenue and Cost Recovery Account until the next general rate application;**

(ix) **increase the Optional Seasonal Rate consistent with the Rate 1.1 increase; and**

(x) **increase the Time of Day Rates in accordance with the increase in the applicable rate class.**

10. Rate Stabilization Clause Amendments

The parties to the Settlement Agreement agree that the amendments to the Rate Stabilization Clause proposed by Newfoundland Power should be approved.

Three proposed amendments to the Rate Stabilization Clause give effect to the Settlement Agreement with respect to conservation program costs, the Weather Normalization Reserve and the Maximum Monthly Charge. In addition Newfoundland Power proposes to amend the Rate Stabilization Clause to reflect the most recent energy consumption information for street and area lighting fixtures.

The Board accepts the agreement in relation to amendments to the Rate Stabilization Clause and will approve, effective January 1, 2013, the proposed amendments to:

(i) **reflect annual changes in the Rate Stabilization Account adjustment factors between test years for customers that benefit from the Maximum Monthly Charge provided for in proposed Rate 2.1 and existing Rates 2.3 and 2.4;**

(ii) **reflect the most recent energy consumption information for street and area lighting fixtures;**

(iii) **permit recovery through the Rate Stabilization Account of customer energy conservation program costs; and**

(iv) **permit the ongoing disposition through the Rate Stabilization Account of annual transfers to the Weather Normalization Reserve.**

II. CONTESTED ISSUES

The parties acknowledge and list the following issues that have not been resolved in the Settlement Agreement and remain outstanding:

(i) 2013 Forecast Revenue Requirements from rates of $601,551,000 and 2014 Forecast Revenue Requirements from rates of $618,846,000;

(ii) 2013 and 2014 Test Year Operating Costs;

(iii) approval, with effect from January 1, 2013, of the calculation of depreciation expense by:

  (a) use of the depreciation rates as recommended in the Depreciation Study filed with the Application; and

  (b) adjustment of depreciation expense to amortize over the remaining life of the assets an accumulated reserve variance of approximately $2.6 million identified in the Depreciation Study filed with the Application;

(iv) approval of an appropriate capital structure for ratemaking purposes;

(v) approval of a return on average rate base for 2013 of 8.64% within a range of 8.46% to 8.82% and a return on average rate base for 2014 of 8.58% in a range of 8.40% to 8.76%; and

(vi) discontinuance of the use of the automatic adjustment formula to determine Newfoundland Power's allowed rate of return on rate base.

1. Cost of Capital

Determining a fair return for Newfoundland Power is a central issue in this proceeding. Mr. Ludlow, President and Chief Executive Officer of Newfoundland Power, stated:

> *"The Public Utilities Act provides that Newfoundland Power is entitled to the opportunity to earn a just and reasonable return each year in addition to its reasonable costs. This entitlement reflects the essential balance between the competing interests of utility investors and customers."* (Transcript, January 10, 2013, page 37/15-21)

In determining a fair return the Board is required to observe the power policy of the Province as set out in the *Electrical Power Control Act, 1994, SNL 1994*, c. E-5.1. Paragraph 3(a)(iii) states that the rates for the supply of power within the Province should provide sufficient revenue to enable a utility to earn a just and reasonable return so that it is able to achieve and maintain a sound credit rating in the financial markets of the world. In Order No. P.U. 43(2009) the Board stated at page 11:

> *"To be considered fair the return must be commensurate with the return on investments of similar risk and sufficient to assure financial integrity and to attract necessary capital."*

i) Market Conditions

The Consumer Advocate submits that a fair return on equity cannot be determined independent of the state of the capital markets. He believes that capital market conditions have dramatically improved since the evidence was prepared for Newfoundland Power's last general rate application in 2009.

Dr. Booth explains that it is clear that capital market conditions today are much easier than in 2009 and that there is nothing in current capital market conditions to indicate that Newfoundland Power needs any sort of cushion to improve its capital market access so that it can obtain funds on fair and reasonable terms. He states:

> *"Overall the Canadian economy is good shape. As the Bank of Canada noted the remaining spare capacity will be used up in 2013/4 and the financial system is firing on all cylinders. The stock market is valuing utilities very favourably, credit is easy and utilities are issuing 40 and 50 year debt at very low rates. The only "problem" is that as one of the few AAA rated issuers the Government of Canada is borrowing on extremely low interest rates; significantly lower than US government. However, this does not indicate any "heightened risk aversion in the credit markets." Overall market conditions are remarkably benign."* (Dr. Laurence Booth, Written Evidence, page 40)

Dr. Booth believes that the markets are in a long drawn out recovery.

Newfoundland Power on the other hand submits that the evidence supports a finding that current financial market conditions continue to be challenging.

Ms. McShane concludes that, by the end of July 2012:

(i) the systemic risks to the global financial system, as assessed by the Bank of Canada, were no lower than they were at the end of 2009;
(ii) long-term Government of Canada bond yields were much lower but this was not indicative of the trend in the market cost of equity;
(iii) changes in spreads on high grade corporate bonds indicate that the credit risk was not perceived to have declined; and
(iv) investor confidence was lower, equity market volatility was similar and the indicated market cost of equity was higher than it was in late 2009.

Mr. MacDonald states that the Canadian economy continues to be challenged by an uncertain global economic environment and risk remains relatively high. He explains that long-term Canadian bond yields were significantly lower in October 2012 than January 2010 which was partly influenced by the Bank of Canada's monetary policy encouraging low interest rates in challenging economic conditions.

ii) Risk and Capital Structure

Newfoundland Power argues that it continues to be an average risk Canadian utility and that its 45% common equity ratio should be maintained for ratemaking purposes.

The Consumer Advocate submits that Newfoundland Power is, at most, of average business risk and lower financial risk compared to other Canadian utilities. Based on this, the Consumer Advocate believes that Newfoundland Power should either have a lower allowed return on equity than a benchmark Canadian utility or its common equity ratio should be reduced. The Consumer Advocate notes that Newfoundland Power has a higher common equity percentage than its parent, Fortis Inc., and any other Fortis utility in Canada. He submits that there is no objective evidence that Newfoundland Power requires a common equity ratio of 45% and recommends that it be reduced to 40% for ratemaking purposes.

Dr. Booth believes that Newfoundland Power has average business risk and lower financial risk and states that it is a logical conclusion that Newfoundland Power should have either a lower allowed return on equity than a benchmark Canadian utility or its common equity ratio should be reduced. Dr. Booth states that he can see no reason why Newfoundland Power should have a 45% common equity ratio. He recommends that it be reduced to 40% with the issuance of preferred shares. In his analysis this would reduce the revenue requirement by about $3 million and would not affect Newfoundland Power's credit rating.

Newfoundland Power submits that the evidence is consistent that its overall risk profile has not changed materially since the last general rate application and that it remains an average risk Canadian utility. Mr. Ludlow states:

> *"I believe Newfoundland Power's risk profile is substantially the same as it was in 2009. We face some unique challenges. We are a small utility. We operate in an isolated system in a harsh weather environment and the demographics of our service territory are changing. Our operational challenges may be greater than that of many other Canadian utilities. As this Board has observed in the past, these challenges are offset by our strong capital structure. We also have a generally supportive regulatory environment similar to other utilities in Canada. So, on balance, we still consider our self an average risk utility."* (Transcript, January 10, 2013, page 29/4-18)

Newfoundland Power explains that its target 45% common equity component has been confirmed by Order of the Board since 1990 and has been recognized favorably by both the Dominion Bond Rating Service and Moody's Investors Service. Newfoundland Power states:

> *"It is clear from the evidence that Newfoundland Power's longstanding 45% common equity ratio is a key component of the Company's current creditworthiness. The witnesses, Ms. McShane, Dr. Vander Weide, Mr. MacDonald and Ms. Perry all support the maintenance of Newfoundland Power's 45% common equity ratio."* (Newfoundland Power, Written Submission, page D-5)

Newfoundland Power's Vice-President of Finance, Ms. Perry, believes that changing the capital structure could lead to a re-evaluation of the regulatory support perceived by credit rating agencies. Ms. Perry explains that Newfoundland Power is a small issuer in financial markets and she questions whether Dr. Booth's suggestion in relation to retractable preferred shares is possible. Further, she states that it would be costly and, from a credit rating perspective, retractable preferred shares would effectively be the same as issuing additional debt. Ms. Perry notes that Newfoundland Power's 45% common equity ratio has consistently been singled out by credit rating agencies as a financial strength and the maintenance of this ratio is a prominent feature of the Board's regulatory support of Newfoundland Power's financial integrity.

The Dominion Bond Rating Service states in its February 14, 2013 report that it expects Newfoundland Power to maintain its approved capital structure and further lists a strong balance sheet as one of Newfoundland Power's strengths. Moody's Investors Service also notes Newfoundland Power's strong balance sheet, concluding:

> *"NPI's allowed ROE was increased for 2012 to 8.80% from 8.38% in 2011 and while it remains one of the lowest in Canada, it is mitigated by one of the highest deemed equity levels in Canada at 45%."* (JP#4: Moody's Investors Service, Credit Opinion: Newfoundland Power Inc., January 18, 2013)

Ms. McShane concludes that Newfoundland Power continues to be an average risk Canadian utility. She offers examples of Canadian utilities that may be riskier than Newfoundland Power, including Nova Scotia Power and Pacific Northern Gas, but could not provide an example of a Canadian utility with lower risk on an overall basis, noting the trade-off between capital structure and business risk. Ms. McShane concludes:

> *"The Company's capital structure is reasonable in light of its business risks, the importance of maintaining the existing credit ratings, the upward trend in the common equity ratios of Newfoundland Power's Canadian peers, the necessity of ensuring financial strength in uncertain capital markets and the need to be positioned to compete for capital on reasonable terms and conditions."* (Ms. Kathleen McShane, Written Evidence, page 2)

Ms. McShane explains that the proposed reduction in common equity would in all likelihood cause Moody's Investors Service to re-evaluate its conclusion that Newfoundland Power operates in a supportive regulatory environment. She believes if this rating or any other regulatory risk factors are changed there is a very high likelihood that Newfoundland Power would be downgraded. Ms. McShane also explains that, in her opinion, if the common equity percentage was reduced by five percent the fair return would increase by about 50 basis points.

Dr. Vander Weide assessed Newfoundland Power's common equity ratio by comparing it to the average approved equity ratio for United States electric and gas utilities and concludes that the 45% common equity ratio is reasonable. He agrees that there is a relationship between the cost of equity and the percentage of debt in the capital structure.

Mr. MacDonald concludes that Newfoundland Power is an average risk Canadian utility and a forecast common equity ratio of 45% for 2013 and 2014 is reasonable. He explains that the basis for his conclusion is that there have been no material changes in Newfoundland Power's business, regulatory or financial risk since the last general rate application, the allowed equity ratios of its peers have remained constant since 2010, and if the ratio is lowered it could weaken credit metrics and negatively impact the debt ratings agencies' perception of the regulatory environment. He states:

> *"Why I advocate ongoing review of the appropriateness of the common equity level and making adjustments as required, I am mindful of the sovereign debt issues that continue to create broad economic uncertainty. These factors provide further rationale for maintaining the common equity component at its current levels."* (Transcript, January 18, 2013, page 183/12-19)

The Consumer Advocate urges caution with respect to Ms. McShane's recommendation that the fair return would increase by about 50 basis points if the common equity component was lowered by five percent. He submits:

> *"In our respectful submission, the Board would only adjust the ROE if the Board found that Newfoundland Power is an average risk utility and their capital structure is more aggressive than the average. That is to say that if the average common equity for a firm like Newfoundland Power was 40 percent, and the Board gave Newfoundland Power 35 percent like Fortis uses, then you would adjust the ROE. However, in this case, we are simply moving an average risk utility to the average common equity ratio and recommending an average ROE."* (Transcript, February 8, 2013, page 80/6-18)

Board Findings – Risk and Capital Structure

In Order No. P.U. 43(2009) the Board stated at page 13:

> *"While there is some evidence that Newfoundland Power may be considered low risk even vis a vis its Canadian counterparts, in the absence of better evidence and given the current financial circumstances, the Board continues to believe that it is appropriate to consider Newfoundland Power's overall risk to be average in relation to Canadian utilities."*

The Board finds that the evidence does not demonstrate that Newfoundland Power's financial risk or overall risk has changed since the last general rate application when the Board determined that it was an average risk Canadian utility.

In Order No. P.U. 16(1998-99) Newfoundland Power's capital structure was comprehensively reviewed. The Board determined that it would deem a common equity ratio of 45% stating that the Board's objective in establishing capital structure for ratemaking purposes is to reflect the mix of capital that would result in the least cost of capital overall and maintain credit worthiness. In Order No. P.U. 19(2003) the Board stated at page 45:

> *"The Board also notes that NP retained an "A" credit rating in its October 2002 bond issue with an actual capital structure of 44% equity despite having an ROE characterized by NP as the lowest in Canada. Based on this recent experience and the Board's findings relating to NP's risk profile, the Board is not convinced at this time to change what has proven a sound and successful capital structure for NP. The Board is not satisfied that the common equity component could be notably reduced without significantly compromising interest coverage. Dr. Kalymon's proposal to substitute preferred shares for equity is not seen as an acceptable solution in the judgement of the Board. The Board notes this same proposal by Dr. Kalymon was rejected in Order No. P.U.16(1998-99). In reaching this decision of a maximum 45% common equity component, the Board recognizes NP will continue to retain one of the most favourable capital structures among Canadian utilities of comparable risk. The Board acknowledges the sensitivity in the relationship between capital structure and ROE and the importance of maintaining an appropriate balance to ensure both efficient access to the capital markets by NP and least cost electricity for consumers."*

In Newfoundland Power's last two general rate applications the Board accepted the settlement of the parties recommending a 45% common equity ratio for ratemaking purposes.

The Board acknowledges that it is not bound by its earlier decisions but it will have reference to these decisions with a view to ensuring consistent and predictable decision making. The Board also acknowledges that the evidence demonstrates that Newfoundland Power's common equity ratio is generally higher than the common equity ratios of other Canadian utilities. Dr. Booth states that there is no reason for Newfoundland Power to have a 45% common equity ratio. Dr. Booth estimates a potential reduction in revenue requirement of about $3 million if the common equity ratio was reduced to 40% and believes that this would not result in significant changes in Newfoundland Power's credit metrics. Ms. Perry, Ms. McShane and Mr. MacDonald all suggest that a reduction in the common equity ratio may lead to a downgrade by credit rating agencies.

Further, Ms. Perry also questions whether Dr. Booth's suggestion in relation to preference shares is practical. It is Ms. McShane's opinion that a reduction in the common equity ratio may be associated with an increase in the fair return of about 50 basis points. Mr. MacDonald expresses concern in relation to a reduction in Newfoundland Power's common equity ratio given the current economic uncertainty. The Board finds that the evidence raises significant issues in relation to the suggested change to Newfoundland Power's capital structure.

Newfoundland Power has had a deemed common equity ratio of approximately 45% for the last twenty-five years and the evidence is clear that the rating agencies place importance on its strong common equity position. There is no evidence of a change in circumstances which would justify a change in the ratio and there is little substantive evidence demonstrating that the appropriate common equity ratio for Newfoundland Power is 40%. The Board therefore finds that a change in the common equity ratio has not been justified in the circumstances. The Board notes that it has been some time since Newfoundland Power's capital structure has been comprehensively reviewed and that it may be appropriate for this issue to be addressed in Newfoundland Power's next general rate application. Newfoundland Power will be directed to file a comprehensive report in relation to its capital structure with its next general rate application.

