Reference IC-419 NP, lines 14-16

Q. Please provide a description of the "Weather Normalization Reserve" including the components of the reserve, how the "normal" is determined for the components of the reserve, and how activity in the reserve may impact Newfoundland Power and its customers.

A. The Company's Weather Normalization Reserve consists of the following two components:

1. the Hydro Production Equalization Reserve established by the Board in Order No. P.U. 32 (1968) to normalize Newfoundland Power's purchased power costs for variations in the Company's hydroelectric production due to stream-flows that are either above or below normal in any given year; and,
2. the Degree Day Normalization Reserve established by the Board in Order No. P.U. 1 (1974) to normalize the Company's revenue and purchased power costs for the effects of abnormal weather conditions.

In Order No. P.U. 1 (1974), the Board also ordered that the Hydro Production Equalization Reserve and the Degree Day Normalization Reserve be combined to create the Weather Normalization Reserve and a reserve balance owing from customers be added to rate base and a reserve balance owing to customers be deducted from rate base. The balance of the reserve as at December 31, 2002 was comprised as follows:

Weather Normalization Reserve
Balance Owing from Customers as at December 31, 2002
($millions)

Hydro Production Equalization Reserve	9.5
Degree Day Normalization Reserve	1.4
Total	10.9

The purpose of the Weather Normalization Reserve is to stabilize rates for customers. The Company'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 is provided below:

Mechanics of Hydro Equalization Reserve

The Hydro Production Equalization Reserve enables the Company to normalize its purchased power expense for annual variations in normal stream-flows to its hydro plants. If cumulative stream-flows are below normal for the year, the Company withdraws from the Reserve to offset the cost of increased purchases from Hydro. Conversely, if cumulative stream-flows are above normal for the year, the Company deposits into the Reserve to offset the savings from reduced purchases from Hydro.

The December 2000 Acres Water Management Study recommended the use of an annual normal for Newfoundland Power of 423 GWh/yr. The normal is revised on an annual basis to reflect scheduled plant availability for the coming year as well as any physical changes to plants that could affect expected generation. The Company will be conducting a formal review of the normal in 2005.

The calculation for the 2002 year-end adjustment to the Hydro Production Equalization Reserve is provided below:

Calculation of Hydro Production Equalization Reserve Transfer

2002

Average Natural Flow (GWh)			423.9
Less: Actual Natural Flow (GWh)			416.2
Equals: Gross Variation (GWh)			7.7
Times the Purchased Power Rate (in mills)	x 45.31	Jan.-Aug.	
	x 47.89	Sep.-Dec.	
Equals Variation in Purchased Power Expense			$ 296,255
Less: Income Tax @ 39%			$ 115,539
Net Transfer (To) From Reserve			$ 180,716

Therefore, because stream-flows were 7.7 GWh below normal in 2002, the Company had to purchase an additional 7.7 GWh from Hydro. The after-tax effect of the increased purchased power expense was withdrawn from the Hydro Production Equalization Reserve.

Mechanics of Degree-Day Normalization Adjustment

The Degree-Day Normalization Reserve enables the Company to normalize its sales and purchases for annual variations in weather (i.e., specifically temperature and wind). In general, if the weather is colder than normal in a particular year, the Company transfers the additional sales, net of the additional purchased power, to the Degree Day Normalization Reserve. And, if the weather is warmer than normal in a particular year, the Company

recovers the lost sales, net of the reduced purchased power, from the Degree Day Normalization Reserve.

Econometric modelling is used to determine the change in customer's usage resulting from a unit variation in normal monthly weather[1]. The factors derived for each rate class are referred to as normalization coefficients. The equations below provide a summary of the math used in calculating the monthly adjustments for each rate class:

Monthly Adjustment (MWh) = (Normal Weather – Actual Weather) x Normalization Coefficient

Weather Normalized Sales = Actual Sales + Monthly Sales Adjustment

Weather Normalized Purchases = Actual Purchases + Monthly Purchases Adjustment

(Note: Normal weather is based on 30-year average of daily data provided by Environment Canada.)

The monthly energy adjustments are then converted to revenue and purchased power expense adjustments. The revenue adjustment equals the sales adjustment times the tail block energy rate for the class. The revenue adjustments by class are then totalled to determine the total revenue adjustment for the month. The purchased power expense adjustment equals the total of the purchase adjustments for each class multiplied by the purchased power mill rate.

The net adjustment for the month equals the total revenue adjustment less the total purchased power expense adjustment. The net adjustment less income taxes is transferred to (or from) the Degree Day Normalization Reserve.

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

Recovery of Reserve Balance

The activity in the Reserve generally does not have a direct effect on customers. Transfers to and from the Weather Normalization Reserve as a result of variations from normal weather and stream-flows should theoretically net out to zero over time. Therefore, there is no automatic rate adjustment to deal with balances in the Reserve.

At year-end 2001 approximately $5.6 million of the balance in the Hydro Equalization component of the Reserve had accumulated as a result of changes in the purchased power mill rate and the income tax rate over time. This $5.6 million was not expected to reduce, and as a result in Order No. P.U. 19 (2003) the Board approved the recovery of these costs

[1] The Company uses a degree-day variable to measure temperature and average daily wind speed to measure wind speed.

from customers over a 5-year period. The Board also approved a 5-year review of balances in the Reserve.