

BC Hydro 2008 LTAP Hearing

BC HYDRO UNDERTAKING NO. 69

HEARING DATE:

March 6, 2009

TRANSCRIPT REFERENCE:

Volume 14, Page 2775, Line 9 to Page 2776, Line 1

REQUESTOR: Commission Panel Chair

QUESTION:

With respect to Exhibit B-10, Page 35, Table 2-12 “CRP Shortfall Risks”, the row labeled “Load Forecasting Uncertainty”, please provide a breakdown for the four numbers shown identifying whether they were caused by sustained growth or by load temperatures on winter peaks.

RESPONSE:

The values in Table 2-12 of Exhibit B-10 represent the range between the Mid Load Forecast Before DSM and High Load Forecast Before DSM. The High Load Forecast is developed from BC Hydro’s Monte Carlo uncertainty model which produces uncertainty bands by examining the impact on the Mid Load Forecast for key uncertainty variables including: economic growth (measured by GDP); electricity rates; electricity price elasticity; weather (reflected by heating degree days); and overall residual uncertainty. All of these variables have underlying distributions which are randomly sampled at the same time to formulate underlying distributions around the Mid Load Forecast. As such, the values in Table 2-12 reflect the simultaneous combined effect of all of the above uncertainty variables.

To quantify the relative contribution of each factor to the total uncertainty band width, Monte Carlo simulations would have to be undertaken by isolating one factor at a time. The relative contribution for each factor would then be estimated by the ratio of the width of the uncertainty band for that factor to the total width of the uncertainty band when all factors are combined in a simulation.

Undertaking an analysis to isolate one factor at a time requires specific manipulations to several key parameters of the Monte Carlo simulation model. BC Hydro’s expert in the load forecast Monte Carlo simulation model is currently unavailable until the middle of May 2009. While general simulations are still possible, a relative break down of the uncertainty factors would require a detailed analysis that would not be possible to complete until the end of May 2009.