The Board finds that Newfoundland Power continues to be an average risk Canadian utility. The Board will accept a common equity component of no greater than 45% for ratemaking purposes for Newfoundland Power. The Board will require Newfoundland Power to file a report in relation to its capital structure with its next general rate application.

iii) Methodologies for Determining Fair Return

A variety of methodologies for the determination of a fair return for Newfoundland Power were considered by the four cost of capital experts in this proceeding. Mr. MacDonald explains in relation to the fair return determination:

> "*Despite the relatively long history of the fair return concept there is as of yet, no single universally accepted method to determine a fair return on equity for an investor-owned utility. All methodologies are imperfect and cost of capital estimation is much more of an art than a science. Each methodology is more or less reliable depending on the prevailing economic and capital market conditions and each has its own strengths and weaknesses. In our view it is best to estimate the cost of capital using more than one methodology, as the return determined by any model or test will not perfectly capture all of the variables that might be considered in determining a fair return.*" (Mr. Troy MacDonald, Written Evidence, page 26)

Mr. MacDonald states that the capital asset pricing model is one of the most widely used methods for determining the rate of return for an asset held as part of a diversified portfolio and one of the most common models used by Canadian regulators. However, he explains that in the current circumstances the abnormally low risk-free rate can cause distortions in the results of methods such as the capital asset pricing model. Mr. MacDonald explains that he utilized multiple methodologies to ensure a broad view as the different methodologies provide multiple points of insight including historical market returns, forward looking market data, significant

Canadian based data and carefully selected United States data. He utilizes the capital asset pricing model, the equity risk premium model and the discounted cash flow model. He does not use the comparable earnings test because it has not been widely accepted in the Canadian regulatory environment in recent years. He explains that he used his professional judgement to develop a weighting for each of the three methodologies to address further considerations including the impact of the unusually low risk-free rates, the potential differences between United States and Canadian utilities, and the potential fluctuations over time.

Dr. Booth states that the capital asset pricing model is overwhelmingly the most important model used by a company in estimating cost of equity. However, he believes that the Canadian bond market is not normal right now and he judges a simple application of the capital asset pricing model under current market conditions as giving an unrealistic low estimate of the fair return. He states:

> "*I'd say this more - more than ever at this particular point in time, given the focus in Canada traditionally on risk premium models and the role of - the central role of the long Canada bond yield, judgement is involved and more important at the current point in time than ever before.*" (Transcript, January 18, 2013, page 131/10-16)

Dr. Booth explains that the recent very low long-term Canada bond yields forced him to re-evaluate his approach to the capital asset pricing model and the discounted cash flow model. He states that, while in theory the two methodologies should give the exact same answers, there have been extensive periods when there have been substantial divergences between the discounted cash flow and the risk premium estimates. He now uses the discounted cash flow model when estimating a reasonable return on the market. He states that his final analysis looks like a capital asset pricing model but that he is putting greater emphasis on the discounted cash flow now than he did three years ago.

Dr. Vander Weide explains that he references three generally accepted models to determine cost of equity: the discounted cash flow, the risk premium and the capital asset pricing model. He has not used the comparable earnings test for a number of years. He explains that the capital asset pricing model results are highly sensitive to the estimate of the risk-free rate and he did not assign it any weight in this case, concluding that it does not work for Canadian utilities.

Ms. McShane details a number of challenges in relation to the capital asset pricing model and concludes that it is not inherently superior to other approaches, particularly in light of the adjustments necessary to apply it to the utility industry. Ms. McShane concludes:

> "*Under current market conditions the application of the capital asset pricing model becomes particularly problematic. The model itself provides no guidance as to how to reconcile the abnormally low level of long term Canada Bond yields, which is the proxy for the risk-free rate with estimates of the market risk premium which have typically been expressed in the nature of a long term average level. As a result, much more judgement is required under current market conditions in the application of that model, and I think less confidence can be placed in the accuracy of the results. In those conditions it is particularly important to look to tests such as the discounted cash flow test, which are not benchmarked or anchored to the long term Canada Bond yield. I would also note in respect to the discounted cash flow test that we have in the last*

> *couple of years, I think, seen other regulators in Canada tend to give more weight to discounted cash flow than they had in earlier proceedings.*" (Transcript, January 14, 2013, pages 10/6-25 to 11/1-5)

Ms. McShane uses multiple tests to determine a fair rate of return and notes that the Ontario Energy Board has said that the use of multiple tests to determine the market risk premium is a superior approach to relying on a single methodology. She explains:

> "*Each of the tests is based on different premises and brings a different perspective to the fair return on equity. None of the individual tests is, on its own, a sufficient means of ensuring that all three requirements of the fair return standard are met; each of the tests has its own strengths and weaknesses. Individually, each of the tests can be characterized as a relatively inexact instrument; no single test can pinpoint the fair return. Changes to the inputs to individual tests may have different implications depending on the prevailing economic and capital market conditions. These considerations emphasize the importance of reliance on multiple tests.*" (Ms. Kathleen McShane, Written Evidence, page 50)

Unlike the other experts in this proceeding Ms. McShane also uses the comparable earnings test. She believes that this methodology is entitled to significant weight but acknowledges that regulators have afforded it a small amount or no weight in recent years and as such she presents this methodology in the alternative.

Newfoundland Power submits that all the experts' cost of equity recommendations in this proceeding, except those of Dr. Booth, are based on multiple tests and the Board should give greater weight to recommendations arrived at by use of multiple methodologies. Newfoundland Power states that the days of sole reliance on the capital asset pricing model are over, and specifically:

> "*Mr. Chairman, that evidence tells us that there have been two important shifts in regulatory thinking since we were here in 2009. The first is with respect to the use of the CAP-M methodology. With the collapse of long Canada bond yields, which are driven by government monetary policy instead of market forces, there's no longer any clear and predictable relationship between long Canada bond yields on the one hand and a utility's cost of equity on the other. That's why regulators such as the British Columbia Utilities Commission, the Ontario Energy Board, the Alberta Utilities Commission, have moved away from sole or predominant reliance on the CAP-M methodology. They increasingly rely on other methodologies, in particular, the discounted cash flow or DCF methodology.*" (Transcript, February 8, 2013, pages 18/16-25 to 19/1-9)

The Consumer Advocate clarifies that Dr. Booth does use the discounted cash flow method to estimate the fair return for the capital market as a whole and it is an important element in his risk premium estimates.

Board Findings – Methodologies for Determining Fair Return

All the cost of capital experts in this proceeding reference multiple methodologies. Mr. MacDonald and Ms. McShane give weight to the capital asset pricing model, the other equity risk premium models and the discounted cash flow model. Dr. Vander Weide gives weight to the equity risk premium models and the discounted cash flow model and rejects the capital asset pricing model in the circumstances. Dr. Booth completes a discounted cash flow analysis which he uses to inform his judgement when determining a fair rate of return within the context of the capital asset pricing model. Only Ms. McShane uses the comparable earnings test.

The Board accepts the evidence of the experts that there are challenges with each of the methodologies which can be exacerbated in certain financial and economic conditions. The Board has in the past preferred the equity risk premium methodology in determining a fair return referencing the stability of the bond market and consistent and predictable decision making (Order No. P.U. 19(2003), page 48). In Order No. P.U. 43(2009), the Board stated at page 18:

> *"Consistent with past practice of this Board and other Canadian regulators, and considering the evidence respecting the issues in relation to the comparable earnings and the discounted cash flow tests, especially in relation to the reliance on U.S. data without making adjustments, the Board will continue to rely principally on the equity risk premium test to estimate a fair return on regulated common equity for Newfoundland Power for ratemaking purposes."*

In Newfoundland Power's last general rate application the Board relied primarily on the capital asset pricing model. However, in this proceeding, the experts agree that given the abnormally low long-term Canada bond yields a simple application of the capital asset pricing model will not produce a fair return for Newfoundland Power. Both Mr. MacDonald and Dr. Booth make adjustments in relation to the capital asset pricing model estimates and Dr. Vander Weide rejects the capital asset pricing model results. The Board notes that other regulators are moving away from sole reliance on the capital asset pricing model.

The Board concludes that given the current financial and economic conditions a simple application of the capital asset pricing model cannot be relied on to produce a fair return for Newfoundland Power. In the circumstances it is necessary to take a broader view and look to other available information in relation to fair return. The Board will continue to give primary weighting to the capital asset pricing model; however, it will also look to the other evidence in relation to the fair return for Newfoundland Power and in particular the results of other models. Given the evidence that the comparable earnings test is not a widely accepted method of estimating a fair return the Board will not consider the results of this test. The Board will not adopt an assigned weighting for each methodology but rather will have regard to all of the circumstances to inform its judgement as to the fair return.

The Board will continue to give primary weighting to the capital asset pricing model but in the circumstances will look to the results of other accepted models and other relevant evidence when determining a fair return for Newfoundland Power.

iv) Financing Flexibility

All the experts in this proceeding include an allowance for financing flexibility in the fair return. Mr. MacDonald, Dr. Booth and Dr. Vander Weide include an allowance of 50 basis points and Ms. McShane includes either 50 or 100 basis points, depending on whether the comparable earnings test is used in determining a fair return. Mr. MacDonald explains that the concept of an allowance for financing flexibility is supported by financial theory and regulatory practice. Dr. Vander Weide explains that there are two justifications for the allowance: first, to compensate for flotation costs which is generally around 20-25 basis points; and, secondly, to reflect differences in market values and book values of debt and equity. Dr. Booth states that a 50 basis points allowance has been a non-contentious issue in most jurisdictions, except in Quebec where 35 basis points is used. Dr. Booth says the adjustment is meant to cover the costs of raising equity that are not recovered directly in the revenue requirement. Ms. McShane explains that the financing flexibility allowance is a required element of the concept of fair return. In relation to her recommended 100 basis points allowance, Ms. McShane explains:

> "*The higher allowance for financing flexibility is intended to recognize that the Board has in previous decisions decided that it will not give weight to the comparable earnings test, but only to tests derived from equity capital market data. In that case there needs, in my view, to be an explicit recognition that the market data in which these market-based tests, the equity risk premium, and discounted cash flow test, are based, reflect market value capital structures.*" (Transcript, January 14, 2013, page 8/1-12)

Newfoundland Power states that the higher financing flexibility allowance proposed by Ms. McShane recognizes that the equity risk premium and discounted cash flow tests are based on market values and the return on equity approved by the Board is applied to book value.

The Consumer Advocate notes that Ms. McShane has doubled her financing allowance while Ms. Perry indicated that she has no knowledge of these costs doubling.

Board Findings – Financing Flexibility

The Board accepts the evidence of Mr. MacDonald, Dr. Booth and Dr. Vander Weide that an allowance of 50 basis points for financing flexibility is appropriate. In Newfoundland Power's last general rate application the Board included a 50 basis point allowance for financing flexibility and the Board finds that there is no evidence that financing costs have increased. Ms. McShane's suggestion that a 50 basis point allowance is inadequate if the comparable earnings test is not used is not supported by the recommendations of the other experts or by Canadian regulatory practice.

The Board accepts that a 50 basis point allowance for financing flexibility should be included in the estimate of the fair return for Newfoundland Power.

v) Risk-Free Rate

Mr. MacDonald estimates the risk-free rate to be 3.04% for 2013 and 2014. This determination is based on the October 2012 forecasts for the 10-year long-term Canada bond yields and the observed average daily difference between the 10-year and 30-year long-term Canada bond yields. Mr. MacDonald does not make any adjustments to the forecast yields but states that he makes an adjustment to his capital asset pricing model result, increasing it by 206 basis points, to address concerns regarding the impact of the abnormally low risk-free rate.

Dr. Booth also forecasts the long-term Canada bond yield to be about 3.0% but determines a base adjusted long-term Canada bond yield of 3.8%. He believes that the forecast long-term Canada bond yield is well below any equilibrium yield since it is only 1.0% above the forecast inflation rate and that it would result in a negative real yield for a typical taxable investor. Dr. Booth states that he regards any long-term Government of Canada bond yield below 3.8% as indicating abnormal capital market conditions and not reflective of a risk verses return trade off by ordinary investors. He explains that the forecast low long-term bond yield reflects the actions of global policy makers and central banks and should not directly influence the fair rate of return for Newfoundland Power. Dr. Booth adjusts the long-term Canada bond yield upward by 80 basis points which he estimates is the approximate impact of the United States Operation Twist on the Canadian bond market.

Dr. Vander Weide estimates the risk-free rate to be 2.73% based on the June 2012 Consensus Economics forecast interest rate on long-term Canada bonds for 2013. Dr. Vander Weide did not use a blended 2013 and 2014 forecast. Dr. Vander Weide states that the forecast 2.73% yield on long-term Canada bonds is significantly less than the historical 7.3% average yield. He explains that the forecast yield is unusually low and reflects policy decisions of Canadian and United States governments, the Bank of Canada, and the United States Federal Reserve Bank.

Ms. McShane estimates the long-term Canada bond yield to be approximately 3.5% based on a forecast yield of 3.0% for 2013 and 4.0% for 2014. She uses the April 2012 Consensus Economics forecast for 2014 but uses other available forecasts for 2013. She comments that the yield is expected to rise from this historically and abnormally low rate over the next three years but that it is anticipated to average well below long-term levels of approximately 5.0%. Ms. McShane explains that the long-term government bond yield can be problematic as an estimate of the true risk-free rate as it reflects the impact of monetary and fiscal policy and may reflect a scarcity premium demonstrating an imbalance between supply and demand.

Board Findings – Risk-Free Rate

It is regulatory practice in Canada to use the forecast yield for the long-term Canada bond as a proxy for the risk-free rate in equity risk premium models. While the experts continue to look to the long-term Canada bond yield when determining the risk-free rate, they agree that bond market conditions are unusual right now and that the yield for 30-year Government of Canada bonds is abnormally low.

The range of recommended risk-free rates is 2.73% - 3.80%. Dr. Vander Weide adopts a rate of 2.73% but does not reflect the 2014 forecast and does not use the most recent forecast for 2013. Ms. McShane uses 3.50% but does not consider the most recent forecast and does not use the Consensus Economics forecast for 2013. Mr. MacDonald and Dr. Booth agree that the forecast long-term Canada bond yield for 2013 and 2014 is approximately 3.00%. Dr. Booth makes an adjustment to the forecast yield to reflect the impact of the actions of global policy makers. Dr. Booth applies an 80 basis point adjustment and determines a risk-free rate of 3.80%. Mr. MacDonald does not adjust the risk-free rate specifically but ultimately increases his capital asset pricing model result to address concerns regarding the impact of the abnormally low risk-free rate.

The Board accepts that the forecast long-term Canada bond yield is approximately 3.0%. The Board also accepts that this forecast is abnormally low and reflects the actions of global policy makers. Because the forecast may not accurately reflect the risk verses return trade-off by ordinary investors, the Board finds that an unadjusted forecast long-term Canada bond yield may not be a good proxy for the risk-free rate at this time. The Board accepts Dr. Booth's 80 basis point adjustment to the long-term Canada bond yield to reflect these unusual conditions.

The Board will accept a risk-free rate of 3.8%.

vi) Capital Asset Pricing Model

The capital asset pricing model requires a determination of both the risk premium for the equity market and the relative risk factor for the utility, or beta.

