**BLACKGRID LABS**

Infrastructure Beneath the World

# Atlantic Corridor: Initial Research

An initial feasibility question: can Atlantic Canadian power, cooling and connectivity support a competitive compute service?

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# In essence

## Why we are talking about this

Atlantic Canada has energy and connectivity assets worth studying. Geography alone does not establish an economical, reliable data-centre location.

## Purpose

Determine which combinations of deliverable power, network service and operating cost merit a detailed feasibility study.

## What we found and focus on

- Provincial electricity systems need separate assessments; Nova Scotia's CER profile is one starting point. [1]
- Power must be available under workable connection and supply terms.
- Cold weather may reduce cooling demand, but savings require a facility-specific model.
- Storm exposure, backup power and maintenance can change the economics.
- Fibre routes need measured latency, diversity and contracted capacity.
- The product would be compute service, with its own customer and utilization risks.
- Canada's sovereign-compute policy supplies context, not a customer commitment. [2]
- Private sites, counterparties and follow-on papers remain restricted.

## Conclusion and next steps

Compare representative scenarios using current supplier evidence. Obtain power terms, measured network performance and a complete cost model before naming a preferred site or claiming an advantage.

# Full revised research

## The feasibility question

The Atlantic Corridor concept combines power supply, cooling and network access to deliver compute services from Atlantic Canada. Its value depends on the delivered service, not simply on the region's proximity to Europe or its climate.

This is an initial research proposal. It does not establish that Atlantic Canada has the continent's cheapest cooling, a proven latency advantage or bankable power at a particular site.

## Power first

The CER's Nova Scotia profile documents the province's electricity system and energy context. It is useful background, but a provincial summary cannot determine the capacity available to a new facility. [1]

A candidate needs a connection study, a delivery schedule and supply terms that cover both normal operation and interruptions. Assess renewable output, firming, network charges and backup fuel together. Announced generation is not contracted firm capacity.

## Cooling and resilience

Cold weather can offer an opportunity for cooling, but the size of that opportunity depends on equipment, temperature and humidity limits, load density and the cooling design. Build an hourly model and compare it with a realistic alternative location.

Include flooding, wind, salt exposure, service access and backup requirements. A lower cooling bill can be outweighed by resilience or maintenance costs. The proposed research should measure the combined effect rather than assign a regional superlative.

## Network and customer requirements

A fibre landing nearby is not enough. Request service quotes, measure round-trip latency along the actual route, and verify physical diversity. A second provider does not ensure an independent path if both services share a conduit.

Define the workload before ranking sites. Batch compute, interactive services and distributed training have different network requirements. Compare revenue under credible utilization levels and include the risk of an unfilled facility.

## Policy and project gates

Canada's December 2024 sovereign-compute announcement is relevant policy context. It does not establish an Atlantic buyer, a procurement award or financing for this proposal. [2] The IEA's energy analysis gives a broader demand context, with projections that remain uncertain. [3]

A detailed feasibility study should require credible power terms, measured connectivity, a resilience plan and customer evidence. Stop or redesign if the combined cost cannot compete under conservative assumptions. Keep commercial and partner information within its existing access controls.

## Conclusion and next steps

The concept is worth testing where the power and network evidence intersect. The current public edition does not select a site or claim completed commercial validation.

Build a transparent comparison of representative cases. Seek independently reviewable measurements and quotes. The five restricted follow-on papers and the separate portal document remain private.

# Sources

Numbered citations refer to these sources. Proposed methods and next steps are BGL research proposals, not results established by the cited publications. Links checked for this revision on October 11, 2026.


## [1] Canada Energy Regulator: Nova Scotia energy profile

https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/province-territory-energy-profiles/nova-scotia.html

## [2] ISED: Canadian Sovereign AI Compute Strategy, announcement of December 5, 2024

https://www.canada.ca/en/innovation-science-economic-development/news/2024/12/canada-to-drive-billions-in-investments-to-build-domestic-ai-compute-capacity-at-home.html

## [3] IEA: Energy and AI, executive summary (2025)

https://www.iea.org/reports/energy-and-ai/executive-summary