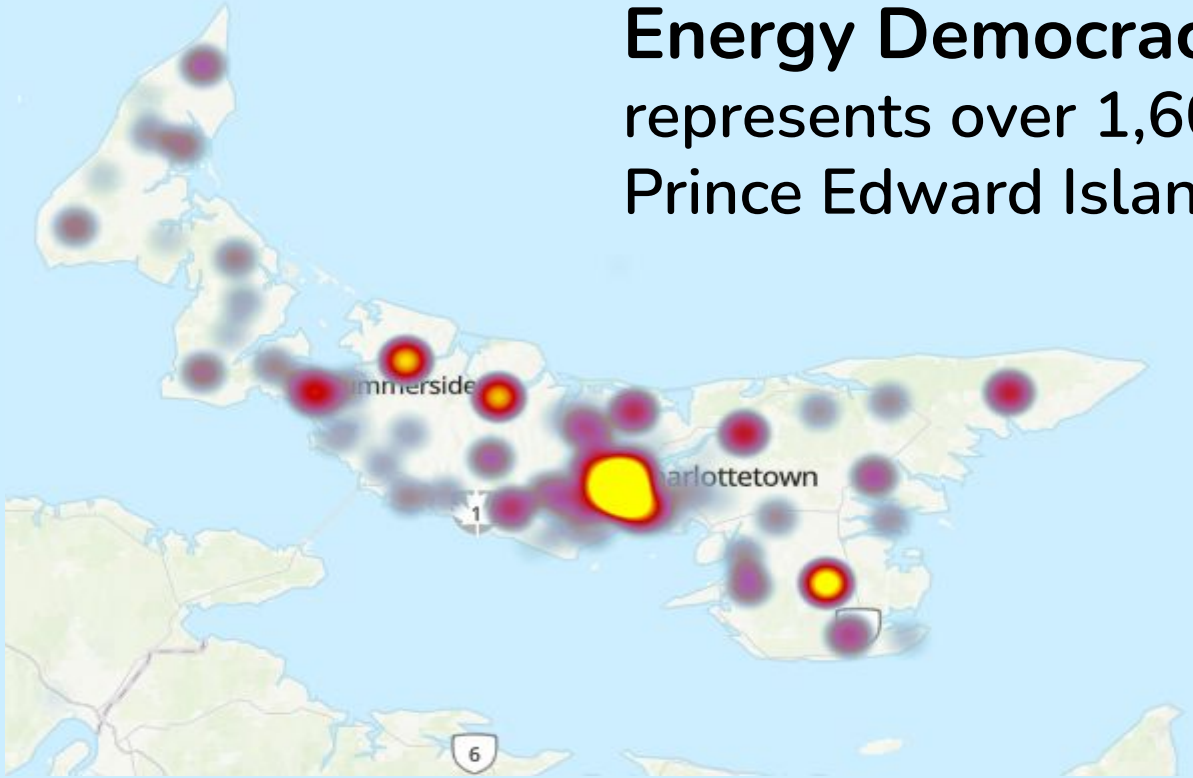
Energy Democracy Now! Co-operative Limited

On-Island Capacity for Security of Supply

Oral submission to the Island Regulatory and Appeals Commission

Docket UE20742 · August 2026

Energy Democracy Now! Co-operative represents over 1,600 supporters across Prince Edward Island.



One in four Islanders will live within 5 kms of the storage tanks and smoke stacks.

ELCC is an accreditation input.

What ELCC answers

Of a machine's nameplate capacity, how much can the system count on in the hours it is most likely to fail.

What ELCC does not answer

- What to buy
- From whom
- At what price
- On what schedule
- With what warranty
- Who carries the risk of being wrong

Sources: E3 Resource Adequacy Study; Portfolio NPV Study (both filed 24 July 2026); C-33 Responses (17 August 2026); Electric Power Act, s. 17.

The highest-scoring resource was left out of every option.

95%

Demand response

6-hour call duration, 12 calls per year (E3 Table 5-3)