Risk Premium of the Market

Mr. MacDonald explains that the market risk premium is the premium that the market demands over and above the risk-free rate to hold an asset. He supports a market risk premium of 5.5% for use in the capital asset pricing model, placing particular emphasis on the empirical evidence gathered from over a century of Canadian investment returns. Mr. MacDonald refers to the Fernandez study, *Market Risk Premium Used in 82 Countries In 2012: a Survey With 7,192 Answers,* where the mean and median returns in both Canada and the United States were approximately 5.5%. Mr. MacDonald also refers to Professor Aswath Damondaran who, in June 2012, estimated a risk premium of 6% for Canada and stated that, according to the Credit Suisse Global Investment Returns Sourcebook 2012, the historical arithmetic mean Canadian Equity Risk Premium from 1900-2011 is 5.0%-5.5%. While Mr. MacDonald does not make adjustments to his risk premium, as noted earlier, he makes an adjustment to his capital asset pricing model result, increasing it by 206 basis points to address concerns regarding the impact of the abnormally low risk-free rate.

Dr. Booth concludes that, while his own direct estimate of the experienced market risk premium is less than 5.0%, he judges the current market risk premium to be in a range of 5.0%-6.0%. He notes that there is variability in the risk premium from year to year and says that the determination is based on historic evidence constrained by the facts. He explains that his estimate reflects the Fernandez survey results and gives weight to the evidence from the United

States. Dr. Booth makes an upward adjustment to his market risk premium to reflect the unusual market conditions. He believes that abnormal market conditions have affected the Canadian bond market and have had an impact on the equity market. Dr. Booth notes that other regulators have added a financial crisis risk premium based on conditions in the credit market. He explains:

> "*In empirical applications we use several methods of estimating the MRP: a) long run historical values which are about 5.0% for Canada, b) historic values from other markets such as the US which are tops about 6.0% c) survey results which are in the range of 5.0-6.0% and d) direct estimates of the expected return on the market from DCF and other estimates minus the current long Canada yield. Most of these methods do not take into account current capital market conditions, whereas the use of credit spreads does.*" (PUB-CA-16)

He calculates that the A spreads are about 80 basis points more than normal and adjusts his capital asset pricing model results to reflect this difference.

Ms. McShane selects 8.0% for her market risk premium explaining that the market risk premium can be expected to be higher with a lower risk-free rate. Ms. McShane sets out the equity returns and risk premiums for various bond income returns and concludes that historically lower bond income returns have been associated with higher achieved risk premiums. Ms. McShane calculates that a reasonable estimate of the expected value of the nominal equity market return is approximately 11.5% based on Canadian equity market returns and supported by U.S. equity market returns. She concludes that the analysis of Canadian equity risk premiums in conjunction with bond income returns supports a market equity risk premium of no less than 8.0% at the 30-year Government of Canada bond yield forecast of 3.5%.

Beta

Mr. MacDonald explains that the volatility of an asset in relation to the market as a whole is measured with the beta. For Newfoundland Power Mr. MacDonald determines a beta of 0.60. He suggests that the calculated average beta of 0.40 is below historical norms, explaining that this number is a spot estimate based on a particular period of observations and may not be indicative of the average beta. He acknowledges that, although he used the Blume adjustment, some experts believe that utility betas converge towards the average beta for their group and not towards 1.0 as assumed with the Blume adjustment.

Dr. Booth explains that he believes that the relative risk of Canadian utilities will return to the historic range of 0.45-0.55 from the levels recently seen of about 0.30-0.35. He explains that, when determining the beta, actual or historic returns are used, making the data very sensitive to what happened during the estimation period. It is Dr. Booth's judgement that betas tend to revert to their long run average levels of 0.45-0.55, not the long run average of the market of 1.0 as is assumed in the Blume adjustment.

Ms. McShane concludes that the relative risk adjustment for an average risk Canadian utility is in the approximate range of 0.65-0.70. She uses an adjusted beta based on several sources: Total Market Risk; Relative Historic Returns and Betas: Canadian Utilities; Recent Bloomberg

Adjusted Beta: Canadian Utilities; Long-term Adjusted Betas: Canadian Utilities Index; and Value Line Betas: United States Utility Sample.

Board Findings – Capital Asset Pricing Model

The experts recommend a range of market risk premiums of 5.5% to 8.0% for the capital asset pricing model. Mr. MacDonald concludes that the market risk premium is 5.5% but makes a 206 basis points adjustment to his final capital asset pricing model results. Dr. Booth agrees that the market risk premium is approximately 5.5% but adds a credit spread premium of 80 basis points for an effective market risk premium of 6.3%. Ms. McShane estimates a market risk premium of 8.0%, considerably higher than the risk premium she recommended in 2009. In Newfoundland Power's last general rate application the long-term Canada bond yield was 4.5% and the Board accepted a market risk premium of 6%. The forecasted long-term Canada bond yield is now 3.0% and the Board has accepted an adjusted long Canada bond yield of 3.8%. Based on the range of recommendations of the experts, the relationship of the market risk premium to the long-term Canada bond yield, and changes in market conditions since the last general rate application the Board will accept a market risk premium of 6.5% for use in the capital asset pricing model.

In relation to the beta to be applied to the market risk premium the range recommended by the experts is 0.45-0.70. Mr. MacDonald determines a beta of 0.60. Dr. Booth recommends a beta of 0.45-0.55. Ms. McShane recommends a beta of 0.65-0.70. The Board notes that it accepted a beta of 0.60 for Newfoundland Power in the last general rate application. The Board finds that the evidence continues to support a beta of 0.60 for Newfoundland Power.

The Board will accept a market risk premium of 6.5% and a beta of 0.60 resulting in a risk premium of 3.90% for use in the capital asset pricing model. When combined with a risk-free rate of 3.80% and an allowance for financing flexibility of 0.5% the estimated return on equity using the capital asset pricing model is 8.2%.

vii) Other Equity Risk Premium Models

Like the capital asset pricing model the historic and forward-looking equity risk premium models estimate the risk premium to be applied to the risk-free rate. The difference is that these models determine the risk premium for the utility based on utility specific data rather than overall market data.

Historic Equity Risk Premium Model

Mr. MacDonald conducts a historic equity risk premium analysis and calculates the return to be 10.26%. He explains that this approach captures the difference between equity and debt returns over a period of time but does not reflect the expected changes in the economy or industry or for the company in question. His equity risk premium test suggests a utility market risk premium of 6.72% using stock return data from two Canadian indices. Mr. MacDonald averages the 4.66% risk premium calculated on the S&P/TSX Utilities 1956-2011 and the 8.77% risk premium calculated on the BMO Capital Markets Utilities 1983-2011. Mr. MacDonald does not make an

express adjustment to this risk premium but reduces the overall result produced with this model by 135 basis points considering the potential fluctuations over time in this model, particularly as it relates to the companies that are included and the events in time.

Dr. Vander Weide calculates the historic or ex post premium return to be 9.9%. Like Mr. MacDonald he estimates that the risk premium is 6.7% based on the S&P/TSX Utilities 1956-2011 and the BMO Capital Markets Utilities 1983-2011. He cannot explain why the risk premium using the S&P/TSX Utilities index is so much lower than the risk premium using the BMO Utilities index. He states that his analysis shows that the required equity risk premium increases when interest rates decline and since the expected 2.73% yield on long-term Canada bonds is significantly less than the average yield on long Canada bonds of 7.3%, the current required equity risk premium should be significantly higher than the average 6.7% equity risk premium.

Ms. McShane conducts a historic utility equity risk premium test which indicates a return of 10.75%, assuming an allowance for financing flexibility of 50 basis points. She also calculates a utility equity risk premium of approximately 6.75%. Her analysis reflects three data sources: S&P/TSX Utilities 1956-2011; United States electric utility; and United States gas utility. She adjusts the long-term historic average data to recognize the inverse relationship between utility equity risk premiums and bond yields. Ms McShane acknowledges that in 2011 the Alberta Utilities Commission rejected her historic equity risk premium analysis and that her approach is much like that of Dr. Vander Weide.

The Consumer Advocate submits that there is no reasonable basis for the Board to conclude that the historic equity risk premium method puts forward reliable evidence with respect to the return investors expect on a utility like Newfoundland Power. He notes that in 2011 the Alberta Commission found that the evidence on historic returns was inconclusive with respect to the return investors expect on comparable investments.

Forward-Looking Equity Risk Premium

Dr. Vander Weide conducts a forward-looking or ex ante risk premium analysis suggesting a return of 11.1%. He concludes that the ex ante risk premium is 7.7% for his electric utility comparable group and 8.1% for his natural gas comparable group. This is based on studies of the discounted cash flow expected return on comparable groups of United States utilities in each month of his study period since 1998 using the constant growth model. He explains that the difficulty with using Canadian utilities is that there are very few, if any, analysts' growth forecasts available for each Canadian utility.

Ms. McShane calculates a forward-looking discounted cash flow based equity risk premium analysis with an indicated return of 10.0%, assuming an allowance for financing flexibility of 50 basis points. Her calculated utility equity risk premium of 6.0% is based on the difference between the discounted cash flow cost of equity and yields on long-term government bonds for a sample of United States utilities. She looked to the monthly published long-term earnings growth rate forecast for each of the sample utilities from Thomson Reuters. She explains that she constructed a constant growth and a three-stage growth discounted cash flow based equity risk

premium test. Ms. McShane concludes, based on the discounted cash flow based regression analysis of the United States utilities from 1998-2012 with a forecast Government bond yield of 3.5%, that the indicated utility cost of equity is in the range of approximately 9.3% to 9.7% and therefore the equity risk premium is approximately 6%.

Board Findings – Other Equity Risk Premium Models

Mr. MacDonald, Dr. Vander Weide and Ms. McShane estimate the utility market risk premium to be approximately 6.75% using the historic equity risk premium test. The Board has several concerns in relation to the historic equity risk premium test, the most significant of which is the large unexplained discrepancy in the available Canadian data. The S&P/TSX Utilities 1956-2011 suggests a utility risk premium of 4.66%, which is approximately half the premium suggested by the BMO Capital Markets Utilities 1983-2011 of 8.77%. The Board notes Exhibit 15 of Dr. Vander Weide's evidence which sets out the average risk premium for the S&P/TSX Utilities over the same period as the BMO Capital Markets Utilities 1983-2011 to be 7.88%. The Board also has concerns in relation to Ms. McShane's use of unadjusted United States data. The Board notes that Ms. McShane's approach to the historic equity risk premium was not accepted by the Alberta Utilities Commission.

The forward-looking equity risk premium analysis completed by both Dr. Vander Weide and Ms McShane is based on analysts' forecasts for United States utilities. Ms. McShane's market risk premium is 6.0% while Dr. Vander Weide's result is 7.7% for electric utilities and 8.1% for gas utilities. The Board has concerns in relation to these results as they are based on unadjusted United States data. In addition, the Board, like other Canadian regulators, has concerns in relation to the use of analysts' growth forecasts, particularly when used in the constant growth model.

The Board does not believe that much weight should be given to the experts' recommendations in relation to either the historic or forward-looking equity risk premium models as these are based largely on inadequate Canadian data, unadjusted United States data and analysts' growth forecasts using the constant growth model. The Board estimates that, using the long period Canadian data, adjusted United States data and the multi-stage model, the risk premium would be approximately 5.0%. With a risk-free rate of 3.8% and an allowance for financing flexibility of 0.5% the indicated cost of equity would be 9.3%. However, the Board acknowledges that this approach restricts the extent of the information considered and will therefore assign little weight to these results.

The Board will place little weight on the results of the historic and forward looking equity risk premium models.

viii) Discounted Cash Flow

The discounted cash flow test is based on the theory that the current market price of a utility's stock is equal to the present value of all future expected cash flows from the investment, discounted at a rate that reflects the riskiness of the cash flows.

According to Mr. MacDonald the discounted cash flow model is the most widely used method to determine the allowed return on equity for regulated utilities in the United States as there is a large universe of comparable public companies that are widely followed by investment analysts. This provides readily available estimates of growth rates for utility proxy groups. He explains that in the Canadian context the discounted cash flow model is problematic given the small number of utility proxies and lack of reliable estimates of growth rates. While there is some disagreement as to whether Canadian and United States utilities are comparable, Mr. MacDonald believes that United States comparisons are informative. He concludes that, given the strong degree of economic and financial market integration, it is possible to construct a United States proxy group which is similar in total risk to Newfoundland Power. However, he also believes that the clear differences in the United States and Canadian marketplaces for utilities and in the markets overall require that an adjustment be made to the results to recognize these differences. In relation to the growth rate in the discounted cash flow model, Mr. MacDonald comments that it becomes more difficult to estimate further out in time and that over time a firm's growth rate will trend towards overall economic growth.

Mr. MacDonald's discounted cash flow analysis suggests a fair return of 9.63%. This is the average of the constant growth approach, with a return of 9.71%, and the two-stage model, with a return of 9.55%, for a group of seven United States utilities that meet his six established criteria. He explains that each of the seven utilities has an identical credit rating to Newfoundland Power and a majority of assets which are regulated. In relation to the growth rate, he explains that he uses Value Line dividend growth estimates for the first three years and thereafter the growth rate is based on the Consensus Forecasts long-term average real GDP and inflation forecast for 2018-2022. Mr. MacDonald states that he makes a 72 basis point adjustment to address concerns regarding differences between United States and Canadian companies. He notes this is consistent with the statement of the British Columbia Utilities Commission that a 50 to 100 basis point adjustment should be applied for comparable United States utilities.

Dr. Booth explains that conceptually the discounted cash flow and risk premium models are equally valid ways of estimating the fair rate of return but the data in relation to the discounted cash flow model may not be adequate for reasonable estimates. Dr. Booth explains that he has been reluctant to look at United States data, noting that it is a foreign country with different laws, procedures, and cultural factors. At this time he believes that a difference in the fair return between Canadian and United States utilities of 100 basis point is reasonable. He explains:

> *"So before the BCUC in 2009, I said you can use US evidence, ... and at that time I said US estimates need to be downward adjusted by 90 to 100 basis points. ... the BCUC downwardly adjusts Ms. McShane's DCF estimates by 50 to 100 basis points and the basis of the downward adjustment was the fact that I felt that long term bond yields were higher in the US, the market risk premium was higher in the US and probably the relative risk of utilities is higher in the US. .... In my judgement the US is a riskier capital market, they're more competitive than we are and I don't regard that as a bad thing."* (Transcript, January 17, 2013, page 199/1-20)

In relation to the use of analysts' growth forecasts, Dr. Booth states that he is extremely skeptical of results based on analysts' forecasts as they are generally optimistic and, further, that

realistically these should be used with a two-stage growth model. Dr. Booth's discounted cash flow analysis suggests a fair return of 9.23% for United States utilities.

Dr. Vander Weide explains that regulatory commissions in the United States give greater weight to the discounted cash flow model than other models. He does not use data in relation to Canadian utilities noting that there are very few, if any, analysts' growth forecasts for Canadian utilities and also the number of publicly traded Canadian utilities is significantly less. Dr. Vander Weide believes that, in the past, United States utilities were more risky than Canadian utilities, but today they are comparable in risk. For this reason he does not believe adjustments are necessary. Dr. Vander Weide explains that he relies on analysts' projections of future earnings per share growth because he has found that analysts' growth forecasts are the best proxy for investor growth expectations.

Dr. Vander Weide's discounted cash flow analysis produces a result of 10.3% for his larger group of utilities and 10.1% for his smaller group. He explains that his larger group includes publicly-traded United States electric and natural gas utilities that meet five criteria and the smaller group is restricted further to utilities that have at least 80 percent of total assets devoted to regulated utility operations as well as an S&P bond rating of BBB or higher. He uses a constant growth method based on analysts' estimates of future earnings per share growth as reported by I/B/E/S Thomson Reuters. He explains that these estimates represent five-year forecasts of earnings per share growth and are used by investors as a consensus estimate of future firm performance.

