

INVESTORS for PARIS COMPLIANCE

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EXECUTIVE SUMMARY

The Trump administration's tariff threats have incited calls to relaunch liquified natural gas (LNG) projects through Eastern Canada with the aim of diversifying Canadian gas exports. However, the business case for developing new East Coast LNG projects to supply two key export markets, Europe and Asia, is weak because:

- The main proposed market the EU is reducing its demand for gas;
- The alternative market Asia is developing alternatives to LNG and has access to closer, lower-cost suppliers than Canada's East Coast;
- There is a glut of LNG supply coming onstream in the coming few years;
- Canada's building costs are not globally competitive, with major projects relying on billions in taxpayer subsidies to be viable.

In reaction to Russia's invasion of Ukraine in February 2022, the EU developed the "REPowerEU" program, aimed at finding alternatives to Russian gas supplies and reducing European demand for natural gas through the deployment of renewable energies and energy efficiency. Between 2022 and 2024, the E.U. developed significant new renewable capacity, enabling a 18% reduction in gas demand.

European gas demand is set to continue its downward trend in the future. The European Union Agency for the Cooperation of EU Energy Regulators (ACER) forecasts a reduction in LNG demand of 26% by 2030 compared to 2024 levels, from 135 billion cubic meters (bcm) to around 100 bcm in 2030.



EUROPEAN LNG AND OTHER GAS DEMAND OUTLOOK, 2019-2030

Source: European Union Agency for the Cooperation of EU Energy Regulators (ACER)

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While Asia's rapid development means the region will see significant increases in broad energy demand, its projected LNG demand has faced roadblocks over the last decade. Japan and South Korea, for example, have both significantly increased their nuclear power production, while China has developed a myriad of domestic procurement incentives to drive self-production of gas. Furthermore, the proposed Power of Siberia 2 pipeline would add another 50 bcm/a of gas from Russia to China – at a significantly cheaper rate compared to LNG. India, on the other hand, is largely supplied by long-term contracts with Qatar, which is much closer to India than either of Canada's coasts. India is largely supplied by long-term contracts with Qatar, which is set to double its LNG output between 2024 and 2030 at a lower price than any Canadian project.

The global LNG market is also projected to experience a significant glut. The Institute for Energy Economics and Financial Analysis (IEEFA) projects that between 2024 and 2028, global supply of LNG will grow an unprecedented 40%, led by Qatar and the United States. With demand growth projections having softened for the world's largest buyers, this will place downward pressure on prices, threatening the viability of Canadian projects.

Additionally, Canada's geography brings costs up and makes it difficult to scope projects accurately. GNL Quebec's original cost, which included a 750-km pipeline, a liquefaction plant and an export terminal, was estimated at \$13.7 billion in 2018 dollars, or \$16.9 billion in 2025 dollars. This estimate is likely underestimated, knowing that LNG Canada Phase 1's liquefaction and export terminal cost \$18 billion, not including the pipeline. Applying the overrun factors observed with LNG Canada Phase 1 and Coastal Gaslink to GNL Quebec's \$16.9 billion estimate, the project's actual cost could be up to twice that estimate, or upwards of \$33 billion in 2025 dollars.

Key Transition Opportunity Sectors



East-West Electricity Grid

Lower Electricity Costs Interprovincial connectivity makes efficient energy sharing.

Expand Renewable Energy Easier integration of wind, solar & hydro across provinces.

Strengthen National Energy Security Reduced reliance on electricity trade with the US. Market value could exceed \$1 TRILLION by 2040 Critical Minerals

Essential for the Energy Transition Electric vehicles, batteries, and clean tech require critical minerals, including lithium and nickel.

Rising Global Demand The global shift toward low-carbon economies makes critical minerals strategic assets.





High Speed Rail

Create Meaningful Jobs Construction, operations, and maintenance offer long-term employment if proposed projects in

long-term employment if proposed projects in Eastern Canada and Alberta start moving.

Boost Interprovincial Trade Faster, more efficient movement of people and goods drives economic collaboration.

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Plus, recent energy infrastructure projects all required taxpayer funding to be viable. Aside from capital, GNL Québec would also need 550 MW of electricity from Hydro-Quebec. If granted, the electricity would be sold at the preferential industrial "Rate L".

Allocating significant further public and private resources to oil and gas expansion would further concentrate Canada's economic reliance on fossil fuel resources. Between 2000 and 2021, oil and gas averaged about 5% of Canada's GDP, with that figure reaching 21% and 25% in Alberta and Newfoundland, respectively. Gas has proven vulnerable to unpredictable global events, and greater uncertainty looms as demand projections for the commodity vary significantly. The prospect of building out Canada's LNG export capacity means trading an unreliable partner for an unreliable commodity.