86%

20 MW RICE engine

Smaller units contribute more reliably per MW

75%

50 MW ProEnergy CT

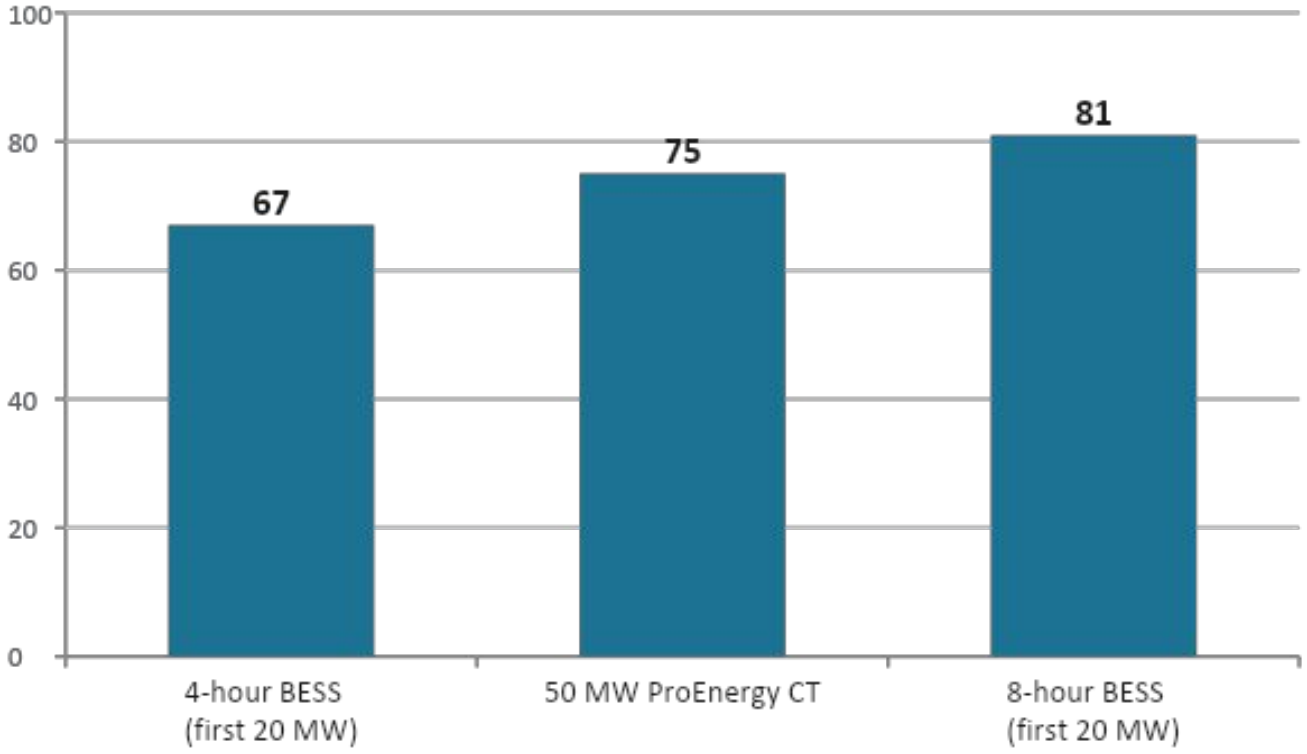
The resource this application proposes to buy

Of E3's ten candidate portfolios, none includes incremental demand response, wind, solar, interruptible load or imports — because, E3 confirmed on 17 August, "Maritime Electric did not request" them (IR-1c).

Thermal makeup of all ten portfolios "determined by Maritime Electric"; E3 sized the batteries (IR-1b). · PEIEC's demand-side management plan expired 28 February 2026 with no successor filed.

Sources: E3 Study, Table 5-3 and s. 5.3.5; Exhibit C-28, IR-53; C-33 Responses (17 August 2026), IR-1b and IR-1c; Exhibit C-32.

At the increments proposed, storage matches or beats the turbines.



The saturation point is moot

The decline in storage value is a property of high penetration. It becomes decisive only if storage must do the entire job alone.

No party has proposed that. Not Synapse. Not Mr. Bevan-Baker. Not EDN.

The 300 MW comparison answers an argument nobody made.

Source: E3 Resource Adequacy Study, Executive Summary and s. 5.3.3 / 5.3.5.

E3's own reasoning is an argument for modularity.

> *"A single large outage on a relatively small system is itself a significant driver of reliability risk."*
> E3 Resource Adequacy Study, Executive Summary — the reason a 20 MW unit is accredited at 86% and a 50 MW unit at 75%.