Ms. McShane explains that the United States utility equity market is a much broader and deeper universe of companies from which to select a sample of comparable risk companies. To address concerns in relation to United States comparables she has, since the last general rate application, tightened her selection criteria in relation to credit ratings and put a cap on the amount of unregulated operations. She also provides an in-depth review and assessment of the different characteristics and regulatory risk characteristics of each of the companies. She believes that it is not necessary to make adjustments to the data since the cost of equity for the sample of companies is a reasonable proxy for the cost of equity for Newfoundland Power at its capital structure. Ms. McShane acknowledges that there is an ongoing debate around the accuracy of investment analysts' forecasts as the measure of investor expectations of growth. She states that the use of forecast GDP growth in a multi-stage model as the proxy for the rate of growth over the longer term is a widely utilized approach.

Ms. McShane's discounted cash flow results indicate a cost of equity of approximately 9.9%, using both Canadian and United States data and assuming an allowance for financing flexibility of 50 basis points. She estimates the cost of equity using five major publicly-traded Canadian utilities, using analysts' forecasts in both the three-stage model and the constant growth model. She believes that, in the case of the Canadian utilities, it is important to look at both the constant and multi-stage growth results because the constant growth model likely overstates the expected return and the three-stage model likely understates it. For the United States utilities she uses sustainable growth, three-stage growth and constant growth. For the constant growth model she relies on the earnings forecasts of four global providers of real time financial data with periods of between three and five years, which are intended to represent the normalized rate of earnings

growth over a business cycle. She also provides growth estimates based on sustainable growth rates derived from Value Line forecasts of returns on equity, earnings retention rates and earnings growth from external financing. For the three-stage growth model she employs investors' forecasts for the first five years, an average for the next five years, and thereafter the long-run expected nominal rate of growth in GDP.

Newfoundland Power notes that the National Energy Board expressly recognized in 2009 that the integration of Canadian and United States financial markets makes comparisons informative for determining a fair return and further that the British Columbia, Ontario and Alberta Commissions now all consider United States based discounted cash flow results in informing their views of appropriate returns. Newfoundland Power submits:

> *"Now the second change... is with respect to US comparisons in determining the fair return. That's driven in part by increased reliance on the DCF methodology because it's not possible to construct a proxy group of Canadian utilities to apply the DCF model. There are only two publicly traded Canadian companies that you could use. It is possible, however, to construct a sample of US utilities, having comparable overall investment risk to Newfoundland Power. Each cost of capital witness did that, including Dr. Booth himself."* (Transcript, February 8, 2013, pages 20/15-25 to 21/1-3)

The Consumer Advocate notes that Dr. Booth has started to look at discounted cash flow estimates for both the United States and Canadian markets and that Dr. Booth indicated before the British Columbia Utilities Commission that the United States estimates need to be reduced by 90 to 100 basis points. The Consumer Advocate states:

> *"We believe that the evidence is very clear that you must make adjustments. As Dr. Booth notes, undeniably, long term bond yields are higher in the United States, at least 50 basis points higher than in Canada. He then says you look at the market risk premiums, historic evidence of the market risk premiums are of being higher in the United States, and you look at the Canadian utilities versus the US utilities. You can look at US evidence, but you have to make adjustments. Mr. MacDonald said the same thing."* (Transcript, February 8, 2013, page 69/2-13)

In relation to the analysts' growth estimates, the Consumer Advocate notes that the suggested return on equity decreases when you change from using analysts' growth estimates in the constant growth model to the multi-stage model to the sustainable growth model. The Consumer Advocate concludes:

> *"This is a clear indication that not only are the short run analyst's growth estimates unreasonable methods for long run growth, but that using the long run GDP growth rate also overestimates a reasonable long run growth rate. ... there is no evidence on the record to substantiate that either the Canadian or the US utilities were in fact able to achieve the GDP growth rate historically."* (Transcript, February 8, 2013, pages 61/15-25 to 62/1-7)

Board Findings – Discounted Cash Flow Model

The Board finds that the evidence demonstrates that Canadian utility data is inadequate to complete a discounted cash flow analysis and that, in the particular circumstances, it may be informative to look to data from the United States. As to how this data is to be used the Board accepts the evidence of both Dr. Booth and Mr. MacDonald that there are differences in the United States and Canadian experience that justify an adjustment to the discounted cash flow results. Dr. Booth suggests an adjustment of 100 basis points. Mr. MacDonald makes a 72 basis point adjustment. The British Columbia Utilities Commission has found that the United States data should be adjusted by between 50 and 100 basis points. The Board finds that an adjustment of 50 to 100 basis points is appropriate at this time.

In addition, the Board shares the concern expressed by the Consumer Advocate in relation to the use of analysts' forecasts which are intended to reflect expected growth over a three to five-year period to determine long-run growth expectations. The Board notes the results are significantly higher when analysts' forecasts are used in the constant growth method. The Board observes that Dr. Booth is skeptical as to the use of these forecasts and suggests that these forecasts should be used in two-stage models. The Board also notes the evidence of Mr. MacDonald that, over the long run, growth likely reverts to market average. The Board believes that a multi-stage model best reflects the available information and how it was intended to be used. The sustainable model used by Ms. McShane may also be informative.

The Board notes that, when the allowance for financing flexibility is included, Ms. McShane's discounted cash flow model suggests a return of 9.9%. This result reflects unadjusted United States data and the use of analysts' forecasts in the constant growth model. Mr. MacDonald's multi-stage United States indication is 9.55%. Dr. Booth's result for United States utilities is 9.23%. As the Board believes that adjustments must be made to the United States data and does not accept the use of analysts' forecasts using the constant growth model the Board would estimate an indicated return of 9.0% using the discounted cash flow model.

The Board will place less weight on the results of the discounted cash flow model and accepts that the estimated return on equity using the discounted cash flow is 9.0%.

ix) Fair Return on Equity

Newfoundland Power argues that its allowed returns on equity for 2010 through 2012 were amongst the lowest in Canada for investor-owned electric utilities, though the returns were sufficient to preserve its financial integrity. Newfoundland Power states:

> *"In setting the return, the Board should be mindful that Newfoundland Power's allowed ROE's since the last GRA have been below par. That was especially true in 2011, but it was also true in 2010 and 2012. So the allowed returns for those years are not the appropriate benchmarks for the return that you should set today.*
>
> *Now my friend Mr. Johnson, the Consumer Advocate, will say that the cost of equity has come down and I'm sure he will say to you Ms. McShane said so. But it hasn't come down from nine percent. It's come down from what the real cost of capital was in 2010.*

> *If you look at allowed utility returns in Canada, the average was 9.29 percent in 2010. It was 9.08 percent in 2012 and you'll find that information in the response to the PUB staff question PUB-CA-023 and find it in Ms. McShane's Schedule 3, page two of two. And the evidence of the cost of capital witnesses was that the financial market conditions in 2013, 2014 will be no different than in 2012. You'll find Dr. Booth's answer saying that at PUB-CA-015.*" (Transcript, February 8, 2013, pages 17/12-25 to 18/1-11)

The Consumer Advocate submits that the evidence establishes that Newfoundland Power overstates the return on equity required to maintain credit worthiness and to ensure it is able to issue further debt. He notes that Newfoundland Power has had financial integrity since the last general rate application and that the Board's financial consultant's report shows that, even if Newfoundland Power received no rate relief in either 2013 and 2014, it would still be meeting its credit metrics. The Consumer Advocate submits:

> "*It is one thing for company witnesses to come before the Board with a multitude of tests and methods, but the fundamental question is whether the results are reasonable. It is necessary to pause and consider that we are dealing with the fair ROE determination for a low risk utility. TD Economics, Royal Bank of Canada and Mercers have all been cited in Dr. Booth's evidence. These institutions are independent.*" (Consumer Advocate, Written Submission, page 27)

Dr. Booth states that cost of capital is not as complicated as experts make it and that the members of the panel should look at what independent economists such as TD Economics, the Royal Bank of Canada and Mercers are saying. He reports that on October 19, 2012 TD Economics projected long-run returns on equities in Canada of 7.0% which convert to an arithmetic return of 9.0%. Dr. Booth explains that three years ago Mercers estimated that the long-run return on the equity market was 8.5%. He states that there is no question that the estimates put forward by independent people looking at what we can expect in the equity market have come down significantly over the last three years. Dr. Booth also suggests that the Board look to the changes in the recommendations of the experts compared to the last general rate application and concludes:

> "*They're all unanimous that it goes down. Then I think that is where all of the experts are in unanimous agreement that the recommended ROE has gone down by 50-60 basis points. And if they think nine percent was fair in 2009, that means a level of 8.4 or 8.5 percent.*" (Transcript, January 18, 2013, page 145/5-11)

Dr. Booth states that since the collapse in interest rates, market to book ratios have gone well above one indicating that investors are very happy with the allowed returns. Dr. Booth notes that the 9.08% average cost of capital in 2012 in Canada, as set out in Schedule 3 of Ms. McShane's evidence, includes the return for some demonstrably more risky utilities than Newfoundland Power. Dr. Booth recommends a return for Newfoundland Power for 2013 of 7.5%. In the alternative, he recommends the Board fix the return on equity for a five-year period at 8.25%.

Dr. Vander Weide believes the cost of equity has declined recently, but not by nearly as much as the interest rate, and that it is still higher than the allowed returns in Canada. He recommends a cost of equity of 10.4%.

model but concludes that the current state of the bond market requires that more judgement be exercised in considering the results of this model. The Board finds that the estimated return indicated by the capital asset pricing model is 8.2%. The Board estimates that the historic and forward-looking equity risk premium models suggest a return of 9.3% but concludes that little weight should be given to these models. The Board notes significant issues with the discounted cash flow model and, in light of considerations around the use of United States data and analysts' growth forecasts, it will give less weight to the estimated return using the discounted cash flow test of 9.0%. The Board finds that the range of returns suggested by the methodologies is 8.2% to 9.3% with an average of 8.8%. If the historic and forward-looking equity risk premium results are excluded the average is 8.6%.

The evidence of the experts is clear that the cost of equity has declined since the last general rate application by approximately 50 basis points. The return established by the Board for Newfoundland Power for 2010 was 9.0%. In June of 2012 the Consumer Advocate and Newfoundland Power settled on a cost of capital for Newfoundland Power for 2012 of 8.8% which was accepted by the Board. The evidence in this proceeding does not suggest a significant change in forecasts for 2013 and 2014.

The evidence in relation to credit metrics is informative in relation to the issue of Newfoundland Power's credit rating and financial integrity. According to Exhibit 5 of the Application an allowed return on equity of 8.75% would result in an estimated cash flow interest coverage of 3.25 times and a cash flow to debt of 15.2%. This would keep Newfoundland Power well within acceptable financial metrics according to the Moody's Investors Service downgrade threshold as set out in the table below.

MOODY'S INVESTORS SERVICE DOWNGRADE THRESHOLD	2007	2009	2013/14
CFO Pre-W/C to interest coverage	3.0x	2.5x	2.6x
CFO Pre-W/C to debt	15%	low teens	low teens
RCF to debt			9.0%

(Source: Application Exhibit JP-4, Order P.U. 43(2009))

Considering the recommendations of the experts, the Board's analysis of the range of returns suggested by the accepted methodologies, the evidence in relation to changes and trends in market conditions and expected returns, and the evidence in relation to credit metrics, the Board believes that a fair rate of return on equity for Newfoundland Power for 2013 and 2014 is 8.80%.

The Board accepts that for the 2013 and 2014 test years a ratemaking return on common equity of 8.8%, with a deemed common equity component of 45%, will provide Newfoundland Power the opportunity to earn a just and reasonable return on rate base that is consistent with the fair return principle and the provision of least cost reliable power.

Ms. McShane explains that the cost of equity for a utility is probably 50 basis points lower than it was in 2009 and recommends a return on equity of 10.5%.

The Dominion Bond Rating Service states in its report dated February 14, 2013 that Newfoundland Power's financial profile has been reasonable for the rating category, supported by stable earnings and cash flow, as well as reasonable leverage. It expects Newfoundland Power's earnings to be relatively stable for 2013 as the majority of the earnings are derived from regulated operations. Moody's Investors Service, Credit Opinion: Newfoundland Power Inc., dated January 18, 2013, states that a downgrade revision of Newfoundland Power's rating is unlikely in the near term with a downgrade possible if there is a meaningful reduction in the level of regulatory support combined with a sustained deterioration in financial metrics such as CFO Pre-W/C to interest coverage of less than 2.6x, CFO Pre-WC to debt in the low teens and RCF to debt below 9.0%. Moody's Investors Service states:

> "*Despite the fact that NPI has one of the lowest allowed ROEs in Canada (8.80% for 2012), we continue to view the PUB as one of the more supportive regulators in Canada. Regulatory decisions tend to be timely and balanced and NPI's 45% deemed equity is one of the highest in Canada.*" (Exhibit JP-4, Moody's Investors Service, Credit Opinion: Newfoundland Power Inc., January 18, 2013)

Board Findings – Fair Return on Equity

The cost of capital recommendations of the experts can be summarized as follows:

Cost of Capital
Summary of Expert Evidence

Expert Witness	Ms. McShane[1]	Dr. Vander Welde	Dr. Booth	Mr. MacDonald
Capital Asset Pricing Model	9.4%[2]	N/A	7.5%	6.84%
Historic Equity Risk Premium	10.75%[2]	9.9%	N/A	10.26%
Forward-Looking Equity Risk Premium	10.00%[2]	11.10%	N/A	N/A
Discounted Cash Flow	9.90%[2]	10.2%	N/A	9.63%
Recommended Return on Equity	10.50%[2]	10.40%	7.50% 8.25%[3]	8.91%

[1] Ms. McShane's recommendation in relation to the comparable earnings test is not shown.
[2] Ms. McShane's results reflect the accepted allowance for financing flexibility of 50 basis.
[3] Recommended in the alternative for a five-year period.

Taking Ms. McShane and Dr. Vander Welde as effectively supporting one recommendation on behalf of Newfoundland Power the range of fair returns recommended by the experts for Newfoundland Power is 7.5% to 10.5% with an average of 8.95% and a midpoint of 9.0%. The Board notes that Dr. Booth also recommended as an alternative that the Board could fix the return on equity for a five-year period at 8.25%.

