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ÎLE-DE-PRINCE-ÉDOUARD

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CANADA

PROVINCE OF PRINCE EDWARD ISLAND

BEFORE THE ISLAND REGULATORY AND APPEALS COMMISSION

DOCKET UE20742

Maritime Electric Company Limited

Supplemental Capital Budget Request On-Island Capacity for Security of Supply Project

POST-HEARING WRITTEN SUBMISSION BY ENERGY DEMOCRACY NOW! CO-OPERATIVE LIMITED

Friend of the Commission Intervener

I. Introduction

Energy Democracy Now! Co-operative Limited (“EDN”) respectfully provides this post-hearing submission concerning Maritime Electric Company Limited’s (“MECL”) request for approval of approximately \$353 million in capital expenditures for two 50 MW ProEnergy PE6000 combustion turbines.¹

At the opening of the hearing, the Commission identified the matters relevant to its review as including the need for the project, the reasonableness of the expenditure, and the financial impact on the utility and its customers. Those considerations provide a useful framework for assessing the evidence that has accumulated throughout this proceeding.²

There is now substantial evidence that Prince Edward Island faces a growing capacity and reliability problem. EDN does not dispute that conclusion. The issue before the Commission is therefore no longer whether additional capacity will be required. It is whether the evidence demonstrates that the appropriate response is to commit Island ratepayers now to the particular \$353 million investment proposed by MECL. EDN’s submission has shown that the record does not yet support that conclusion. The capacity need has been demonstrated. The particular investment has not been shown to be the least-cost or necessarily the most prudent way to begin meeting it.

¹ Maritime Electric Company Limited, oral evidence, IRAC Docket UE20742, August 25, 2026, AM hearing; MECL testified that the latest ProEnergy proposal had an estimated total project cost of \$353 million and involved two 50 MW combustion turbines.

² IRAC, Docket UE20742, Hearing Transcript, August 25, 2026, opening remarks of Chair Pamela Williams; Commission description of the Supplemental Application and the considerations applicable to review of the proposed capital expenditure.



II. The Capacity Requirement

For purposes of this submission, EDN accepts E3's finding that additional capacity resources will be required by 2030. E3 estimates a requirement of 421 MW of equivalent perfect capacity, compared with approximately 306 MW from existing resources and firm contracts, leaving a projected shortfall of approximately 115 MW.³

That finding establishes the scale of the reliability problem; it does not determine which resources should be procured, in what quantities, or in what sequence.⁴

That distinction is central. As Synapse notes, E3 itself stated that the economic analysis should consider an appropriate range of realistically available resources, together with their costs and performance characteristics, so that the least-cost portfolio can be identified.⁵

III. The Least-Cost Analysis Remains Incomplete

Synapse's August 24 Supplemental Submission goes directly to this issue. After reviewing MECL's updated NPV analysis and the E3 results, Synapse concluded that MECL had not attempted to optimize a least-cost resource mix beyond the ten portfolios it selected for analysis.⁶

Those portfolios provide useful information, but they do not encompass the full range of combinations that may reasonably be available. Synapse identified, at a minimum, the need to consider initial increments of battery storage, additional wind, incremental New Brunswick firm capacity, demand response, and different quantities and sizes of dispatchable generation.⁷

This is an important distinction because MECL's claim is not simply that the ProEnergy project is economically preferable to one or two specific alternatives. It is that the project represents a prudent and least-cost step toward meeting PEI's capacity requirement. That is a broader claim and, in our view, requires a broader analysis.

Synapse reached the same conclusion. Its supplemental report states that MECL's updated NPV analysis is "not sufficiently comprehensive to support its claim that the ProEnergy 100 MW CT project is part of a least cost resource portfolio to meet capacity needs." Synapse points to the omission of potentially lower-cost combinations involving resources with higher initial marginal ELCC values, the

³ E3, Maritime Electric Resource Adequacy Study, July 2026, Executive Summary, pp. 8–9.