Proponents of LNG have promoted the claim that Canada can drive emissions reductions globally by increasing LNG exports to displace coal. This notion fails on two fronts, as LNG is too expensive to displace coal at scale, and even if LNG could affordably displace coal, it would not deliver substantial emissions savings.

While there is a need to diversify and strengthen our economy, this needs to be based on sound business opportunities. For savvy investors, improving East-West electricity integration, investing in critical minerals, and developing high-speed passenger rail are economic opportunities worth pursuing.

INTRODUCTION

The Trump administration's tariff threats have incited calls to relaunch liquified natural gas (LNG) projects through Eastern Canada with the aim of diversifying Canadian gas exports. Proponents argue that East Coast export routes would provide access to the European Union and other markets. While Canada currently has a number of planned and proposed projects to export LNG on Canada's West Coast, the main project being talked about by politicians on the East Coast is GNL Québec.

This memo analyzes the economic and market environment of an LNG export project via Canada's East Coast. We begin by reviewing the demand and supply profiles for LNG, then analyze the economic risks posed by an over-reliance on fossil fuels. We then review the cost of recent Canadian energy infrastructure projects and LNG's environmental footprint. Finally, we look at various alternatives for strengthening Canada's economic resilience.

1. THE GNL QUEBEC PROJECT

Initially proposed in 2015, the GNL Québec project comprised two components: Gazoduq, a 750 km pipeline that would transport 1.3 Bcf/d of gas between northern Ontario and Saguenay, and Énergie Saguenay, a liquefaction plant and marine facilities at Grande-Anse, to export LNG to international markets. At the time the project was put forward, the cost of the pipeline was estimated at \$4.2 billion and the liquefaction plant at \$9.5 billion, for a total of \$13.7 billion.

FIGURE 1: PROPOSED CORRIDOR FOR THE GNL QUEBEC PROJECT, FROM NORTHERN ONTARIO TO SAGUENAY



Source: GNL Quebec / Symbio Infrastructure

In 2021, following the Quebec Environmental Public Hearings Bureau's assessment, the Quebec government rejected the GNL Québec project, citing three reasons:

- 1. The fact that the project could slow down the energy transition of the project's customer countries;
- 2. The absence of guarantee that the use of LNG would replace coal in export markets;
- 3. The lack of sufficient upstream GHG mitigation measures proposed by gas producers and distributors.¹

A few months later, in 2022, the Canadian government also rejected the project, citing a report by the Canadian Impact Assessment Agency that concluded there would be significant effects on GHG emissions and on marine mammals in the Saguenay fjord.^{2,3}

2. UNCERTAIN EASTERN CANADA EXPORT MARKETS FOR LNG

While the logical market for East Coast LNG is Europe, Asia is also eyed as a potential destination for LNG shipped from Eastern Canada. However, the demand for Canadian LNG in both these regions is uncertain.

A. EUROPE

The European gas market has experienced tumultuous times since Russia's invasion of Ukraine in February 2022. As the vast majority of Russian gas deliveries to the European Union were interrupted, notably by the shutdown of the Nord Stream 1

and 2 pipeline systems, prices soared from a 5-year average of around 25 EUR/MWh to a historic high of almost 350 EUR/ MWh, before returning to manageable levels in 2023 (around 35 EUR/MWh), albeit slightly above pre-war levels.⁴

In reaction, the EU developed the "REPowerEU" program, with a budget of almost EUR 300 billion, aimed not only at finding alternatives to Russian gas supplies, but also at reducing European demand for natural gas altogether through the deployment of renewable energies and energy efficiency measures.⁵

- Office of the Quebec Minister of the Environment, the Fight against Climate Change, Wildlife and Parks, The Quebec government does not authorize the Énergie Saguenay natural gas liquefaction project, (July 2021).
- 2 ICI Radio-Canada, Ottawa's turn to say no to Quebec LNG's Énergie Saguenay project, (Feb. 2022).
- 3 Impact Assessment Agency of Canada, Énergie Saguenay Project: Environmental Assessment Report, (Nov. 2021) at III.
- 4 Trading Economics, EU Natural Gas TTF -Price, (accessed May 2025).
- 5 European Commission, REPowerEU: Affordable, secure and sustainable energy for Europe, (accessed May 2025).

Over two years, in order to cut down European pipeline gas supply from Russia from 45% to 15%, LNG imports have risen from 16% to 36% of European supply, and deliveries via the EU pipeline network have risen from 39% to 49%⁶ LNG imports started declining after 2023 following the adoption of measures aimed at reducing EU gas consumption.

