Q. Please provide a list of all regulatory mechanisms currently in use, and proposed in this Application. The list should identify the mechanism, the year implemented, provide a brief description including the formula and show amounts in reserve currently and in each of the previous four years.

A. A. Introduction

 The term *regulatory mechanisms* as used in the Company's evidence refers to the principal mechanisms established by the Board to provide for the efficient regulation of Newfoundland Power's returns and certain of its costs.¹

The existing mechanisms include the Automatic Adjustment Formula, the Excess Earnings Account, supply cost recovery mechanisms, and mechanisms to provide recovery of the cost of employee future benefits. The supply cost recovery mechanisms include the Rate Stabilization Account, the Demand Management Incentive Account, and the Weather Normalization Reserve. The employee future benefit mechanisms include the Pension Expense Variance Deferral Account and the Other Post Employment Benefits ("OPEBs") Cost Variance Deferral Account.²

In this Application, Newfoundland Power has proposed to discontinue use of the Automatic Adjustment Formula. The Company has also proposed a change to the disposition of balances in the Weather Normalization Reserve.

B. Existing Regulatory Mechanisms

Automatic Adjustment Formula

the Company's rate of return on rate base in years subsequent to a test year. The Formula was originally established pursuant to Order Nos. P.U. 16 (1998-99) and P.U. 36 (1998-99). Continued use of the Formula was approved in Order Nos. P.U. 19 (2003), P.U. 32 (2007) and P.U. 43 (2009).

The Automatic Adjustment Formula (the "Formula") provides for annual adjustment of

In Order No. P.U. 25 (2011), the Board suspended operation of the Formula for 2012.

The current operation of the Formula, as well as the proposal in this Application to discontinue the Formula, is described in *Volume 1 Application and Company Evidence*, *Section 3.3.2 Automatic Adjustment Formula* at pages 3-31 to 3-38. There are no reserve amounts associated with the Formula.

The regulatory mechanisms do not include accounts approved by the Board to provide cost deferrals between general rate proceedings such as the Optional Seasonal Rate Revenue and Cost Recovery Account, the 2012 Cost of Capital Cost Recovery Deferral Account or the 2011 and 2012 Cost Recovery Deferral Account.

By Order No. P.U. 43 (2009), Newfoundland Power was required to examine the incentive effects of its regulatory mechanisms and consider the effectiveness and efficiency of the incentive to reduce purchased power costs. A report on the Company's review of Supply Cost Mechanisms is provided in *Volume 2*, *Exhibits & Supporting Materials*, *Reports*, *Tab 7*.

1 Excess Earnings Account

The Excess Earnings Account is credited with any earnings in excess of the upper limit of the allowed return on rate base as approved by the Board.³ Amounts credited to the Excess Earnings Account are subject to the Board's determination as to disposition. The current form of the Excess Earnings Account was approved by the Board in Order No. P.U. 37 (1998-99). Attachment A provides the current definition of the Excess Earnings Account, as approved in Order No. P.U. 17 (2012).

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

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There were no balances credited to the Excess Earnings Account in the past four years. A balance was last credited to the Excess Earnings Account in 2001.

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Supply Cost Recovery Mechanisms

A review of the Company's supply cost mechanisms is provided in *Volume 2, Exhibits & Supporting Materials, Reports*, Tab 7.

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Rate Stabilization Account

In Order No. P.U. 34 (1985), the Board approved the establishment, on January 1, 1986, of a rate stabilization account (the "RSA") for Newfoundland Power. ⁴ The RSA is the principal supply cost mechanism for Newfoundland Power. The RSA was created primarily as a means of ensuring that variations in Newfoundland and Labrador Hydro ("Hydro") production costs which were captured in Hydro's Rate Stabilization Plan ("RSP") were recovered in, or credited to, Newfoundland Power's customer rates in a timely fashion. The RSA still serves this purpose.

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In Order No. P.U. 32 (2007), the Board approved a change to the Rate Stabilization Clause to ensure reasonable recovery by Newfoundland Power of prudently incurred energy supply costs. The Rate Stabilization Clause permits recovery through the RSA of the difference between the marginal energy supply cost and the average energy supply cost (the "Energy Supply Cost Variance").

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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.

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.

Table 1 shows the Energy Supply Cost Variance amounts from 2008 through 2011.

