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**NEEDS FOR AND ALTERNATIVES TO (NFAT)****Request of Manitoba Hydro Regarding the Evidence of Mr. Thomson**

**Assuming flat load, 750 MW line, Keeyask & existing & new contracts extended into the future, what would the NPV be in that circumstance?**

**Response:**

The assumption of flat load growth beyond 2022/23 results in a hypothetical circumstance.

The analysis of this hypothetical circumstance uses the economic output from existing reference cases which require new resources in 2023/24 (2013 planning assumptions and updated Keeyask capital costs), and the following additional assumptions:

- The no new generation case was based on the All Gas plan up to and including 2022/23, with existing export commitments beyond 2022/23 based on contract terms and conditions.
- The Keeyask & 750MW interconnection case was based on Plan 5 K19/Gas25/750MW (WPS Sales only) up to and including 2022/23, with existing export commitments beyond 2022/23 based on contract terms and conditions.
- No domestic load growth (flat load) beyond 2022/23.
- From 2023/24 to 2048/49 all energy volumes were held constant.
- Beyond 2048/49, the long-life asset evaluation methodology was applied.

As shown in the following table, if there is no load growth assumed beyond 2022/23 and surplus energy is valued using the 2013 long-term price forecast, building Keeyask and a new interconnection results in an incremental net present value of \$395M (at real WACC of 5.4%) relative to building no new generation. This analysis is considered conservative from an export power pricing perspective because it values uncommitted dependable surplus energy at the long-term dependable export price forecast rather than using values consistent with recently signed contracts.

	Present Valued at a real WACC of 5.4%		
	Capital Costs PV Millions 2014\$	Revenue PV Million 2014\$	Revenues – Costs NPV Millions 2014\$
<b>No new Generation</b>	0	3160	3160
<b>Keeyask 2019 &amp; 750MW interconnection</b>	4605	8167	3563
<b>Incremental NPV</b>			402

The following table shows the same evaluation with the return on equity of 3% removed resulting in a real WACC of 4.65%. As shown in the table there is an incremental net present value \$1178M (at real WACC of 4.65%) relative to building no new generation.

	Present Valued at a real WACC of 4.65%		
	Capital Costs PV Millions 2014\$	Revenue PV Million 2014\$	Revenues – Costs NPV Millions 2014\$
<b>No new Generation</b>	0	3675	3675
<b>Keeyask &amp; 750MW interconnection</b>	4816	9681	4865
<b>Incremental NPV</b>			1190

Although not provided in this analysis, there would be substantial incremental benefits from transfers to the province related to Keeyask and a new interconnection.

The remainder of the response to this information request requires provision of Commercially Sensitive Information and will be filed in confidence with the PUB.