Manitoba Hydro IRP Submission

Gail R. Faveri, M. Sc. A., P. Eng.

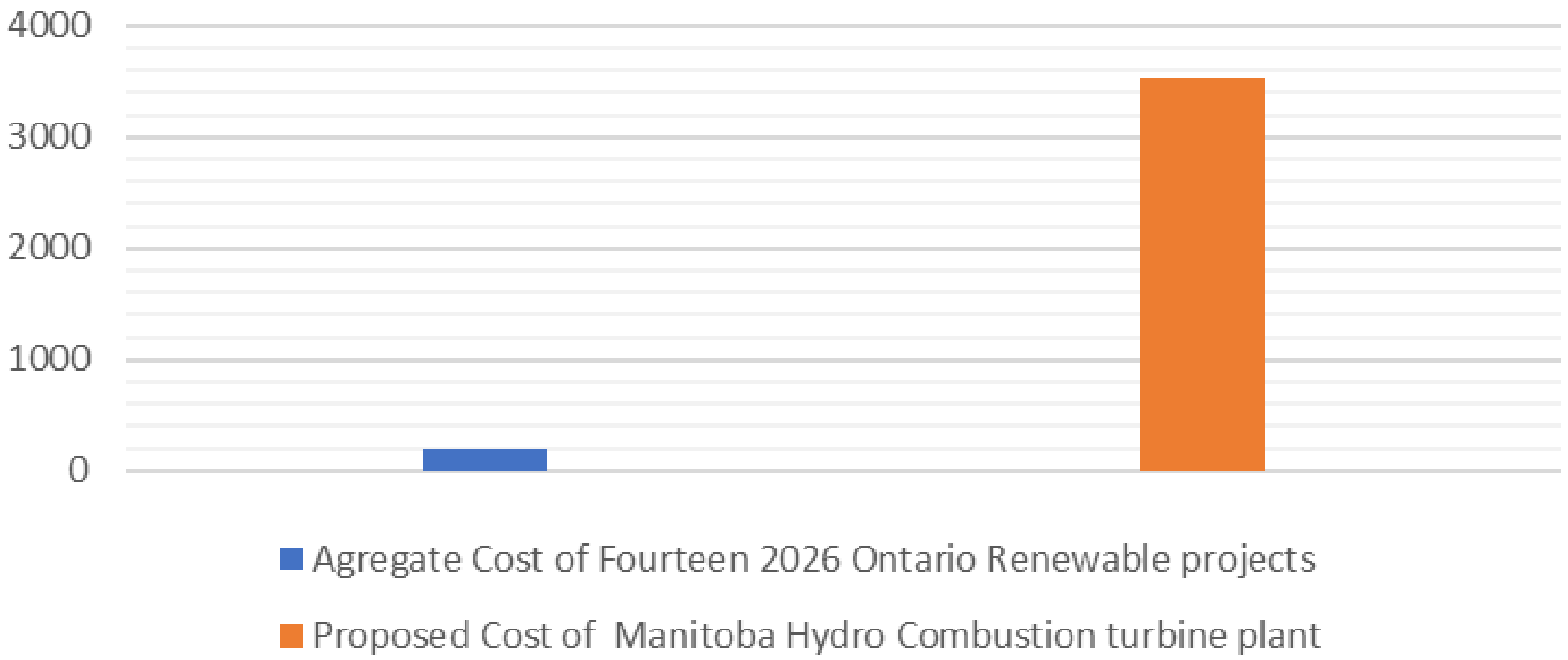
Retired water flow manager for Lake Ontario,