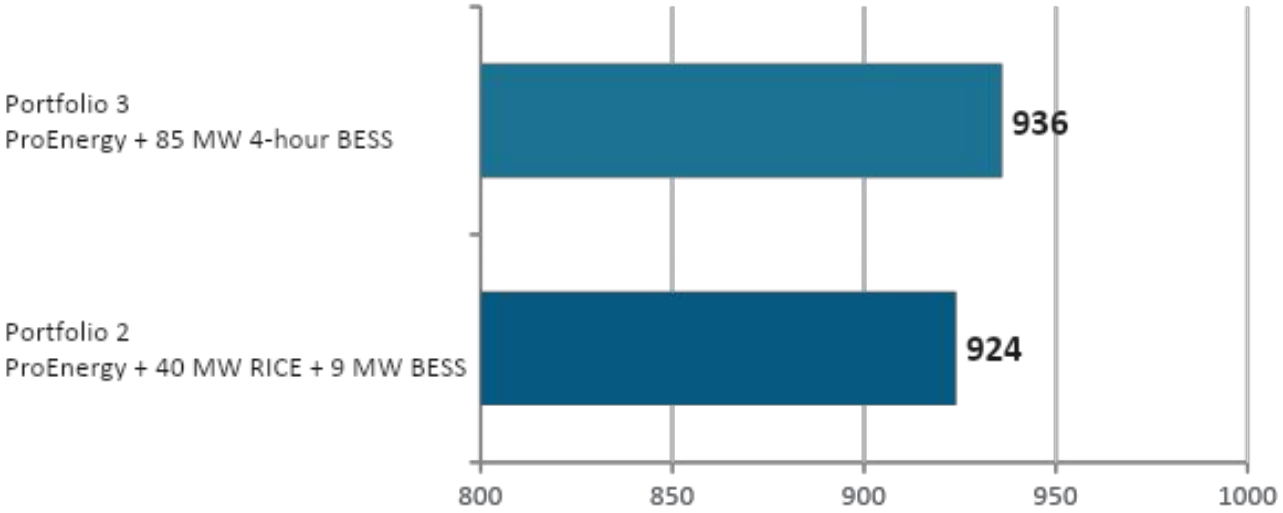
What the proposal does with that finding

- Two identical 50 MW machines which are larger and are in a lower-accredited size
- One vendor, one production line, one site, shared fuel handling
- No PE6000 unit operating in a climate directly comparable to PEI (Exhibit C-28, IR-75)
- Pre-delivery testing at Sedalia withdrawn; units now tested on-Island, after installation (IR-74)

EPRI identifies common-mode failure as one of the risks conventional resource-adequacy modelling under-captures.

Sources: E3 Study, Executive Summary and s. 5.3.5; Exhibit C-28, IR-74 and IR-75; EPRI, resource adequacy criteria guidance.

Storage and thermal are interchangeable at the margin.



What this does not show

Both portfolios contain the ProEnergy turbines. Their closeness decides how to meet the balance of the requirement — RICE or more storage. It does not decide whether the turbines should be bought at all.

MECL's own conclusion: the small differential and the high-level cost estimates used for the RICE plant and BESS "support further study and a review of qualitative attributes before a final decision is made for the remaining capacity additions."

Source: Portfolio NPV Study, Table 14 and Executive Summary; s. 6.1 ("an appropriate BESS size is likely between 9 MW and 85 MW").

The answers arrived on 17 August.

24 July 2026

E3 Study and Portfolio NPV Study filed — 19 months into the proceeding, after the Commission's expert had reported.

7 August 2026

Synapse files 14 interrogatories on the two studies (Exhibit C-33).