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Table 1 Energy Supply Cost Variances (\$millions)

2008	2009	2010	2011
(0.4)	2.9	2.2	6.9

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Rate adjustments resulting from the operation of the RSA occur on July 1 each year. In addition to the adjustments for fuel resulting from the operation of Hydro's RSP and the Energy Supply Cost Variance, adjustments are made to the RSA for municipal taxes, excess fuel costs, secondary energy costs and variations in employee future benefits costs.

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Table 2 shows the year-end balances in the RSA for 2007 through 2011.

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Table 2 Rate Stabilization Account Year-end Balances (\$millions)

2007	2008	2009	2010	2011 ⁵
1.7	2.5	1.4	3.7	12.4

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The mechanics of the RSA are set out in the Rate Stabilization Clause provided in Attachment B.

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Demand Management Incentive Account

21 22 The Demand Management Incentive Account (the "DMI Account") limits the impacts on the Company of variability in demand supply cost to ± 1 % of test year wholesale demand charges. The DMI Account provides a meaningful incentive for Newfoundland Power to undertake reasonable initiatives to minimize peak demand.

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In Order No. P.U. 32 (2007), the Board approved a definition of the DMI Account

26 27 In Order No. P.U. 32 (2007), the Board approved a definition of the DMI Account to be included in the Company's System of Accounts. ⁶ The operation of the DMI Account

The increase in the balance at year-end 2011 compared to previous years primarily reflects the \$6.9 million Energy Supply Cost Variance for 2011.

The DMI Account replaced the Purchased Power Unit Cost Variance Reserve (the "PPUCVR") which adjusted power supply costs to reflect certain variations between actual and forecast purchased power costs. The PPUCVR was established at the time of the introduction of a demand and energy rate structure for power purchased from Hydro.

 came into effect in 2008. The approved definition includes the following parameters:

- (i) a range of $\pm 1\%$ of test year wholesale demand costs for which no account transfer is required (the Demand Management Incentive); and
- (ii) the use of test year unit demand costs as the basis for comparison against actual unit demand costs in determining the Demand Supply Cost Variance for comparison to the Demand Management Incentive to determine if an account transfer is required.

The DMI Account is charged or credited with the amount by which the Demand Supply Cost Variance exceeds the Demand Management Incentive.

Table 3 provides the year-end balances in the DMI Account for the period 2008 to 2011 (i.e., since its implementation).

Table 3

DMI Account Year-end Balances ⁷
(\$millions)

2008	2009	2010	2011
(0.4)	0.0	(0.7)	(1.3)

 Newfoundland Power files an annual application with the Board by March 1st to address the disposition of any balance in the DMI Account. Any required credit to, or recovery from, customers arising from a DMI balance is typically included in the Company's annual RSA adjustment.⁸

Weather Normalization Reserve

The Weather Normalization Reserve normalizes the effects of weather and hydrology on the Company's sales and purchase power expense. The Weather Normalization Reserve has two components: (i) a Hydro Production Equalization Reserve approved in Order No. P.U. 32 (1968), and (ii) a Degree Day Normalization Reserve approved in Order No. P.U. 1 (1974).

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

⁷ DMI Account balances are stated on an after-tax basis.

By Order Nos. P.U. 21 (2009), P.U. 7 (2011) and P.U. 9 (2012), the Board approved the disposition to customers through the annual RSA adjustment of the balances resulting from operation of the DMI Account in 2008, 2010 and 2011, respectively. Section II(6) of the Rate Stabilization Clause provides for adjustments to the RSA upon order of the Board.

Table 4 provides the year-end balances in the Weather Normalization Reserve for the period 2007 to 2011.

Table 4
Weather Normalization Reserve Year-end Balances (\$millions)

	2007	2008	2009	2010	2011
Hydro Component	3.9	1.3	1.3	(1.8)	(2.9)
Degree Day Component	6.6	4.6	2.6	(0.2)	(2.1)
Total	10.5	5.9	3.9	(2.0)	(5.0)

The mechanics of the computation of adjustments to the balances in the Weather Normalization Reserve are provided in Attachment C.

In this Application, Newfoundland Power is proposing that annual balances outstanding in the Weather Normalization Reserve be recovered from, or credited to, customers as part of the Company's annual RSA adjustment to customer rates on July 1 of each year. To accommodate the implementation of this proposal, the Company is proposing amortization of the outstanding year-end 2011 balance in the Weather Normalization Reserve which will reduce 2013 – 2014 revenue requirements.