Rainy and Namakan Lakes and Lake of the Woods

$3 Billion for a Combustion Turbine Is a Waste of Money

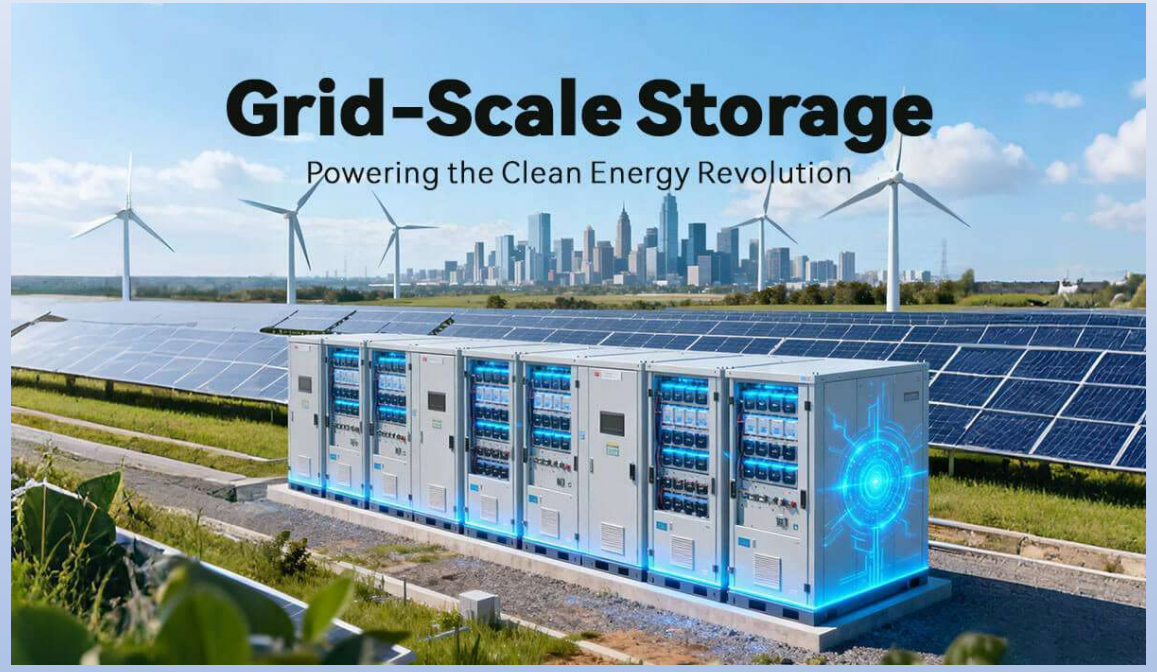
- Manitoba Hydro's Integrated Resources Plan (IRP) has mainly ignored the potential of wind to generate reliable peak load power
- Wind turbines, when backed up by grid scale batteries, are cheaper and deliver reliable power more rapidly than a gas-powered plant
- The operation of hydroelectric facilities may act to store renewable energy
- The IRP also ignores the potential of air and geothermal heat pumps to reduce electrical heating and cooling demand

Comparison of Contracted Ontario Projects to Proposed Combustion Fuel Plant
(Cost in $/kW)



Wind turbines when backed up by grid scale storage are cheaper and deliver power on demand