⁴ E3, Maritime Electric Resource Adequacy Study, July 2026, Executive Summary, p. 9 and s. 5.1, p. 41; see also MECL Response to Commission Staff IR-23.

⁵ Synapse Energy Economics, Inc., Supplemental Submission, August 24, 2026, Exhibit C-34, citing E3 response to IR-1(e).

⁶ Synapse, Supplemental Submission, Exhibit C-34, p. 4.

⁷ Ibid., pp. 3–4.



absence of final interactive portfolio effects, and the need for further reliability analysis to ensure that the portfolios being compared are genuinely equivalent.^{8 9}

After reviewing the updated evidence, Synapse therefore continued to recommend that the ProEnergy application not be approved in its present form, given the analysis has not yet demonstrated that this particular 100 MW investment belongs in the least-cost portfolio. EDN agrees.¹⁰

IV. The Battery Evidence

The discussion of battery storage during this proceeding has sometimes made the available choices appear more polarized than they actually are. E3 found that the capacity contribution of batteries declines as increasingly large quantities are added to the system. Four-hour storage can have substantial capacity value at low penetration, but that value declines as additional storage is installed. Eight-hour storage performs better initially, but it is subject to the same general saturation effect at higher penetration levels.¹¹

MECL chose to emphasize E3's Portfolio 5, in which approximately 540 MW of battery nameplate capacity would be required to provide the 115 MW of perfect capacity needed to close the projected 2030 gap. While this scenario supports MECL's narrative that an all-battery solution would be difficult to justify, it does not answer the more relevant question of how much battery storage should form part of a mixed portfolio.¹²

The economics of the first 50 MW of battery storage are very different from the economics of the fourth or fifth hundred megawatts. Synapse's analysis makes that point clearly. Its Table 1 compares resources on the basis of cost per unit of effective capacity:

Resource	Installed Cost	ELCC	Cost per kW of ELCC
ProEnergy CT - 100 MW	\$353 million	75 MW	\$4,712/kW
RICE - 40 MW	\$172 million	34 MW	\$5,009/kW
First 50 MW 4-hour BESS	\$117 million	29 MW	\$4,024/kW
First 50 MW 8-hour BESS - MECL cost	\$201 million	39 MW	\$5,147/kW
First 50 MW 8-hour BESS - Synapse cost	\$187 million	39 MW	\$4,787/kW

*Source: Synapse Supplemental Submission, Table 1.*¹³

⁸ Ibid.

⁹ Ibid., Summary Comments, p. 3.

¹⁰ Ibid., p. 3.

¹¹ E3, Maritime Electric Resource Adequacy Study, July 2026, Conclusion, pp. 55–56.

¹² MECL oral evidence, IRAC Docket UE20742, August 25, 2026, AM hearing, discussion of E3 Portfolio 5 & Figure 5–10.

¹³ Synapse, Supplemental Submission, Exhibit C-34, Table 1, approximately pp. 4–5.



As stated during EDN's presentation, an actual quote for Battery Energy Storage Systems (BESS) was put on the record before the Manitoba Regulator. The prices submitted under Oath in Manitoba on June 12, 2026, were considerably less than the prices put before IRAC by Maritime Electric Company Limited.

Capital Cost for a 4-hour Duration BESS				
Capacity	Energy	CAPEX	ITC*	CAPEX net of ITC
50 MW	200 MWh	\$90M	\$22M	\$68M
100 MW	400 MWh	\$145M	\$35M	\$110M
400 MW	1600 MWh	\$540M	\$130M	\$410M
Capital Cost for a 8-hour Duration BESS				
Capacity	Energy	CAPEX	ITC*	CAPEX net of ITC
50 MW	400 MWh	\$135M	\$32M	\$103M
100 MW	800 MWh	\$230M	\$55M	\$175M
400 MW	3200 MWh	\$940M	\$221M	\$699M
* ITC Federal Input Tax Credit				

Source: Affidavit of Jason Rioux, in the matter of a joint review into Manitoba Hydro's integrated resource plan application and major new facilities application, Table 1. ¹⁴

These figures do not demonstrate that battery storage is necessarily cheaper than combustion turbines in all circumstances. They show something more useful: the initial increments of the different resources are sufficiently close in cost per unit of dependable capacity that the composition of the portfolio matters.