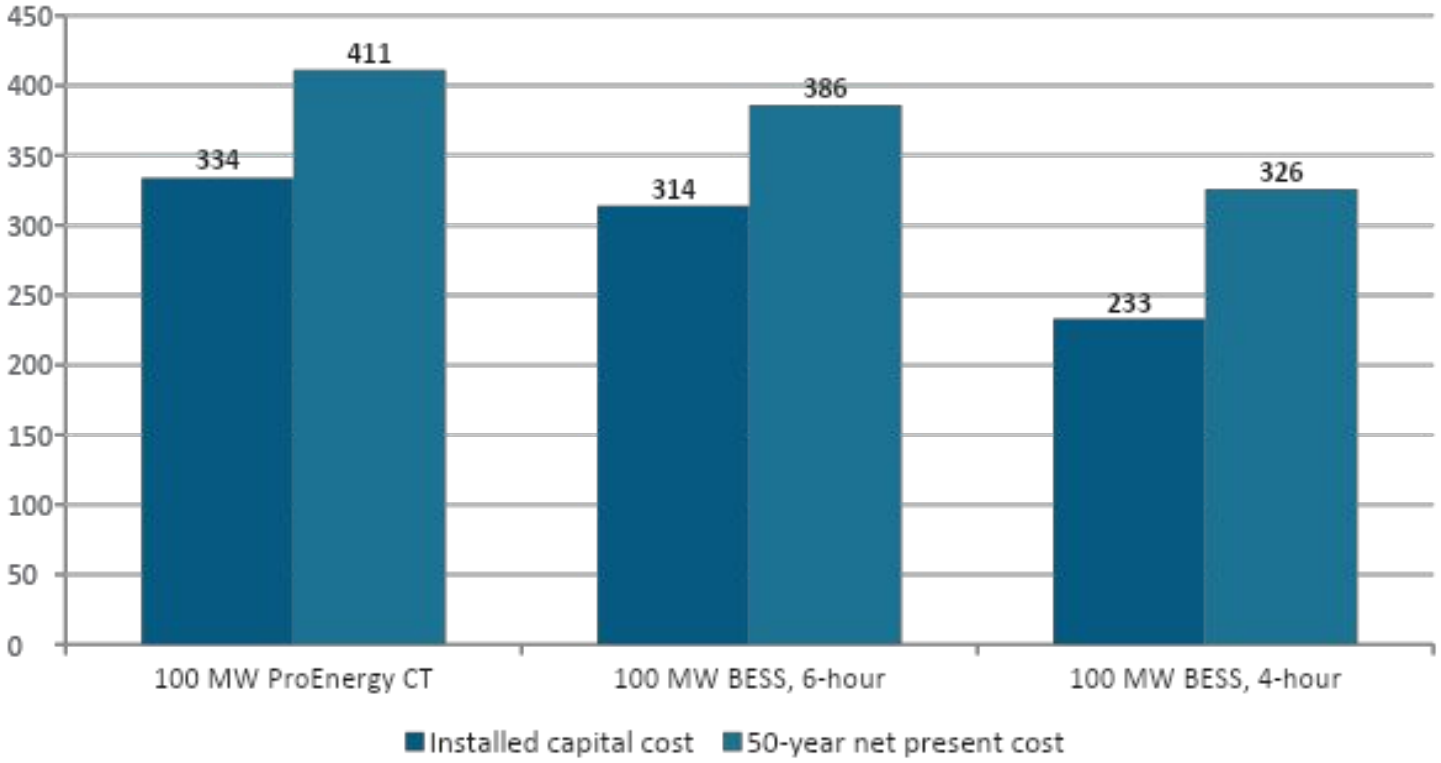
17 August 2026

Answers. Asked whether MECL's recommended portfolios are most cost-effective, E3 declines to say — it "did not prepare an economic analysis" and points back to MECL's own study (IR-1g).

- E3's own p. 12 recommendation, now answered: "Confirmed. E3 did not prepare an economic analysis." (IR-1a)
- All ten portfolios "determined by Maritime Electric"; renewables, DR, imports "not requested" (IR-1b, 1c)
- Modelling limited to calendar year 2030; no LOLE analysis for any of the ten portfolios (IR-1e, 2e)
- Workpapers arrived 17 August, unexamined; the 6-hour BESS Synapse recommended never modelled (IR-2d, 8b)
- Calibration confirmed: the two proposed CTs, plus 40 MW of perfect capacity, in the base system (IR-2a)

Source: Responses to Additional Interrogatories from Synapse (C-33 Responses), filed 17 August 2026.

IRAC's own expert's comparison.



Synapse, on MECL's own accounting framework

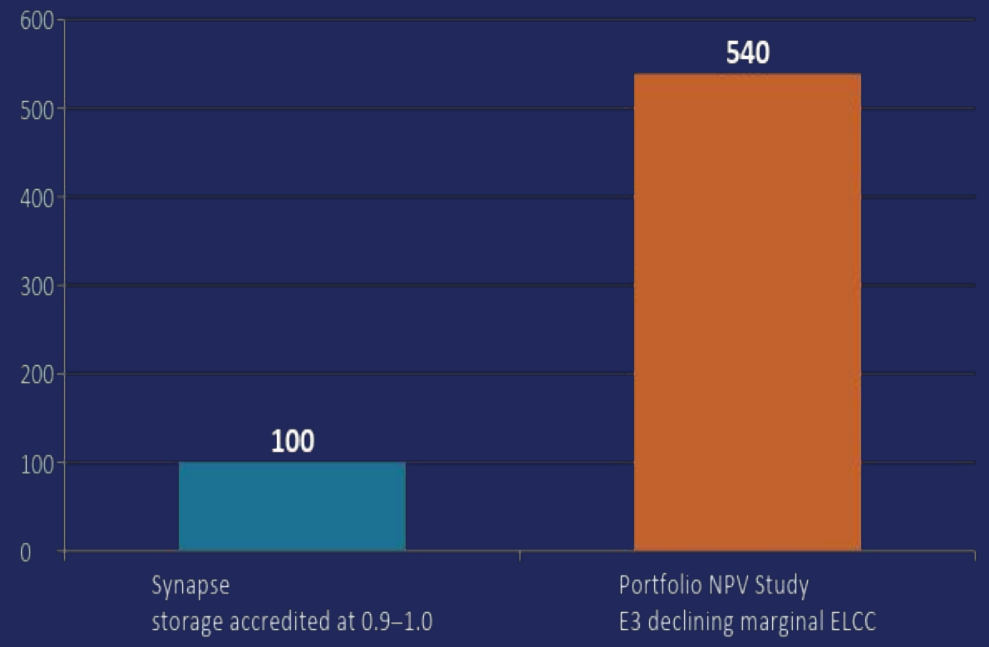
Either battery configuration is less expensive than the turbine proposal on a net present cost basis over equivalent useful lives.