Among those measures, 96 GW of solar power and 33 GW of wind power were installed, a 36% increase in installed renewable energy capacity, in addition to 5.25 million new heat pumps. Together, these measures enabled a 18% reduction in gas demand in the European Union between 2022 and 2024.⁷

According to the European Union Agency for the Cooperation of Energy Regulators (ACER), European gas demand is set to continue its downward trend in the future, decreasing by 6% to 44% by 2030 depending on the scenario. This demand reduction should enable the EU to wean itself off Russian gas entirely by around 2027.⁸ Plus, an eventual end to the Russian invasion of Ukraine could increase social acceptability of Russian gas in Europe, exerting a downward pressure on gas prices in the region.



FIGURE 2 EUROPEAN LNG AND OTHER GAS DEMAND OUTLOOK, 2019-2030

For LNG imports, Europe decreased its purchases by 19% in 2024 compared with 2023, while the average utilization of European LNG import terminals fell from 58% to 42%. By 2030, ACER forecasts a reduction in demand of 26% compared to 2024 levels, from 135 bcm to around 100 bcm in 2030. Against this backdrop, the prospects for new LNG suppliers to supply European markets look questionable.

6 Ibid.

⁷ Ibid.

⁸ European Union Agency for the Cooperation of Energy Regulators, Analysis of the European LNG market developments, 2024 Market Monitoring Report, (Apr. 2024) at 21.

B. ASIA

While European markets are closer to potential LNG exported from Canada's East Coast, Asian markets play a key role in dictating the viability of Canadian LNG. Asia buys 73.2% of global LNG,⁹ and as such is a key player in determining broader global demand trends. Competing LNG exporters — particularly Gulf nations that undercut Canadian LNG on cost — are able to ship to both Europe and Asia. While Asia's rapid development means the region will see significant increases in broad energy demand, its projected LNG demand has faced roadblocks over the last decade.

Japan and South Korea, for example, have both significantly increased their nuclear power production. Japan is aiming for nuclear power to make up 20% of its total power by 2030,¹⁰ and South Korea has seen a 38% increase in nuclear capacity between 2010 and 2024.¹¹ China has developed a myriad of domestic procurement incentives to drive self-production of gas.¹² Furthermore, the proposed Power of Siberia 2 pipeline would add another 50 bcm/a of gas from Russia to China — at a significantly cheaper rate compared to LNG — further bringing China's role as a growth importer into question.¹³

South and Southeast Asia have growing economies but have experienced gas demand roll back largely due to cost and volatility. As the war in Ukraine drove European nations to seek alternative energy sources, they outbid Southeast Asian nations, driving down projected demand.¹⁴ While Asian gas consumption is likely to continue rising, this drop in projected growth — while projected supply rises — means risk for any new project in finding sufficient demand.

Meanwhile, high prices and competition with alternative power sources has led South Asian countries to reduce LNG's role in energy planning.¹⁵ Pakistan, for example, has decided to halt production of new power plants reliant on imported LNG.¹⁶

India has been cited as a potential buyer of Canadian LNG, with National Bank suggesting that "partially replacing India's coal-fired power generation with Canadian LNG would have a more profound impact on the planet than shutting down the Canadian economy entirely."¹⁷ But, in addition to emissions savings derived from LNG being unsupported by scientific consensus, India is largely supplied by long-term contracts with Qatar¹⁸ which is set to double its LNG output between 2024 and 2030¹⁹ at a lower price than any Canadian project.²⁰ Additionally, Qatar is much closer to India than either of Canada's coasts.

- 9 International Group of Liquefied Natural Gas Importers, LNG Imports (accessed Mar. 2025).
- 10 World Nuclear Association, Nuclear Power in Japan, (Oct. 2024).
- 11 World Nuclear Association, Nuclear Power in South Korea, (May. 2024).
- 12 Center on Global Energy Policy, Rising Production, Consumption Show China is Gaining Ground in Its Natural Gas Goals, (Oct. 2024).
- 13 Downs et al., The Future of the Power of Siberia 2 Pipeline (May 2024).
- 14 Center for Strategic and International Studies, Clean Energy and Decarbonization in Southeast Asia: Overview, Obstacles, and Opportunities (May 2023).
- 15 IEEFA, Global LNG Outlook 2024-2028 (Apr. 2024) at 5.
- 16 Bloomberg, Pakistan Plans U-Turn on Fuel Imports After Prices Surge, (Feb. 2023).
- 17 National Bank of Canada, Hot Charts, (Feb. 2024) at 1.
- 18 Reuters, Indian oil companies in talks to buy U.S. LNG supplies, (Feb. 2025).
- 19 Middle East Council on Global Affairs, LNG Giant and Solar Dreams: Qatar's Next Energy Chapter (Jan. 2025).
- 20 The American Oil & Gas Reporter, LNG Exports Continue To Set New Records, (Oct. 2019).

