

1 **Volume 1, Section 1 - Introduction**

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3 **Q. (page 5, line 23 and page 6, lines 1-2) Please provide a list of all regulatory**
4 **mechanisms currently in use, and proposed in this Application. The list should**
5 **identify the mechanism, the year implemented, provide a brief description including**
6 **the formula, and show amounts in reserve currently and in each of the previous**
7 **four years.**

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9 **A. I. *Introductory***

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11 The term *regulatory mechanisms* as used in the evidence refers to the principal
12 mechanisms established by the Board to provide for the efficient regulation of
13 Newfoundland Power's returns, and certain of its costs.

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15 The existing mechanisms include the Automatic Adjustment Formula, the Excess
16 Earnings Account, the Weather Normalization Reserve, the Rate Stabilization Account,
17 and the Purchased Power Unit Cost Variance Reserve (the "PPUCVR").

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19 In addition, Newfoundland Power has proposed in this Application a Demand
20 Management Incentive Account, which is proposed to replace the PPUCVR.

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22 **II. *Existing Regulatory Mechanisms***

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24 *Automatic Adjustment Formula*

25 The Automatic Adjustment Formula (the "Formula") provides for annual adjustment of
26 the Company's rate of return on rate base in years subsequent to a test year. The current
27 operation of the Formula, as well as the proposals in this Application to modify the
28 Formula, is described in Section 3.3.3 of the Finance Evidence at pages 59 to 61. There
29 are no reserve amounts associated with the Formula.

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31 *Excess Earnings Account*

32 The Excess Earnings Account is credited with any earnings in excess of the upper limit of
33 the allowed return on rate base as approved by the Board.¹ Amounts credited to the
34 Excess Earnings Account are subject to the Board's determination as to disposition.

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36 The sole purpose of the Excess Earnings Account is to protect the customer interest by
37 ensuring that Newfoundland Power's earned returns do not *materially* exceed those
38 approved by the Board for ratemaking purposes.

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40 There were no balances credited to the Excess Earnings Account in the period 2002 to
41 2006. A balance was last credited to the Excess Earnings Account in 2001.

¹ Currently the upper limit on the allowed return on rate base as established by the Board in Order No. P.U. 19 (2003), is 18 basis points above that used for ratemaking purposes.

1 A copy of the current definition of the Excess Earnings Account, which was approved by
2 Order No. P.U. 40 (2006), is Attachment A.

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4 *Weather Normalization Reserve*

5 The Weather Normalization Reserve acts to stabilize electricity rates to customers by
6 adjusting the Company's sales and power supply cost related to hydrology and weather.
7 The Weather Normalization Reserve has two components: (i) a Hydro Production
8 Equalization Reserve approved in Order No. P.U. 32 (1968) and, (ii) a Degree Day
9 Normalization Reserve approved in Order No. P.U. 1 (1974).

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11 The balance in the Weather Normalization Reserve and the underlying calculations are
12 reviewed by the Board each year. Newfoundland Power's annual earnings reflects the
13 after-tax adjustments to this account.

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15 Table 1 provides the year-end balances in the Weather Normalization Reserve for the
16 period 2002 to 2006. The mechanics of the computation of adjustments is provided in
17 Appendix A of the *Weather Normalization Reserve Balance Review (Volume 2, Tab 6)*.
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Table 1
Weather Normalization Reserve
Year-end Balances
(\$millions)

	2002	2003	2004	2005	2006
Hydro Component	9.5	9.1	7.8	6.0	5.0
Degree Day Component	1.4	1.3	2.7	4.1	6.8
Total	10.9	10.4	10.5	10.1	11.8

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22 *Rate Stabilization Account*

23 In Order No. P.U. 34 (1985), the Board approved the establishment, on January 1, 1986,
24 of a rate stabilization account (the "RSA") for Newfoundland Power.² This was in
25 response to the establishment of a rate stabilization plan (the "RSP") by Newfoundland
26 and Labrador Hydro ("Hydro") which enabled Hydro to flow through changes in fuel
27 costs to Newfoundland Power.

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29 Rate adjustments resulting from the operation of the RSA occur on July 1st each year. In
30 addition to the adjustments for fuel resulting from the operation of Hydro's RSP,
31 adjustments are made to the RSA for municipal taxes, excess fuel costs, secondary
32 energy costs and mismatches due to Hydro price changes.

