MANITOBA HYDRO
Major New Facilities Application

PTC RESPONSES TO GSSM
INFORMATION REQUESTS

July 9, 2026

The abbreviations/acronyms appearing in these responses are identified in the PTC report dated June 10, 2026.

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GSSM/MH III-1

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Topic:	Alternative Resourcing		
Subtopic			

Preamble (if any):

In her evidence, Ms. Davies recommends that Manitoba Hydro consider pursuing a modified Plan 7 rather than its preferred Plan 5A, including reducing the level of committed natural gas CTs for 2030 from 750MW to 250MW, or more likely 500MW. GSSM seeks to better understand the effect of this change on PTC's evidence.

Question:

a. If Manitoba Hydro were to pursue 250MW or 500MW of natural gas capacity, instead of the 750MW targeted in the MNF filing, how would that affect PTC's observations and recommendations regarding:
    i. Cost estimates, including their reasonableness and the potential impact on those estimates from this reduction for all of the generators, transmission line and gas pipeline.
    ii. Project schedules, including the measures needed to achieve an 2030 in-service date.
    iii. Contracting.
    iv. Stage gate approval and off-ramps.
b. If the build-out of gas generation could be staged in 250MW increments with successive stages as needed, rather than all built for 2030:
    i. Could frontloading development work allow for efficient deployment of future stages of generating capacity?
    ii. Given the current cost pressures on natural gas turbines being driven by data centre projects, does PTC expect there could be cost efficiencies from only deploying 250MW today and delaying deployment of additional capacity to 2035 or beyond?
c. If the Board determined that Manitoba Hydro only has a need for 250MW of natural gas generation by 2030, what would PTC recommend would need to be done to update the MNF to reflect this changed circumstance?
d. If the Board determined that Manitoba Hydro only has a need for 500MW of natural gas generation by 2030, what would PTC recommend would need to be done to update the MNF to reflect this changed circumstance?
e. Are there any potential drawbacks to developing 250 MW of 500 MW of natural gas CT instead of 750 MW, if this is what is ultimately determined to be needed over the planning horizon to 2035?

i. Please discuss how these potential drawbacks trade off against benefits of building less, including reduced costs.

Rationale for Question:

Response:

a.) Reduced Generation Capacity Implications:

MH can pursue less than the full capacity of the new Brandon station by installing one or two, rather than all three gas turbine generators. Comments on the implications of such a change to PTC's observations and recommendations are as follows:

Cost Estimates

A key question to be addressed up front is whether the design is to anticipate eventual build out to 750 MW or if it is to be limited to just one or two units. There are inherent costs that will be incurred for one unit that should reduce costs for the subsequent units. As well, if there is any potential for all three units, it is logical to design the station for the largest capacity up front rather than incur additional costs to modify aspects to support increasing increments of capacity. This is especially true for items such as:

Gas Interconnection – It will be far more costly to construct gas interconnection capacity in increments that support 250MW rather than build one for 750MW of gas generation demand. The pipeline and the upstream and downstream gas stations should be sized for the full eventual capacity.

Water Treatment Plant – Adding to a water treatment plant to double and triple its capacity will be far more costly than to just build a larger water treatment plant. Subject to details of the design, some equipment may be avoided and constructed later, but PTC would suggest constructing the building to suit 750MW.

Raw Water Supply – Water capacity and interconnection with the Brandon Water Reclamation Facility should be sized for the capacity needed for all eventual site demand. Additional storage tank capacity can be added as the plant expands.

Site Grading and Preparation – PTC would recommend preparing the entire site required for the largest potential plant rather than undertaking civil work in increments. This will be far more efficient prior to any construction.

Dike Construction – The dike must be constructed to protect the facility regardless of the number of units installed.

Diesel Delivery Facility – The facility for truck deliveries of diesel and transfer to tanks will be the same regardless of the number of units; however tank capacity can be staged.

Transmission Towers – The north transmission towers for interconnection to the Cornwallis substation will be required, but the south can be avoided. It may be possible to defer installation of conductors that would serve the second unit, but consideration must be given to constructability and outages required should conductors for the second unit be installed at a later date.

Construction costs and the establishment, demobilization and remobilization of construction infrastructure and organization for subsequent units will be far less efficient and more costly. There will be on-going carrying costs for a construction project that will be similar for 1, 2 or 3 units.

At a very high level, PTC would estimate that it will likely cost about 45% of the 3-unit cost to construct the first unit and somewhat less for the next two units. Total cost for 3 units will be more if constructed in two or three phases than it would cost to construct them all at once. The phased construction approach ignores the complications of early procurement commitments and off-ramp restrictions, which are certain to increase the MH cost exposures.