The development of LNG intake infrastructure is a costly long-term investment, and the business case for developing new East Coast LNG projects to supply the Asian market is therefore far from clear.

3. THE UPCOMING LNG GLUT

The Institute for Energy Economics and Financial Analysis (IEEFA) projects that between 2024 and 2028, global supply of LNG will grow an unprecedented 40%, led by Qatar and the United States.²¹ With demand growth projections having softened for the world's largest buyers, this will place downward pressure on prices, threatening the viability of Canadian projects.



Canada is about to become a LNG exporter for the first time just as other countries are about to significantly add to their own LNG export capacity. Should all Canadian LNG projects currently listed as being at various stages of development by NRCan be built – which does not include GNL Quebec – Canada could theoretically be exporting 50.3 MTPA,²² or about the equivalent of 12.5% of global volume traded in 2023.²³

- 21 IEEFA, Global LNG Outlook 2024-2028, (Apr. 2024) at 7.
- 22 Natural Resources Canada, Canadian liquified natural gas projects (May 2024).
- 23 International Gas Union, Press Release:2024 World LNG Report, (Jun. 2024).
- 24 Canada Energy Regulator, Canada's Energy Future 2023 (Nov. 2023) at 37.

These licenses — approved by the Canada Energy Regulator (CER) — surpass the CER's own projections of long-term demand for Canadian LNG in all scenarios. Even excluding any new proposed projects, none of the CER's projections suggest that 50.3 MTPA benchmark will be achieved in 2050 despite all licenses extending to at least 2050. Its least climate-ambitious scenario, in which no new global climate policies are announced, would see Canada exporting about 70% of its licensed capacity, while a global net-zero scenario would see Canada exporting at just 4.5% capacity.²⁴ Any new projects will exacerbate this gap between Canadian supply and global demand.

4. CANADIAN ENERGY INFRASTRUCTURE'S UNCOMPETITIVE COSTS

Canada faces outsized transition risk as Canadian projects struggle to compete on price with global competitors. Canadian projects have high breakeven points, and infrastructure costs far above industry standards.²⁵ For instance, while the firm McKinsey estimates the breakeven cost for new LNG projects to be \$9.50/MMBTU, best estimates of Canadian LNG projects' costs surpass this breakeven point by \$1.60/MMBTU (IEEFA 2022) to \$3.10/MMBTU (Rystad's estimate of Woodfibre LNG).²⁶

Canada's geography brings costs up and makes it difficult to scope projects accurately. LNG Canada Phase 1, which included the 670 km Coastal Gaslink pipeline linking Dawson Creek to Kitimat in Northern British Columbia, as well as a liquefaction plant and dock, was originally estimated to cost \$18 billion — \$14 billion for the liquefaction plant and dock, and \$4 billion for the pipeline.²⁷

At completion, the project costs totalled \$32.5 billion, including \$18 billion for the liquefaction plant and dock and \$14.5 billion for the pipeline,²⁸ representing overruns of 29% and 263%, respectively. TC Energy, which owns Coastal Gaslink, blamed "challenging conditions in the Western Canadian labour market; shortages of skilled labour; impacts of contractor underperformance and disputes; as well as other unexpected events like drought conditions and erosion and sediment control challenges" for the cost increase.²⁹

The TransMountain expansion project, which transports oil over 1,150 km from Edmonton to Burnaby, was initially estimated at \$5.4 billion in 2013. After multiple cost overruns, the latest estimates indicated a revised cost of \$34.2 billion, a 503% increase after inflation.³⁰

- 25 Investors for Paris Compliance, Late to the Party, (Dec. 2024) at 10.
- 26 The American Oil & Gas Reporter, Gas Markets, (Oct. 2019). ; Canadian Energy Centre, North America LNG Project Cost Competitiveness, (Apr. 2024) at 3.
- 27 Institute for Energy Economics and Financial Analysis, Review of LNG Canada Project: Delays, Policy Changes, and Rising Costs, (Nov. 2021) at 4; 13.
- 28 The Globe and Mail, Estimated cost of Coastal GasLink pipeline surges to \$14.5-billion, (Feb. 2023).
- 29 TC Energy, TC Energy Provides Coastal GasLink Project Update (Feb. 2023).
- 30 Office of the Parliamentary Budget Officer, Trans Mountain Pipeline - 2024 Report, (Nov. 2024) at 2.

