

**Manitoba Eco-Network and Environmental Defence Canada (MEED)
Information Requests to the Manitoba Industrial Power Users Group**

**MANITOBA HYDRO
FISCAL 2026-2028 GENERAL RATE APPLICATION**

**MEED/MIPUG ROUND 1
INFORMATION REQUESTS**

September 19, 2025

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MEED/MIPUG I-1

Part and Chapter:	P. Bowman Evidence, p. 29	Page #:	
Topic:	Supply Demand Balance		
Subtopic			

Preamble (if any):

The basis for Manitoba Hydro’s purported need for additional winter capacity in 2030/2031 is found in the following table from the pre-filed evidence:

Manitoba Hydro
Fiscal 2026 to 2028 General Rate Application

Appendix 4.3– 2024 Proxy Development Plan Tables
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Figure 1: 2024 Proxy Development Plan Winter Peak Capacity Supply & Demand Table

System Firm Winter Peak Demand and Capacity Resources (MW)		2024 Proxy Development Plan																				
Fiscal Year		2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45
Supply																						
New Power Resources																						
1	Total New Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Total New Thermal	0	0	0	0	0	0	496	496	496	496	496	496	496	496	496	496	744	744	992	992	1240
3	Total New Wind	0	0	0	0	0	40	80	80	80	111	111	111	111	114	114	120	120	120	120	120	120
4	Total New Independent Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Total New Power Resources	0	0	0	0	0	40	536	576	576	607	607	607	607	610	610	664	664	1112	1112	1360	1360
Base Supply Power Resources																						
Existing and Committed Hydro																						
	Existing Thermal	5739	5754	5793	5812	5812	5808	5814	5814	5814	5814	5814	5814	5814	5814	5814	5814	5814	5814	5814	5814	5814
	Existing Independent Power	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278
	Scheduled Outages	52	52	52	52	52	52	52	31	31	31	31	31	31	28	28	0	0	0	0	0	0
	Contracted Imports	-100	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150
6	Total Base Supply Power Resources	700	700	700	650	500	500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Total Power Resources @ Point of Supply	6669	6634	6673	6642	6492	6488	5995	5974	5974	5974	5974	5974	5974	5970	5970	5943	5943	5943	5943	5943	5943
Demand																						
2024 Electric Load Forecast																						
	Efficiency Manitoba's 2024 Update of the DSM Forecast	4694	4793	4927	5003	5061	5120	5181	5253	5332	5429	5540	5657	5779	5903	6031	6161	6293	6454	6644	6842	7012
	2024 Demand Response Forecast	-37	-62	-87	-117	-149	-181	-215	-249	-285	-322	-361	-402	-441	-481	-522	-566	-606	-630	-676	-724	-766
	2024 Curtailable Rate Program Option A Forecast	0	0	0	0	-10	-23	-65	-96	-129	-137	-147	-161	-179	-181	-183	-186	-137	-137	-190	-190	-194
	Manitoba Net Load @ Common Bus	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151	-151
	Manitoba Transmission Losses	4505	4580	4689	4735	4751	4764	4750	4757	4766	4818	4881	4944	5007	5090	5174	5258	5399	5536	5626	5776	5902
8	Manitoba Net Load @ Point of Supply	276	284	293	294	296	295	263	262	259	261	268	275	283	294	305	302	320	322	334	338	358
	Contracted Exports	4781	4864	4982	5028	5046	5059	5014	5019	5025	5079	5149	5218	5290	5383	5478	5560	5719	5858	5961	6114	6259
	Export Transmission Losses	1228	813	813	743	667	672	565	565	565	565	565	565	315	315	315	315	315	215	215	215	215
9	Total Exports @ Point of Supply	1228	813	813	743	667	672	565	565	565	565	565	565	315	315	315	315	315	215	215	215	215
10	Total Peak Demand @ Point of Supply	69	14	15	13	23	23	75	74	74	74	77	43	43	43	45	45	32	33	36	37	40
11	Planning Reserves @ Point of Supply	1297	827	828	756	690	695	640	639	639	639	642	358	358	358	360	360	247	248	251	252	255
12	System Surplus/Deficit @ Point of Supply	6078	5692	5810	5785	5736	5755	5654	5658	5664	5718	5791	5576	5648	5742	5839	5920	5966	6105	6212	6366	6515

Since that table was produced, Manitoba Hydro has secured 200 MW incremental capacity in 2030, reducing the purported supply deficit to 300 MW (see MEED/MH I-7c).

Manitoba Hydro forecasts spending over \$90 million during the rate term on the thermal plants that may be built to address the purported supply deficit, over \$60 million of which will be incurred before the IRP is adjudicated by the PUB (see MEED/MH I-6a-d).

