Volume 2, Tab 8 – Customer, Energy and Demand Forecast

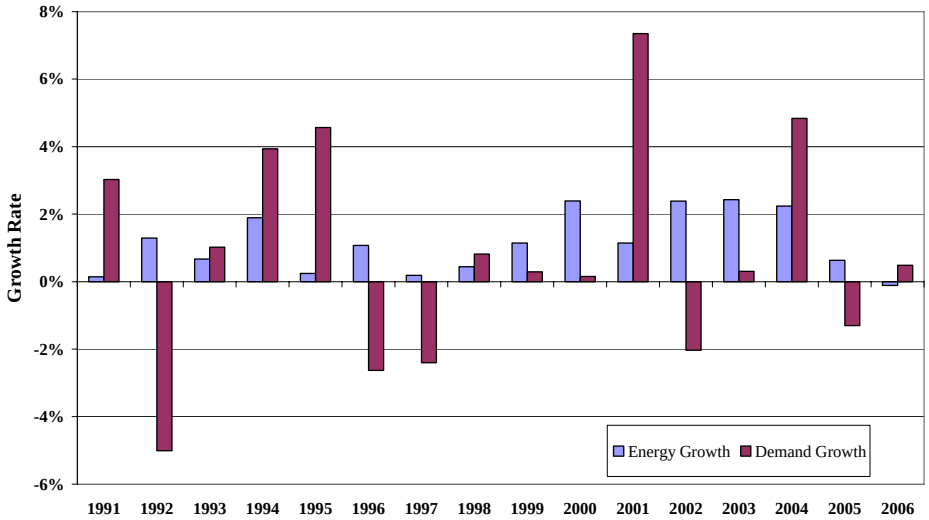
Q. (page 6) Please provide demand forecast sensitivity analyses and results. What is the accuracy of NP's load forecast for 2007 and 2008; i.e., what demand growth band is associated with an 80% confidence level?

A. Since 2004, Newfoundland Power's forecast of native peak demand has been determined by applying the 15-year average weather-adjusted load factor to the forecast of produced and purchased energy.[1] The weather-adjusted load factor for each of the 15 years is computed from the weather-adjusted produced and purchased energy and the weather-adjusted native peak for each year.

The weather-adjustment method for native peak was developed by Newfoundland and Labrador Hydro for the implementation of the demand and energy rate in 2005. Because of the unavailability of reliable estimates of weather adjustments for native peak days occurring prior to the 15 years used to generate the current forecast, it is not possible to provide a long term review of the historical accuracy of the current demand forecast method.

Graph 1 provides a comparison of the year-over-year growth rates in weather normalized native peak demand with the year-over-year growth rate in weather normalized produced and purchased energy requirements.

Graph 1
Growth Rates of Native Peak Demand
and Produced and Purchased Energy
(year over year)



[1] The native peak demand is then adjusted downward to reflect the impact of load curtailment by Newfoundland Power customers and load management at Company-owned facilities. Newfoundland Power's purchased demand is derived by subtracting the generation credit approved by the Board.

As Graph 1 shows, there is no consistent historical relationship on a year-over-year basis between the growth rates in Newfoundland Power's produced and purchased energy and its native peak demand. The graph clearly illustrates the potential for demand forecast error.

Based on the historic variability of its weather normalized peak demand, Newfoundland Power estimates that, in most years, the weather normalized native peak will be within ±4% of forecast. The ±4% is equivalent to ±50 MW in demand and ±$2.4 million in purchased power expense (50,000 kW x $4 per kW per month).