GNL Quebec's initial cost, which includes a 750-km pipeline, a liquefaction plant and an export terminal, was estimated at \$13.7 billion in 2018 dollars, or \$16.9 billion in 2025 dollars. This estimate is likely underestimated, knowing that LNG Canada Phase 1's liquefaction and export terminal cost \$18 billion, not including the \$14.5 billion pipeline. Applying the overrun factors observed with LNG Canada Phase 1 and Coastal Gaslink to GNL Quebec's \$16.9 billion estimate, the project's actual cost could be up to twice that estimate, or upwards of \$33 billion in 2025 dollars.

FIGURE 4



5. RECENT ENERGY INFRASTRUCTURE PROJECTS ALL REQUIRED TAXPAYER FUNDING TO BE VIABLE

Given the high capital cost profile for new infrastructure, it is likely that a new export route to Eastern Canada would require substantial public subsidies to be viable. Aside from capital, GNL Québec would also need 550 MW of electricity from Hydro-Quebec. If granted, the electricity would be sold at the preferential industrial "Rate L".

In the case of Coastal Gaslink, the government of Canada, through Export and Development Canada, granted a \$500 million loan to TC Energy in 2020. AIMCo, an Alberta Crown corporation, also injected equity into TC Energy for an undisclosed amount.³¹ EDC last year extended a further undisclosed loan of "up to \$200 million" to the Coastal Gaslink project, one month after announcing a loan of "between \$400 and \$500 million" to Cedar LNG, another Kitimat LNG project.³² LNG Canada, which the Coastal Gaslink pipeline feeds, received billions in subsidies from the federal and B.C. provincial governments, in the form of steel tariff exemptions, discounted electricity prices, carbon tax exemptions, corporate income tax breaks, and sales tax deferrals.³³

And, exploding costs and delays with the TransMountain Expansion project required the Canadian government taking the project over as owner and promoter. A 2023 analysis found that tolls charged over the lifetime of the pipeline would cover less than half of the project's \$34.2 billion price tag.³⁴

TWO OTHER EASTERN CANADA LNG PROJECTS IN LIMBO-

Placentia Bay LNG is a Newfoundland and Labrador project presented in 2021 to export gas from the Jeanne d'Arc Basin offshore fields.³⁵ It is still considered to be embryonic and does not have a clear timetable.³⁶ Initially, the project was designed to transport gas to shore for liquefaction through a 600 km subsea pipeline to a floating LNG vessel located in Placentia Bay, for an export capacity of 4 MTPA. A new concept is now being promoted, with a floating processing facility directly on the Grand Banks which would avoid the construction of a pipeline to the mainland. The promoter's website is currently offline, and the project has been removed from NRCan's list of LNG projects in various stages of development in Canada.³⁷

In Nova Scotia, the 10 MTPA Goldboro LNG plant, with proposed export capacity similar to the GNL Quebec project, was abandoned due to cost pressures in 2021 after it was first proposed by Peridae Energy in 2012.³⁸ The project required an expansion of TransCanada's Trans Quebec & Maritimes Pipeline linking Montreal to the US, through Quebec's Montérégie and Eastern Townships regions.³⁹ The promoter was seeking \$925 million in federal funding, which was not granted.

The shelving of these projects shows the uncertainty plaguing Eastern Canada LNG exports projects.

- 31 International Institute for Sustainable Development and Global Subsidies Initiative, Pipelines or Progress: Government support for oil and gas pipelines in Canada, (July 2021) at vi.
- 32 National Observer, After promise to end subsidies, feds Ioan Coastal Gaslink up to \$200 million, (July 2024).
- 33 Canadian Centre for Policy Alternatives, A critical look at BC's new tax breaks and subsidies for LNG, (May 2019) at 2.
- 34 National Observer, Proposed toll hikes won't cover Trans Mountain's price tag, (July 2023).
- 35 Newfoundland and Labrador Environment and Climate Change, Placentia Bay Liquefied Natural Gas (LNG) Facility and Marine Terminal, (accessed May 2025).
- 36 ICI Radio-Canada, Pierre Poilievre promises to approve Newfoundland's embryonic LNG project, (Apr. 2025).
- 37 Natural Resources Canada, Canadian liquefied natural gas projects, (accessed May 2025).
- 38 CBC, Proposed Goldboro LNG plant officially abandoned after more than a decade, (Nov. 2023).
- 39 Le Devoir, Another LNG project passing through Quebec, (Apr. 2021).