² Prior to 1986, a Fuel Adjustment Clause existed that adjusted rates monthly to recover both Hydro's and the Company's fuel costs that varied from the base fuel costs built into rates. This clause also factored in secondary energy purchases.

1 Table 2 provides the year-end balances in the RSA for the period 2002 to 2006. The
2 mechanics of the RSA are set out in the Rate Stabilization Clause provided as
3 Attachment B.
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Table 2
Rate Stabilization Account
Year-end Balances
(\$millions)

	2002	2003	2004	2005	2006
RSA	0.6	1.0	2.7	2.4	3.6

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8 *Purchased Power Unit Cost Variance Reserve*

9 The PPUCVR adjusts power supply costs to reflect certain variations between actual and
10 forecast purchased power costs. The PPUCVR was established at the time of the
11 introduction of a demand and energy rate structure for power purchased from Hydro.
12 Order No. P.U. 44 (2004) approved the establishment of the PPUCVR for 2005. Order
13 No. P.U. 10 (2007) approved the detailed definition which governs the operation of the
14 account for 2007.

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16 In principle, when actual purchased power costs³ exceed forecast purchased power
17 costs,⁴ the PPUCVR is charged with the amount by which the difference exceeds a pre-
18 determined deadband. The deadband is based on approximately 1 percent of test year
19 demand costs.⁵
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21 Table 3 provides the year-end balances in the PPUCVR for the period 2002 to 2006. The
22 mechanics of the PPUCVR are set out in the System of Accounts definition provided as
23 Attachment C.

³ Annual purchased power cost after normalization and defined on a unit cost basis.

⁴ Forecast purchased power costs as defined on a unit cost basis.

⁵ A 1 percent variance in billing demand will cause a variance in purchased power costs from that reflected in customer rates by approximately \$520,000 based on the current wholesale demand charge of \$4 per kW per month.

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Table 3
Purchased Power Unit Cost Variance Reserve
Year-end Balances
(\$millions)

	2002	2003	2004	2005	2006
PPUCVR	n/a ⁶	n/a	n/a	0.0	(1.3) ⁷

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III. Proposed Mechanism Changes

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In this Application, Newfoundland Power is effectively proposing to modify the PPUCVR reserve mechanism to make it explicitly related to demand management. Further information, including a detailed description of the proposed Demand Management Incentive Account is provided in *Volume 1, Customer Operations*, pages 41 – 42, and Exhibit 4.

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The Application also proposes a modification to the Rate Stabilization Clause to ensure recovery of prudently incurred energy supply costs related to the cost of production at Hydro's Holyrood Thermal Generating Station. Further information regarding the proposed change is provided in *Volume 1, Finance*, Section 4.5.1, pages 122 – 124 and Exhibit 12.

⁶ The PPUCVR was not established until 2005.

⁷ The net amount after income tax (see *Volume 1, Finance*, page 88, Table 35).

Definition of the Excess Earnings Account

Excess Earnings Account

This account shall be credited with any earnings in excess of the upper limit of the allowed range of return on rate based as determined by the Board, plus the amount of any applicable income taxes calculated at the prevailing income tax rate in that year. Disposition of any balance in this account shall be as determined by the Board. For 2007 and subsequent years, all earnings in excess of an 8.65% rate of return on rate base shall, unless otherwise ordered by the Board, be credited to this account.

The Mechanics of the RSA

**Newfoundland Power
Rate Stabilization Clause**

Effective July 1, 2007

The Company shall include a rate stabilization adjustment in its rates. This adjustment shall reflect the accumulated balance in the Company's Rate Stabilization Account ("RSA") and any change in the rates charged to the Company by Newfoundland and Labrador Hydro ("Hydro") as a result of the operation of its Rate Stabilization Plan ("RSP").

I. RATE STABILIZATION ADJUSTMENT ("A")

The Rate Stabilization Adjustment ("A") shall be calculated as the total of the Recovery Adjustment Factor and the Fuel Rider Adjustment.

The Recovery Adjustment Factor shall be recalculated annually, effective the first day of July in each year, to amortize over the following twelve (12) month period the annual plan recovery amount designated to be billed by Hydro to the Company, and the balance in the Company's RSA.

