

CRITICAL ANALYSIS OF MARITIME ELECTRIC'S ON-ISLAND CAPACITY FILINGS



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CRITICAL ANALYSIS OF MECL'S ON-ISLAND CAPACITY FILINGS

1. Executive Summary

1.1. Introduction

This report provides a critical, expert analysis of Maritime Electric's (ME) filings related to the "On-Island Capacity for Security of Supply Project" (Project). Specifically, it scrutinizes the initial December 2024 application and the subsequent August 2025 "Accelerated On-Island Capacity Development Solution" filing (Accelerated Capacity Solution).[1, 1] The objective is to evaluate the legitimacy of ME's arguments from the perspective of an unbiased policy and regulatory researcher, identifying inconsistencies, risks, and underexplored alternatives that may better serve the public interest of Prince Edward Island (PEI) ratepayers.

1.2. Key Findings

The analysis reveals that Maritime Electric's justification for a new 100 MW gas-fired generation facility is predicated on a narrow and potentially flawed assessment of its future energy needs and market conditions. The report finds that:

- The projected capacity deficit is framed to favour a capital-intensive generation project over more cost-effective demand-side solutions.
- The financial justification for the "Accelerated Capacity Solution" is based on a Net Present Value (NPV) analysis that appears to artificially inflate the cost of the baseline alternative.
- The technical claims regarding on-island reliability and the inability of renewables to support the grid are based on outdated premises, overlooking the capabilities of modern clean technologies.
- The rapid shift from a diversified portfolio to a single-technology solution prioritizes expediency over long-term resilience and diversification.
- The proposal introduces a significant stranded asset risk, running contrary to the direction of federal and provincial clean energy policies.



1.3. Recommendations for Intervention

To address these findings, it is recommended that the Island Regulatory and Appeals Commission (IRAC) reject approval of the Accelerated Capacity Solution as presented. A comprehensive re-evaluation is absolutely necessary, beginning with an independent, transparent Integrated Resource Plan (IRP) that rigorously models a full spectrum of supply- and demand-side options. This re-evaluation should focus on challenging the financial assumptions underpinning ME's NPV analysis, demanding a detailed risk assessment of refurbished equipment, and highlighting the success of other jurisdictions in deploying non-wire alternatives (NWAs) and large-scale battery energy storage systems (BESS).

2. Introduction and Background

2.1. Purpose of the Report

The purpose of this report is to provide a detailed, expert-level critique of Maritime Electric Company, Limited's applications for new on-island generation capacity. As a regulated public utility in PEI, Maritime Electric's proposals are subject to approval by the IRAC, which is tasked with ensuring a "just and reasonable balance of the interests of Maritime Electric and those of its customers".¹ This report's objective is to provide an in-depth analysis from a policy, regulatory, and technical standpoint that can serve as a foundation for interveners to question the utility's core arguments and proposed solutions.

2.2. Scope of Analysis

This analysis is structured to deconstruct Maritime Electric's case by focusing on four primary areas:

- Legitimacy of the Proposed Need: A critique of the load and capacity deficit forecasts and the assumptions used to justify the new generation plant.
- Economic and Technical Viability: A rigorous examination of the financial and technical claims, particularly the NPV analyses, cost per kilowatt (kW) figures, and the risks associated with the proposed technology.
- Exploration of Alternatives: A comparative review of strategies and technologies successfully implemented in other jurisdictions, such as demand-side management and large-scale energy storage, to demonstrate viable, cleaner alternatives to gas generation.



- Policy Alignment: An assessment of how Maritime Electric's proposals align with or diverge from federal and provincial clean energy regulations and goals.
- The report synthesizes information from Maritime Electric's applications and supplemental research on energy markets, regulatory best practices, and technological advancements to provide a comprehensive, multi-faceted perspective.