6. CANADA'S OTHER ECONOMIC VULNERABILITY: OVER-RELIANCE ON FOSSIL FUELS

American tariffs on Canadian goods have sparked discussion surrounding Canada's trade strategy. With the bulk of Canada's exports going to the United States, energy sector executives and political leaders have cited LNG expansion as an opportunity to sell Canadian fossil fuels to a more diverse audience of buyers.⁴⁰ Proponents suggest that the ability to bring Canadian gas directly to global markets would reduce Canada's reliance on the United States, and weaken the United States' ability to hinder Canadian economic growth with trade aggression.

However, allocating significant further public and private resources to oil and gas expansion would further concentrate Canada's economic reliance on fossil fuel resources. Between 2000 and 2021, oil and gas averaged about 5% of Canada's GDP, with that figure reaching 21% and 25% in Alberta and Newfoundland, respectively.⁴¹ Oil and gas contributed about \$270 billion to Canada's GDP in 2022.⁴²

This economic concentration has harmed Canada's economic growth. The crash of oil prices in 2014 exemplifies this. Between 2014 and 2024, Canada's oil and gas index experienced zero growth, significantly underperforming the broad market.⁴³ The crash coincided with a sharp dip in the value of a Canadian dollar,⁴⁴ while a Senior Deputy Governor at the Bank of Canada cited the crash as a significant factor in Canada's persistently slow wage growth.⁴⁵

Yet, there is now a push from both public and private actors to expand Canada's economic concentration in fossil fuels. Gas and particularly LNG are volatile commodities. Over the past two decades, global gas prices have fluctuated regularly, dropping as low as under \$2USD/MMBTU, and as high as over \$12USD/MMBTU.⁴⁶ Gas has proven vulnerable to unpredictable global events, and greater uncertainty looms as demand projections for the commodity vary significantly.

Where public financing has incentivized development of LNG, it has diverted both public and private financing away from sectors with greater projected demand growth, as explored in the final section of this memo. The prospect of building out Canada's LNG export capacity to decrease reliance on the United States is politically appealing. However, doing so especially at the expense of developing sectors with higher growth potential in a changing and transitioning economy — means trading an unreliable partner for an unreliable commodity.

- 40 Calgary Herald, Varcoe: 'At the whim of one customer': Trump tariffs a 'wake-up call' for pursuing new Canadian energy infrastructure and markets, (Mar. 2025); DOB Energy, Poilievre Calls For Expansion Of Canadian Energy Infrastructure To Be Free Of U.S. Tariffs, (Jan. 2025).
- 41 Statistics Canada, The oil and gas sector in Canada: A year after the start of the pandemic (Jul. 2021).
- 42 Statistics Canada, Oil and gas extraction (Sept. 2023).
- 43 CAPP, The Economic Impact of Canadian Oil and Gas, (Jan 2025) at 4.
- 44 Canadian Energy Research Institute, Low Crude Oil Prices and their Impact on the Canadian Economy, (Feb 2016) at 17.
- 45 Global News, 2014 oil price crash to blame for Canada's slow wage growth: Bank of Canada official, (jan. 2019).
- 46 Neacsa et al., Hydrogen–Natural Gas Mix—A Viable Perspective for Environment and Society, Energies, (Aug 2023) at 6.

7. LNG DOES NOT MEANINGFULLY REDUCE GLOBAL EMISSIONS

Proponents of LNG have suggested that its expansion may be relatively safe from the energy transition, arguing that it can serve as a "transition fuel" in getting countries off of coal. Both Natural Resources Canada and the Alberta-funded Canadian Energy Centre have promoted the claim that Canada can drive emissions reductions globally by increasing LNG exports to displace coal.⁴⁷ This notion fails on two fronts, as LNG is too expensive to displace coal at scale, and even if LNG could affordably displace coal, it would not deliver substantial emissions savings.

Despite being a prevalent narrative, the mechanics through which increased LNG production can replace coal are unclear. Unless LNG projects are contracted to directly feed transitioning coal power generation plants, those projects are simply adding LNG into the global energy mix with no necessary connection.