Synapse reaches exactly that conclusion, stating that the resources are relatively close in dollar-per-effective-capacity cost and that a more careful analysis of combinations is therefore necessary to identify the least-cost outcome. This substantially changes the question before the Commission. The relevant choice is not between two 50 MW combustion turbines and 540 MW of batteries. It is whether the first increments of battery storage, together with other available resources, should be incorporated before determining how much new combustion-turbine capacity is ultimately required.¹⁵

¹⁴ <https://www.pubmanitoba.ca/v1/proceedings-decisions/appl-current/pubs/mh-irp/meed-21-affidavit-of-jason-rioux.pdf>

¹⁵ Ibid., discussion following Table 1.



V. Demand Response and Firm Imports

Demand response deserves particular attention. PEI Energy Corporation’s (“PEIEC”) approved 2023–2026 Energy Efficiency and Conservation Plan projected approximately 20.5 MW of peak reduction from demand response by 2026, and MECL incorporated that amount into its capacity forecasts. Those programs were never implemented and, in April 2026, MECL was advised that work on the related pilot initiatives had been paused.¹⁶

It would not be reasonable to treat the projected 20.5 MW as dependable capacity already available to the system. But non-implementation is not evidence that demand response is ineffective; it means the resource was never developed sufficiently to determine what can actually be obtained, at what cost and on what timetable. Synapse’s corrected Table 2 assigns demand response a marginal ELCC of approximately 95 per cent. Before committing \$353 million to the first major increment of new generation, that resource deserves to be properly developed and tested.¹⁷

The same principle applies to firm capacity from New Brunswick. MECL’s July responses indicate that the NB Energy Marketing Corporation (“NBEM”) had advised that approximately 195 MW, 200 MW and 205 MW of firm capacity could be available in 2027, 2028 and 2029 respectively. The E3 study had assumed 190 MW.¹⁸

The additional firm capacity does not solve PEI’s reliability problem. MECL calculates that, even with 205 MW of firm New Brunswick capacity, approximately 100 MW of additional perfect capacity would remain necessary to meet the 2030 reliability standard. Nevertheless, an additional 15 MW of firm capacity changes the amount of capacity that must be supplied by other resources. Synapse considers the effect material enough that it should have been incorporated into the portfolio analysis.^{19 20}

This illustrates the broader problem with treating the 115 MW finding as though it automatically translates into a particular amount of new generation. The 115 MW is a reliability requirement based on a set of assumptions. As those assumptions change and additional resources are added, the remaining requirement changes as well.

Regional transmission also deserves greater weight in the portfolio analysis. MECL’s own evidence records that in 2015 it withdrew a proposed 50 MW combustion turbine after New Brunswick increased the firm transmission capacity that could be delivered to PEI. That history does not establish that

¹⁶ Maritime Electric, Response to Additional Interrogatories from Commission Staff, August 2026, response concerning PEIEC’s 2023–2026 Energy Efficiency and Conservation Plan and demand-response initiatives; see also Exhibit EC-11.

¹⁷ Synapse, Corrected Table 2 of Supplemental Report, August 28, 2026, Exhibit C-35.

¹⁸ Maritime Electric, Response to Commission Staff IR-46, July 2026, Exhibit C-28, pp. 36–37.

¹⁹ Synapse, Supplemental Submission, Exhibit C-34, pp. 2–3.