4-hour NPC ranges $292M–$375M depending on augmentation and replacement assumptions; $326M shown.

The only like-for-like comparison of the actual proposal against an actual alternative anywhere in this record.

Source: Synapse Final Report (9 April 2026), Conclusions, pp. 59–60; installed cost of ProEnergy project as filed at that date ($334M; now $353M).

The cost gap is produced by quantity, not by price.



Same technology. Same unit cost. Five times the quantity.

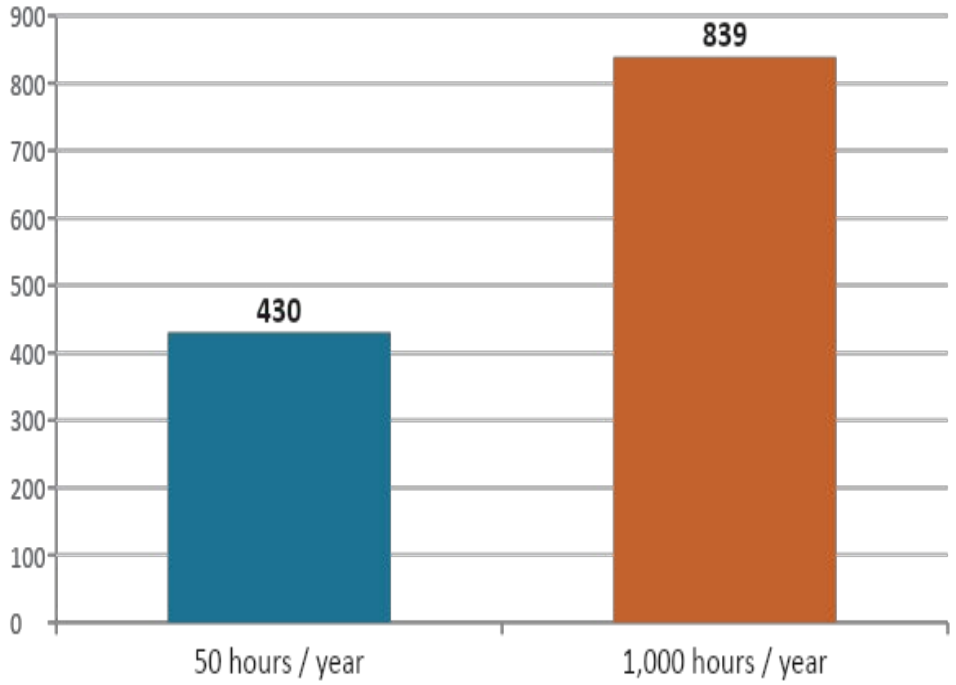
The resulting portfolio prices

Portfolio 4 — 50 MW CT + 300 MW BESS: $1.474B
Portfolio 5 — 540 MW BESS: $1.852B

Not a finding about the price of batteries, but an output of the accreditation assumption. And at unchanged unit cost: BESS was modelled on a 50 MW project and scaled with quantity, so 540 MW carries 50 MW economics with no volume discount.

Sources: Synapse Final Report, pp. 59–60; Portfolio NPV Study, ss. 3.0–3.1, Table 14; E3 Study, s. 5.3.3; C-33 Resp., IR-2b — the 115 MW includes 20 MW of "interactive effects" (wind saturation).

A flat 3% utilisation, held constant for fifty years.



What the rest of the record says

- CT energy output more than doubles 2029–2033 (Exhibit M-15)
- Peak demand up 45% in ten years, 249 MW to 362 MW
- Driven primarily by electrified space heating
- Sensitivities test 1% and 5% — but never a rising trajectory

Cost by operating hours (Exhibit C-28, IR-85). MECL assumes half-load, so 3% ≈ 500 operating hours.

Sources: Portfolio NPV Study, s. 4.6; Exhibit C-28, IR-85; Exhibit M-15, IR-4/IR-5; MECL Pre-Hearing Brief.

The stated compliance pathway is priced at zero.

In the 50-year NPV model

- No carbon price
- No emissions compliance cost
- No cost for offset credits
- Useful life untested — the model does not vary it
- Fuel-conversion cost never calculated (IR-57)

In MECL's own answers

Clean Electricity Regulations set limits from 2035. After 2050 the turbines are expected to comply "with the use of Canadian Offset Credits."

Offset credits are purchased. They are a cost.

MECL anticipates the regulations will be amended, while conceding that "the scope and details of any such amendments remain uncertain at this time."