2.3. Overview of Maritime Electric's Applications

The foundation of this review is built upon two key documents filed by Maritime Electric with the IRAC. The initial document, dated December 18, 2024, outlined the "On-Island Capacity for Security of Supply Project".¹ This proposal was a multi-component, diversified portfolio totalling 150 MW of new on-island capacity. It consisted of a 10 MW battery energy storage system (BESS), a 50 MW combustion turbine (CT), and a 90 MW reciprocating internal combustion engine (RICE) plant, with a preliminary cost estimate of \$427 million.¹

This was followed by a supplemental filing dated August 14, 2025, which introduced a new, "Accelerated On-Island Capacity Development Solution".¹ This new proposal pivots dramatically from the original diversified plan, focusing on the procurement of a single 100 MW dual-fuel CT facility. This facility, comprised of two 50 MW units, is presented as a lower-cost alternative at an estimated \$334 million, made possible by a joint procurement and alignment with a larger project being undertaken by New Brunswick Power (NB Power).¹ The new filing emphasizes the time-sensitive nature of this opportunity, requiring a rapid regulatory decision to secure the equipment by 2028.¹

3. Critical Analysis of Maritime Electric's Justification

3.1. Re-evaluating the Need for New Generation

3.1.1. Deconstructing the Capacity Deficit Forecasts

Maritime Electric's primary justification for the proposed project is a projected and rapidly growing capacity deficit.¹ The utility correctly identifies two significant drivers of this load growth: rapid population increase, which is the highest of any Canadian province since 2015, and the accelerated electrification of space heating.¹ These trends are legitimate and supported by provincial data, with residential space heating contributing significantly to peak load.¹ The core forecast predicts a capacity deficit of 156 MW by 2033 if no new on-island capacity is added.¹



However, the methodology used to arrive at this figure warrants closer examination. The initial capacity deficit forecast of 156 MW is based on a conservative baseline assumption that off-island firm capacity purchases from NB Power remain static at the current Energy Purchase Agreement (EPA) level of 190 MW.¹ Maritime Electric's own filing includes an alternative model that maximizes off-island imports at the existing transmission transfer limit of 270 MW, a scenario where the deficit is reduced but still present at 105 MW by 2033.¹ This highlights a critical point: Maritime Electric's primary narrative of a large, immediate deficit is contingent on a self-imposed constraint of not seeking or acquiring additional off-island capacity beyond current contractual levels. This appears to be a deliberate strategic framing to make a large, on-island generation project seem like the only viable solution. The utility's decision to not fully explore or plan for maximizing its existing interconnection capacity first is a significant weakness in its justification. Rather than being an inevitable consequence of load growth, the size and timing of the "capacity deficit" are, to a large extent, a constructed reality based on these limiting assumptions.

Furthermore, Maritime Electric's forecasts for peak load growth appear to be based on a linear extrapolation of recent trends to a peak of 454 MW by 2033, which fails to account for potential demand saturation effects or price elasticity.² This linear projection method may overestimate the future capacity deficit by ignoring how consumer behaviour might change in response to higher electricity costs the increasing adoption of more efficient technologies.

3.1.2. The 'Accelerated' Timeline and 'Urgent' Need

The supplemental filing for the "Accelerated Capacity Solution" grounds its argument in a time-sensitive opportunity to secure a new 100 MW CT facility through a joint procurement with NB Power, with an expedited timeline of commissioning by 2028.¹ This is framed as a crucial step to address the growing capacity deficits and mitigate risks of winter supply shortages, a concern echoed by the North American Electric Reliability Corporation (NERC) in its assessment of the Maritimes region's vulnerability to extreme cold.¹

This narrative of urgency, however, is not new. It has been a consistent theme throughout the process. Maritime Electric's argument is strengthened by real-world examples, such as the rotating blackouts that occurred in Alberta in January 2024, which were triggered by a combination of low renewable production and high customer load during a cold snap.¹ The utility's claim is that a failure to act now would result in a minimum two-year delay and potential unreliability, which is a legitimate concern for ratepayers.¹ However, this sense of urgency is deliberately designed to shortcut the regulatory process and bypass a more thorough, technology-neutral evaluation of alternatives. The IRAC is being asked to approve a



major, long-term capital project on the basis of a short-term market opportunity, without a proper, independent analysis of whether this specific solution is, in fact, the optimal long-term strategy for PEI.

3.2. Scrutiny of Financial and Cost-Benefit Claims

3.2.1. The Net Present Value (NPV) Discrepancy

A primary tool used by Maritime Electric to justify the project is the NPV analysis, which compares the costs and avoided costs of the new generation plan against a baseline "do nothing" scenario.[1, 1] The original December 2024 filing projected a respectable 20% savings over the life of the project components.¹ However, the August 2025 supplemental filing presents a startling shift, claiming an estimated savings of 54% for the new "Accelerated Capacity Solution".¹