The Board, after reviewing the evidence, finds that there are significant issues in relation to each of the methodologies used. The Board has in the past given preference to the capital asset pricing

2. Automatic Adjustment Formula

Newfoundland Power submits that the Board should discontinue the use of the automatic adjustment formula, arguing that the formula has not provided a reasonable opportunity to earn a fair return each year. Newfoundland Power further argues that the divergent formulas proposed in this proceeding do not provide a basis for ensuring a reasonable opportunity to earn a fair return following the test years. Newfoundland Power submits that since 2009 there has been no broad consensus amongst Canadian utility regulators with regard to using an automatic adjustment formula with only the Ontario Energy Board and the Régie de l'Energie du Quebec maintaining a formula. Newfoundland Power states:

> "*The lack of consensus over automatic adjustment formulas arises because there's no longer any clear and predictable relationship between long Canada bond yields and a utility's cost of equity. The attempts in this hearing to create a formula proxy for a utility's cost of equity have resulted in proposals which are complicated and uncertain. The proposed formulas not only incorporate utility bond credit spreads, but they've also added floors and dead bands and automatic triggers. There's no principal basis for us to conclude that such mechanisms will correctly establish the cost of equity for Newfoundland Power.*" (Transcript, February 8, 2013, pages 24/23-25 to 25/1-12)

Ms. Perry testifies that Newfoundland Power does not propose a formula given the lack of consensus on the relationship between long-term Canada Bond yields and the utility's cost of capital. She states:

> "*I believe the proposed formulas demonstrate that lack of consensus. The 1.2 percent increase in long Canada bond yields in Mr. MacDonald's proposed formula would almost certainly increase Newfoundland Power's forecasted cost of equity. However, a 1.2 percent increase in Dr. Booth's proposed formula would either leave Newfoundland Power's forecast cost of equity unchanged or could potentially reduce it.*" (Transcript, January 10, 2013, page 162/12-21)

Ms. McShane explains:

> "*In light of the persistently unsettled capital markets and the unstable relationship between the utility cost of equity and Government bond yields, it would be, in my view, difficult to construct an automatic adjustment mechanism for return on equity at this time that would successfully capture prospective changes in the utility cost of equity. In particular, an automatic adjustment formula tied to changes in government bond yields has the potential to unfairly suppress the allowed ROE.*" (Ms. Kathleen McShane, Written Evidence, page 48)

Newfoundland Power submits that it is clear that there will be a continuing period of low long-term Canada bond yields for at least the next three years and that the best approach at this time is to discontinue the use of the formula and set a reasonable rate of return for Newfoundland Power with a cost of capital review if market conditions change. Newfoundland Power explains that the certainty of a known return which is fair and reasonable is preferable to the uncertainty of what a formula may or may not do in a world of uncertain financial markets which are driven by government monetary policy rather than normal market forces.

The Consumer Advocate supports the continued use of an automatic adjustment formula. He states that both Mr. MacDonald and Dr. Booth recommend a formula and he supports Dr. Booth's recommended formula. The Consumer Advocate states:

> *"This Board has a long history of using the formula and we regard Dr. Booth's recommendation as regards adjustment to changes in long Canada bond yields as reasonable, and in line with the Board's historical adjustment mechanism."* (Transcript, February 8, 2013 page 84/18-23)

Dr. Booth explains that he recommends a formula because he was asked to but a formula is not the only option. He explains that he thinks it would also be reasonable to fix a return of 8.25% for five years and if Newfoundland Power feels it is unfair in two or three years it can apply to the Board for a finding that it is unfair at the time. The Consumer Advocate does not support Dr. Booth's suggestion that the return could be set for a period of five years or until a general rate application.

Mr. MacDonald explains that he believes a formula is appropriate because it creates regulatory certainty so that all the parties around the table understand what will happen in 2015 if there is no rate hearing. However, he confirms that he agrees with Dr. Booth that one of the alternatives that the Board should consider is simply setting a rate of return, and either party can come back and apply to change it as needed.

Board Findings – Automatic Adjustment Formula

The automatic adjustment formula was initially established for Newfoundland Power in Order Nos. P.U. 16(1998-99) and P.U. 36(1998-99). At the time the Board stated that there may be circumstances which would render the use of an automatic adjustment formula inappropriate for Newfoundland Power, including changes in financial market conditions which would suggest that the formula is not accurately reflecting the appropriate return on equity. In 2009, during its last general rate application, Newfoundland Power sought the discontinuation of the automatic adjustment formula. The Board rejected Newfoundland Power's request and ordered the continued use of the formula stating that it is fundamental to the multi-year regime in place in this Province and that it contributes to regulatory predictability and certainty. The formula was used to set Newfoundland Power's return in 2011 but, upon application from Newfoundland Power, the Board suspended the operation of the formula for 2012 and the return on equity was established by the Board after considering the negotiated settlement of the parties.

While the Board continues to see the value of an automatic adjustment formula, the evidence is clear that the formula as it is currently structured may not result in a fair return for Newfoundland Power in the current circumstances. Long-term Canada bond yields are abnormally low which is particularly problematic in the operation of the automatic adjustment formula. In the absence of a clear relationship between the long-term Canada bond yield and the cost of equity it is difficult to see that the established return can be appropriately adjusted for 2015 without the exercise of further judgement. Dr. Booth and Mr. MacDonald offered opinions as to changes that could be made to the formula to account for the unusual financial conditions. Ms. McShane and Ms. Perry doubted whether the current financial conditions could be effectively addressed in the formula. The Board accepts that in the circumstances it would be

difficult to conclude that any formula could be relied on to establish a fair rate of return after the test years.

Newfoundland Power has applied for rates to be established based on two test years, 2013 and 2014. Newfoundland Power states that a three-year interval between general rate applications appears reasonable, and given this timeframe its next general rate application would be filed in June 2015 for a 2016 test year. The Board agrees with Newfoundland Power that a three-year period between general rate applications is generally consistent with sound utility regulation. Newfoundland Power states that it prefers the certainty of setting a rate of return for a period of time. The Board notes that the experts forecast a period of relative stability in the bond markets with continued low long-term Canada bond yields and a gradual return to normal levels over the next several years. Dr. Booth suggests that the Board could set a rate of return for five years, though this suggestion was rejected by the Consumer Advocate.

Given the Board's reservations in relation to the use of the formula in the circumstances the Board finds that, in the interests of regulatory efficiency and certainty, it is appropriate to continue Newfoundland Power's rate of return on common equity at 8.8% for 2015. The Board will monitor economic conditions throughout the period and, in accordance with normal process, if there is a dramatic change in circumstances which suggest that the established rate of return is unfair an application can be filed by Newfoundland Power or directed by the Board. To be clear the Board is not discontinuing the use of the automatic adjustment formula and, in the absence of a further Order of the Board, it will be used to establish a fair return for Newfoundland Power following its next general rate application.

The Board will not order the use of the formula to establish the rate of return after the 2013 and 2014 test years. The Board accepts that a ratemaking return on common equity of 8.8% in 2015, with a deemed common equity component of 45%, will provide Newfoundland Power the opportunity to earn a just and reasonable return on rate base that is consistent with the fair return principle and the provision of least cost reliable power.

The Board will require Newfoundland Power to file a general rate application with a 2016 test year on or before June 1, 2015.

3. Depreciation

Newfoundland Power does not propose to change its existing depreciation system and proposes to update depreciation rates and amortize an accumulated reserve variance of $2.6 million over the remaining life of the assets. These proposals would result in depreciation estimates for 2013 and 2014 of $46.6 million and $48.3 million, respectively, increasing the amount to be recovered in customer rates by approximately $0.7 million per year. These estimates are based on the depreciation study prepared by Gannett Fleming for plant in service at December 31, 2010.

The Consumer Advocate argues, based on the expert evidence of Mr. Jacob Pous, that the following adjustments should be made to Newfoundland Power's proposals:

(i) a change from the equal life group procedure to the average life group procedure;
(ii) changes to proposed mass property life analysis for seven accounts; and
(iii) a change to the proposed mass property net salvage analysis for one account.

The combined impact of these recommendations would be an annual reduction of approximately $10.5 million in depreciation expense beginning in 2013.

i) Equal Life Group Procedure

Newfoundland Power has used the equal life group procedure for many years and proposes the continued use of this procedure. The Board first accepted the use of the equal life group procedure for Newfoundland Power for new plant in 1978 with full adoption for all plant in 1982. The equal life group procedure mathematically estimates the life for each unit, subdivides property into groups having equal lives and then calculates depreciation for each equal life group based on the straight line method. Under the average life group procedure, each asset in the account is depreciated over the average life of the account.

Gannett Fleming has been performing depreciation studies for Newfoundland Power since 1995 and has used the equal life group procedure in each of these studies. Mr. Wiedmayer recommends that the equal life group procedure continue to be used by Newfoundland Power and explains:

> *"First of all, both the equal life group and the average life group procedures are accepted depreciation procedures in utility rate making. I have conducted numerous studies for utility companies using both procedures. Equal life group procedure has been used in Newfoundland by Newfoundland Power for over 30 years. Equal life group procedure is used by a majority of Canadian electric and gas studies based upon my knowledge of what other utilities are using, and we've provided a list of approximately 34 Canadian utilities in the exhibits that we filed and a slight majority use the equal life group procedure in Canada. I believe the equal life group procedure provides a more accurate estimate of the actual consumption of the service value of the property. The major advantage of equal life group procedure is that it more closely matches the depreciation charge with the service rendered during the life of the property than does the average life group procedure."* (Transcript, January 23, 2013, pages 45/5-25 to 46/1-2)

The Consumer Advocate acknowledges that the equal life group procedure may represent the best mathematical depreciation procedure in theory but submits that there is a valid basis to question whether, as applied in the real world of utility operation and ratemaking, it is the procedure that results in the best matching of the consumption and service value of the assets.

Mr. Pous states that the average life group procedure is the industry standard calculation and estimates that using this procedure would result in a total reduction of overall depreciation expense of approximately $7.0 million. He explains his concerns in relation to the equal life group procedure:

> *"While proponents of ELG claim that it is the most precise calculation procedure, they fail to note that that situation only exists in a theoretical world. In the reality of utility*

> *ratemaking or the real world, ELG is one of the least precise forms of depreciation and results in greater levels of true-up to correct for prior differences between estimates and actual retirement patterns."* (Mr. Jacob Pous, Written Evidence, page 5)

Mr. Pous raises several concerns in relation to Newfoundland Power's use of the equal life group procedure, specifically:

(i) the equal life group procedure is not precise and will require a greater degree of true-up to correct for differences between forecasts and actuals;
(ii) the equal life group procedure is more time sensitive than the average life group procedure and is already outdated by the time it is presented in a depreciation study; and
(iii) Newfoundland Power's net salvage estimates and depreciation reserve are not calculated on an equal life basis.

Mr. Pous raises issues in relation to matching and intergenerational inequity and states:

> *"The reality is that for the past three decades customers have overpaid due to the implementation of ELG-based depreciation rates. Current customers and future customers will continue to receive this subsidy if the ELG calculation procedure is adopted. Alternatively, adoption of the ALG calculation procedure will result in a transition period of at least 11 to 15 years where customers during this period will receive lower levels of subsidies until they reach a level where they are back to paying the level of capital recovery they should have been paying all along, taking into account depreciation, return, and taxes."* (Mr. Jacob Pous, Surrebuttal Evidence, January 18, 2013; page 14)

Mr. Wiedmayer argues that the equal life group procedure better matches capital recovery with the actual lives forecast by the estimated survivor curve, stating:

> *"As a result, the ELG procedure allocates cost in a manner that approximates the result of each asset being depreciated over its actual life. Conversely, the ALG procedure depreciates every unit of property within an account over the same life, that is, the average life. As Figure 2 shows, this average life will be incorrect the majority of the time-in this example, the average life will be the wrong life for 98.18% of the assets."* (Mr. John Wiedmayer, Rebuttal Evidence, December 2012, page 8)

Mr. Wiedmayer explains that the benefits to customers of switching to the average life group procedure are time limited as the resulting higher rate base would eventually lead to a higher revenue requirement. Mr. Wiedmayer addresses the three issues raised by Mr. Pous as summarized below.

(i) The concern in relation to the precision of the equal life group procedure is overstated and is applicable to any calculation procedure, including average life group. Further, it is wrong to suggest that the equal life group procedure magnifies the degree of error to be corrected between depreciation studies.

(ii) The argument that the equal life group procedure is time sensitive is without substance and in reality Mr. Pous' proposal is as time sensitive as the continued use of the equal life group procedure.

(iii) The suggested inconsistency in relation to net salvage is overstated given that the net salvage estimates in depreciation studies tend to be conservative estimates of future net salvage. Further Newfoundland Power does not maintain its depreciation reserve on either an equal life group or average life group procedure basis and that since the equal life group procedure has been used for decades the cumulative depreciation accruals in the depreciation reserve are primarily based on equal life group depreciation accruals.

Newfoundland Power states that its revenue requirement is lower today as a result of the historic use of the equal life group procedure. Newfoundland Power concludes:

> *"ELG is a recognized sound public utility practice in Canada. It best matches the expense with the life of the utility assets. It also ensures the fulfilment of the power policy requirement of least cost power consistent with reliability over the long term. Customer rates today are 3.7 million dollars less annually because of the Board's decision to adopt ELG."* (Transcript, February 8, 2013, page 31/11-20)

The Consumer Advocate concludes:

> *"We advocate ALG as the method by which the vast majority of customers in North America have their depreciation expenses determined, and a method that does not result in a situation where depreciation accruals are higher in earlier periods and lower in later periods, and a method, in our respectful submission, that is more aligned with the reality of how depreciation actually gets implemented in the utility industry, and in rate cases."* (Transcript, February 8, 2013, page 101/6-16)

Board Findings – Equal Life Group Procedure

Depreciation is defined by the American Institute of Certified Public Accountants as follows:

> *"Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any) over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. Depreciation for the year is a portion of the total charge under such a system that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences."* (Mr. Jacob Pous, Written Evidence, page 7)

The *Public Utilities Act*, RSNL 1990, c. P-47, states:

> *68 (1) A public utility shall make provision for proper and adequate annual depreciation of its property and assets used and useful in providing or supplying each kind of service, and shall keep proper accounts.*

> *(2) The annual depreciation shall be calculated by the straight line method or by another method that the board may prescribe.*
> *(3) A public utility shall report to the board the annual rates of depreciation applied to the several classes of property of the public utility.*
> *(4) The board may ascertain and determine what are proper and adequate rates of depreciation of the several classes of property of a public utility, and the public utility shall conform its depreciation account to the rates so ascertained and determined.*
> *(5) The board may revise the rates of depreciation as it considers necessary or expedient.*

The Board finds that both the equal life group procedure and the average life group procedure are accepted depreciation procedures which are widely used by Canadian electric utilities and approved by Canadian regulators. The evidence does not demonstrate that the equal life group procedure results in improper or inadequate rates of depreciation or intergenerational inequity. The Board accepts that both procedures can be considered straight-line with the equal life group procedure grouping by asset life and the average life group procedure grouping by class of asset. The Board finds that the evidence does not demonstrate that the equal life group procedure is less precise or causes larger true-ups in the depreciation study updates. The Board accepts that the equal life group procedure is an industry standard approach for the determination of proper and adequate depreciation rates.

Newfoundland Power has been using the equal life group procedure for all of its assets since 1982. The Board is not persuaded to direct Newfoundland Power to abandon the equal life group procedure which has been approved and used by Newfoundland Power for decades. The evidence is clear that moving to the average life group procedure now would result in significant fluctuations in depreciation expense with rates dropping for several years to adjust for prior depreciation rates and thereafter increasing to levels which are higher than existing rates. Having found that equal life group is an accepted and reasonable procedure the Board will maintain a consistent approach and accept the continued use of the equal life group procedure.

The Board will accept Newfoundland Power's proposal to continue to use the equal life group procedure.

ii) Service Lives

Newfoundland Power has 57 mass property accounts. Gannett Fleming recommends an increase in the services lives for 27 accounts, a reduction of service life for 5 accounts and no change for 25 accounts. The Consumer Advocate has no objection to the recommended service lives for 50 of these accounts but, based on the recommendations of Mr. Pous, submits that Newfoundland Power's proposed life extension for seven accounts be further extended. The proposed estimated service lives are set out in the table below.

