

SUBMISSION TO THE ISLAND REGULATORY AND APPEALS COMMISSION

Docket UE20742

Matter: Maritime Electric Company, Limited - Supplemental Capital Budget Request, On-Island Capacity for Security of Supply Project

Submitted by: Jordan Bober

Address: Rose Valley, PE

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Dear Commissioners,

I am making this submission as an Islander with an educational background in Economics - not electrical engineering – and who has been actively engaged in the questions around Maritime Electric’s two separate diesel combustion turbine proposals since early in 2025, after learning about the first of the two proposals.

The notion that we had no better option than to spend half a billion dollars on diesel combustion turbines in this day and age didn’t sit right with me, but I wanted to have as informed an opinion on this topic as possible. For the past 18 months, I have immersed myself in this matter, poring over regulatory filings, talking to experts, and learning everything I could about our electrical grid, how PEI regulates Maritime Electric, combustion turbines and clean energy alternatives such as battery energy storage systems (BESS). I am about as informed a layperson as you’ll find, aside from such incredible individuals as “friend of the Commission” intervenors Peter Bevan-Baker, the volunteers who make up Energy Democracy Now!, and of course, you, the Commissioners, for whom I can imagine this has been an equally steep learning curve.

I do not dispute that Prince Edward Island needs more peak electrical capacity. The evidence for that is strong and I accept it. My concerns are that a) I do not believe the Commission has been given information it can rely on, and b) putting on my economist hat, I do not believe the way this project has been advanced, costed, and compared with alternatives reflects the interests of the people who will pay for it – that is, all Islanders.

These are the points I wish to focus on, out of many that could be made, so as not to overly repeat what has already been said by others in their submissions:

1. The expert reports filed in this proceeding disagree with each other by very large margins on several important numbers. There are no independently verified figures before the Commission.
2. Every battery price in the record is well above what batteries actually cost in Canada today - and **no filing by Maritime Electric anywhere in this proceeding mentions the federal tax credit that cuts battery costs by up to 30%** and is not available for combustion turbines.
3. The way costs have been compared still favours the Applicant, because the two largest costs of a turbine – fuel and shareholder profit - are the two the Applicant does not carry (while the latter is without a doubt a significant motivator).

4. The quoted turbine price has already risen during the course of this proceeding, and turbine prices are rising worldwide while battery prices fall.
5. This is an unusually bad moment to lock in a fifty-year decision worth hundreds of millions of dollars, given the incredible number of energy, policy, technology and other developments we've seen even this year alone.
6. Maritime Electric is the proponent of this project, the author of most of the analysis supporting it, and the party that profits if it is approved - while ratepayers carry both the costs and the risks if it proves to be the wrong decision.

I respectfully ask the Commission to deny both applications until such a time as it has complete, *independent* information and analysis – including of alternatives to combustion turbines.

The Numbers Don't Agree

Planners use “capacity credit” or “effective load-carrying capacity (ELCC) to describe how much of a resource's size can actually be counted on when the system peaks. A 100 MW turbine that occasionally breaks down might be credited at 75 MW. A battery that runs out after four hours gets credited for less than its full size. This single number drives the entire case, because it determines how many batteries you would need to replace a turbine.

Here is what the record says about the capacity credit of a four-hour battery:

Source	Capacity credit
Maritime Electric, Exhibit M-15 (2025)	50%, 75% or 100% (scenarios)
Synapse, the Commission's own expert (April 2026)	90% for a 4-hour battery, 100% for 8-hour
E3, retained by Maritime Electric (July 2026)	67% first tranche, falling to about 44% at 100 MW

That is not a technical quibble. It is the difference between needing roughly 100 MW of batteries and needing roughly 540 MW of them - a fivefold difference in cost.

The disagreement on capacity credit extends to combustion turbines, too. Maritime Electric originally credited **its own turbines at 100%** of nameplate capacity. Its own consultant has now determined that the correct figure is **75%**.

The E3 study is the only analysis specific to PEI's system, and appears to be competent work. But a couple of things about it should give the Commission pause: It was **paid for** by the proponent, and it arrived **after** the Commission's independent expert had already reported, so Synapse has never had the chance to test it.

One more aspect of the study deserves attention. E3 found that the resource with the **highest** capacity credit of anything it examined - up to 94% - is demand response: incentivizing customers to reduce use at peak. Smart meters will be installed throughout PEI by late 2027, well before the 2030 deadline. Yet demand response does not seem to factor into any of Maritime Electric's filings to the Commission.