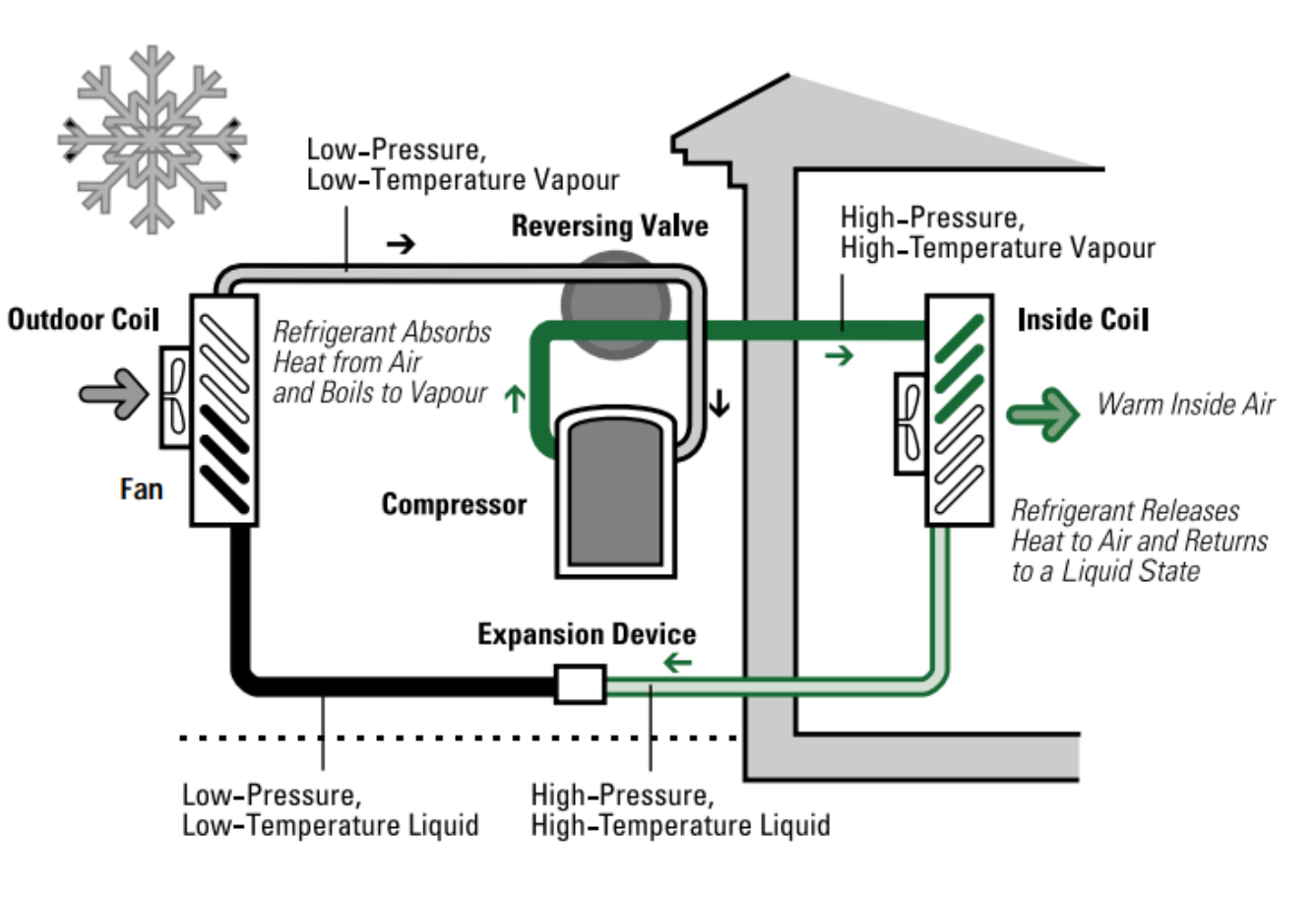
- Pumped water storage
- Compressed air energy storage
- Liquid air energy storage
- Lithium – ion batteries
- Lead acid batteries
- Sodium sulfur batteries
- Vanadium batteries



https://www.energydawnice.com/wp-content/uploads/2025/10/grid-scale-storage-complete-guide.jpg

Alternative Manitoba Hydro Approaches

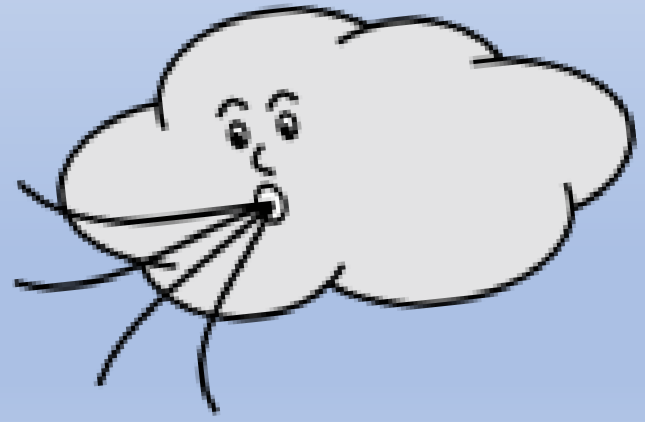
The IRP also ignores the potential of air and geothermal heat pumps to reduce electrical demand



Comparison of fossil fuel energy with renewable

- Combustion turbines are so last century, they rely on polluting fuels with volatile prices

- Renewable energy sources are technologies for the 21st century, basically installation and maintenance are the only costs, as geothermal heat, sunshine and the wind are freely available



Recommendations

- I recommend that the PUB disapprove the allocation of $3 billion for combustion turbines instead of renewable energy options.