²⁰ Ibid., p. 37.



transmission can replace the present project, but it demonstrates that changes in regional transmission capability can materially alter the amount and timing of on-Island generation required.²¹

The regional outlook is changing again. EDN's presentation identified the July 23, 2026, announcement of a proposed PEI-New Brunswick interconnection expansion involving two new 200 MW submarine cables and the new Maritime regional electricity cooperation process. MECL's July evidence also acknowledges that the NPCC Maritime Area review forecasts the region to satisfy the 0.1 day-per-year LOLE criterion beginning in 2028 as planned resources are added. None of this guarantees firm capacity for PEI. It does mean that regional assumptions are evolving and should be incorporated before the full \$353 million investment becomes irreversible.²²

VI. The ProEnergy Project Is Itself Only One Option as Part of the Solution

E3 gives the two 50 MW ProEnergy combustion turbines an ELCC of approximately 75 per cent, meaning that the 100 MW project contributes approximately 75 MW of perfect capacity. MECL further states that combining the project with the additional 15 MW of firm New Brunswick capacity would provide approximately 90 MW of perfect capacity. That remains short of the 115 MW identified by E3.²³

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MECL therefore does not suggest that approval of ProEnergy concludes the capacity planning exercise. During the hearing it described the project as a "prudent first step" and acknowledged that batteries, renewables and other resources would still be required. That acknowledgment is significant. The Commission is not being asked to approve a complete portfolio that has been optimized and shown to meet the entire requirement. It is being asked to approve the largest first component of a portfolio whose remaining composition has yet to be determined.²⁵

The issue of sequence therefore deserves more attention than it has received. If further resources will inevitably be required, there is value in understanding how those resources interact before committing \$353 million to the first 100 MW of nameplate capacity.

²¹ Maritime Electric, Response to Commission Staff IR-44, July 2026, Exhibit C-28; MECL states that its 2015 application for a 50 MW combustion turbine was withdrawn after NB Power increased the firm transmission capacity that could be delivered to PEI.

²² Energy Democracy Now!, Hearing Presentation, August 27, 2026, Exhibit DN-9, discussion of the July 23, 2026 Maritime regional cooperation announcement and proposed PEI-New Brunswick interconnection expansion; see also Maritime Electric, Response to Commission Staff IR-43, July 2026, Exhibit C-28, noting the NPCC forecast that the Maritime Area satisfies the 0.1 day/year LOLE criterion beginning in 2028.

²³ Maritime Electric, Response to Commission Staff IR-86, July 2026, Exhibit C-28, pp. 96–97.

²⁴ E3, Maritime Electric Resource Adequacy Study, Figure 5–9, p. 52.

²⁵ Maritime Electric oral evidence, IRAC Docket UE20742, August 25, 2026, AM hearing.



VII. The Original Application and the ProEnergy Stratagem

MECL's original approach to this proceeding provides some useful context. The December 2024 application did not seek immediate approval to build the entire proposed resource package. MECL testified that it initially sought authority for up to approximately \$12 million to undertake engineering, reduce uncertainty, obtain vendor pricing and carry out a competitive request-for-proposals process. The intention was to return to the Commission with a more mature project definition and refined costs before seeking approval for construction.²⁶

The situation changed when the ProEnergy time-sensitive opening arose through NB Power's RIGS project. Supporting their preferred outcome, MECL concluded that a PEI project proceeding in parallel with RIGS could secure favourable timing and pricing.²⁷

EDN does not question that this particular stratagem is a real commercial opportunity, nor does it suggest that MECL has acted improperly in pursuing it. The concern is one of planning sequence. A favourable opportunity to acquire a particular technology does not by itself determine how much of that technology PEI should acquire. The resource mix should drive the procurement decision, rather than the availability of a procurement opportunity determining the resource mix. That is particularly important where the proposed investment is large and will remain part of the Island's electricity system for decades.