China is often cited as a potential country for which greater supply of LNG could help decarbonize as it has considerable existing coal generation and is investing capital into its energy systems. However, China also serves as a good example of the unfeasibility of coal-to-LNG switching. IEEFA found that only during gas' largest downturns — points in which Canadian LNG would not be viable on cost — did LNG price fall within the range of coal price.⁴⁸ On average coal was US\$30-40 cheaper per mega-watt hour than gas, which was undercut even further by onshore wind and solar.⁴⁹

The IEA has suggested that widespread coal-to-LNG switching is largely nonviable. It points out that for imported gas to compete with coal, it would need to be priced at US\$3-5/MBtu, well below breakeven for most projects.⁵⁰ Furthermore, the low prices that may allow LNG to displace coal would delay deployment of renewables.⁵¹

LNG requires extensive processing and global shipping and as such has higher lifecycle emissions than natural gas. Studies disagree on whether LNG offers any substantial emissions savings over coal, given methane leakage across LNG's supply chain.⁵²

Additionally, where the cost of new renewables continues to drop, these are becoming an increasingly viable alternative to coal power generation. Where gas consumption needs to decline to avoid warming greater than 1.5°C, growth in Canadian gas production could slow rather than accelerate the energy transition in LNG importing countries. This is consistent with the Quebec's Environmental Public

- 47 Natural Resources Canada, How Canada's Liquefied Natural Gas Industry Affects You, (Jan. 2025), & Canadian Energy Centre, Explained: Why Canadian LNG will have the world's lowest emissions intensity, (May 2022).
- 48 IEEFA, LNG is not displacing coal in China's power mix, (Jun. 2024) at 17.
- 49 *Ibid*, at 3.
- 50 IEA, 2024 World Energy Outlook, at 52,
- 51 *Ibid*, at 165.
- 52 Howarth, R., The greenhouse gas footprint of liquefied natural gas (LNG) exported from the United States, *Energy Science & Engineering*, (Mar. 2024).

Assessments Bureau conclusions with regards to its evaluation of GNL Quebec in 2021. Furthermore, as governments incentivize decarbonization, it would open Canada up to greater transition risk.

INCREASING CANADIAN GAS PRODUCTION TO FEED LNG EXPORTS IS INCONSISTENT WITH CANADA'S PARIS AGREEMENT OBLIGATIONS

If Canada is serious about implementing its 2050 net zero target, the CER foresees that Canadian gas production should decrease by 15% by 2040 and by 37% in 2050, with even steeper reductions when other countries follow through on their net zero commitments.⁵³



FIGURE 5 CANADIAN GAS PRODUCTION

⁵³ Canada Energy Regulator, Canada's Energy Future 2023, (2023) at 93.

8. OPTIONS FOR STRENGTHENING CANADA'S ECONOMY

The expansion of Canada's LNG export capacity is initially appealing, particularly on its Atlantic shores where no projects are currently operating. While Canada has seen significant economic growth from its energy sector over the past decades, developing new trade routes during Canada-U.S. uncertainty seems like an opportunity.

However, further concentrating Canada's economy in fossil fuels introduces heightened risk particularly as the world shifts away from reliance on fossil fuels. Canada is a high-cost producer, so any uncertainty in demand coupled with global oversupply puts domestic projects at risk. Plus, the vast majority of GNL Quebec's job creation potential in Quebec (80%) would happen during the several years of the construction phase, which would lead to more like a short-term boost than a long-term gain.⁵⁴

Instead, Canada and Quebec should take the opportunity of a transitioning economy to pivot focus towards areas with clearer growth, such as the following.

A) IMPROVING EAST-WEST ELECTRICITY INTEGRATION

Canada is a net exporter of electricity to the United States, with exports of 27.6 TWh in 2023, a value of \$2.4 billion.⁵⁵ Also, there are currently more electricity flows between Canada and the U.S. than between Canadian provinces.⁵⁶ Moreover, according to forecasts, decarbonization and electrification requirements will increase Canada's electricity needs by at least 100% by 2050.⁵⁷

While Quebec and Ontario benefit from a good level of interconnection with a capacity of 2,775 MW, better integration of Alberta, Saskatchewan and Nova Scotia's

power grids with neighbouring provinces would reduce the cost of decarbonizing the electricity sector.⁵⁸ Furthermore, in the event of a disruption to Canada-US trade, the possibility of redirecting electricity flows along an East-West axis would increase the resilience of the Canadian economy. Plus, investments in clean energy infrastructure could create up to 12,000 additional jobs across Canada by 2028.⁵⁹

B) CRITICAL MINERALS

While natural resources have been integral to the growth of Canada's economy over the last half century, continued growth of resource export revenue requires identification of growth opportunities. Canada's critical mineral reserves offer considerable potential. Canada's federal government has identified 34 minerals available at scale within Canada that are needed for emerging technological industries and renewable energy.⁶⁰

- 54 Quebec Environmental Public Hearings Bureau, Project to build a natural gas liquefaction complex in Saguenay, (accessed May 2025).
- 55 Canada Energy Regulator, Provincial and Territorial Energy Profiles – Canada, (Sept. 2024).
- 56 Pembina Institute, Connecting provinces for clean electricity grids, (Sept. 2021) at 5.
- 57 Canada Electricity Advisory Council, Powering Canada: A blueprint for success, (May 2024) at 7.
- 58 *Ibid.* at 126.
- 59 Electricity Human Resources Canada, Electricity in Demand: Labour Market Insights (2023) at 12.
- 60 Government of Canada, Canada's Critical Minerals, (Feb. 2025).