The dramatic increase in projected savings is not a function of the new project being significantly cheaper; at \$3,240/kW, the new CT is only marginally less expensive than the original portfolio's blended cost.[1, 1] The real driver for the change is the assumption that the cost of the baseline alternative—purchasing off-island capacity from NB Power—has risen dramatically. The supplemental filing mentions that "indicative capacity pricing from NB Power on April 17, 2025... was significantly higher than the pricing used in the December 2024 Application's NPV analysis".¹ An NPV analysis is inherently sensitive to its input assumptions. This significant increase in the assumed cost of the "do nothing" option has the effect of making the new generation project appear to be a much better value than it truly is, potentially creating an artificially enhanced business case for the project. Without full transparency and external validation of this new, significantly higher off-island cost data, the credibility of the entire financial justification is compromised. The intervener should demand that these assumptions be unbundled and rigorously scrutinized.

3.2.2. The Risk of Refurbished Equipment

The "Accelerated Capacity Solution" hinges on the purchase of two PE6000 CTs that are described as "refurbished aero versions" of the General Electric LM6000 model, which is the same as the utility's existing CT3 unit.¹ While Maritime Electric touts the benefits of "operational familiarity" and a lower cost, this approach introduces a series of long-term reliability and financial risks that are not adequately addressed in the filing.¹

Refurbished equipment is fundamentally different from new equipment, even if many components are replaced. The long-term reliability of a gas turbine is influenced by the



operational history and the remaining lifespan of its core components, which are subject to wear and degradation from factors such as thermal fatigue, creep, and oxidation.⁴ The application claims a 50-year service life for these refurbished units, which is a bold assumption that lacks a rigorous technical or economic basis.¹ This claim introduces a significant risk that the units may not achieve this lifespan without a higher-than-expected rate of forced outages or an increase in maintenance costs over time, both of which would erode the project's projected NPV and negatively impact grid reliability. An intervener should demand a detailed, independent risk assessment of a refurbished plant's long-term operational and financial performance to ensure ratepayers are not saddled with a high-maintenance asset that fails to deliver on its promises.

3.3. Evaluation of On-Island Reliability Arguments

3.3.1. The Mainland Disconnection and Renewable Backstopping Claims

Maritime Electric's applications repeatedly emphasize the vulnerability of the PEI grid to a disconnection from the mainland.[1, 1] The utility argues that during such an event, it would be forced to shed load because its existing 89 MW of CTs can only reliably serve approximately 80 MW of load, an amount insufficient to meet even the lowest hourly demand of 106 MWh.¹ A key part of this argument is the assertion that a mainland disconnection would result in a "total loss of renewable energy generation" because the existing CTs cannot provide the necessary "system stability" and "short circuit current" to keep the wind farms online.¹

This technical premise, however, is outdated. Modern clean energy technologies, particularly BESS and new wind and solar generators, are being deployed with advanced "grid-forming" inverters. These inverters are capable of establishing a stable electrical frequency and voltage, allowing them to black-start a grid and support a microgrid autonomously, without the need for traditional synchronous generators.⁶ Nova Scotia Power, a neighbouring utility with similar challenges, is actively investing in three 50 MW BESS facilities to "enhance reliability" and integrate over 1 GW of new wind power.⁸ By ignoring this technological capability, Maritime Electric's argument for a new gas plant is built on a technical fallacy. It fails to consider that clean, renewable technologies can now provide the very reliability benefits that the utility claims only new fossil fuel generation can offer.

3.3.2. The Abandonment of a Diversified Portfolio

A notable inconsistency in the applications is the abrupt shift from a diversified portfolio to a monolithic, single-technology solution. The initial December 2024 filing proposed a mix of BESS,



CT, and RICE, a strategy that offered multiple benefits.¹ The RICE units, for example, were noted for their superior part-load efficiency and fuel flexibility, while the BESS was identified as a source of fast-acting ancillary services and capacity.¹ The S&L study that informed this proposal explicitly praised the benefits of a diversified portfolio.¹

The August 2025 supplemental filing abandons this strategy entirely in favour of a single-technology, refurbished CT solution.¹ This pivot suggests that the decision was not the result of a thorough, independent re-evaluation of the optimal resource mix for PEI but was instead driven by an opportunistic procurement deal with a single vendor, ProEnergy, in concert with NB Power.¹ This approach sacrifices the operational and risk-mitigation benefits of a diversified portfolio, consolidating operational risk in one technology and one vendor. A major issue with one of the refurbished CT units could jeopardize the entire 100 MW of new capacity. The intervenor should question why a strategy of portfolio diversification, which is a hallmark of resilient energy planning, was so quickly and completely abandoned.