Manitoba

Question:

- a) Does Mr. Bowman agree that there would be significant benefits to finding solutions that would allow the utility to safely defer the spending on the new thermal plants until at least after the IRP proceeding is complete and a final decision on resources has been made? If yes, what does he recommend that the PUB direct Manitoba Hydro to do in that regard?
- b) Figure 1 shows -150 MW in 2030/31 due to “scheduled outages” despite the capacity deficit forecast in that year. Manitoba Hydro indicated that it cannot avoid these scheduled outages occurring during the winter peak of 2030/31 by advancing or deferring the scheduled work (see MEED/MH II-2d). Does that appear reasonable to Mr. Bowman? If not, what does he recommend that the PUB direct Manitoba Hydro to do in that regard?
- c) Figure 1 shows a significant decline in imports in 2030/31. Manitoba Hydro has not yet attempted to contract for winter import capacity (MEED/MH II-2b). Does Mr. Bowman recommend that the PUB direct Manitoba Hydro to take any steps in that regard?
- d) The response to MEED/MH I-8a-d indicates that approximately 500 MW peak capacity could be secured by converting resistance heating to geothermal heating in Manitoba’s housing stock. Does Mr. Bowman believe that additional programming to encourage geothermal heating should be explored as one of the ways to help avoid the need to construct thermal plants or other resources to meet winter peak needs?
- e) Figure 1 shows 565 MW of power exports at the time of the winter peak in 2030/2031 despite the capacity deficits forecast for those years. The relevant contracts are discussed in MEED/MH I-7f. Does Mr. Bowman have any comments on reasonable steps that could be taken to reduce these export obligations?

Rationale for Question:

This question is intended to explore whether steps can be taken to reduce or defer the costs discussed in the preamble.

Response:

(a)

Yes. However, the spending proposed at this time is understood to be for protecting the in-service date potential, and not to commit to building the plant. Protecting an in-service date is typically a relatively lower cost and wise option when faced with uncertainty.

It is not clear that the PUB has many options to allow a suspension of spending in a manner that would be prudent given the load and resource challenges faced by Hydro.

(b)

Mr. Bowman has not investigated the specifics of any given line item, particularly as it relates to only a one-year revision in the capacity need date. The capacity issues are material, as discussed in PUB/MIPUG-I-5, and it does not appear this can be addressed through simply better management of scheduled outages that affects only 150 MW.

(c)

Management of the capacity shortfall in 2030/31 will require a broad suite of tools, that should include firm imports, if available. Hydro has discussed that they continue to pursue such resources, but has noted that capacity is an acute issue for many utilities at this time, and in particular increasing winter capacity limitations for utilities in close proximity to Hydro (where electric heat adoption is similarly accelerating). It is not clear that other utilities are in a position to commit winter capacity in those years as yet, given their own uncertainties.

Given a long history of Hydro successfully negotiating winter capacity support from neighbouring utilities, Mr. Bowman does not expect Hydro would fail to recognize or pursue any open availability in an aggressive fashion. But prior to any successful contracting, these resources should not be considered a solution to pending capacity shortfalls.

In the meantime, efforts to improve the capacity management in Manitoba are a better focus. This includes rebalancing demand and energy charges for industrial customers, and increasing the winter cost signals to residential customers, each of which has been recommended by Mr. Bowman in his evidence. Similarly, aggressive pursuit of demand response, and ensuring Efficiency Manitoba's mandate includes demand savings are actions that can be taken with no regrets in the near-term.

(d)

The response to MEED/MH-I-8a-d does not indicate that 500 MW of peak capacity would be secured by converting resistance heating to geothermal heating in Manitoba's housing stock. The response solely provides a high-level calculation of the maximum that could be saved if all electric resistance heating was to convert in this manner, and concludes that at a SCOP of 2.0 (the estimate used by Manitoba Hydro for long-term GSHP performance) would save 382 MW.

This is a theoretical maximum that cannot be achieved in practice for multiple practical reasons (e.g., homes that do not have central heating facilities but only baseboards, homes that are too old to justify conversion, homes that do not have access to land or lakes needed for geothermal installations, homes that in excessively close proximity that would fail sustainable ratios for extraction versus injection of heat, etc.). Further there is no cost estimate provided for this conversion.

It is highly likely that there are opportunities in the GSHP sector, and Efficiency Manitoba should be actively pursuing these options. In doing so, Efficiency Manitoba should also be focused on capacity benefits, not just energy benefits. However, the savings achievable will not be 500 MW.

(e)

It is not expected that the contracts would permit any form of economic termination, as such firm commitments are relied upon by the counter-party for their own capacity needs. Such contracts are more valuable than simple short-term exports, and support the development of transmission to other jurisdictions, which are required to optimize a least-cost utility system.

Costs to address the capacity deficits are material, but unlikely to exceed the revenues received from the noted contracts over their life. Further, the resources put in place for capacity supply provide multiple benefits to the Manitoba system that extend beyond the noted contract periods.

The most affordable and efficient opportunities for managing the peak load deficits on the demand-side are not export commitments, it is from domestic opportunities to improve price signals, demand-response, and curtailment offerings.