While the definition of critical mineral varies across jurisdictions, the IEA suggests that many of Canada's available minerals are set for exponential growth, with the industry set to be worth \$1 trillion by 2040.⁶¹ Clean energy and battery deployment will drive demand for aluminum, copper, cobalt, lithium, and nickel, resources that Canada possesses in large quantities. Quebec has also released a critical minerals strategy, listing 28 minerals available in Quebec that it believes could drive job growth and economic development.⁶²

Canada requires significant investment to ensure it is able to capitalize on this opportunity. Some estimates suggest that Canada may need \$30 billion in investments to establish its status as a critical minerals leader.⁶³ The Canadian Climate Institute identified perceived gaps in financing and permitting delays as key barriers to development of the sector.⁶⁴ While subsidies have largely focused on supporting our fossil fuel sector, a clear strategy to incentivize critical mineral extraction offers Canada a growth opportunity that aligns with the transition economy.

FIGURE 6

Key Transition Opportunity Sectors Market value Grow GDP could exceed during constructior Create up to \$1 TRILLION by up to 12,000 by 2040 \$35 BILLION **NEW JOBS** s Canada **High Speed Rail** East-West Electricity Grid **Create Meaningful Jobs** Construction, operations, and maintenance offer Lower Electricity Costs Essential for the long-term employment if proposed projects in Interprovincial connectivity makes efficient energy sharing. Fastern Canada and Alberta start moving **Energy Transition** Lithium Nickel Electric vehicles batteries and clean tech require critical minerals, including **Boost Interprovincial Trade** Expand Renewable Energy Global Cleantech Easier integration of wind, solar & hydro across provinces. lithium and nickel. demand could demand could Faster, more efficient movement of people and goods drives economic collaboration. rise 700% rise 300% by 2040 by 2040 **Rising Global Demand Strengthen National Energy Security** The global shift toward low-carbon Reduced reliance on electricity trade with the US

economies makes critical minerals

strategic assets.

- 61 IEA, Global Critical Minerals Outlook 2024.
- 62 Government of Quebec, Critical and strategic minerals (Mar. 2025).
- 63 440 Megatonnes, Canada's energy transition will demand \$16 billion worth of critical minerals by 2040, (Aug. 2024).
- 64 Canadian Climate Institute, What is holding back investment in Canadian critical minerals?, (Mar. 2024).

C) HIGH-SPEED RAIL

The business case for a fast and reliable long-distance passenger transportation option is strong given Canada's demographic concentration. Last March, the Government of Canada announced the selection of a private developer partner to chart the next steps of implementing high-speed rail between Toronto and Quebec City. As the project will be financed with public and private capital,⁶⁵ there is an opportunity for private investors to participate in the project alongside to help achieve emissions reductions through modal shifts from airline to rail in Canada's Southeastern corridor.

The high-speed rail project is expected to boost GDP by \$35 billion annually and create 51,000 jobs during the construction phase.⁶⁶

CONCLUSION

As initial panic subsides following the Trump administration's tariff threats, a calmer analysis of the East Coast LNG projects show that they carry significant risks for potential investors and taxpayers.

While there is a need to diversify and strengthen our economy, this needs to be based on sound business opportunities. Not only is Europe likely to reduce its demand for gas over the coming years, the LNG market is also set to be oversupplied over the coming years, meaning investors who base their business case on increasing gas production at high prices are exposing themselves to significant transition risk.

LNG's claimed environmental advantage over coal is evaporating as real-world energy market dynamics are better understood and as methods for measuring fugitive methane emissions become more sophisticated. All in all, maintaining current levels of Canadian gas production is also not compatible with Canada and Quebec's climate commitments.

Savvy investors would do well to look beyond fleeting political cycles and put their resources into sectors with a sound business case, and where Canada and Quebec have a comparative advantage. Clean energy, critical minerals and high-speed rail are just a few examples.

⁶⁵ Government of Canada, High Frequency Rail: Request for Expressions of Interest, (Mar. 2022) at 63.

⁶⁶ Alto Train, Toronto–Québec City High-Speed Rail: First Major Milestone Reached, (Mar. 2025).