VIII. Cost and Rate Impact

The financial consequences are substantial. MECL testified that the current project estimate is approximately \$353 million and that the forecast rate impact upon commissioning is approximately 5.25 per cent. At the same time, these are peaking units expected to operate relatively infrequently. MECL's existing combustion turbines supplied approximately 0.2 per cent of total customer energy in 2023, and on-Island generation is forecast to remain below one per cent of annual energy requirements through the period presented in its evidence.^{28 29}

There is nothing unusual about a peaking unit operating infrequently; its purpose is to be available when needed. But that makes the economic question more important, not less. When ratepayers are being asked to invest \$353 million in assets that will sit idle most of the time, the case for the expenditure rests overwhelmingly on whether they are the least-cost way to obtain the dependable capacity required.

The Commission itself raised this point during the hearing when the Chair asked whether another resource could accomplish the same function without an expenditure of approximately \$350 million and

²⁶ Maritime Electric oral evidence, August 25, 2026, AM hearing, discussion of the December 2024 Application and requested deferral account.

²⁷ Ibid., discussion of the NB Power RIGS project and development of the ProEnergy opportunity.

²⁸ Maritime Electric, Response to Commission Staff IR-51, July 2026, Exhibit C-28, pp. 45–46; see also Exhibit M-1, Table 23, p. 119.

²⁹ Maritime Electric oral evidence, August 25, 2026, AM hearing.



the associated risk of higher rates. That question remains unanswered in any comprehensive sense. Synapse's evidence is that the range of portfolios evaluated was not broad enough to establish that the proposed project represents the least-cost combination available.³⁰

IX. Urgency and the Period Before 2030

MECL has presented evidence concerning procurement risk. Sargent & Lundy's estimated cost for a 50 MW combustion turbine increased from approximately \$156 million in December 2024, to approximately \$275 million by July 2026, while the estimated order-to-service period increased from approximately 2.5 years to five years.^{31,32} Even with approval now, the proposed units would not be available until winter 2029–30.³³

That timing is important because battery storage can be developed sooner. PEIEC reported that responses to its 10–50 MW BESS procurement indicated that a project could be operational as early as late 2028. Synapse also found recent market evidence showing that BESS costs continue to decline and could be lower than the values used in MECL's analysis.³⁴

MECL's own evidence also identifies interim measures, including increased firm capacity from New Brunswick, possible temporary RIGS capacity, regional cooperation, and approximately 40 MW of additional non-firm interconnection capacity as early as winter 2026–27.³⁵ None is a substitute for a long-term capacity plan. Together, however, they demonstrate that there is room between unnecessary delay and immediate commitment to the entire 100 MW project, and time to resolve the remaining portfolio questions before the full investment becomes irreversible.

X. A Staged Approach

Synapse offers a practical way of dealing with this problem. Rather than treating the decision as a choice between approving the complete ProEnergy project and doing nothing, Synapse recommends considering procurement in two stages. The first stage would obtain most, but not necessarily all, of the projected 2030 requirement. The remaining requirement could then be finalized after accounting for

³⁰ IRAC Docket UE20742, Hearing Transcript, August 25, 2026, PM hearing, question from Chair Pamela Williams concerning the approximately \$350 million expenditure, expected utilization and alternative resources.

³¹ Ibid.

³² Maritime Electric oral evidence, August 25, 2026, AM hearing, discussion of Sargent & Lundy's December 2024 and July 2026 combustion-turbine cost and schedule estimates.

³³ Maritime Electric oral evidence, August 25, 2026, AM hearing; MECL estimated an approximately 3.5-year project period and an in-service date for winter 2029–30.

³⁴ PEI Energy Corporation, Response to Commission Staff IR-17, July 24, 2026, Exhibit C-29 (BESS proponents indicated earliest operation in late 2028); Synapse, Supplemental Submission, August 24, 2026, Exhibit C-34, 'Market Costs for BESS Resources' (recent evidence indicates continuing storage cost declines and potentially lower costs than those used in MECL's analysis).

