

SCHEDULE 8
Weather Normalization

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In its January 30, 2012 decision regarding EGNB's 2010 Financial Results, 2010 Natural Gas Sales and 2012 Proposed Budget, the Board stated:

“Weather normalization is another issue related to throughput that was examined. EGNB filed evidence outlining its weather normalized throughput in response to an interrogatory, but the subject was not pursued vigorously at the hearing, perhaps on the understanding that the Board would not be acting on any throughput shortfalls until the 2011 review. In future years, should EGNB wish to focus on weather as an explanation for variations from the throughput forecast, pre-filed evidence on the subject must be presented which explains the weather normalization process and the underlying data and assumptions used in the calculations.” (page 3)

Purpose of the Document

This document was developed to explain the weather normalization methodology used to support the weather assumptions applied by EGNB in its budgeting and forecasting, and to support the calculations used to explain variations from the throughput forecasted in EGNB's budgeting process, which assumes normal weather.

For the purposes of budgeting, forecasting and reporting, EGNB utilizes a weather normalization methodology. Weather normalization of energy consumption is a common practice employed by utilities. The fundamental steps in this process are outlined below, and are discussed in further detail within this document. The steps are:

1. Determine a Base Consumption Load for customers, referred to as Base Load (“BL”);
2. Determine a Temperature Sensitive Consumption Load for customers, referred to as Temperature Sensitive Load (“TSL”);
3. Determine Degree Days (“DD”) and compare normal DDs to the actual DDs; and
4. Determine the impacts of weather on the TSL.

Methodology and Underlying Assumptions of the Weather Normalization Process

An initial consumption profile is developed for every new customer added to EGNB's distribution system and is based on anticipated monthly and annual consumption. The initial annual and monthly consumption are estimated using the consumption patterns of other customers within the assigned class that have similar operations and equipment or through profiles developed during the initial signing process. Following a 12 month period of

consumption, the initial consumption profile is replaced with actual consumption data which would contain their actual BL and show their consumption resulting from the actual weather.

For profile purposes, a customer is assigned a BL and a TSL. The BL consumption is the anticipated consumption of the customer assuming that there are no impacts due to weather. The TSL consumption is the consumption anticipated as a result of the weather. Weather is counted in terms of DD. DDs are counted whenever the daily average outdoor temperature falls below 18°C (64°F). For forecasting purposes, EGNB begins counting degree days at the beginning of the heating season, and continues adding them for each 24-hour period until the heating season ends. Heating season includes all, or a portion, of the months of October to May. As there is typically no heat used during the summer months (June and September), customers' consumption during those months is assumed to be the BL. The BL is reset in the system annually during this period. The process of resetting the BL is intended to capture any changes in the customer's usage patterns ensuring an accurate forecasting of the customers' consumption.

The actual DD data used in this process is provided by Telvent, an external data provider who specializes in data collection and analysis for utilities. Actual DD data is collected for every day of the year (even the forecasted non-heating season). This data is compared against data established during the budgeting process. The forecasted DD data is provided to EGNB by its affiliate office under a Service Level Agreement. The data is based on a 20-year moving average and is based on data collected from Environment Canada. As there are regional differences in weather, EGNB obtains weather (DD) data for three zones: Fredericton, Moncton and Saint John.

On a monthly basis EGNB uses a weather normalization procedure to factor weather related consumption variances into the consumption of each individual customer. The TSL is adjusted based on the variance between actual weather and the forecast, which assumed normal weather. This is done by taking the actual consumption determined to be the customer's TSL and dividing it by the actual DD results. The result is then multiplied by the forecast DDs to come up with the consumption expected for the customer assuming there was normal weather. The customer level adjustments are then aggregated by rate class to arrive at the weather normalized throughput.

The data is analyzed to determine the variances arising when comparing actual consumption to forecasted consumption, and the drivers of these variances. The variance is assigned to either a weather variance or a forecasting variance.