Sources: Portfolio NPV Study (full text); Exhibit C-28, IR-65(a), IR-65(b), IR-57.

Too uncertain to forecast. Certain enough to finance.

Asked for a lifetime emissions forecast:

"Maritime Electric has not completed a GHG emissions forecast for the ProEnergy CTs over their useful life, as such a forecast would require assumptions over a 50-year period … subject to significant uncertainty."

Filed in the same package:

A 50-year net present value analysis, over the identical horizon, presented as the basis on which the Commission should approve $353 million.

Both filed 24 July 2026.

And if the assets strand:
"Maritime Electric would seek to recover the remaining net book value from customers." (IR-65(d))

Sources: Exhibit C-28, IR-68 and IR-65(d); Portfolio NPV Study (50-year study period).

For a resource running 263 hours a year, capacity cost is the metric.

Levelized cost of capacity — the annual cost, per kilowatt of accredited capacity, of holding a resource available.

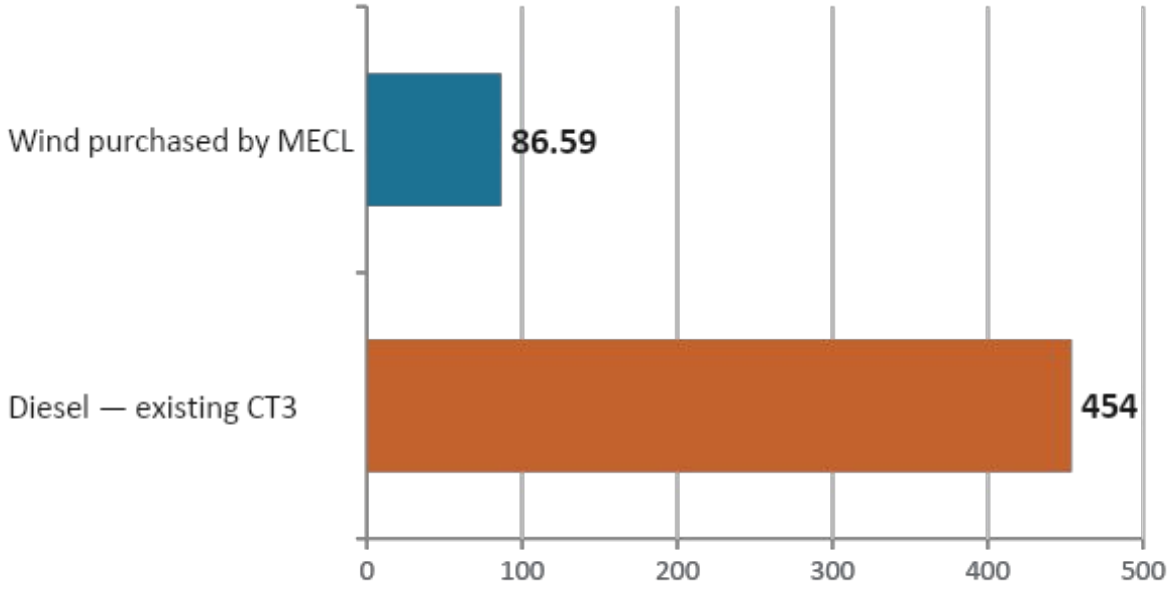
Why it matters here

- Puts a turbine, a battery, a demand-response program and an interruptible-load contract on one page
- Neither MECL nor Synapse has expressed the comparison on this basis
- It is the figure that tells Islanders what they are paying for insurance
- EDN filed levelised cost analysis earlier in this proceeding (Exhibits DN-5)

EDN asks that the Commission's own expert be invited to express the competing options on this basis.

3% annual capacity factor × 8,760 hours ≈ 263 hours per year (Portfolio NPV Study, s. 4.6).

Electrification is not the same thing as decarbonisation.



MECL's own footnote (Portfolio NPV Study s. 4.6.1). $454 is a 2025 annual average at part-load.

5% → 7.5%

Household rate impact

Savings fall from 52% to 9% in the same sensitivity.

The case rests on indicative, non-binding NBEM quotations. NERC and NPCC project the Maritimes in surplus from winter 2028/29 — the years these units would begin avoiding purchases.

Sources: Portfolio NPV Study, s. 4.6.1; Exhibit C-28, IR-46 and IR-87(d); Exhibit C-26, Attachments 1 and 2.

Water: asserted as an advantage, never quantified.

> *"A brownfield site with fuel storage, grid connections, and water treatment infrastructure already in place."*
>
> MECL Pre-Hearing Brief — offered as a reason to approve.

Questions on the record: none

- Annual and peak water consumption of the two units?
- Requirements of the SCR system and ammonia reagent handling?
- Source and permit for the withdrawal?
- Volume, temperature and quality of discharge?
- What happens during a summer water restriction?

