DAYMARK ENERGY ADVISORS

Scope of Work

Export Pricing and Revenues Review

1. Review Manitoba Hydro's electricity export price forecast and third party consultant forecasts, including the low and high case forecasts, in the context of current MISO market conditions and factors influencing future MISO prices. The third party consultant forecasts are to be taken as a "given" and are to be assumed to be reasonable and accurate with respect to the other tasks in this Scope of Work. Notwithstanding that the third party consultant forecasts are to be accepted for the purposes of this review, if the IEC identifies significant issues or inconsistencies with the third party consultant forecasts in the course of its general review, those issues or inconsistencies are to be identified in the IEC's reports.

2. Review and assess Manitoba Hydro's forecast of exportable surplus energy and capacity by on-peak and off-peak period, taking into account expected inflow conditions, reservoir levels, and tie line capacities.

3. Review Manitoba Hydro's forecast for export revenues and fuel & power purchases for the next twenty years and assess whether the forecast of net extraprovincial revenue is reasonable. As an independent review of the extraprovincial revenues arising from contracted energy and capacity sales was undertaken at the 2014 NFAT (Exhibit LCA-5 in response to CSI Undertaking UT-34), a review of Manitoba Hydro's export contracts and estimation by the IEC of firm energy revenues and capacity revenues is not required for any contracts that were contemplated and assessed at the NFAT. Manitoba Hydro's updated export revenues, volumes, and unit prices by contract and by year will be provided as part of PUB MFR-84. The firm energy and capacity revenues in PUB MFR-84, for those contracts evaluated by the IEC at the NFAT, are to be taken as "given", so long as the firm energy and capacity revenues are aligned with the independent analysis from the NFAT after adjusting for changes in forecast exchange rates and escalation.

4. Assess the reasonableness of changes in Manitoba Hydro's forecasting methodology that eliminates the assumed premiums for surplus dependable energy and capacity sales.

5. Provide comments on the factors influencing the MISO market and trends that are affecting market prices, including but not limited to:

   (a) state and federal policies on electricity generation and emissions;

   (b) existing generation mix;

   (c) expected new generation to be installed in the next 20 years;

   (d) forecasted generation retirements in the next 20 years;

   (e) supply and demand balance in the northern MISO region; and

   (f) factors that may affect Manitoba Hydro's ability to export energy and capacity into the MISO market.

6. Provide a report to be placed on the public record that provides the Consultant's findings, opinions, and non-commercially sensitive supporting information.

7. Provide a non-public report to the PUB that provides commercially sensitive information and additional calculations supporting the findings.

Public and Commercially Sensitive Load Forecast Review

8. Review Manitoba Hydro's 2017 Load Forecast and assess the changes with respect to the 2014 Load Forecast.

9. Assess Manitoba Hydro's load forecasting methods for Residential, Mass Market, and Top Consumers segments and compare to industry best practices with respect to:

   (a) the econometric and end-use forecasting methodology;

   (b) the elasticity methodology used to evaluate how Manitoba Hydro evaluates the implications of rate increases and new technology on electricity demand.

   (c) Manitoba Hydro's economic assumptions including population growth, GDP growth, and price elasticity;

   (d) the reliability of the short and long-term domestic load forecast modelling;

(e) the extent to which Manitoba Hydro has used appropriate scenario planning to examine the potential impact of changes in the industry, the Manitoba and Canadian economies, available technology (generation and loads) and energy efficiency measures (costs and cost effectiveness);

(f) the appropriate use of probability analysis of projected load forecasts;

(g) the extent to which retrospective load analysis provides confidence in the load forecast;

(h) the reasonableness of peak demand and energy trends including seasonal variations in load forecasting; and

(i) impacts on load forecasts resulting from potential fuel switching, particularly in light of recent trends in the cost of natural gas and potential carbon taxes.

10. Assess other aspects of the load forecasting methodology including transmission and distribution losses.

11. Evaluate the historical performance of Manitoba Hydro's load forecasting methodologies for Residential, Mass Market, and Top Consumers segments.

12. Review the commercially sensitive load forecast for Top Consumers and assess the reasonableness of the forecasting methods and forecast.

13. Coordinate with other IECs who are reviewing price elasticity impacts on electricity demand in order to minimize duplication of analysis.

14. Provide a report to be placed on the public record that provides the Consultant's findings, opinions, and non-commercially sensitive supporting information.

15. Provide a non-public report to the PUB that provides commercially sensitive information and additional calculations supporting the findings.