The Recovery Adjustment Factor expressed in cents per kilowatt-hour and calculated to the nearest 0.001 cent shall be calculated as follows:

$$\frac{B + C}{D}$$

Where:

- B = the annual plan recovery amount designated to be billed by Hydro during the next twelve (12) months commencing July 1 as a result of the operation of Hydro's RSP.
- C = the balance in the Company's RSA as of March 31st of the current year.
- D = the total kilowatt-hours sold by the Company for the 12 months ending March 31st of the current year.

The Fuel Rider Adjustment shall be recalculated annually, effective the first day of July in each year, to reflect changes in the RSP fuel rider applicable to Newfoundland Power. The Fuel Rider Adjustment expressed in cents per kilowatt-hour and calculated to the nearest 0.001 cent shall be calculated as follows:

$$\frac{E \times F}{D}$$

**Newfoundland Power
Rate Stabilization Clause**

Effective July 1, 2007

I. RATE STABILIZATION ADJUSTMENT ("A") (Cont'd)

Where:

- D = corresponds to the D above.
- E = the total kilowatt-hours of energy (including secondary energy) sold to the Company by Hydro during the 12 months ending March 31 of the current year.
- F = the fuel rider designated to be charged to Newfoundland Power through Hydro's RSP.

The Rate Stabilization Adjustment ("A") shall be recalculated and be applied as of the effective date of a new wholesale mill rate by Hydro, by resetting the Fuel Rider Adjustment included in the Rate Stabilization Adjustment to zero.

II. RATE STABILIZATION ACCOUNT ("RSA")

The Company shall maintain a RSA which shall be increased or reduced by the following amounts expressed in dollars:

1. At the end of each month the RSA shall be:
 - (i) increased (reduced) by the amount actually charged (credited) to the Company by Hydro during the month as the result of the operation of its Rate Stabilization Plan.
 - (ii) increased (reduced) by the excess cost of fuel used by the Company during the month calculated as follows:

$$(G/H - P) \times H$$

Where:

- G = the cost in dollars of fuel and additives used during the month in the Company's thermal plants to generate electricity other than that generated at the request of Hydro.
- H = the net kilowatt-hours generated in the month in the Company's thermal plants other than electricity generated at the request of Hydro.

**Newfoundland Power
Rate Stabilization Clause**

Effective July 1, 2007

II. RATE STABILIZATION ACCOUNT ("RSA") (Cont'd)

P = the base rate in dollars per kilowatt-hour paid during the month by the Company to Hydro for firm energy.

(iii) reduced by the price differential of firmed-up secondary energy calculated as follows:

$$(P - J) \times K$$

Where:

J = the price in dollars per kilowatt-hour paid by the Company to Hydro during the month for secondary energy supplied by Deer Lake Power and delivered as firm energy to the Company.

K = the kilowatt-hours of such secondary energy supplied to the Company during the month.

P = corresponds to P above.

(iv) reduced (increased) by the amount billed by the Company during the month as the result of the operation of the Rate Stabilization Clause calculated as follows:

$$\frac{L \times A}{100}$$

Where:

L = the total kilowatt-hours sold by the Company during the month.

A = the Rate Stabilization Adjustment in effect during the month expressed in cents per kilowatt-hour.

(v) increased (reduced) by an interest charge (credit) on the balance in the RSA at the beginning of the month, at a monthly rate equivalent to the mid-point of the Company's allowed rate of return on rate base.

2. On the 31st of December in each year, commencing in 1989, the RSA shall be increased (reduced) by the amount that the Company billed customers under the Municipal Tax Clause for the previous calendar year is less (or greater) than the amount of municipal taxes for that year.