The Battery Prices and the Missing Tax Credit

We have also seen vastly different estimates of what batteries actually cost to build and install. For instance, for a 50 MW battery with four hours of storage, we've seen the following pricing on the public record in the past couple of months:

Source	Price
Maritime Electric, Portfolio NPV Study (July 2026)	\$116.7 million
Maritime Electric, revised Exhibit M-15 (August 2026)	\$135.5 million
NRStor Inc., sworn evidence, Manitoba (June 2026)	\$90 million
NRStor, after the federal tax credit	\$68 million

As can be seen, Maritime Electric filed **two different prices for the same battery twelve days apart**. The same two filings also disagree about how large the batteries in their own scenarios are, making comparisons difficult. And Exhibit M-31 was itself filed to correct a spreadsheet error that had understated the turbine's annual cost by a factor of three and a half. These numbers have not been carefully checked.

What batteries actually cost

Jason Rioux is Chief Development Officer of NRStor, which built the Oneida project in Ontario - 250 MW, the largest battery in Canada at the time - ahead of schedule and under budget. In June 2026 he swore evidence before Manitoba's Public Utilities Board giving current Canadian prices drawn from actual bids his company had made, most within the previous six months, including financing, contingency and balance of plant.

According to Rioux, **battery costs have roughly halved** since Oneida. Lithium is down about 75%, factories have multiplied, and competition has squeezed margins. As a result, the current market price of batteries in Canada is tens of millions of dollars less than even the lowest figures cited in Maritime Electric's filings. In a net present value analysis, such differences become greatly magnified over the lifetime of a project.

That is not one company's opinion. On 11 June 2026, Ontario announced the results of its latest capacity auction: **640 MW awarded, every megawatt of it batteries, and not a single successful gas proposal**.

The missing tax credit

I checked all 512 pages of Exhibit M-30 - the E3 study, the cost study, the Stantec report, and every interrogatory answer. **The words "tax credit" do not appear once.**

The federal Clean Technology Investment Tax Credit is worth up to 30% of eligible capital for battery storage. It is **not available for combustion turbines**. Mr. Rioux applies a conservative 24% after allowing for ineligible costs, which brings a 50 MW battery from \$90 million down to \$68 million – nearly half of the cost assumptions Maritime Electric and its consultants are using in their cost comparisons.

Maritime Electric's model prices batteries at roughly **\$2,334 per kilowatt**. The real figure, after a federal subsidy only batteries can claim, is closer to **\$1,360**. The model **overstates the cost of the alternative by about 70%**.

The comparison that settles it

I want to make one point that does not require the Commission to resolve any of the technical disagreements above.

Take E3's numbers exactly as filed. Accept the steep decline in battery capacity credit. Accept everything Maritime Electric has said. On those numbers, 300 MW of four-hour batteries counts for 77 MW of firm capacity, and the ProEnergy turbines count for 75 MW.

At the prices sworn in Manitoba, 300 MW of batteries costs about **\$308 million after the tax credit** - roughly **\$338 million** once connection costs are added. The 100 MW ProEnergy turbine project costs **\$353-\$367 million**.

So even on the Applicant's own least favourable assumptions about batteries, batteries deliver slightly more firm capacity for slightly less money - and then avoid the **\$227 million in fuel** that Maritime Electric's own model says the turbines will burn.

Put another way: at real market prices, PEI could buy **two 100 MW batteries with eight hours of storage each - 200 MW of capacity, sixteen hours of cover - for less than the cost of this single turbine project.**

The Applicant Does Not Carry the Costs That Make Turbines Truly Expensive

Let's have a look at where the money goes. This is Maritime Electric's own breakdown of the turbine project's \$635 million lifetime cost in Present Value terms¹:

Component	Amount (Present Value)	Share of total
Fuel	\$227M	36%
Return to shareholders	\$123M	19%
Interest on debt	\$97M	15%
Amortization	\$109M	17%
Income taxes	\$55M	9%
Operations and maintenance	\$24M	4%

Only about 17% of what Islanders would pay is the cost of the equipment itself.

The largest single item - fuel, at 36% - is a commodity cost passed straight through to customers. If diesel doubles (and this is a very real possibility in our increasingly unstable world), ratepayers pay. The shareholder does not.