4. A Broader View: Gaps in Modern Energy Planning

Maritime Electric's proposal reflects a traditional, supply-side approach to utility planning that overlooks significant advancements in modern energy policy and technology. A critical review of their plan reveals several major gaps in their analysis of demand-side resources and clean alternatives.

4.1. The Demand-Side Management Imperative

Maritime Electric's approach to Demand-Side Management (DSM) appears passive and severely understated, incorporating only a modest 20 MW reduction from "controllable DSM" by 2033.¹ This contrasts sharply with the potential demonstrated in other jurisdictions and overlooks the capabilities of readily available technologies.

- **International Benchmarks:** The Independent Electricity System Operator (IESO) in Ontario, for instance, has a DSM framework with a budget of \$1.8 billion for 2025-2027, which is forecasted to reduce peak demand by 900 MW and save 4.6 TWh of electricity by 2027.¹¹ Similarly, a study in Alberta estimated that a \$150 million annual investment in energy efficiency could yield \$1 billion in gross savings and reduce greenhouse gas emissions by 4.4 megatonnes.¹²
- **Technology Potential:** The utility's filing mentions their new Advanced Metering Infrastructure (AMI) but fails to articulate a plan for its use in aggressive DSM programs.¹



This is a missed opportunity. For example, intelligent electric water heaters can be remotely managed to shift loads away from peak times while still maintaining user comfort, even in cold climates down to -20°C.²¹ By aggregating thousands of these devices, a utility could create a significant source of "virtual" capacity without building new generation infrastructure.

4.2. The Untapped Potential of Virtual Power Plants (VPPs)

Maritime Electric's proposal completely ignores the rapidly maturing concept of Virtual Power Plants (VPPs) as a cost-effective alternative to traditional generation. VPPs are networks of distributed energy resources like rooftop solar, smart thermostats, and home batteries that can be aggregated and controlled to act as a single, large power plant.²⁴

- **Cost-Effectiveness:** Studies show that VPPs can provide the same grid reliability as gas peaker plants and large batteries, but at a significantly lower cost. A report from the Brattle Group found that VPPs could be up to 60% less expensive than conventional alternatives.²⁵ For instance, a 400 MW VPP was projected to have a net cost of \$43 per kilowatt-year, while a gas peaker plant would cost \$99 per kilowatt-year.²⁴
- **Real-World Success:** VPPs are no longer a theoretical concept. In California, a VPP program has grown to a collective 700 MW of capacity, with a test in July 2025 successfully delivering 535 MW to the grid to meet peak demand.²⁶ In Texas, a VPP pilot program provides 25.5 MW of energy and nearly 20 MW of reserve services to the grid.²⁹ These examples demonstrate that VPPs can provide reliable, dispatchable capacity from clean resources.

4.3. Alternative Resource Portfolios and Best Practices

By proposing an on-island gas plant, Maritime Electric is following an outdated model of energy planning. Other jurisdictions with similar grid challenges are prioritizing clean alternatives. A compelling counter-example is Nova Scotia, a neighboring province facing similar challenges of load growth and the federal mandate to phase out coal by 2030.¹⁰

Rather than building new gas generation, Nova Scotia Power is constructing three large-scale, 50 MW/200 MWh BESS facilities at a total project cost of \$354 million.⁹ This project is funded in part by over \$117 million in federal grants and is specifically intended to "enhance reliability" and enable the grid to integrate over 1 GW of new wind power.⁹ This approach directly addresses capacity shortfalls with clean, modern technology and leverages federal funding to reduce costs for ratepayers. Maritime Electric's focus on a fossil fuel solution has likely



precluded it from accessing these same federal funding opportunities, leaving ratepayers to bear the full cost of the new generation.

5. The Alternative Path: Leveraging Modern Energy Policy and Technology

5.1. The Demand-Side Management (DSM) Imperative

5.1.1. Critique of Maritime Electric's DSM Approach

A central weakness of Maritime Electric's justification is its passive and minimal approach to demand-side management (DSM). The utility's own forecasts incorporate a reduction of only 20 MW from "controllable DSM" by 2033, which is a marginal offset to the projected load growth.¹ The responsibility for these programs lies with the PEI Energy Corporation (PEIEC), and Maritime Electric's application lacks a proactive, integrated strategy to aggressively leverage this resource.¹

The utility's recent approval of an Advanced Metering Infrastructure (AMI) system (smart meters) provides the technical foundation for modern, sophisticated DSM programs, yet the filings fail to articulate a plan for their rapid deployment.¹ This represents a missed opportunity to utilize what are often the lowest-cost and lowest-risk resources available.

