



September 23rd, 2025

Economic Assessment of the Wind West Electricity Transmission Line

Navius Research

Navius Research is a Canadian consulting firm that uses energy-economy models to analyze the impacts of climate and energy policies.

Our analytical framework is used by clients across the country to inform greenhouse gas abatement strategy and economic impacts of policy.

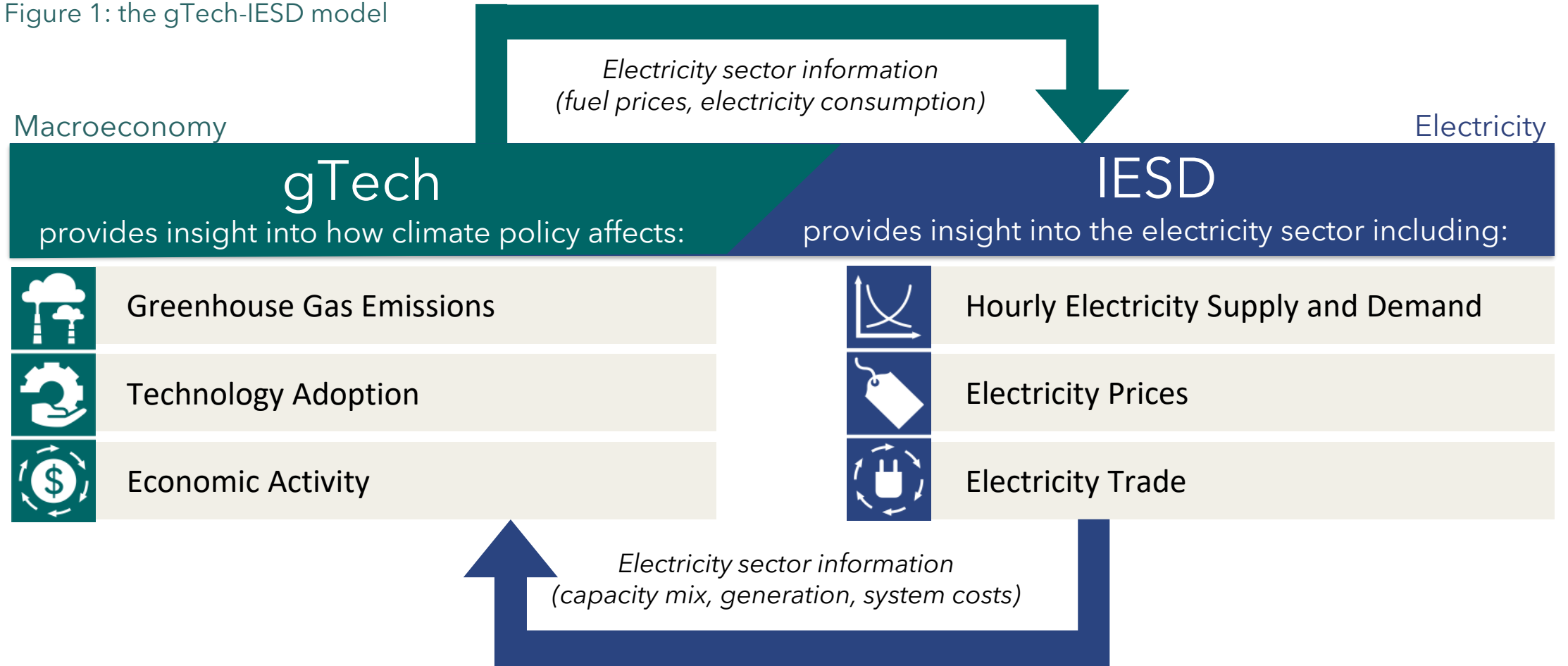
We work for governments, industry, and non-profits across Canada.

Objective

- Wind West is a proposed project that includes an electricity transmission line that would connect the Atlantic provinces and Quebec.
- This presentation summarizes an analysis by Navius to examine the economic value of transmission line component of the project.
- The analysis uses the gTech-IESD model and explores how electricity prices and Gross Domestic Product in Atlantic Canada would change if this transmission line were to be built.
- This analysis should be treated as preliminary, using estimates for the cost of the transmission line which are subject to change.

gTech-IESD model

Figure 1: the gTech-IESD model



Scenario design

The analysis was designed to explore the potential benefits of the transmission component of the Wind West project in Atlantic Canada.

- **Wind West:** Each scenario was examined with and without the Wind West transmission line. The difference can therefore be directly attributed to the availability of the new transmission line.
- **Net zero commitment:** All scenarios include Canada's commitment to achieve net zero GHG emissions in 2050. These scenarios are in-line with the net zero policy assumptions in Navius Research's [Canada Energy Dashboard](#).
- **Electricity storage sensitivity:** The scenarios also explore the interaction between the Wind West transmission line and other electricity storage opportunities (including short-duration and seasonal electricity storage). Our previous analyses indicate that both electricity transmission and storage help maintain a reliable grid. However, the availability of low-cost electricity storage reduces the need for electricity transmission. To bound the potential benefits of the Wind West, we examined scenarios with and without electricity storage.