The second largest - the return on equity, at 19% - flows to the shareholder, guaranteed, for fifty years.

¹ Exhibit M-30, pp 33-34

A battery has **no fuel cost at all**, and at the corrected price it would put far less money into the rate base on which any return is earned.

The Applicant's model tests diesel prices only 15% either side of forecast. Anyone who has watched fuel markets knows that is not the range diesel actually moves in. **There is no carbon price anywhere in the fifty-year model.** And the study's own limitations section admits that the assumed lifespan of the equipment "could materially affect" the results - then states that it did not test any alternative lifespan.

Here is the test I would apply as an economist. If a private company had to spend \$353+ million of its own money on this, could not add it to a rate base giving it a guaranteed 9.35% rate of return, and had to absorb every dollar of fuel cost itself - would it sign without running a tender against the alternative?

It would not. And that difference is not because Maritime Electric knows something the market does not. It is because Maritime Electric faces a different set of costs than its customers do, because of how it is currently regulated.

The Turbine Price Is Not Stable, and It Is Rising

The Commission has now been shown three different prices for the same project: **\$334 million** in the original filing and still used in August 2026; **\$353 million** in the July 2026 study; and roughly **\$367 million** implied by the increase of about 10% that Maritime Electric reported in March 2026 (Exhibit M-26).

The Commission should get clarity on the current turbine cost, and have the correct cost used in the Present Value analysis.

More importantly, the direction is clear. Gas turbine prices are rising worldwide because data centre construction has produced multi-year order backlogs at every major manufacturer. Maritime Electric is a small buyer in a seller's market, buying refurbished equipment, with **no signed construction contract** - the Commission asked three separate times for written confirmation from ProEnergy and each time received a pointer to a budget estimate.

Battery prices are moving the other way, made less expensive by improvements in battery technology and production processes, driven by the global clean energy transition.

Committing to the rising-cost technology, at an unstable price, without testing it against the falling-cost technology, is the opposite of prudent purchasing.

This Is the Wrong Moment for a Major Energy Decision

The core of my argument as an economist is simple: **when you cannot reverse a decision and the facts are changing quickly, the ability to wait has real value.**

Consider what has changed in a matter of months:

- **Ottawa announced federal support in June 2026** for new undersea cables between PEI and New Brunswick and for reinforcing the transmission network across the Maritimes. Maritime Electric's own Stantec report prices the cable replacement at \$292 million and finds it would support 600

MW of imports - enough for Island demand up to 800 MW. With federal money, the ratepayer share could be far below the \$353 million turbine project.

- **New Brunswick's 500 MW RIGS plant has been approved** for service in 2028. Nova Scotia is buying up to 600 MW of new capacity and 150 MW of batteries, and is advancing offshore wind.
- **The Province of PEI issued its own request for battery proposals in March 2026**, and has signalled an intention to procure up to 50 MW of battery storage.
- **The provincial government has committed to legislation reforming how Maritime Electric is regulated this fall.**
- **Maritime premiers have agreed to pursue closer electricity cooperation**, including a possible regional system operator.
- **Ottawa released a national clean grid strategy in May 2026.** Maritime Electric relies on expected changes to federal regulations to argue its stranded-asset risk is low - asking the Commission to assume favourable rules that do not yet exist.

Now weigh that against the cost of pausing.

By Maritime Electric's own admission, the turbines would not be running until **October 2029**, against a need date of **2030**. Meanwhile, Mr. Rioux's evidence is that batteries reach service in **24 to 30 months** - Oneida took 22, and a 300 MW project in Ontario took about 18.

A competitive tender started in early 2027 could have storage running by late 2029 - at the same time as the turbines, or sooner. The reliability cost of finding out what things actually cost is, in practical terms, nothing.

Finally: the last full system plan Maritime Electric filed was in 2020, and it excluded batteries on the grounds that they “remain uneconomic.” Every party now agrees that judgment is out of date. The Commission is being asked to approve the largest capital commitment in this utility's recent history on the strength of a six-year-old plan whose central assumption has collapsed.

We know that PEI's peak electricity demand is rising due to increasing electrification. However, this does not mean we need to purchase 100 MW of fossil fuel generation at this time. It is far more sensible to start with far less expensive and more rapidly implementable measures, such as installing a 50 MW battery and implementing Demand Management, which should tide us over at least for the time that it will take to fully appreciate what the best long-term solutions will be for PEI in this rapidly shifting energy landscape.