The water stress argument

PEI depends entirely on groundwater. Charlottetown draws from wells in the Winter River watershed which has long been the subject of extraction-limit concern. and the City operates seasonal restrictions on residents.

Permitting has not begun. The Company relies on a 2014 assessment of a comparable project.

Sources: MECL Pre-Hearing Brief; Exhibit C-28, IR-66(b); City of Charlottetown water supply and conservation materials.

Diesel: a fifty-year forecast from one delivery.

1

Data point
The Company's most recent delivery, February 2026, sets the year-1 rate of $454/MWh

±15%

Sensitivity band
Applied uniformly across all fifty years of the study

1 week

Fuel storage
Full-load storage for the existing CT3. Requirement for three units: not stated

"Fuel supply constraints are not modeled in this analysis as fuel is assumed to always be available."

E3 Resource Adequacy Study, s. 4.5.1

The application's premise is that PEI cannot rely on what it does not control. The study supporting it assumes limitless availability of a fuel that arrives from off-Island. Fuel constraint is precisely the factor EPRI identifies as missing from conventional adequacy modelling. The Company is aware of no provincial or regional alternative fuel strategy (IR-61).

Sources: Portfolio NPV Study, ss. 4.6, 4.6.1; E3 Study, s. 4.5.1; Exhibit C-28, IR-60(a) and IR-61; US EIA distillate inventory outlooks, 2025–2026.

Two days in July.

23 July 2026	PEI, New Brunswick and Nova Scotia sign the MOU on Maritime Regional Electricity Cooperation and System Integration, in Charlottetown, with Natural Resources Canada. Maritime Electric is named to the Utilities–ISO Committee.
23 July 2026	Federal funding announced for the PEI–New Brunswick Interconnection Expansion: two new 200 MW submarine cables, groundwork for construction by 2028.
24 July 2026	Maritime Electric files the E3 Study and the Portfolio NPV Study. Neither mentions either announcement. Nor does the pre-hearing brief of 7 August.

MOU deliverables: regional roadmap and cost–benefit analysis (incl. a Maritime IESO) by Fall 2026; full roadmap and implementation decision by Spring 2027 — two and a half years before these turbines could generate.

Sources: MOU on Maritime Regional Electricity Cooperation and System Integration, 23 July 2026; NRCan announcement, 23 July 2026; Exhibit C-28, IR-42(c).

“Maritime Electric has not completed this analysis.”

- Probabilistic analysis of partial or full disconnection risk — IR-24(c)
- The annual operating level at which ownership ceases to be least-cost — IR-57
- Capital and operating cost of converting to natural gas — IR-59(c)
- Lifetime greenhouse gas forecast over the units’ useful life — IR-68
- Exhaustive schedule of sustaining capital over the units’ life — IR-69
- Capacity effect of NB transmission work: “not yet been quantified”, and MECL says it cannot quantify it — IR-42(c)
- Wind unavailable during disconnection: “internal discussions among engineering staff”, no review document — IR-34(a)
- Charlottetown site: a 50 MW, 4-hour BESS fits on MECL's own rule of thumb; no BESS engineering done while the CT is “substantially validated” — C-33 Resp., IR-14

Any one might be excused. Together they describe a categorical approval sought on considerably less than categorical support.

Source: Exhibit C-28, 24 July 2026; C-33 Responses, 17 August 2026.

Each deadline was critical. Each passed. The project survived.

Aug 2025	SRA payments Sept–Dec 2025 described as “essential to maintain the critical path to commissioning by 2028”
Sept–Dec 2025	Payments not made. Deferral account not approved. Opportunity did not lapse.
Mar 2026	COD slips from December 2028 to October 2029. The 2028 rationale is gone.
Jul 2026	RIGS schedules “no longer fully align.” No executed EPC contract. Permitting never begun.
Sept 30, 2026	A new deadline: USD $43.68 million due.

Sources: Exhibit M-12, p. 28; Exhibits M-25 and M-28; Exhibit C-28, IR-54, IR-66(b), IR-79, IR-80, IR-82; MECL Pre-Hearing Brief, para. 28.

The turbines do not help the next three winters.

2026–27

No contribution from the proposed units

2027–28

No contribution from the proposed units

2028–29

No contribution from the proposed units

What does help those winters — asked by staff on 7 August, answered by MECL on 17 August. The interim plan, in full:

- 14 MW of interruptible contracts, a 1 MW EV-charging pilot, a website status page, and conservation appeals (C-31 Resp., IR-93)
- Smart meters half installed; time-varying rates wait until 2028 — the 95% resource still undeployed (IR-93(d), 94)
- 20.5 MW of promised demand response never implemented; efficiencyPEI paused pilot work in April 2026
- Meanwhile, off-Island firm supply is rising: NBEM 195/200/205 MW for 2027–29; 40 MW non-firm possible 2026/27

Sources: C-31 Responses (17 August 2026), IR-92 to IR-94; Exhibit C-32, 7 August 2026.