Wind West assumptions

The net economic benefit of the Wind West transmission line is partially determined by its costs. The critical assumptions for characterizing the Wind West were developed in consultation with Ecology Action Centre, and are summarized below:

- **Regions inter-connected:** The transmission line connects Nova Scotia, New Brunswick, PEI and Quebec.
- **Capacity:** The Total Transfer Capability for the line is assumed to be 2,000 MW, with a smaller 400 MW line connecting New Brunswick and PEI.
- **Cost:** The cost of the Wind West is assumed to be \$5.5 billion in 2025 CAD.
- **Policy:** The federal government covers 50% of the construction cost.
- **Availability:** The line begins operation in 2031.

Interpreting the analysis given uncertain assumptions

This analysis has been conducted before the design and cost for the transmission line has been finalized. As such, this analysis should be interpreted as an initial assessment of the benefits of the transmission line. If the costs for the transmission line prove to be higher than anticipated, the benefits would be reduced. Likewise, more favorable design parameters (e.g., greater capacity) would lead to greater benefits. Finally, this analysis has not been expanded to consider the potential for offshore wind development.

The Wind West reduces electricity prices in Atlantic Canada

- All provinces show a decline in electricity prices if the Wind West transmission line is built. In 2050, electricity prices are about \$10 per MWh lower with the Wind West (storage is available).
- If storage is unavailable (which can also be used as a proxy for higher cost storage), the Wind West would achieve even lower electricity prices in Atlantic Canada.
- The Wind West facilitates the deployment of renewables and other technologies for achieving net zero emissions in Atlantic Canada. It also improves reliability, thereby reducing the need for other options for ensuring reliability.

* The availability of storage or the Wind West is particularly important for maintaining low electricity prices in PEI. We emphasized the impact in NS and NB, but the benefit to PEI reaches \$60 per MWh in 2050.

Figure 1: Change in Electricity Prices (storage is available)

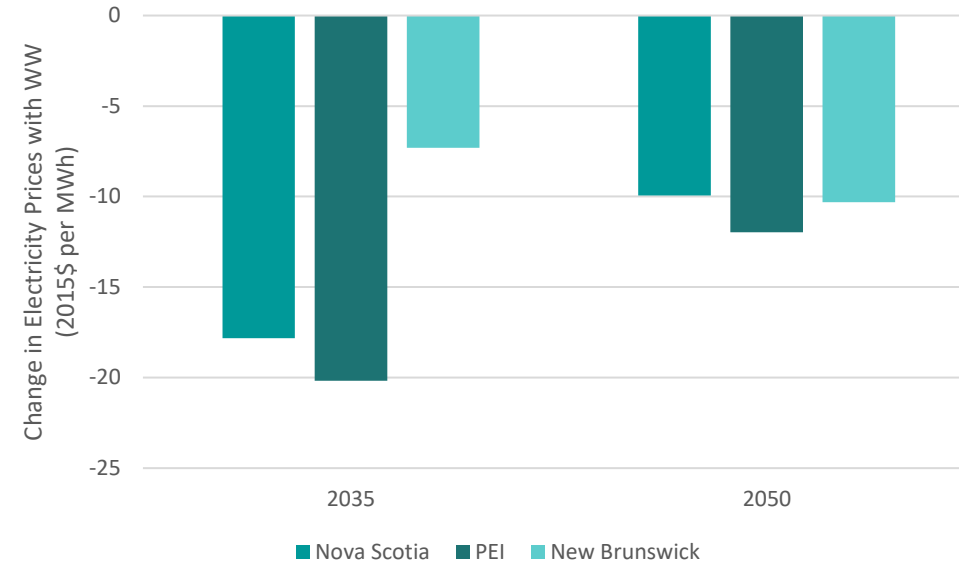
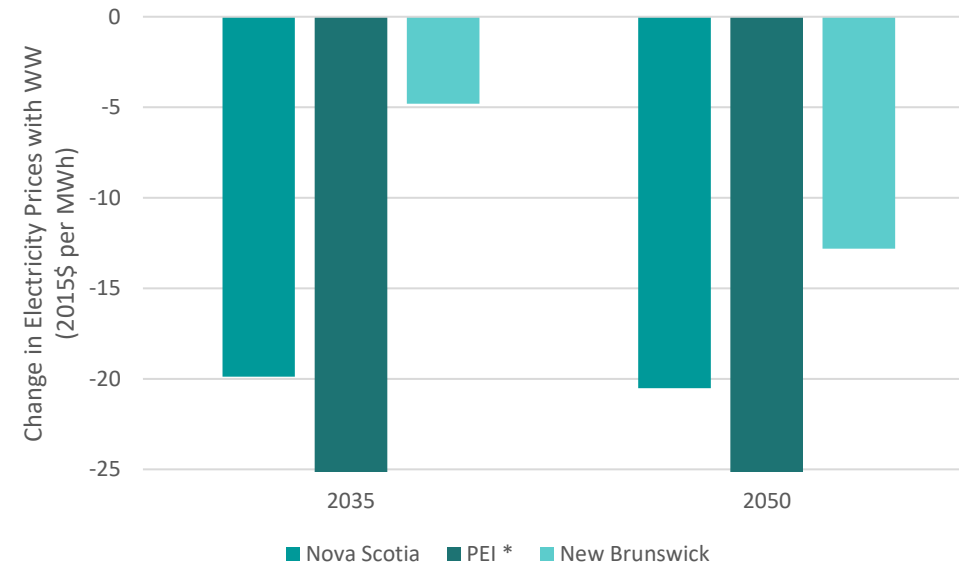


