
2017/18 & 2018/19 ELECTRIC GENERAL RATE APPLICATION**Manitoba Hydro Undertaking #19**

Manitoba Hydro to provide an explanation of the change in methodology, why the new calculation is based on the value of the deferral of a generating asset, and why this change was made.

Response:

As stated in Manitoba Hydro's response to PUB/MH II-57 (Revised):

"The calculations are based on the 2017 Load Forecast and the 2017 Energy Price Forecast for the marginal value of energy on the export market. Surplus energy is valued as an opportunity product with no premium.

Manitoba Hydro has concluded that it is more appropriate at this time to base the value of generation capacity on the deferral of a new generation resource in Manitoba. The generation capacity marginal value is based on deferral of a peaking type natural gas combustion turbine built in 2030/31. Manitoba Hydro's current base development sequence includes significant projected DSM savings and indicates a need date for new resources in the 2039/40 timeframe. The 2030/31 timeframe corresponds with a need date for new resources in Manitoba when projected savings from new DSM beyond 2017 are removed from the base planning sequence."

The marginal value of energy continues to be based on the export market as that is where the value from energy surplus to the needs of Manitoba is achieved. There was no change in the valuation of opportunity energy, which is based on the consensus price forecast.

For 2017, surplus non-committed firm energy (dependable energy as well as capacity that has not been sold in a long term sale) is now valued as opportunity energy, with no Long Term Dependable Product premium applied. The value of generation capacity on the export market has been replaced with a generation capacity marginal value that is based on deferral of a peaking type natural gas combustion turbine built in 2030/31 in Manitoba.

The change in method for evaluating capacity is due to the uncertainty in value of generation capacity on the export market as discussed at page 24 and 29-31 of the December 15, 2017 Rebuttal Evidence of Manitoba Hydro with respect to the Daymark Export Pricing and Revenues Review. Due to the uncertainty as to if, when and how much

may be received for the value of generation capacity on the export market, Manitoba Hydro returned to the generation deferral method that was used prior to 2000. This method bases the capacity component of generation marginal cost on the deferral of a peaking type natural gas combustion turbine in Manitoba built in 2030/31. Manitoba Hydro notes the two methods are not that dissimilar. Using the export market, new capacity requirements in MISO may (or may not) materialize around 2025, and the value of generation capacity may be based on a peaking type gas turbine constructed in the export market in around 2025. The deferral of generation in Manitoba method is based on a similar peaking type gas turbine, built in Manitoba rather than the export market, with a somewhat later need date of 2030/31. In Manitoba Hydro's view as this time, there is more certainty around a value based on the deferral of generation in Manitoba method than valuation of generation capacity on the export market.

The value of the Long Term Dependable Product Premium was previously removed from the valuation of long term export revenue in 2016 as the premium is no longer achievable for the reasons stated at page 24-29 of the December 15, 2018 Rebuttal Evidence of Manitoba Hydro with respect to the Daymark Export Pricing and Revenues Review. The Rebuttal Evidence concludes "Manitoba Hydro is simply in a more competitive market and its planning assumptions must reflect this new reality."