Sequence and transparency

Sequence

- Application filed Dec 2024 on a 2020 system plan and a 1977 reserve margin
- Island-specific modelling arrives July 2026, after the Commission's expert identified its absence
- E3: MECL “has historically not performed its own RA analysis”
- Answers to the expert's questions fall due after today

Confidentiality — apply Sierra Club category by category

Rate impacts

Inputs may warrant protection. The output of what this does to a household bill is the one fact every Islander is entitled to know before it is decided.

Compensation questions (IR-88 to IR-90)

Withheld in full. MECL's own request concedes they could be answered at a high level of generality. If the answer is no, saying so publicly settles it.

Sierra Club of Canada v. Canada (Minister of Finance), 2002 SCC 41; Exhibits DN-2 and DN-3; E3 Study, s. 2.2.

EDN asks the Commission to reject this application.

The applicant has not met its burden

- No market tested for any alternative
- The highest-rated resource never costed
- Carbon compliance priced at zero
- Fuel conversion never costed
- Lifetime emissions never forecast
- Water demand never quantified
- Fuel supply constraint never modelled
- Regional agreements never addressed
- Key gaps conceded on 17 August; workpapers unexamined

The need is real. It has not been shown to require this transaction.

EDN asks the Commission to reject this application.

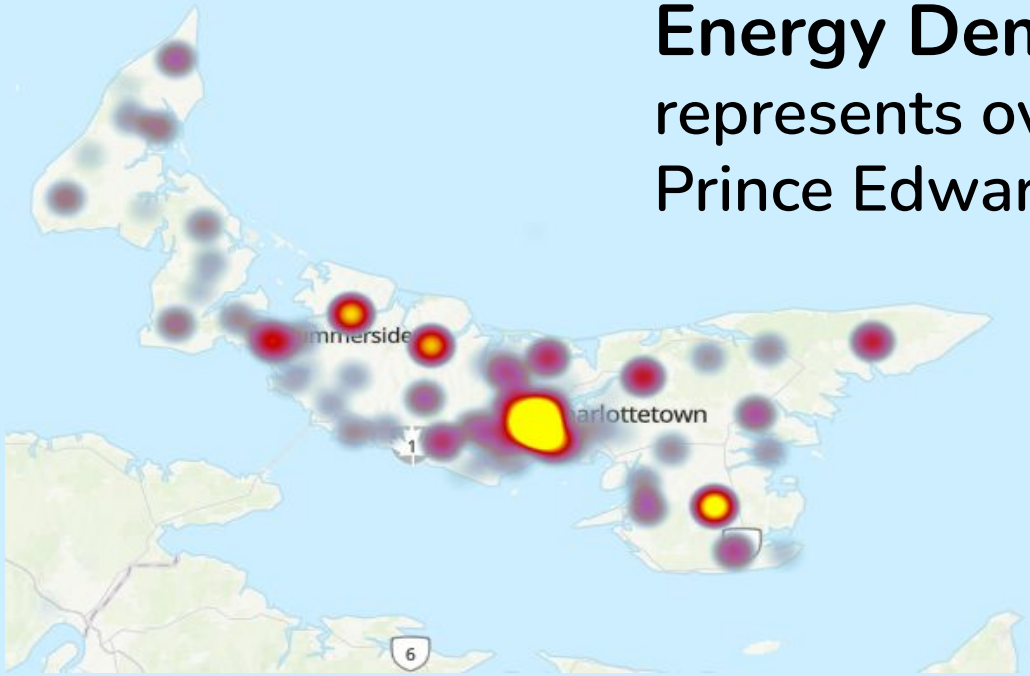
And, if denied

Return with an open, competitive procurement for the identified need: storage, demand response, interruptible load, renewables and thermal on equal terms and tested prices, with a current system plan and the resilience analysis E3 recommended. 357 MW of renewables already sit in MECL's own interconnection queue (C-33 Resp., IR-13).

In the alternative, without abandoning our position

- No decision before Synapse replies to the 17 August answers
- Order the market tests
- Answer the four questions publicly
- Rule on confidentiality; unseal the bill impact
- Interim peak-management plan, 2026–2029
- If approved: cost cap, contract filed, stranded-cost sharing

The need is real. It has not been shown to require this transaction.



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We are here as an intervener to represent the public.

We seek energy dependability, reliability, energy security, and energy autonomy for all Islanders.