Estimated Service Lives
Current and Proposed

Account	Description	Currently Approved	Newfoundland Power Proposal	Consumer Advocate Proposal
355.1	Transmission Poles	44	47	51
355.2	Transmission Poles and Fixtures	44	47	51
361.12	Distribution Bare Aluminum	50	55	61
361.2	Distribution Underground Cables	40	45	57
362.1	Distribution Poles (Under 35')	45	48	57
362.2	Distribution Poles (35' and Over)	45	48	57
365.1	Services Overhead	39	44	51

(Source: Newfoundland Power, Written Submission, Table F-1)

Mr. Pous explains that he reviewed the major accounts of Newfoundland Power and for the seven accounts for which he is recommending adjustments he reviewed all actuarial analyses, Gannett Fleming notes in relation to input from Newfoundland Power personnel, industry information and responses to Requests for Information. He explains that based on this information and his extensive experience and knowledge, having performed hundreds of depreciation analyses throughout Canada and the United States, he is recommending adjustments to seven accounts. He calculates a reduction in depreciation expense of $2.8 million dollars if these adjustments are made.

The Consumer Advocate states:

> *"We submit, first of all, that the Board shouldn't give Newfoundland Power's depreciation expert an automatic pass on the accounts because of his relationship with Newfoundland Power and the fact that he's met with the company personnel. We would urge you to look at the evidence on each of the accounts and to see if it stands up to scrutiny."* (Transcript, February 8, 2013, page 102/2-10)

Newfoundland Power states that the essential issue in relation to service lives is the degree of life extension and explains that Mr. Pous proposes an average extension of approximately 25% beyond the existing service life for the seven accounts while Gannett Fleming proposes a 10% life extension. Mr. Wiedmayer believes that the extensions recommended by Mr. Pous are dramatic and should be supported by overwhelming evidence. Mr. Wiedmayer states:

> *"I think it's unreasonable to expect for mass property assets such as poles, overhead conductor, underground conductor services, to change as significantly as what the consumer advocate is proposed for these types of assets in one study over a five year period of time. I believe there's some risk that his – are maybe overstating the lives and in one study, I typically don't see that magnitude of change when I do studies for other utilities."* (Transcript, January 23, 2013, page 63/12-21)

Mr. Wiedmayer explains that the service life recommendations in the depreciation study are based on a number of factors including analysis of data, discussions with Newfoundland Power operating staff and management, prior life estimates and a general knowledge of the property. He believes that the recommendations of Mr. Pous are based on different interpretations of data

accompanied by general, and often incorrect, assumptions about the property. Newfoundland Power submits that:

> *"There is no reasonable evidence on the record supporting changes of this magnitude. More significantly, there is no evidence whatsoever on the record of this Application indicating that the service lives recommended in the Depreciation Study are not reasonable."* (Newfoundland Power, Written Submission, page F-11)

The specific accounts identified by Mr. Pous for adjustment are discussed below.

a.) Accounts 355.1 and 355.2 – Transmission Poles and Fixtures

The approved service life for these accounts is 44 years. Gannett Fleming recommends an increase to 47 years and Mr. Pous recommends an increase to 51 years.

Mr. Pous believes the service lives for the assets in these accounts can be extended beyond that recommended by Gannett Fleming based on the historical data and the inspection program. Mr. Pous states:

> *"As noted by Gannett Fleming in its 2010 Study, there have been many improvements over the past 5 years to the Company's Transmission system and generally in the industry for the past several decades. Those recent improvements obviously have not been in place long enough to be adequately or realistically reflected in the historical actuarial analysis. This fact is significant given that approximately 25% of the current investment has been added in just the past 5 years and approximately 40% of the investment has been added in the last decade"* (Mr. Jacob Pous, Written Evidence, pages 26-27)

In relation to the inspection program Mr. Pous states:

> *"This is the first utility that I am aware of that claims no life related benefits relating to inspection programs. Indeed, even Mr. Wiedmayer noted in response to CA-NP-084 that the new testing programs allow the Company to better target replacements and maintenance. In other situations, utilities are able to extend service lives for poles due to better maintenance practices. In addition, while inspection programs normally do result in an initial wave of retirements because they identify poles that will have a higher probability of failure in the future and proactive steps are taken to replace those most at risk, they also result in longer life expectancy for the remaining poles that, absent the inspection, would eventually fail earlier than they would otherwise."* (Mr. Jacob Pous, Surrebuttal Evidence, January 18, 2013, page 34)

Mr. Wiedmayer states that Mr. Pous' estimates ignore significant data points and are not based on any additional information other than that provided in the depreciation study. Mr. Wiedmayer believes that the reliability program will lead to more retirements in the future since certain poles that would have been retired upon failure will be replaced earlier. He also notes that pole treatments over the years have become more environmentally friendly but less effective in preventing decay.

Mr. Smith, Newfoundland Power's Vice-President of Engineering and Operations, spoke to the impact inspection programs can have on the service life of assets, explaining:

> *"Inspection practices have impacts on the service lives of the company's assets. For certain assets such as substation equipment, inspections will tend to increase service lives. For other assets, such as poles and wires, inspections tend to decrease service lives."* (Transcript, January 25, 2013, page 13/3-9)

b.) Account 361.12 – Bare Aluminum Cables

The approved service life for this account is 50 years. Gannett Fleming recommends an increase to 55 years and Mr. Pous recommends an increase to 61 years.

Mr. Pous explains that his recommendation is based primarily on the actuarial data. He states that Mr. Wiedmayer's reference to data from the period 2000-2009 reflects a period too short to provide statistically credible results. He explains that a longer life expectancy for a conductor is anticipated given the industry practice of more inspection programs and better design criteria and concludes that the more recent experience provides additional insights to trends. He rejects the assertion that inspection programs result in shorter lives and believes that inspection programs should result in better maintenance on a more timely basis and ultimately yields a longer life expectancy for associate assets.

Mr. Wiedmayer points out that Mr. Pous relies on a 1990-2009 experience band to support a longer service life, when a more detailed analysis of more recent activity shows that the trend is actually to increasing levels of retirements. He notes that retirements declined in the 1990s, during the downturn in the economy, and increased significantly starting in 2000 and, further, that this upward trend is expected to continue. Mr. Wiedmayer comments on the impact of the reliability program as follows:

> *"Further, the impact the reliability program will have on poles will – if anything - also tend to shorten the lives of overhead cables. Since due to the reliability program the poles in service will generally have less decay and will be stronger structurally, the impact of the elements (such as storms and wind) will have less of an effect on poles. Instead, the elements will have a greater effect on conductors. In other words, wind that would damage decaying poles will not knock down stronger, newer poles, but will instead be more likely to damage the cable on the poles (which is less strong than the poles).*
>
> *Thus, contrary to Mr. Pous' implication in his testimony, the effect of the Company's reliability program will not be to extend the lives of the aluminum conductor."* (Mr. John Wiedmayer, Rebuttal Evidence, December 14, 2012, Appendix B, page 9)

c.) Account 361.2 – Underground Cables

The approved service life for this account is 40 years. Gannett Fleming recommends an increase to 45 years and Mr. Pous recommends an increase to 57 years.

Mr. Pous believes that the service life for this account can be extended given that over the past forty years there have been improvements in underground cable. Mr. Pous states that life expectancy for new cable is significantly longer than the life expectancy for cable placed in service over twenty years ago. In looking to industry experience he explains:

> *"It was not uncommon to see one group of utilities reporting life expectancies in the mid-30 to 40-year age range when relying on older type of cables in actuarial analyses and other utilities reporting 50-plus year life expectancy for cable when the newer and improved types of cable are mainly reflected in the historical actuarial analyses."* (Mr. Jacob Pous, Written Evidence, page 33)

Mr. Pous states that his recommendation represents the most realistic expectation for the newer type of investment reflected in this account, especially given that approximately 50% of the investment in this account was made after 1990.

Mr. Wiedmayer states that an increase in average service life is warranted given the few retirements in recent years but that, as a result of the small number of retirements, care should be taken not to increase the service life too much in one study. He explains that a comparison with the experience of other utilities provides evidence that Newfoundland Power's level of retirements cannot continue. Mr. Wiedmayer states that the estimated life proposed by Mr. Pous is outside the typical experience for most companies. Mr. Wiedmayer also explains that there are a number of reasons that Newfoundland Power may experience a shorter life for this account than others in the industry. He explains that, unlike many companies, approximately 80% of Newfoundland Power's cable is not installed in conduit and also Newfoundland experiences harsher freeze and thaw cycles. Mr. Wiedmayer states that it is more reasonable to increase the average service life consistent with others in the industry rather than the dramatic increase proposed by Mr. Pous.

d.) Accounts 362.1 and 362.2 – Wood Poles and Fixtures

The approved service life for these accounts is 45 years. Gannett Fleming recommends an increase to 48 years and Mr. Pous recommends an increase to 57 years.

Mr. Pous explains that, in consideration of the results of the actuarial analysis and recognizing that the vast majority of investment is associated with treated poles, and that a pole inspection and maintenance program has been implemented, an extension to 57 years for these accounts is a conservative estimate. He states:

> *"Moreover, it is illogical and unsupported that capital expenditures to strengthen the aging infrastructure and to provide better maintenance practices will not result in a longer life expectancy than what might occur absent such efforts. Indeed, the Company has not been able to show that its changing data capture practices has in fact shortened the life expectancy for the investment in these accounts rather than lengthening them."* (Mr. Jacob Pous, Surrebuttal Evidence, January 18, 2013, page 47)

Mr. Wiedmayer recommends an extension for these accounts based on historical information and discussions with Newfoundland Power and believes that historical data and improvements in

treatments and inspection programs do not justify the dramatic increase in service life of 12 years or 27% proposed by Mr. Pous. Mr. Wiedmayer states that Mr. Pous placed too much reliance on the retirement pattern of 2004 – 2010, which differed from prior years due to a change in data collection and maintenance, and that Mr. Pous is also mistaken in his interpretation that improved wood pole treatment and inspection programs support longer service lives. Mr. Smith spoke to the impact of inspection programs on poles explaining:

> "*For many distribution assets, such as poles and wires, the impact of inspection practices may be different. For the most part, poles and wires are inspected to determine if they need to be replaced. There's very little in the way of maintenance which can be done to extend the lives of these assets.* (Transcript, January 25, 2013, page 12/10-17)

e.) Account 365.1 – Overhead Services

The approved service life for this account is 39 years. Gannett Fleming recommends an increase to 44 years and Mr. Pous recommends an increase to 51 years.

Mr. Pous explains that his analysis includes data from 1967 through 2009. He notes that all of the remaining investment in this account was placed in service after 1967 and therefore reliance on the older actuarial data fails to correspond with the current investment in the system and fails to recognize the trend to longer service lives for current investment. He states:

> "*In other words, Gannett Fleming's presentation depicts retirement patterns over the past approximately 60 years. During this time frame, the industry has experienced changes in design, installation, and materials. Indeed, proper analysis dictates review of additional and more current placement and experience bands in order to determine whether there are changes in life characteristics.*" (Mr. Jacob Pous, Written Evidence, page 39)

Mr. Wiedmayer notes that Mr. Pous recommends an increase in the service life of 12 years or 31%. Mr. Wiedmayer believes that the best representation of service lives can be obtained by using the longest experience band available. He states:

> "*Over a long period of time, it is common for utilities to experience increases and decreases in the level of retirements and capital spending, due to a number of factors including capital budget cycles and economic conditions (such as those arising from the cod moratorium). As a result, there are a number of cyclical trends that can be misinterpreted as permanent trends if experience bands that are too short are used.*" (Mr. John Wiedmayer, Rebuttal Evidence, December 14, 2012, Appendix B, pages 25-26)

Mr. Wiedmayer also states that, contrary to Mr. Pous' position, there have not been any significant changes in the industry that would impact service lives and that Mr. Pous' analysis places too much emphasis on the unusually low level of capital spending during the 1990s.

Board Findings - Service Lives

The Consumer Advocate submits that the life extension recommended by Gannett Fleming should be further extended for seven accounts. The average life extension recommended by Mr. Pous is approximately 25% as compared to the approximate 10% increase recommended by Gannett Fleming. The Board sees merit in the more conservative approach to life extension supported by Mr. Wiedmayer. The Board also acknowledges that a new depreciation study is completed regularly and trends can be further adjusted as appropriate in the next study. The Board finds that Newfoundland Power's proposals are fully supported by the evidence. While Mr. Pous provides an alternate approach which may also be considered to be reasonable, Mr. Wiedmayer responded to each of the issues raised and provided a satisfactory explanation in each case.

The Board will accept Newfoundland Power's proposals in relation to the service lives of its 57 mass property accounts.

iii) Net Salvage

The Consumer Advocate has proposed a change in the net salvage value for one account – Overhead Services. Net salvage is the salvage value of an asset less the cost of removal. Gannett Fleming has recommended a negative 60% net salvage value for Overhead Services, which is unchanged from the 2005 depreciation study. Mr. Pous recommends the use of a negative 40% salvage value for this account which he estimates would result in an $0.6 million reduction in annual depreciation expense.

Mr. Pous believes that Newfoundland Power's proposal is excessively negative and notes that the level of net salvage experienced by Newfoundland Power over the last ten years has ranged from negative 107% to negative 29%. He states that variances of this magnitude could be attributable to a variety of factors including the number of services retired per year or economies of scale. Mr. Pous believes that the past ten years of historical data affirms the concept of economies of scale, which is not adequately reflected in a simple arithmetic average over extended periods of time. Mr. Pous also questions Newfoundland Power's allocation of costs in the estimate of net salvage and states that he is not aware of any other utility that allocates 50% of the labor charges to the cost of removal. He states:

> *"Indeed, in my opinion, it would be difficult to present a scenario under which an equal sharing of labor costs is appropriate for the removal of a service compared to the installation of a service."* (Mr. Jacob Pous, Written Evidence, page 43)

Mr. Pous notes that the industry reports a rather wide range of values but that his recommendations are within the range of values reported.

Mr. Wiedmayer states that the recommended net salvage estimates are based on historical data, information provided by Newfoundland Power personnel and experience in the industry. Mr. Wiedmayer believes that the historical indications are relevant since Newfoundland Power personnel indicated there were no intended changes. Mr. Wiedmayer says that net salvage has trended more negative in recent years and this trend continued in 2010. Mr. Wiedmayer states:

> *"His (Mr. Pous) argument appears to be that higher quantities of services will be retired in the future, and therefore the costs will be lower. However, as detailed in Appendix C, he offers no evidence to support his claim. Instead, a more thorough analysis of trends in the Company's data and additional information specific to Newfoundland Power shows both that economies of scale will have a muted impact on net salvage for this account, and other factors that result in increasing cost of removal will offset any efficiency gains from economies of scale."* (Mr. John Wiedmayer, Rebuttal Evidence, December 14, 2012 pages 27-28)

Mr. Wiedmayer believes that Newfoundland Power's allocation of replacement cost is reasonable and explains:

> *"In Newfoundland Power's experience, when performing a replacement of the service, the crew doing the work does on average spend a similar amount of time on each activity (removing the old service and installing the new service). For this reason alone the 50% allocation rate is reasonable.* (Mr. John Wiedmayer, Rebuttal Evidence, December 14, 2012, pages 28-29)

Newfoundland Power provides a detailed breakdown of the activities associated with Overhead Service Replacement and on average a similar amount of time is required for removing the old service and installing the new service. Mr. Wiedmayer concludes that this is reasonable and further that negative 60% for Overhead Services is quite typical.

Board Finding - Net Salvage

The Board finds that the net salvage for Overhead Services has been fully justified based on Newfoundland Power's historical experience, detailed work description and Mr. Wiedmayer's evidence. Mr. Pous notes that the historical data demonstrates a wide range in the level of net salvage for Overhead Services and he believes that economies of scale may reduce the level in the future. Should the circumstances contemplated by Mr. Pous develop, the impact on net salvage for Overhead Services will be reflected in the next depreciation study.