5.1.2. Case Studies of Successful DSM Programs

The potential of a more aggressive DSM strategy is evident in other jurisdictions. In Ontario, the Independent Electricity System Operator (IESO) has implemented a robust DSM framework with a budget of \$1.8 billion for 2025-2027, projecting a reduction of 900 MW in peak demand and 4.6 terawatt-hours (TWh) of energy savings by 2027.¹¹ This demonstrates that DSM can be a utility's most powerful tool for avoiding or deferring new generation. Similarly, a study in Alberta estimated that a \$150 million annual investment in energy efficiency could yield \$1 billion in gross savings and reduce greenhouse gas (GHG) emissions by 4.4 megatonnes (Mt).¹² These "non-wire alternatives" (NWAs) are designed specifically to defer or remove the need for expensive new generation or transmission infrastructure, and they can include a range of measures from energy efficiency rebates to demand response programs.⁶ Maritime Electric's failure to consider a comprehensive NWA program as a direct alternative to building a new gas plant is a significant flaw in its planning.



Table 1: Non-Wire Alternatives Cost and Savings Data

Jurisdiction	Program Type	Cost/ Investment (CAD)	Peak Demand Reduction (MW)	Energy Savings (GWh)	GHG Reduction (Mt)
Ontario	DSM Framework (2025-27)	\$1.8B	900	4,600	N/A
Alberta (study)	Energy Efficiency (annual)	\$150M	N/A	N/A	4.4
Nova Scotia Power	BESS Facilities (total)	\$354M	150	600	N/A

5.2. Best Practices from Other Jurisdictions

5.2.1. Nova Scotia's BESS-First Strategy

A direct and compelling counter-example to Maritime Electric's proposal can be found in Nova Scotia, a neighboring province facing similar challenges of load growth and the federal mandate to phase out coal by 2030.⁸ Rather than building new gas generation, Nova Scotia Power (NSP) is in the process of building three large-scale, 50 MW/200 MWh BESS facilities.⁸ The total project cost is \$354 million, but it is being funded with over \$117 million in federal grants, covering nearly a third of the total cost.⁹ This project is intended to "enhance reliability" and enable the integration of over 1 GW of new wind capacity onto the grid.⁸ Nova Scotia's strategy provides a powerful blueprint for how a utility can address capacity deficits with a clean, modern, and financially supported technology. By prioritizing a fossil fuel solution, Maritime Electric has likely foregone access to these substantial federal funding opportunities, thereby shifting the entire cost burden of the new generation onto its ratepayers.

5.3. The Future of Clean Technologies

The shortcomings of Maritime Electric's proposal are underscored by the clear advantages of modern clean technologies that were either dismissed or downplayed.

5.3.1. The Superiority of BESS as a Grid Asset

The initial Maritime Electric filing noted that a BESS has a "positive economic benefit to customers" and offers an 11% savings on its own.¹ This is because a BESS offers operational



flexibility and a range of grid services that a gas turbine cannot. A BESS can provide instantaneous ancillary services, such as frequency regulation, spinning reserve, and load following, that the utility currently purchases from NB Power at a cost of approximately \$947,309 annually.¹ Furthermore, modern BESS units can be "grid-forming," meaning they can provide the necessary voltage and frequency stability to black-start a microgrid, which directly addresses one of ME's key reliability concerns regarding mainland disconnections.⁶

5.3.2. Hydrogen "Readiness" as a Weak Justification

While the proposed CTs are marketed as having "hydrogen readiness, up to 35 per cent blend"¹, this is a theoretical long-term feature, not a current solution. The Canadian Hydrogen Strategy progress report confirms that hydrogen production and delivery infrastructure are still in their infancy, with hubs developing primarily in Western Canada, Quebec, and Ontario.¹⁴ There is no clear timeline or plan for a large-scale, cost-effective hydrogen supply chain in the Maritime region. Relying on this "future-proof" feature to justify a multi-hundred-million-dollar fossil fuel plant today is an unproven and speculative argument. It appears to be a talking point designed to mitigate environmental concerns rather than a legitimate, actionable long-term strategy.