If long lead items are not retained and need to be secured again, there is huge cost risk to the generation project as the scarcity and price increases for gas turbines continue to increase at a rate that far outpaces any escalation calculation. The cost of many gas turbines has doubled in the last one to two years; there is no indication that this will change any time soon. If you seek to procure gas turbines in future years, if they are even available, the cost may have doubled again, if not more. Deliveries may increase to 5 or 6 years or more from the reservation commitment date.

A delay ordering a 2nd and 3rd gas turbine-generator may also affect the interchangeability of spare parts, as manufacturers typically make improvements to the design and construction of their products.

Transformers and switchgear are also very long lead items that stand to increase at very high rates, presenting risks to the transmission aspect of the project.

It is assumed that the gas pipeline scope won't be deferred or constructed in stages.

Schedules

The schedule will remain largely the same for one or two units as it is for three, with perhaps two or three months schedule savings based upon the avoided sequential staging of work on subsequent units. The schedule is largely dictated by the long lead procurement items of the gas turbines, transformers and breakers.

The schedule for subsequent units will depend upon whether the long lead procurement items secured for the current project are all retained. If this equipment isn't retained, there is significant risk of potentially longer lead times and possibly not being able to secure the same equipment. Deferred major equipment will take longer to secure and have a longer project schedule, although how much longer is difficult to predict. Some aspects of subsequent installations could save some time due to investment in the site work during the first unit such as for the dike, gas and water interconnections, but critical path is anticipated to be dictated by the delivery of major equipment.

If there is any anticipation at all of building subsequent stages, PTC recommends retaining the gas turbines and other long lead items and keeping the equipment in clean, climate-controlled facilities with storage maintenance practices in accordance with OEM recommendations.

Contracting

Contracting is a challenge these days due to the high volume of power projects underway in North America. In discussions with EPC companies, they have advised being in touch early regarding any new projects. It will be challenging to resource one, let alone two or more projects. The smaller the projects become, the less attractive they will be to the EPC contractors as well.

Stage Gate Approval and Off-Ramps

For the first unit, or the first two, if they proceed together, the stage gate approvals and development milestones should remain unchanged from those for the three-unit project. For subsequent units, the development phase schedule and corresponding milestones will need to be reassessed, taking into consideration the approach taken with major equipment long lead procurement.

[redacted] 7a

MH has already committed to long lead procurements and [redacted] but 7a
could look to sell the equipment to others or redeploy equipment elsewhere in their business (such as for breakers). This is a cost exposure that MH faces at present should the project be reduced in scope. This risk is mitigated due to the heated market and potential to sell on equipment to others, although this would be a complicated process.

If there is a deferral of one or two units, PTC recommends retaining and storing the corresponding gas turbine generator(s), transformers and breakers as outlined above. This will safeguard against increasing costs, increasing long lead procurements and potential unavailability of equipment. [redacted] 7a

b.) Implications of Staged Development

If the build-out of the gas turbine generator units is staged in 250 MW increments, the engineering and development work can be done for all units up front, which will reduce this scope for the subsequent units. However, this isn't anticipated to result in schedule advantages as long lead equipment procurement is anticipated to be the critical path of the schedule. However, if the long lead equipment is procured with the first unit, then schedule savings can be possible for the subsequent stages, subject to various other conditions such as timing for staged regulatory approvals, EPC contractor availability, project resourcing and any other issues that may arise from full schedule development.

c.) Gas Turbine Procurement Implications

PTC perceives gas turbine availability, cost and schedule risks to be very high with a deferred deployment approach. Demand for gas turbines has no indication of slowing down and the costs, complexity and schedule for the manufacturers to construct additional manufacturing capacity suggests that improvements in equipment availability are unlikely to take place in the next few years.

If the second and third units from the currently reserved gas turbines were sold to others and new units sought for procurement in the future, this presents significant risks. Procurement lead times of 4 years may increase to much longer durations and costs could be several times the current price. If the data centre demand proves to be overstated, it is possible that this may improve, but this isn't currently anticipated in the market.

d.) Change to a 500 MW Project

If the Board recommends the project be reduced to 500MW, PTC believes that most of the current plans can advance as scheduled with some engineering effort to reduce scope. The key implication as noted above is the change to major equipment long lead procurements as outlined above.

e.) Reduction to 250 MW Only

The reduction to a 250 MW project should be able to proceed largely as scheduled and planned. The gas supply project will need to be redesigned for a lower capacity, which may present some schedule risks. The transmission scope will reduce in capacity and will need to be re-designed and estimated. Contract negotiations with GE for the equipment supply contract will need to change to reflect just one unit. The project design basis will need to be revised and EPC contractors pursued for a smaller scope, which may be considered less attractive.

If there is no anticipation of additional units, the key drawback will be the resale or redeployment of the gas turbines, transformers and switchgear. The implications of this have been described above.