The Board will accept Newfoundland Power's proposed net salvage for the Overhead Services account.

iv) Depreciation Rates

Newfoundland Power proposes to adjust the depreciation expense to amortize the accumulated reserve variance of $2.6 million over the account's composite remaining life. No representations were made in this proceeding in relation to this proposal.

Grant Thornton reviewed the depreciation expense and concludes that the results and recommendations of the 2010 depreciation study have been incorporated into the depreciation estimates for 2013 and 2014. Grant Thornton notes that the proposal to amortize the reserve variance over the account's composite remaining life differs from past practice but will decrease the revenue requirement.

The Board is satisfied that Newfoundland Power's proposed depreciation rates are proper and adequate.

The Board will approve Newfoundland Power's proposal to adjust the depreciation expense to amortize the accumulated reserve variance of approximately $2.6 million over the account's composite remaining life. The Board will approve the depreciation rates proposed by Newfoundland Power.

v) Depreciation Study

The evidence supports the filing of a new depreciation study every three to five years. No representations were made in this proceeding as to the specific timing of Newfoundland Power's next depreciation study. The Board has ordered Newfoundland Power to file its next general rate application on June 1, 2015. To ensure that the 2016 test year revenue requirement reflects the most up-to-date depreciation information the Board will require Newfoundland Power to file its next full depreciation study relating to plant in service as of December 31, 2014 with its next general rate application.

Newfoundland Power will be required to file its next depreciation study relating to plant in service as of December 31, 2014 with its next general rate application.

4. Operating Costs

i) Other Post Employment Benefits

Newfoundland Power maintains an Other Post Employment Benefits Plan ("OPEBs") for its employees which provides benefits to retired employees including drug coverage. Newfoundland Power proposes to include the OPEBs expense determined by its actuarial consultants, Mercer (Canada) Ltd., of approximately $10.4 million in the 2013 and 2014 test years' revenue requirement.

The Consumer Advocate submits that the OPEBs expense proposed to be included in the 2013 and 2014 test years should be reduced to reflect provincial drug policy and regulations implemented in April 2012 limiting the price of generic drugs. The Consumer Advocate states that the estimates provided by Mercer (Canada) Ltd. for OPEBs expense do not reflect the introduction of this legislation. The Consumer Advocate states:

> *"The Mercer approach is accepted and standard for purposes of financial reporting. However, this actuarial methodology was not designed to be a forecast that would meet the generally accepted standards for determining the forecast costs for a test year that should be recovered in rates set by a regulator. Any forecast of costs that are to be included in rates should reflect all known cost drivers that will result in higher or lower rates than are derived by simply extrapolating past costs. This extrapolation approach would never be accepted for forecasting energy demand, labour costs, or any other expense included in the company's revenue requirement. It is not acceptable for forecasting OPEBs costs either."* (Consumer Advocate, Written Submission, page 38)

The Consumer Advocate submits that, in forecasting any cost to be recovered in rates, the best available estimate of the impact of any known cost driver should be used, rather than assuming a known cost driver will have no impact. He argues that Newfoundland Power ratepayers are entitled to enjoy the benefit of the legislated savings on a timely basis. He acknowledges that the information on the record may not enable a precise forecast of the impact of the reduced drug costs on the OPEBs expense but, based on the testimony of Ms. Perry, he estimates that it would be reasonable to assume a 6% reduction in OPEBs expense. He submits that it is more reasonable to assume this reduction than no impact. He also submits that the Board need not be concerned that such an adjustment may not be accurate as the OPEBs Cost Variance Deferral Account will ensure actual costs are passed on to the ratepayer.

Newfoundland Power explains the regulation was not reflected in the OPEBs expense for 2013 and 2014 and states:

> "*The impact of the Regulations on Newfoundland Power's long-term health care cost, trend which is used in calculating the Company's OPEBs expense and valuation, however, is currently uncertain. The health care cost trend assumption is based on historic claims experience; expectations related to aging and drug consumption; and long- term expectations for future drug cost increases. The impact of the Regulations on Newfoundland Power's OPEBs Plan is unpractical to quantify at this time, however, to the extent that the implementation of the Regulations does impact the Company's long-term health care cost trend, it will be fully reflected in future OPEBs valuations.*" (CA-NP-683)

Ms. Perry testified that she had discussions with Mercer (Canada) Ltd. and Blue Cross and was advised that it was not practical to forecast the impact of the new regulation on the health care trend rate in relation to the plan. She explains that the results will be monitored and any reduction in cost will be reflected in the OPEBs expense and reflected through the deferral account. Newfoundland Power explained:

> *"And succinctly summarized, Ms. Perry made the following observations: Newfoundland Power followed the usual process of forecasting drug costs based upon the health care trend numbers provided by Mercers. Mercers said the effect of the new drug regulation was impractical to quantify at this point in time. Overall drug costs depend not only on price but also drug usage. Further, Newfoundland Power already has pricing agreements with pharmacies through Blue Cross which provide better prices than current on drugs. And the forecast drug costs are based upon the best information currently available.*
>
> *The Consumer Advocate's assertion that a six percent cost reduction will occur is unfounded speculation without any evidentiary basis. It is no basis for this Board to conclude that the forecast expense is unreasonable and imprudent."* (Transcript, February 8, 2013, pages 34/8-25 to 35/1-2)

Board Finding - OPEBs

The amount of the proposed OPEBs expense is based on the recommendations of Newfoundland Power's actuaries, determined in accordance with usual practice. The Board accepts

Newfoundland Power's explanation that there are numerous factors that will influence the impact of the regulations and that it is not practical to forecast the impact on the plan at this time. The Consumer Advocate submits that the benefits of the regulation changes should be flowed to ratepayers in a timely fashion. Using the limited information available he estimates the impact of the regulation changes on OPEBs expense to be a 6% reduction. He argues that the estimated reduction is preferable to no adjustment and that the difference from actual can be flowed through the deferral account. The Board does not believe that it is reasonable to make adjustments to the proposed expense which has been forecast using industry standard approaches, unless there is convincing evidence that the expense should be adjusted and the amount of the adjustment can be reasonably determined. The Board notes that, to the extent that the actual OPEBs expense varies from the forecast amount, it will be flowed through to ratepayers through the operation of the deferral account in the July 1 rate adjustment in the following year.

The Board accepts the forecast OPEBs expense for the 2013 and 2014 test years.

ii) Retirement Allowance

Newfoundland Power's compensation package for its employees includes a retirement allowance for both unionized and non-unionized employees with ten or more years of service. The retirement allowance is calculated by multiplying the basic weekly salary by the years of continuous employment to a maximum of twenty-four weeks. Newfoundland Power forecasts that total retirement allowance payments for unionized and non-unionized employees will be $631,000 in 2013 and $889,000 in 2014.

The Consumer Advocate submits that the revenue requirement for 2013 and 2014 should not include any recognition of future retirement benefit costs in the form of retirement allowances for non-unionized employees who commence employment with Newfoundland Power during the test years 2013 and 2014 or beyond. The Consumer Advocate acknowledges that payment of the retirement allowance to unionized employees is a term of Newfoundland Power's collective agreement but submits that there is no contractual obligation to provide a retirement allowance to new non-unionized employees. The Consumer Advocate submits that:

(i) there is no evidence that this benefit is needed in order to attract and retain employees;
(ii) there is a growing trend away from the payment of retirement allowances;
(iii) workforce demographics indicate that the present time is an ideal time to address the practice; and
(iv) the transition from a defined benefit pension plan to a defined contribution pension plan did not negatively impact Newfoundland Power's ability to attract qualified employees.

Newfoundland Power explains that retirement allowances are paid in recognition of an employee's long service and have been included in Newfoundland Power's collective agreement with its employees for in excess of twenty years. Mr. Smith explains that there is more pressure than ever to make sure that Newfoundland Power has a good package to ensure that it gets the

best employees. Newfoundland Power notes that the retirement allowance developments in New Brunswick and the Federal civil service cited by the Consumer Advocate were not introduced in evidence and do not represent any evidence of changes in retirement allowances in Newfoundland and Labrador. Newfoundland Power submits:

> *"But keep in mind retiring allowances are one part of a total compensation package. Changing any one component necessarily requires adjustment to other components to ensure that the total compensation package remains competitive and you must be competitive, especially in today's environment. So there is simply no basis to conclude that the test year estimate of costs for labour overall is unreasonable or imprudent."* (Transcript, February 8, 2013, pages 35/25 to 36/1-10)

Board Findings - Retirement Allowances

The Board believes that the design of Newfoundland Power's overall compensation package goes to the core of the discretion of management to attract and retain its workforce. The Board will defer to the determinations of management in this regard unless the evidence demonstrates that unreasonable or imprudent costs may be passed on to ratepayers. Newfoundland Power provided evidence that the retirement allowance is a part of the package which has been in place for a number of years to reward long service employees and attract new employees. There is no evidence that the overall compensation package is unreasonable or that labor costs are imprudent. The evidence does not establish that retirement allowances are uncommon in compensation packages in Newfoundland and Labrador. In the absence of evidence demonstrating that Newfoundland Power's retirement allowance is unreasonable, the Board defers to the management of Newfoundland Power as to the compensation package which is appropriate to attract and retain its workforce.

The Board will not exclude expenses associated with Newfoundland Power's retirement allowance for new non-unionized employees from the revenue requirement in the 2013 and 2014 test years.

iii) Short Term Incentive Plan

The Consumer Advocate submits that the revenue requirement for 2013 and 2014 should not include expenses in relation to the portion of the Short Term Incentive Plan for executives and managers that relates to achieving earnings targets. He argues that the achievement of these targets is for the primary benefit of shareholders and not ratepayers. In support of his position the Consumer Advocate provides regulatory precedent from the Public Utilities Board of the Northwest Territories, the Alberta Energy Utilities Board and the Ontario Energy Board. He submits that Newfoundland Power's earnings based compensation targets are not truly distinguishable from these regulatory precedents and urges the Board to not allow the inclusion of expenses in relation to this portion of the Short Term Incentive plan in revenue requirement for the test years.

Newfoundland Power explains that earnings have been a component of its Short Term Incentive Plan since 1997 and that the Board has found this to be reasonable. Newfoundland Power states:

> *"Sound financial management, including earning the return allowed by the Board, remains a critical component of Newfoundland Power's least-cost service delivery to its customers. Recognition of this in an STI plan has accordingly been consistently included by the Board in Newfoundland Power's cost of service."* (CA-NP-452)

Newfoundland Power explains that the regulated utility cost of service in British Columbia, Alberta and Prince Edward Island includes executive compensation with a financial performance factor.

Ms. Perry explains that the earnings target in the Short Term Incentive plan exists to incent senior management to achieve the return on equity approved by the Board for ratemaking purposes. She explains that in Newfoundland Power's last general rate application Karl Aboud of Hay Group indicated that Newfoundland Power's total compensation, including the Short Term Incentive plan, is benchmarked to the 50th percentile of the Canadian commercial industrial group. She notes that ratepayers do not fund the total compensation paid to Newfoundland Power executives. Any amounts paid in excess of 100% of the Short Term Incentive targets are effectively funded by the shareholder as are Newfoundland Power's long term incentives which in 2011 totalled $309,000 for Mr. Ludlow, Ms. Perry, Mr. Smith and Mr. Alteen. Newfoundland Power states that the non-regulated Short Term Incentive payouts were approximately $170,000 in 2011. Mr. Ludlow explains that he does not agree that shareholders are the primary beneficiary of earnings related targets in the Short Term Incentive Plan, stating that a balance has to be struck in relation to earnings and financial integrity.

Newfoundland Power notes that Dr. Booth acknowledges that incompetent management can lead to unstable earnings and ultimately a higher rate of return. Newfoundland Power explains that earnings are important for both investors and customers:

> *"As I discussed earlier, management has an obligation both to its shareholders and to its customers to work hard to earn comparable returns. Unless the utility actually earns a fair return, credit metrics deteriorate, bond ratings are jeopardized, borrowing costs potentially increase and customers suffer. The Electrical Power Control Act makes it clear that maintaining a sound credit rating is an important objective."* (Transcript, February 8, 2013, pages 36/19-25 to 37/1-4)

Board Findings - Short Term Incentive Plan

The Board notes that there have been some changes in Newfoundland Power's Short Term Incentive Plan since the last general rate application, but there is no evidence that these changes are unreasonable and the Consumer Advocate makes no submissions in this regard. Total compensation including the Short Term Incentive payouts is in the 50th percentile of Canadian comparables. Shareholders pay the cost of the Short Term Incentives that exceed 100% of target as well as the entire cost of the long term incentives. Newfoundland Power's overall methodology for setting executive and management compensation has been comprehensively reviewed on numerous occasions over the last number of years and in Order Nos. P.U. 36(1998-99) and P.U. 19(2003) the Board accepted the level of executive compensation. No new evidence was presented in this proceeding demonstrating that it is now unreasonable.

The Consumer Advocate argues that the earnings provision in the performance based incentive is for the primary benefit of shareholders and not ratepayers. The Board notes that Mr. Ludlow and Dr. Booth both explain that shareholders also benefit when Newfoundland Power's earnings are consistently within the allowed range. The Board finds that the evidence shows that a stable well managed company that consistently earns its allowed return will, keeping everything else equal, be considered less risky and will therefore require a lower return and have easier access to financing for its operations and capital program. The Board accepts that ratepayers benefit if earnings are consistently within the allowed range. The Board finds that there is insufficient evidence to deny the recovery of the costs of the Short Term Incentive Plan related to financial performance.

The Board will not exclude expenses associated with the financial performance factor in Newfoundland Power's Short Term Incentive Plan from the revenue requirement for the 2013 and 2014 test years.

5. Conservation Program

Over the years Newfoundland Power and Newfoundland and Labrador Hydro have worked together to implement a portfolio of customer energy conservation programs. To be responsive to customers' desire to lower their electricity bills, Newfoundland Power introduced a broader customer energy conservation portfolio in 2009. Newfoundland Power and Newfoundland and Labrador Hydro recently reassessed the programs and developed a new plan as set out in a report, *Five-Year Energy Conservation Plan: 2012-2016*, which Newfoundland Power filed with the Application. The principal changes to the programs are as follows:

(i) discontinuation of certain residential incentives for minimum building code compliance for new construction as a result of changes to the National Building Code of Canada;
(ii) introduction of new residential customer programs such as an incentive for the installation of heat recovery ventilators; and
(iii) expansion of commercial customer programs such as the commercial lighting program.

The total conservation costs for 2013 and 2014 are forecast to be approximately $4.8 million each year, increased from approximately $3 million per year. It was agreed in the Settlement Agreement that conservation program costs would be amortized over a seven-year period. Newfoundland Power states that the increase in the total customer energy conservation costs reflects the expansion of customer energy conservation program offerings, as well as additional market research and customer education and support activities. Newfoundland Power estimates that this program will result in lower customer electricity bills and additional avoided Holyrood production costs of approximately $9.4 million annually by the end of 2014. Newfoundland Power explains that the breakeven point on the 2013 and 2014 conservation costs will be about two and a half years and energy savings will continue for years into the future.