Conclusion: The Proponent Takes the Profit and Ratepayers Take the Risk

Maritime Electric occupies three roles here at once. It is the **proponent**. It is, through the consultants it hired and the cost study its own filing describes as “prepared by Maritime Electric,” the **principal analyst**. And it is the **financial beneficiary**. The only expert in this proceeding hired by the Commission rather than by the Applicant - Synapse - recommended that the application be denied.

The Applicant's own answers make this plain:

- Asked whether there is a financial benefit to owning capacity rather than buying it, Maritime Electric answered: **“Yes.”**
- Asked who bears the loss if these turbines become stranded assets, Maritime Electric answered that it would seek to recover the remaining value **from customers**.
- Fuel - the single largest cost - is passed through to customers.
- The return on equity - \$123 million on this project alone - goes to the shareholder.
- The questions asking whether executive compensation or performance targets are affected by approval of this application were all answered **confidentially**. That is exactly the information bearing on whether management's interests line up with ratepayers', and the public cannot see it.

I am not alleging bad faith. I am describing a structural problem that regulators have understood for decades. **A utility earns a return on capital it invests, not on money it saves.** Given two options that do the same job, the bigger, longer-lived, more capital-intensive one - with a fuel bill someone else pays - is worth more to the shareholder than the cheaper, fuel-free one. **That remains true even when the cheaper option is better for customers.**

This is a classic example of what economists call a “moral hazard” – a situation a person or corporation finds itself in when it has the ability to take risks but have someone else pay the costs.

The Commission need not speculate about where this leads. In June 2026 New Brunswick's Auditor General reported on NB Power's Tantrammar project - **the same supplier, the same refurbished turbines, the same contract structure** - and found that NB Power violated many tenets of good governance and process by picking a technology and committing to it before finishing its alternatives review, bypassing its own investment governance rules, and working under an urgency that was largely of its own making. Every one of those findings has a parallel in this record.

New Brunswick's regulator did not have that report when it decided. This Commission does.

What I Ask the Commission to Do

1. **Deny** the application for the 100 MW ProEnergy combustion turbine project (as well as the prior proposal from December 2024) as filed.
2. **Require a competitive, technology-neutral tender** for roughly 100 MW of firm on-island capacity, open to batteries, generators, demand response and combinations, with the results filed with the Commission. This is the only way to replace consultants' estimates with real prices.
3. **Require the cost study to be redone before any approval**, with current market battery prices, the federal tax credit applied, a reconciled turbine price, tests of alternative equipment lifespans and of carbon pricing, and at least one option that includes demand response.
4. **Require an updated Integrated System Plan.** The current one is from 2020 and assumes batteries are uneconomic.
5. **Give Synapse a full opportunity to review and respond** to the E3 study and the cost study.
6. **Require the cable-outage resilience study E3 itself recommends** before approving any project justified on security-of-supply grounds.

The need is real, and I do not ask the Commission to ignore it. I ask it to insist that the largest spending commitment in this utility's recent history be tested in the market before Islanders are billed for it for the next fifty years.

Respectfully submitted,

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Rose Valley, PEI

Sources

- Exhibit M-30, Responses to Additional Interrogatories from Commission Staff (24 July 2026), including the E3 Maritime Electric Resource Adequacy Study, the Stantec Review of Long-Term Interconnection Options, and the Portfolio Net Present Value Study
- Exhibit M-31, Letter to IRAC re: Response to Synapse Report (5 August 2026)
- Exhibit M-26, Letter to Commission re: Update on ProEnergy Opportunity (20 March 2026)
- Synapse Energy Economics, Electric System On-Island Capacity Alternatives for Prince Edward Island (Exhibit C-23, 9 April 2026) and responses to Commission Staff interrogatories (29 May 2026)
- Affidavit of Jason Rioux, NRStor Inc., Public Utilities Board of Manitoba (12 June 2026), including Ontario IESO LT2 auction results (11 June 2026)
- Auditor General of New Brunswick, report on NB Power's Renewables Integration and Grid Security project (2 June 2026)
- Natural Resources Canada announcement on Maritime grid investment (26 June 2026)
- Maritime Electric, Integrated System Plan (30 September 2020)