**Newfoundland Power
Rate Stabilization Clause**

Effective July 1, 2007

II. RATE STABILIZATION ACCOUNT ("RSA") (Cont'd)

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	546	802	-	1,273	1,995

4. On December 31st, 2007, the RSA shall be reduced (increased) by the amount that the increase in the Company's revenue for the year resulting from the change in base rates attributable to the flow through of Hydro's wholesale rate change, effective January 1, 2007, is greater (or less) than the amount of the increase in the Company's purchased power expense for the year resulting from the change in the base rate charged by Hydro effective January 1, 2007.

as The methodology to calculate the RSA adjustment at December 31, 2007 is follows:

Calculation of increase in Revenue:

2007 Revenue with Flow-through (Q)	\$ -
2007 Revenue without Flow-through (R)	\$ -
Increase in Revenue (S = Q - R)	\$ -

Calculation of increase in Purchased Power Expense:

2007 Purchased Power Expense with Hydro Increase (T)	\$ -
2007 Purchased Power Expense without Hydro Increase (U)	\$ -
Increase in Purchased Power Expense (V = T - U)	\$ -

Adjustment to Rate Stabilization Account (W = S - V)	\$ -
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Where:

- 2007.
- Q = Normalized revenue from base rates effective January 1,
 - R = Normalized revenue from base rates determined based on rates pursuant to the operation of the Automatic Adjustment Formula for 2007.
 - T = Normalized purchased power expense from Hydro's wholesale rate effective January 1, 2007 (not including RSP rate).
 - U = Normalized purchased power expense determined based on Hydro's wholesale rate effective January 1, 2006 (not including RSP rate).

**Newfoundland Power
Rate Stabilization Clause**

Effective July 1, 2007

III. RATE CHANGES

The energy charges in each rate classification (other than the energy charge in the "Maximum Monthly Charge" in classifications having a demand charge) 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.

The Mechanics of the PPUCVR

Newfoundland Power Inc.

Purchased Power Unit Cost Variance Reserve Account

Proposed Definition

Purchased Power Unit Cost Variance Reserve Account

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This account shall be charged or credited with the amount by which the annual Purchased Power Unit Cost Variance exceeds the Reserve Deadband.

When the normalized actual unit cost of purchased power is greater than the forecast unit cost of purchased power, this account shall be charged with the amount by which the Purchased Power Unit Cost Variance exceeds the Reserve Deadband.

When the normalized actual unit cost of purchased power is less than the forecast unit cost of purchased power, this account shall be credited with the amount by which the Purchased Power Unit Cost Variance exceeds the Reserve Deadband.

The amount charged or credited to this account shall be adjusted for applicable income taxes calculated at the statutory income tax rate.

Purchased Power Unit Cost Variance

The Purchased Power Unit Cost Variance will be determined annually in the following manner:

1. A variance factor will be determined by calculating the per kilowatt-hour difference between (a) the forecast unit cost of purchased power per kilowatt-hour, and (b) the normalized actual unit cost of purchased power per kilowatt-hour.
2. The variance factor so determined will be multiplied by the normalized actual energy purchases for the year, in kilowatt-hours, to determine the Purchased Power Unit Cost Variance.

The forecast unit cost of purchased power for 2005 is 5.234¢ per kilowatt-hour. For years subsequent to 2005, the forecast unit cost of purchased power will be calculated by:

- (a) applying the wholesale purchased power rate(s) to the forecast billing demand and forecast energy purchases from Newfoundland and Labrador Hydro; and,
- (b) dividing the resulting forecast purchased power cost by the forecast number of kilowatt-hours to be purchased in that year.

The basis for the forecast billing demand and forecast energy purchases will be the demand and energy forecast prepared by Newfoundland Power in the previous year and used in preparing the Company's Capital Budget Application or a General Rate Application, whichever is most appropriate.

The normalized actual unit cost of purchased power will be calculated by:

- (a) applying the wholesale purchased power rate(s) to the actual billing demand and normalized actual energy purchases from Newfoundland and Labrador Hydro (as reported in Return 13 of Newfoundland Power's Annual Report to the Board); and,
- (b) dividing the resulting actual purchased power cost by the normalized actual number of kilowatt-hours purchased in that year.

Reserve Deadband

The Reserve Deadband equals \$588,000 for 2005, as ordered by the Board in Order No. P.U. 44 (2004).

The Reserve Deadband equals \$714,000 for 2006, reflecting the adjustment to the demand and energy rate from Newfoundland and Labrador Hydro approved in Order No. P.U. 38 (2005).

The Reserve Deadband equals \$521,000 for 2007, reflecting the demand and energy rate from Newfoundland and Labrador Hydro approved in Order No. P.U. 8 (2007).

Disposition of any Balance in this Account

Newfoundland Power shall file an Application with the Board no later than the 1st day of March each year for the disposition of any balance in this account.