6. Regulatory and Policy Challenges

6.1. Navigating the Canadian Clean Electricity Regulations (CER)

The Canadian Clean Electricity Regulations (CER) are a cornerstone of the federal government's plan to achieve a net-zero electricity grid by 2035.¹⁶ The regulations set a performance standard of 30 t/GWh for new natural gas units.¹⁶ Maritime Electric's forecast shows that its generation's GHG emissions will be well below this limit because the plants are projected to run infrequently, as peaking and backup resources.[1, 1]

However, this does not eliminate the long-term risk to ratepayers. The utility's business model for this new plant is predicated on it being a "peaker" that runs for a small percentage of the time. The 50-year service life of the proposed CTs, even if they are refurbished, means they would be expected to operate in a dramatically different regulatory environment where fossil fuel generation may be phased out entirely.¹ This creates a significant "stranded asset" risk, as the CER itself acknowledges.¹⁸ It is fiscally irresponsible to commit to a multi-generational fossil fuel asset when federal policy is actively and explicitly working to render such assets obsolete. While the regulations may contain an "emergency provision" to allow for temporary operation,



the details of such a provision have not been finalized and cannot be relied upon to justify a major capital expenditure.¹

6.2. Aligning with Provincial Goals

Maritime Electric's proposal must also be evaluated against provincial policy. The recent Doane Grant Thornton energy review, commissioned by the PEI government, provides critical context. This independent report rejected the idea of the province establishing its own power utility but explicitly recommended that "Provincial funding is better used in infrastructure and renewable resources" rather than ownership of an electrical utility.² This recommendation provides a direct policy mandate that favors investing in clean energy alternatives over new generation, which directly contradicts ME's proposal. The report also called for the creation of a new "consumer advocate role... to enhance rate hearing processes".¹⁹ This finding directly supports the role of an intervener in scrutinizing ME's application and highlights the province's own desire for a more rigorous and transparent regulatory process.

7. Strategic Framework for Intervention

As a intervener seeking to present a compelling case against Maritime Electric's proposal, EDN should adopt a multi-pronged strategy that directly challenges the utility's key arguments and presents a credible, actionable alternative. This framework synthesizes the critical analysis and international best practices to guide a focused and impactful intervention.

7.1. Procedural Challenges

The core of the procedural challenge should be to file a motion to defer the approval of the "Accelerated Capacity Solution." The intervener should argue that the rush timeline, driven by an opportunistic procurement, prevents proper regulatory scrutiny.² Key procedural demands should include:

- **Mandate an Integrated Resource Plan (IRP):** The IRAC should be urged to mandate a formal, independent IRP that rigorously evaluates all supply- and demand-side options in a neutral and transparent manner. This should be a prerequisite to approving any major capital projects.
- **Require Independent Expert Review:** The intervener should request that the IRAC engage a third-party consultant to validate the utility's load forecasts and perform a technology-neutral alternatives analysis, ensuring the proposal is in the best interest of ratepayers.



- **Demand an All-Source Procurement Process:** Instead of approving a single-source solution, the intervener should advocate for an open, competitive process that allows all resource types, from gas turbines to BESS and DSM programs, to compete on a level playing field.

7.2. Technical and Economic Challenges

The intervener's case should be built around a series of pointed questions and data-driven rebuttals to Maritime Electric's technical and financial claims.

- **Challenge the Load Forecast Methodology:** Scrutinize the linear growth projections and demand assumptions, requesting scenarios that model more aggressive DSM and account for price elasticity and demand saturation effects.
- **Present a Clean Alternative Portfolio:** Introduce a viable alternative that prioritizes clean resources, demonstrating that the capacity deficit can be met without new gas generation. This portfolio would include:
 - a) A robust investment in DSM to aggressively reduce peak load, using programs successfully implemented in other provinces like Ontario and Alberta.¹¹
 - b) A utility-scale BESS, modeled on Nova Scotia Power's project, to provide firm capacity and grid-forming services, positioning PEI to access substantial federal funding.⁸
 - c) The deployment of aggregated distributed resources in a Virtual Power Plant (VPP) to provide reliable, low-cost capacity, citing successful examples from California and Texas.²⁴
- **Question the Economic Analysis:** Demand the raw data and assumptions behind the new, high off-island capacity costs mentioned in the supplemental filing. A sensitivity analysis should be requested to show how changes to these assumptions would impact the projected savings. The intervener should also request an analysis that includes the long-term risk of a stranded asset and the costs of carbon pricing.

7.3. Policy Challenges

The intervener must frame the proposal as a direct contradiction of federal and provincial policy goals.