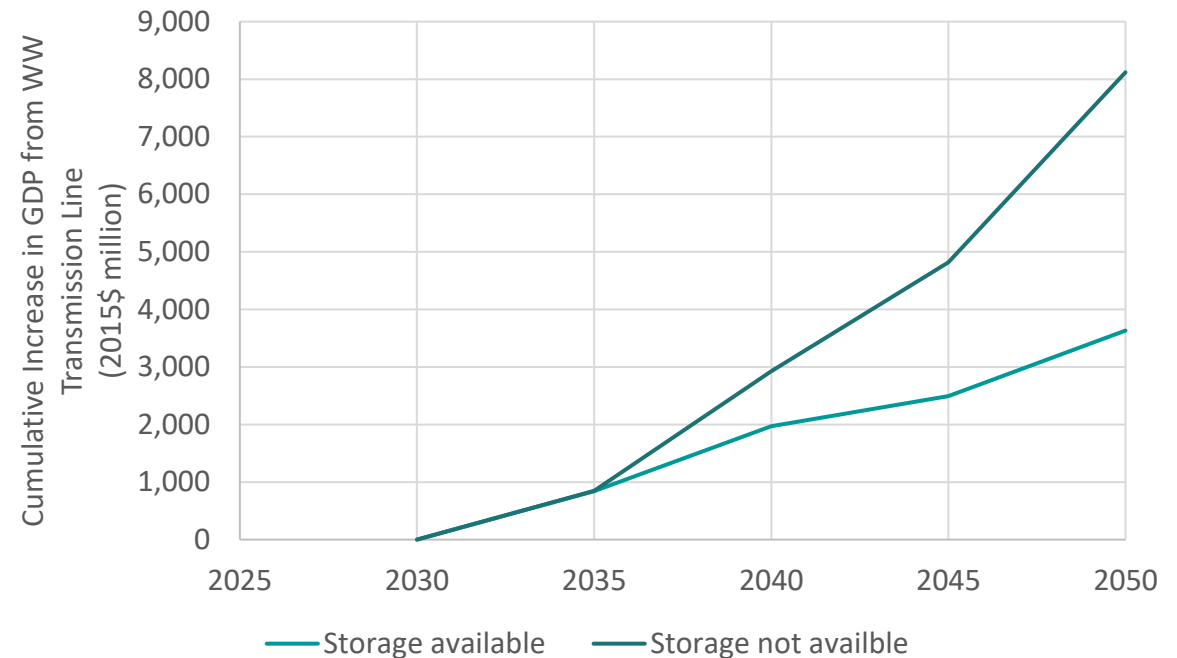
Figure 2: Change in Electricity Prices (storage NOT available)



Lower electricity prices in Atlantic Canada would boost GDP

- Atlantic Canada experiences an increase in GDP with if the Wind West transmission line is built. These benefits accumulate over time and reach \$3.6 billion by 2050 (storage is available).
- If electricity storage is not available (this scenario can be used as a proxy for higher cost or more limited storage), the Wind West provides greater benefits, reaching over \$8 billion by 2050.
- The higher economic outlook from building the Wind West is primarily the result of lower electricity prices while achieving net zero.

Figure 3: Cumulative Increase in GDP in Atlantic Canada with the Wind West transmission line



This is a preliminary assessment of the economic benefits from building the Wind West electricity transmission line. The analysis indicates that:

- **The transmission line would reduce electricity prices in Atlantic Canada while achieving net zero GHG emissions.** All scenarios show a consistent reduction in electricity prices. By 2050, electricity prices in Nova Scotia, New Brunswick and PEI are at least \$10 per MWH lower with the Wind West than without.
- **The transmission line has the potential to maintain stronger economic growth while achieve net zero emissions:** All scenarios showed more robust economic growth in Atlantic Canada if the transmission line is built. The Wind West transmission line adds at least \$3.6 billion (2015 CAD) to cumulative GDP from 2031 to 2050. This estimate is greater (\$8 billion) if electricity storage does not materialize.
- **This analysis was completed with relatively high-level estimates for the cost of the transmission system:** The analysis should be re-done when more detail on the potential transmission line is available.



Thank You!

Questions or Comments?



Office Address

1720 - 355 Burrard St
Vancouver BC V6C 2G8

E-mail: contact@naviusresearch.com