SCOPE OF WORK FOR POTOMAC ECONOMICS NFAT REVIEW LAST UPDATED: SEPTEMBER 20, 2013

POTOMAC ECONOMICS

MISO

- 1. Review the factors considered to arrive at Manitoba Hydro's export market expectations and comment on whether they are complete, reasonable and accurate.
- 2. Evaluate Manitoba Hydro's opportunity to export energy and capacity into the MISO market in the short term and long term.
- Evaluate the factors that determine the transmission congestion patterns in MISO that
 can substantially increase or decrease energy prices for exports over the Manitoba
 Hydro interface and how MISO's proposed transmission expansion plans may influence
 energy pricing.
- 4. Review the energy revenues projected by Manitoba Hydro, benchmarked against your own forecast MISO energy prices in the short term and long term and address:
 - (a) The range of retirement assumptions related to environmental regulations affecting coal-fired resources in MISO;
 - (b) Alternative future market designs that could substantially affect the prevailing capacity and energy prices in MISO;
 - (c) Revenues available via renewable energy credits or other opportunities related to "clean" energy; and
 - (d) Other potentially relevant factors affecting Hydro's future export revenues, including:
 - (i) Federal and State regulatory actions that could affect export opportunities;
 - (ii) Environmental regulations affecting the resource mix in MISO;
 - (iii) Transmission congestion and the future allocation of transmission investment costs; and
 - (iv) Renewable energy mandates.
- 5. Review the capacity revenues projected by Manitoba Hydro, benchmarked against your own forecast of MISO capacity prices in the short term and long-term.
- 6. Review Manitoba Hydro Integrated Financial Forecasts (IFF) dating back to IFF09 and assess the reasonableness of Manitoba Hydro's derived average export prices projected at the time.
- 7. Compare Manitoba Hydro's historical export price assumptions to the National Energy Board (NEB) data filed by Manitoba.

- 8. Review the existing and projected MISO market energy supply mix and compare it to Manitoba Hydro's projections. Include a review of the impact of Entergy's and PJM's integration on the capacity and energy pricing in the MISO market.
- 9. Comparison of other adjacent RTO jurisdiction pricing with MISO.
- 10. Review Manitoba Hydro's unit export revenues against the natural gas price history and forecast; similarly review these relative to coal and wind.
- 11. Review Manitoba Hydro's export revenue forecasting process (include ICF's forecasts).
- 12. Provide a comparable natural gas price and MISO electricity market price history and forecast over 20/40/80 years.
- 13. Upon prior approval by the NFAT Panel, address any other issues that may be identified in reviewing Manitoba Hydro's evidence or are requested by the NFAT Panel.