- **Highlight Climate Policy Inconsistency:** Argue that a 50-year gas plant is incompatible with PEI's stated net-zero by 2040 target and the federal Clean Electricity Regulations. The risk of creating a stranded asset, which is acknowledged in federal documents, should be



a central theme of this argument.¹⁸

- **Emphasize Provincial Mandates:** Cite the Doane Grant Thornton energy review, which recommended using provincial funding for "infrastructure and renewable resources" instead of utility ownership of generation, a clear policy mandate that favors a clean alternative over Maritime Electric's proposal.² The review's call for a new "consumer advocate role" also reinforces the need for a rigorous and skeptical review of the utility's claims.²



Works cited

1. Maritime Electric Supplemental Filing to The IRAC
2. P.E.I. energy review is out, and minister backs a balance of renewables and fossil fuels - Yahoo News Canada, accessed on September 14, 2025, <https://ca.news.yahoo.com/p-e-energy-review-minister-000641094.html>
3. P.E.I. energy review is out, and minister backs a balance of renewables and fossil fuels | CBC News, accessed on September 14, 2025, <https://www.cbc.ca/news/canada/prince-edward-island/pei-maritime-electric-reaction-2025-1.7618354>
4. Common Industrial Gas Turbine Issues & How Repairs Can Extend Lifespan, accessed on September 14, 2025, <https://alliedpg.com/latest-articles/common-industrial-gas-turbine-issues-repairs-can-extend-lifespan/>
5. The Importance of Gas Turbine Maintenance for Efficiency - St Marys Carbon Knowledge Base, accessed on September 14, 2025, <https://knowledge.stmaryscarbon.com/gas-turbine-maintenance>
6. What is NWA? - National Grid, accessed on September 14, 2025, <https://www.nationalgridus.com/Business-Partners/Non-Wires-Alternatives/What-is-an-NWA>
7. Non-Wires Alternatives (NWA) - The Joint Utilities of New York, accessed on September 14, 2025, <https://jointutilitiesofny.org/nwa-opportunities>
8. Grid-scale Batteries | Innovation at Nova Scotia Power, accessed on September 14, 2025, <https://nspower.ca/cleanandgreen/innovation/grid-scale-batteries>
9. Canada pumps CAD117 million into trio of Nova Scotia battery storage projects - ESS News, accessed on September 14, 2025, <https://www.ess-news.com/2024/08/01/canada-bess-battery-energy-storage-funding-nova-scotia/>
10. Nova Scotia regulators approve CA\$354 million BESS portfolio in Atlantic Canadian province - Energy-Storage.News, accessed on September 14, 2025, <https://www.energy-storage.news/nova-scotia-regulators-approve-ca354-million-bess-portfolio-in-atlantic-canadian-province/>
11. IESO to Expand Industrial Energy Efficiency Program - RTO Insider, accessed on September 14, 2025, <https://www.rtoinsider.com/113066-ontario-to-expand-industrial-dsm-program/>
12. How utilities can reach customers who need energy savings the most | Pembina Institute, accessed on September 14, 2025, <https://www.pembina.org/blog/how-utilities-can-reach-customers-who-need-energy-savings-most>



