

NEEDS FOR AND ALTERNATIVES TO (NFAT)

Manitoba Hydro Undertaking #29

Manitoba Hydro to provide the calculation of dependable energy under the Great River Energy 200 MW Diversity Exchange Agreement.

Response:

The Great River Energy 200 MW Diversity Agreement secures 200 MW northbound firm transmission service to Manitoba Hydro.

Manitoba Hydro will have the operating availability to import 1887 GWh from the GRE 200 MW Diversity Exchange Agreement and/or the MISO market based on this 200 MW of firm transmission service. This is a correction to the previously reported import volume of 1908 GWh.

The calculation details are as follows:

	MW	Days	Hours	Annual Generation At South	Capacity Factor*	Annual Generation at North	Total MWh	GWh
On Peak	200	365.25	24	1,753,200	0.5238	1.1	1,010,177	1010
Off Peak	200	365.25	24	1,753,200	0.4762	1.05	876,600	877
							Total	1887

*On Peak 0.5238 capacity factor is based on 5 weekdays x 16 on peak hours plus 2 weekend days x 4 on peak hours.

The generation planning criteria limits the total quantity of dependable energy to an amount equivalent to that which can be imported during the off-peak period. The 1887 GWh firm import capability provided for by the GRE Diversity contract can be considered as dependable energy but does not provide incremental dependable energy over what is allowed under the generation planning criteria.