Employee Future Benefit Mechanisms

Pension Expense Variance Deferral Account

 In Order No. P.U. 43 (2009), the Board approved the Pension Expense Variance Deferral Account ("PEVDA") to be included in the Company's System of Accounts. The operation of this account came into effect in 2010.

The operation of the PEVDA ensures recovery from customers of the actual pension expense incurred by the Company. This account is charged or credited with the amount by which annual pension expense differs from the pension expense approved most recently for the establishment of customer rates. Each year the balance in the account is transferred to the RSA for credit to, or recovery from, customers. As a result, there are no year-end balances in the account.

OPEBS Cost Variance Deferral Account

 In Order No. P.U. 31 (2010), the Board approved the OPEBs Cost Variance Deferral Account to be included in the Company's System of Accounts. The operation of this account came into effect in 2011.

The operation of the account ensures recovery from customers of the actual OPEBs expense incurred by the Company. This account is charged or credited with the amount

by which OPEBs expense for any year differs from the OPEBs expense approved most recently for the establishment of customer rates. Each year the balance in the account is transferred to the RSA for credit to, or recovery from, customers. As a result, there are no year-end balances in the account.

C. Proposed Regulatory Mechanisms

8 9 In the Application, Newfoundland Power has proposed to discontinue use of the Automatic Adjustment Formula. 9

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The Company has proposed to amend the RSA to enable ongoing disposition of annual balances in the Weather Normalization Reserve as part of the RSA adjustment to customer rates on July 1 each year. ¹⁰

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In this Application, Newfoundland Power has also proposed to amortize the recovery of customer energy conservation program costs over a 7 year period and to recover those costs through the RSA. Program costs incurred in each year are proposed to be recovered through the RSA over a fixed amortization period of 7 years, such period to commence in the year following the year in which the costs are incurred. ¹¹

The Company's proposals regarding the Formula are described in *Volume 1 Application and Company Evidence*, *Section 3.3.2 Automatic Adjustment Formula* at pages 3-31 et seq.

The Company's proposals regarding the Weather Normalization Reserve are described in *Volume 1 Application* and Company Evidence, Section 3.5 Regulatory Amortizations at pages 3-53 et seq., and Section 5.6 Rate Stabilization Clause at pages 5-19 et seq.

The Company's proposals regarding conservation program cost recovery are described in *Volume 1 Application* and Company Evidence, Section 3.4.3 Conservation Program Costs at pages 3-48 et seq., and Section 5.6 Rate Stabilization Clause at pages 5-19 et seq.

Current Definition of the Excess Earnings Account

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Newfoundland Power Inc.

3.05 Excess Earnings Account

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This account shall be credited with any earnings in excess of the upper limit of the allowed range of return on rate base as determined by the Board. Disposition of any balance in this account shall be as determined by the Board. For 2012 and subsequent years, all earnings in excess of an 8.32% rate of return on rate base shall, unless otherwise ordered by the Board, be credited to this account.

Rate Stabilization Clause Excerpt from Schedule of Rates Rules and Regulations

RATE STABILIZATION CLAUSE

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:

<u>B + C</u> 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:

<u>E</u> x F D

RATE STABILIZATION CLAUSE

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:

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.

RATE STABILIZATION CLAUSE

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

- P = the 2nd block 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) x 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:

L x 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, the RSA shall be increased (reduced) by the amount that the Company billed customers under the Municipal Tax Clause for the calendar year is less (or greater) than the amount of municipal taxes paid for that year.

RATE STABILIZATION CLAUSE

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)				
	<u>100</u>	<u>150</u>	<u>175</u>	<u>250</u>	<u>400</u>
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.

The methodology to calculate the RSA adjustment at December 31, 2007 is as 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 ($V = T - U$)	\$ <u>\$</u>	- - -
Adjustment to Rate Stabilization Account ($W = S - V$)	\$	-

Where:

- Q = Normalized revenue from base rates effective January 1, 2007.
- 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).

RATE STABILIZATION CLAUSE

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

5. On December 31st of each year from 2008 until further order of the Board, the Rate Stabilization Account (RSA) shall be increased (reduced) by the Energy Supply Cost Variance.

This Energy Supply Cost Variance identifies the change in purchased power cost that is related to the difference between purchasing energy at the 2nd block energy charge in the wholesale rate and the test year energy supply cost reflected in customer rates.