³⁵ Maritime Electric, Response to Additional Interrogatories from Commission Staff, August 2026, discussion of NBEM firm capacity, temporary RIGS capacity, regional cooperation and incremental non-firm transmission capacity.



additional New Brunswick firm capacity, demand response, interactive ELCC effects and further modelling.³⁶

Synapse recommends that MECL “proceed to procure at least the first, best set of resources to close the gap in required capacity,” while completing the additional work necessary before committing to the final increments. There is considerable merit in that approach. It recognizes that reliability requires action, but it does not assume that every investment needed by 2030 has to be chosen at the same time.³⁷

It also preserves an important distinction between urgency and irreversibility. The need to begin acquiring capacity does not necessarily mean that the entire future resource mix has to be determined by the first procurement decision.

XI. Long-Term Flexibility

Flexibility has value. MECL’s own Portfolio NPV Study uses a 50-year study period. Over such a period, there will inevitably be uncertainty about future fuel prices, technology costs, electricity demand, regional market conditions and the availability of other resources. That uncertainty means flexibility has economic value, particularly where the proposed project will not itself close the capacity gap and further investments will still be required.³⁸

If the first investment is larger than necessary, or if subsequent developments alter the most economic combination of resources, some of that flexibility will already have been lost. That is another reason to complete the portfolio analysis before committing more capital than the immediate reliability requirement can be shown to require.

XII. Requested Disposition

EDN respectfully asks the Commission to refuse the Supplemental Application in its present form and require MECL to complete the portfolio analysis necessary to determine the appropriate combination of battery storage, demand response, firm imports, wind, smaller-scale dispatchable generation and combustion-turbine capacity.

That analysis should compare portfolios capable of meeting a common reliability standard and incorporate the marginal and interactive ELCC effects identified through the E3 and Synapse work. If some procurement must proceed immediately, a staged or conditional approach would be preferable to approval of the entire project.³⁹

³⁶ Synapse, Supplemental Submission, Exhibit C-34, p. 10.

³⁷ Ibid.

³⁸ Maritime Electric, Portfolio Net Present Value Study, July 24, 2026, IR-54 Attachment 1 / Exhibit M-30, Executive Summary and Methodology.

³⁹ Synapse, Supplemental Submission, Exhibit C-34, p. 10.



This is not an argument for postponing necessary action. It is an argument for avoiding more irreversible investment than the evidence presently demonstrates is required.

XIII. Conclusion

This proceeding has produced a much clearer understanding of the reliability challenge facing Prince Edward Island. For purposes of this submission, EDN accepts that additional capacity resources will be required. That finding does not determine which resources should be procured, in what quantities, or in what sequence.

What has not yet been demonstrated is that the full 100 MW ProEnergy project, at an estimated capital cost of \$353 million and a forecast rate impact of approximately 5.25 per cent, is the least-cost first investment in the broader portfolio PEI will ultimately require.⁴⁰

Synapse reaches the same essential conclusion: MECL's current NPV analysis is not sufficiently comprehensive to establish that the ProEnergy project forms part of the least-cost portfolio and further portfolio analysis is required.⁴¹

EDN is not asking the Commission to decide that batteries, demand response, wind or imports can individually solve PEI's capacity problem, nor is EDN asking the Commission to determine at this stage whether some new dispatchable generation will ultimately be required. The narrower point is that a demonstrated need for capacity does not determine which resources should be purchased first.

Before Island ratepayers are committed to the full \$353 million expenditure, the evidence should establish what combination of resources represents the prudent and least-cost response. The need to act has been demonstrated. The need to undertake this particular transaction, in its present form, has not.

All of which is respectfully submitted on this 4th day of September, 2026.

Energy Democracy Now! Co-operative Limited

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⁴⁰Maritime Electric oral evidence, August 25, 2026, regarding the \$353 million project cost and approximately 5.25 per cent forecast rate impact; Synapse, Exhibit C-34, regarding the incomplete least-cost portfolio analysis.

⁴¹Synapse, Supplemental Submission, Exhibit C-34, Summary Comments and Final Observations.