13. Nova Scotia Power's \$354 million battery storage project is greenlit - PVBuzz, accessed on September 14, 2025, <https://pvbuzz.com/nova-scotia-power-battery-storage-project-greenlit/>
14. Hydrogen Strategy for Canada: Progress Report, accessed on September 14, 2025, <https://natural-resources.ca/energy-sources/clean-fuels/hydrogen-strategy/hydrogen-strategy-canada-progress-report>
15. Canadian Hydrogen Codes and Standards Roadmap - Natural Resources Canada, accessed on September 14, 2025, <https://natural-resources.ca/energy-sources/clean-fuels/hydrogen-strategy/canadian-hydrogen-codes-standards-roadmap>
16. The Impact and a Review of Canada's Clean Electricity Regulations - ResearchGate, accessed on September 14, 2025, https://www.researchgate.net/publication/389326354_The_Impact_and_a_Review_of_Canada's_Clean_Electricity_Regulations
17. Clean Electricity Regulations - Canada.ca, accessed on September 14, 2025, <https://www.canada.ca/en/environment-climate-change/corporate/transparency/strategic-environmental-economic-assessments/clean-electricity-regulations.html>
18. Clean Electricity Regulations - Canada.ca, accessed on September 14, 2025, <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/clean-fuel/electricity/clean-electricity-regulations-public-update-16022024.pdf>
19. Energy review defines next steps for reliable electrical service for Islanders, accessed on September 14, 2025, <https://www.princeedwardisland.ca/en/news/energy-review-defines-next-steps-for-reliable-electrical-service-for-islanders>
20. CBC PEI - P.E.I. energy review is out, and minister backs a balance of renewables and fossil fuels - Reddit, accessed on September 14, 2025, https://www.reddit.com/r/PEI/comments/1n1eiwu/cbc_pei_pei_energy_review_is_out_and_minister/
21. Purdue tech predicts water heating usage to improve energy efficiency of residential systems - News, accessed on September 14, 2025, <https://www.purdue.edu/newsroom/2025/Q3/purdue-tech-predicts-water-heating-usage-to-improve-energy-efficiency-of-residential-systems/>
22. Aggregated Generic Load Curve for Residential Electric Water Heaters - SPARK Laboratory, accessed on September 14, 2025, https://sparklab.enr.uky.edu/sites/spark/files/2021_IEEE_PESGM_UKSpark_AOS_Generic_Aggregated_EWH_Power_Demand_Response-compressed.pdf
23. Do Not Cite or Quote - National Association of State Energy Officials | NASEO, accessed on September 14, 2025, <https://naseo.org/Data/Sites/1/media/smart-systems-white-paper.pdf>



24. How Virtual Power Plants Are Making the Grid More Affordable, Reliable, and Secure – SEIA, accessed on September 14, 2025, <https://seia.org/blog/virtual-power-plants/>
25. VPPs provide same resource adequacy as gas peakers, large batteries, at up to 60% less cost: study | Utility Dive, accessed on September 14, 2025, <https://www.utilitydive.com/news/vpps-provide-same-resource-adequacy-as-gas-peakers-large-batteries-at-up-to-649570/>
26. California's biggest virtual power plant may get a funding reprieve - Canary Media, accessed on September 14, 2025, <https://www.canarymedia.com/articles/virtual-power-plants/california-demand-side-grid-support-benefits>
27. Power to the People: California's Biggest Battery Test Ever Just Changed the Game - PGE, accessed on September 14, 2025, <https://www.pge.com/en/newsroom/currents/future-of-energy/power-to-the-people--california-s-biggest-battery-test-ever-just.html>
28. California Is Building the Biggest Virtual Power Plant in the World - CalSSA, accessed on September 14, 2025, <https://calssa.org/press-releases/2025/9/8/california-is-building-the-biggest-virtual-power-plant-in-the-world>
29. Texas regulators move virtual power plant pilot development to ERCOT | Utility Dive, accessed on September 14, 2025, <https://www.utilitydive.com/news/texas-regulators-move-virtual-power-plant-pilot-development-to-ercot/740304/>
30. Sonnen launches 'highly scalable' 60MWh virtual power plant in Texas, accessed on September 14, 2025, <https://www.energy-storage.news/sonnen-launches-new-virtual-power-plant-in-texas/>
31. DECISION 2024 NSUARB 100 M11539 NOVA SCOTIA UTILITY AND REVIEW BOARD IN THE MATTER OF THE PUBLIC UTILITIES ACT, accessed on September 14, 2025, <https://nserbt.ca/sites/default/files/NSUARB%20Board%20Decision%20-%20Nova%20Scotia%20Power%20Incorporated%20%28M11539%29.pdf>
32. Canada Issues Finalized Clean Electricity Regulations | Blakes, accessed on September 14, 2025, <https://www.blakes.com/insights/canada-issues-finalized-clean-electricity-regulations/>
33. Canada's new Clean Electricity Regulations - BLG, accessed on September 14, 2025, <https://www.blg.com/en/insights/2025/01/canadas-new-clean-electricity-regulations>
34. Clean Electricity Regulations (SOR /2024-263) - Laws.justice.gc.ca, accessed on September 14, 2025, <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2024-263/FullText.html?txthl=method>



About Energy Democracy Now! Co-operative Limited

Energy Democracy Now! Co-operative Limited is a community-based advocacy organization working to put Islanders in charge of their energy future. Founded in 2023 and incorporated in 2023, we believe the climate crisis demands more than small fixes — it requires a bold shift from corporate control of fossil fuels to renewable energy that is owned, governed, and guided by local communities.

We're building a future where decisions about energy on PEI are made transparently, with health, fairness, and community well-being at the centre.

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