The Energy Supply Cost Variance expressed in dollars shall be calculated as follows:

$$\frac{(A - B) \times (C - D)}{100}$$

Where:

- A = the wholesale rate 2^{nd} block charge per kWh.
- B = the test year energy supply cost per kWh determined by applying the wholesale energy rate to the test year energy purchases and expressed in ¢ per kWh.
- C = the weather normalized annual purchases in kWh.
- D = the test year annual purchases in kWh.
- 6. The RSA shall be adjusted by any other amount as ordered by the Board.

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.

Weather Normalization Reserve

Weather Normalization Reserve

1.0 BACKGROUND

Newfoundland Power's Weather Normalization Reserve (the "Reserve") consists of the following two components:

- i) the Hydro Production Equalization Reserve (the "Hydro Component") which normalizes Newfoundland Power's annual supply costs for variations in the Company's hydroelectric production due to abnormal precipitation levels; ¹ and,
- ii) the Degree Day Normalization Reserve (the "Degree Day Component") which normalizes the Company's revenue and energy supply costs for the effects of abnormal weather conditions.²

The purpose of the Weather Normalization Reserve is to stabilize rates for customers. Newfoundland Power's annual revenue and purchased power expense on its financial statements are reflective of normal weather and normal stream-flows to its hydro plants.

The calculations supporting transfers to, or from, the Weather Normalization Reserve are reviewed annually by the Board. The Board has issued orders approving the balance in the reserve for each year from 1974 to present.

A summary of the mechanics to determine the monthly adjustment for each reserve component follows.

1.1 Mechanics of the Hydro Component

The Hydro Component enables Newfoundland Power to normalize its energy supply costs for annual variations in normal stream-flows to its hydro plants. If cumulative stream-flows are below normal for the year, the Reserve is debited in an amount equal to the cost of increased purchases from Hydro. Conversely, if cumulative stream-flows are above normal for the year, the Reserve is credited with an amount equal to the savings from reduced purchases from Hydro.

The Hydro Production Equalization reserve was approved in Order No. P.U. 32 (1968).

The Degree Day Normalization Reserve was approved in Order No. P.U. 1 (1974).

The calculation for the 2011 year-end adjustment to the Hydro Component is provided below:

Calculation of 2011 Hydro Component Transfer

Average Natural Flow (GWh)	422.40	
Less: Actual Natural Flow (GWh)		<u>441.47</u>
Equals: Gross Variation (GWh)		(19.07)
Times the End block Purchased Power Rate (in mills)	x 88.05	
Equals: Variation in Purchased Power Expense	\$1,679,114	
Less: Income Tax @ 30.5%	512,130	
Net Transfer (To) From Reserve		(<u>\$1,166,984)</u>

Because stream-flows were approximately 19 GWh above normal in 2011, Newfoundland Power purchased 19 GWh less from Hydro. To offset the resulting impact on earnings, the after-tax effect of the reduced purchased power expense was credited to the Hydro Component.

1.2 Mechanics of Degree Day Component

The Degree Day Component enables Newfoundland Power to normalize its sales and purchases for annual variations in weather, specifically temperature and wind.

Econometric modelling is used to determine the change in customers' usage resulting from a unit variation in normal monthly weather.³ The factors derived for each rate class are referred to as normalization coefficients.

The equations below provide a summary of the calculations used in determining the monthly adjustments for each rate class:

Monthly Sales Adjustment (MWh) equals (Normal Weather minus Actual Weather) times Sales Normalization Coefficient

Monthly Purchases Adjustment (MWh) equals (Normal Weather minus Actual Weather) times Purchases Normalization Coefficient

The derived monthly kWh adjustments are used to determine weather normalized sales and purchases.

Weather Normalized Sales equals Actual Sales plus Monthly Sales Adjustment

Weather Normalized Purchases equals Actual Purchases plus Monthly Purchases Adjustment

The Company uses a degree-day variable to measure temperature and average daily wind speed to measure wind speed. The Company uses data published by Environment Canada for these variables.

The monthly kWh adjustments are also used to determine the transfers to the Degree Day Component.

Monthly Revenue Adjustment equals Monthly Sales Adjustment (MWh) times Marginal Revenue

Monthly Purchased Power Cost Adjustment equals Monthly Purchases Adjustment (MWh) times Marginal Purchased Power Cost

Net Contribution Adjustment equals Monthly Revenue Adjustment minus Monthly Purchased Power Cost Adjustment

Degree Day Component Transfer equals Net Contribution Adjustment times (1 minus Income Tax Rate)

The Board approved an updated Degree Day Normalization methodology in 1995. The coefficients used in calculating adjustments are adjusted annually and provided to the Board in January of each year.