Mr. Smith summarizes Newfoundland Power's conservation programs:

> *"Our customers are indicating they want to conserve energy and lower their electricity bills. We're responding to this with energy conservation programs. There have been over 17,000 participants since the program began in 2009. Based on our experience, Newfoundland Power and Hydro recently reassessed the portfolio of programs. The results are reflected in the five year energy conservation plan, which is provided in Volume II of the Application. The primary change in the five year plan is to improve program accessibility. The new plan is intended to reach a broader scope of customers, not just those with electric heat. The biggest area of expansion is the small technologies program for residential customers, and a new program for commercial customers. Participation in the expanded plan will help customers lower their electricity bills."* (Transcript, January 25, 2013, pages 6/12-25 to 7/1-6)

The Consumer Advocate states:

> *"The Consumer Advocate is encouraged with the greater emphasis being placed on conservation and acknowledges that each utility reports growing customer participation in their programs."* (Consumer Advocate, Written Submission, page 49)

However, the Consumer Advocate raises an issue relating to the discontinuation of the residential Insulation Program.

> *"There is concern however that in circumstances where 96% of electricity customers indicated the primary motivation for trying to cut back on electricity use is to save money by lowering their electricity bill (Plan, p. 11., footnote 21) that the 2012 Plan reflects that spending will decrease over the 2012-2016 period in relation to the residential Insulation Program (Schedule "A", p. 2 of 2; Schedule "C', p. 2 of 3). This is a concern because the Insulation Program has resulted in the highest amount of energy savings of all programs in the portfolio. While the need to incentivize insulation in new housing stock has been lessened due to changes to building standards, the existing housing stock in the province still remains and given that insulation produces energy cost savings at the household level which are noticeable to customers in their monthly bills, it should be enhanced."* (Consumer Advocate, Written Submission, page 49)

During the hearing, Mr. Winston Adams made a detailed presentation relating to Newfoundland Power's conservation program. Mr. Adams concludes after completing a comprehensive analysis that the program is lacking not only in funding but in scope and opportunity. He raises the potential of mini-split heat pumps and explains that he is concerned that Newfoundland Power is not targeting the insulation program for older stock houses. He states:

> *"In conclusion, the conservation plan as proposed is inappropriate in funding and in measures selected, and has no meaningful beneficial impact for the rate payer. It does little to reduce system peak loads, the high cost of which is put on the rate payer. The utilities, both Newfoundland Power and Newfoundland Hydro, should be replaced by others with this mandate. In addition, rates that give discounts for more power use should be changed, as it discourages conservation, and 400 amp residential services also discourages efficient heating systems, adding to utility asset costs."* (Transcript, January 31, 2013, page 49/9-22)

The Consumer Advocate recommends a review process explaining:

> *"The Consumer Advocate submits the merits, shortfalls, criticisms, recommendations and areas of improvement that arise from the 2008 Plan and the recently filed 2012 Plan requires a process involving both utilities in a framework which allows for the proper examination of the various issues. The Consumer Advocate would recommend that the Board therefore initiate a process in consultation with the utilities and the Consumer Advocate that would allow an appropriate review of the Plans involving interested parties and providing an opportunity for input."* (Consumer Advocate, Written Submission, page 51)

Newfoundland Power explains that the mini-split heat pumps referenced by Mr. Adams are being evaluated by the utilities but a proper cost benefit analysis requires information on energy supply costs and the potential savings which is not currently available. Newfoundland Power states:

> *"However, Newfoundland Power and Newfoundland Hydro will be assessing this technology and its potential costs and system benefits as part of its continuing evaluation of conservation opportunities."* (Transcript, February 8, 2013, page 40/16-20)

Newfoundland Power explains that the plan provides for ongoing evaluation and consultation with industry and market participants and no new or additional process is required.

Board Findings – Conservation Program

Newfoundland Power and Newfoundland and Labrador Hydro have worked cooperatively to design and implement conservation programs that are appropriate for Newfoundland and Labrador. The Consumer Advocate acknowledges the greater emphasis being placed on conservation and suggests that the Board initiate a process to review the conservation programs with the involvement and input of interested persons.

It is apparent that conservation is an issue of increasing interest and importance for ratepayers and the Board agrees that there may be value in the process suggested by the Consumer Advocate. The Board will require Newfoundland Power to file a report by April 1, 2014 which provides an update on the conservation programs, an evaluation of the referenced heat pumps and recommendations in relation to the appropriate process to be followed for review of the conservation programs. The process for the review of the conservation programs can be assessed thereafter with the input of Newfoundland and Labrador Hydro and the Consumer Advocate.

Newfoundland Power will be required to file a report in relation to its conservation program and the review process on or before April 1, 2014.

III. REVISED APPLICATION

1. Forecast Rate Base, Return on Rate Base and Range of Return

The Settlement Agreement in relation to the proposed forecast average rate base for 2013 and 2014 has been accepted for ratemaking purposes. As a result of the determinations of the Board in this Order, revisions to the calculation of the forecast average rate base for 2013 and 2014 may be required.

The forecast 2013 and 2014 rate of return on rate base will change as a result of the determinations of the Board in this Order and should be revised by Newfoundland Power to reflect these changes.

No submissions were made in this proceeding in relation to Newfoundland Power's established range of return on rate base of 36 basis points which will be maintained. The Board notes that the current definition of the Excess Earnings Account sets out the established annual rate of return on rate base which requires that a new definition be approved with each change in rate of return on rate base. Newfoundland Power will be required to file an application to revise the definition to avoid this requirement and to set out the range of 36 basis points in the definition.

The Board has accepted a return on equity for ratemaking purposes for 2015 of 8.8%. Newfoundland Power will be required to file, on or before November 17, 2014, an application for approval of a 2015 forecast average rate base and rate of return on rate base and may file for approval of a revised Schedule of Rates, Tolls and Charges to reflect these revisions.

Newfoundland Power will be required to file an application for approval of a revised calculation of the forecast average rate base and rate of return on rate base for the 2013 and 2014 test years to reflect the determinations of the Board in this Order.

Newfoundland Power's allowed range of return on rate base of 36 basis points will be continued for 2013, 2014 and 2015.

Newfoundland Power will be required to file an application for approval of a revised definition of the Excess Earnings Account.

Newfoundland Power will be required to file on or before November 17, 2014 an application for approval of the forecast average rate base and rate of return on rate base for 2015 maintaining a return on equity of 8.8% and a common equity ratio of 45%.

2. Forecast Revenue Requirement

The Board notes that the forecast 2013 and 2014 revenue requirement will change as a result of the determinations of the Board in this Order.

Newfoundland Power will be required to file a revised forecast 2013 and 2014 revenue requirement to reflect the determinations of the Board in this Order.

3. Rates

Newfoundland Power is required to file an application for approval of a Schedule of Rates, Tolls and Charges to implement the proposals in the Application, incorporating the determinations of the Board in the Order. As a part of the normal regulatory process, Newfoundland Power is also required to make application for new rates effective July 1, 2013 as a result of the annual Rate Stabilization Account adjustment. To ensure the orderly implementation of the rate changes associated with the Application and the rate changes associated with the annual July 1st Rate Stabilization Account adjustment, the Board will require Newfoundland Power to use a July 1, 2013 effective date for the rate changes flowing from this Order.

Newfoundland Power will be required to file an application for approval of a revised Schedule of Rates, Tolls and Charges effective for service provided on and after July 1, 2013.

4. Rules and Regulations and Accounts

Newfoundland Power's Rules and Regulations will change as a result of the proposals in the Application and the determinations of the Board in this Order.

Newfoundland Power will be required to file revised Rules and Regulations to be effective July 1, 2013.

IV COSTS

Newfoundland Power shall pay the costs and expenses of the Board arising from this Application, including the expenses of the Consumer Advocate incurred by the Board, pursuant to the *Public Utilities Act*, RSNL 1990, *c. P-47.*

PART THREE. BOARD ORDER

IT IS THEREFORE ORDERED THAT:

RATE BASE, RETURN ON RATE BASE AND RANGE OF RETURN

1. **Newfoundland Power shall file an application for approval of a revised forecast average rate base and rate of return on rate base for 2013 and 2014 based on the proposals in the Application, incorporating the determinations of the Board in this Order, including:**
   i) **a common equity component in the capital structure not to exceed 45% for ratemaking purposes; and**
   ii) **a ratemaking rate of return on common equity of 8.8%.**

2. **The allowed range of rate of return on rate base shall be 36 basis points for 2013, 2014 and 2015.**

3. **Newfoundland Power shall file an application for approval of a revised definition of the Excess Earnings Account.**

4. **Newfoundland Power shall file an application on or before November 17, 2014 for approval of the 2015 forecast average rate base and rate of return on rate base maintaining the ratemaking common equity ratio and return on common equity established in this Order.**

5. **Newfoundland Power shall, unless otherwise directed by the Board, file its next general rate application with a 2016 test year on or before June 1, 2015.**

REVENUE REQUIREMENT

6. **Newfoundland Power shall calculate and file a revised forecast revenue requirement for the 2013 and 2014 test years based on the proposals in the Application, incorporating the determinations of the Board in this Order.**

DEPRECIATION

7. **Newfoundland Power's proposal to adjust the depreciation expense to amortize the accumulated reserve variance of approximately $2.6 million over the account's composite remaining life is approved.**

8. **Newfoundland Power's proposal to use the depreciation rates recommended in the 2010 Depreciation Study is approved.**

9. **Newfoundland Power shall file its next depreciation study relating to plant in service as of December 31, 2014 with its next general rate application.**

OTHER REGULATORY MATTERS

10. The proposed calculation of the defined benefit pension expense for regulatory purposes in accordance with United States Generally Accepted Accounting Principles is approved.

11. The amortization over 15 years, commencing in 2013, of the forecast defined benefit pension expense regulatory asset approved in Order No. P.U. 11(2012) of approximately $12.4 million is approved.

12. The amortization over seven years, commencing in 2013, of annual customer energy conservation program costs through the annual Rate Stabilization Account adjustment is approved.

13. The proposed change in the definition of the Conservation and Demand Management Cost Deferral Account is approved as set out in Schedule A to this Order.

14. The proposed disposition of the annual balance in the Weather Normalization Reserve Account through the annual Rate Stabilization Account adjustment is approved.

15. The amortization over three years, commencing in 2013, of the 2011 year-end balance in the Weather Normalization Reserve Account of approximately $5.0 million is approved.

16. The amortization over three years, commencing in 2013, of the amount of $4,726,000 relating to previously approved deferrals is approved.

17. The amortization over three years, commencing in 2013, of the amount of the revenue shortfall for 2012 resulting from the determination of Newfoundland Power's 2012 cost of capital in Order No. P.U. 17(2012) is approved.

18. The amortization over three years, commencing in 2013, of costs billed to Newfoundland Power for Board and Consumer Advocate hearing costs relating to the Application, estimated to be $1.25 million, is approved.

19. The proposed amortization over three years, commencing in 2013, of the 2013 revenue shortfall resulting from the implementation of new rates after January 1, 2013 is approved.

20. Newfoundland Power shall file with the Board, no later than April 1, 2014, a report in relation to its conservation program and the process for the review of this program.

21. Newfoundland Power shall file, as part of its next general rate application, a report on its capital structure.

RATES, RULES AND REGULATIONS

22. The proposed changes to the rate design and structure are approved as follows:

- **(i) merge existing Rates 2.1 and 2.2 into a single General Service Rate for all customers with demands of less than 100kW;**
- **(ii) modify demand and energy charges to better reflect marginal costs;**
- **(iii) change energy block sizes in Rates 2.3 and 2.4;**
- **(iv) make changes to the basic customer charge;**
- **(v) apply the average rate increase to the Maximum Monthly Charge;**
- **(vi) maintain the Curtailable Service Option with the current credit;**
- **(vii) modify the Early Payment Discount;**
- **(viii) maintain the Optional Seasonal Rate Revenue and Cost Recovery Account until the next general rate application;**
- **(ix) increase the Optional Seasonal Rate consistent with the Rate 1.1 increase; and**
- **(x) increase the Time of Day Rates in accordance with the increase in the applicable rate class.**

23. The proposed changes to the Rate Stabilization Clause are approved as set out in Schedule B to this Order.

24. Newfoundland Power shall file an application for approval of a revised Schedule of Rates, Tolls and Charges effective for service provided on and after July 1, 2013, based on the proposals in the Application, incorporating the determinations of the Board in this Order.

25. Newfoundland Power shall file revised Rules and Regulations to be effective July 1, 2013.

HEARING COSTS

26. Newfoundland Power shall pay the costs and expenses of the Board arising from the Application, including the expenses of the Consumer Advocate incurred by the Board.

DATED at St. John's, Newfoundland and Labrador this 17th day of April 2013.

Andy Wells
Chair & Chief Executive Officer

Dwanda Newman, LL.B.
Commissioner

James Oxford
Commissioner

Cheryl Blundon
Board Secretary

Schedule A

ORDER NO. P.U. 13(2013)

Conservation and Demand Management Cost Deferral Account

NEWFOUNDLAND POWER INC.
CONSERVATION AND DEMAND MANAGEMENT COST DEFERRAL ACCOUNT

CDM Cost Deferral Account 188xx

This account shall be charged with the costs incurred in implementing the CDM Program Portfolio.

These costs include the CDM Program Portfolio costs incurred by Newfoundland Power for: detailed program development, promotional materials, advertising, pre and post customer installation checks, incentives, processing applications and incentives, training of employees and trade allies, and program evaluation costs.

This account shall also be charged the costs of major CDM studies such as comprehensive customer end use surveys and CDM potential studies that cost greater than $100,000.

Transfers to, and from, the proposed account will be tax-effected.

This account will maintain a linkage of all costs recorded in the account to the year the cost was incurred.

Recovery of annual amortizations of costs in this account shall be through the Company's Rate Stabilization Account or as otherwise ordered by the Board.

Schedule B

ORDER NO. P.U. 13(2013)

Rate Stabilization Clause Amendments

NEWFOUNDLAND POWER INC.
RATE STABILIZATION CLAUSE

II. RATE STABILIZATION ACCOUNT ("RSA")

3. The annual kilowatt-hours used in calculating the Rate Stabilization Adjustment to the monthly streetlighting rates are as follows:

	Fixture Size (watts)				
	100	150	175	250	400
Mercury Vapour	-	-	840	1,189	1,869
High Pressure Sodium	454	714	-	1,260	1,953

II. RATE STABILIZATION ACCOUNT ("RSA")

7. On March 31st of each year, beginning in 2014, the Rate Stabilization Account shall be increased on a before tax basis, by the CDM Cost Recovery Transfer.

The CDM Cost Recovery Transfer, expressed in dollars, will be calculated to provide for the recovery of costs charged annually to the Conservation and Demand Management Cost Deferral Account (the "CDM Cost Deferral") over a seven-year period, commencing in the year following the year in which the CDM Cost Deferral is charged to the Conservation and Demand Management Cost Deferral Account.

The CDM Cost Deferral Account will identify the year in which each CDM Cost Deferral was incurred.

The CDM Cost Recovery Transfer for each year will be the sum of individual amounts representing 1/7th of each CDM Cost Deferral, which individual amounts shall be included in the CDM Cost Recovery Transfer for seven years following the year in which the CDM Cost Deferral was recorded.

II. RATE STABILIZATION ACCOUNT ("RSA")

8. On March 31st of each year, beginning in 2013, the Rate Stabilization Account shall be increased (reduced), on a before tax basis, by the balance in the Weather Normalization Reserve as of the end of the previous year.

III. RATE CHANGES

The energy charges in each rate classification shall be adjusted as required to reflect the changes in the Rate Stabilization Adjustment. The new energy charges shall be determined by subtracting the previous Rate Stabilization Adjustment from the previous energy charges and adding the new Rate Stabilization Adjustment. The new energy charges shall apply to all bills based on consumption on and after the effective date of the adjustment.

Newfoundland & Labrador
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