Canadian Oil and Gas Production in the Global Clean Energy Transition: Outlook and Economic Risks

MEDIA BACKGROUNDER

June 2025

Prepared by the International Institute for Sustainable Development and Environmental Defence

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Overview

A new technical report commissioned by Environmental Defence and the International Institute for Sustainable Development (IISD) challenges the long-standing assumption that new oil and gas production bolsters Canada's economy. Instead, the report shows that limiting new oil and gas development could increase returns for investors, industry, and governments relative to business-as-usual expansion.

Canada's oil and gas sector is heavily reliant on exports, leaving it exposed to rapid shifts in international demand. This report uses the International Energy Agency's (IEA) most recent World Energy Outlook scenarios coupled with Rystad Energy's data on Canadian oil and gas production costs to assess how future demand levels, aligned with international climate goals, may lead to billions of dollars in stranded investments, weakened industry performance, and fiscal challenges for Canadian governments.

Context

- **High Exposure to Export Risk:** Canada exports 81% of its oil and 44% of its gas. These exports are increasingly vulnerable to international market shifts and increasing trade barriers (e.g., U.S. tariffs).
- **Canada is a High-Cost Producer:** Canadian oil production is generally more expensive than that of global competitors, making it more susceptible to being squeezed out in a declining demand scenario. Canadian gas, meanwhile, faces significant competitiveness constraints due to the risk of U.S. tariffs and the cost and long lead time of new LNG projects.

Key Findings

- **Better Economic Outcomes from Limiting Oil and Gas Expansion:**
  - Restricting new field development in Canada improves net present value (NPV) and public revenues in all IEA demand scenarios.
  - Partnering with other countries to limit supply amplifies these benefits.
- **Stranded Asset Risk:** Up to 66% of future oil and gas capital investments (2025-2040) could become stranded in uncompetitive projects under a 1.5°C climate scenario.
  - 5% stranded under current global policies (STEPS scenario)
  - 39% stranded under announced net-zero pledges (APS scenario)
- **Negative Economic Value:** Under the 1.5°C-aligned scenario, the net present value (NPV10) of Canada's future oil and gas production becomes negative, meaning the average oil and gas field becomes a liability.

- **Government Revenue Impacts:**
  - At 1.5°C-aligned demand levels, total revenues from Canadian oil and gas production fall by 96% compared to a base-case scenario that represents industry expectations.
  - Under APS and 1.5°C scenarios, new oil and gas fields—on average—provide negative net revenue (rebates and subsidies outweigh taxes).
- **Tariffs Further Increase Economic Risks for New Oil and Gas Projects:** If imposed, U.S. tariffs would make Canadian oil and gas even less competitive in the U.S, which is Canada's largest export market.
- **New Paradigm:** Contrary to traditional assumptions, limiting expansion of oil and gas production could preserve more economic value for Canada and position the country more effectively for the global clean energy economy.

Policy Implications

- **Limit Oil and Gas Expansion:** In all three IEA demand scenarios, economic outcomes for industry, investors, and governments improve if new oil and gas fields in Canada do not go ahead. By limiting expansion, Canadian governments can mitigate economic risks of overinvestment and ensure a managed transition away from fossil fuels in line with shifting international energy demand. When paired with appropriate transition strategies, doing so can protect workers and communities from sudden and foreseeable economic shocks as demand declines.
- **Demonstrate Leadership to Limit International Fossil Fuel Expansion:** The economic benefits of limiting Canada's oil and gas expansion are based on market dynamics, not political agreements, but these benefits would be amplified if other producers do the same. Leading by example, Canada can coordinate a coalition of global suppliers to limit expansion in line with falling demand.
- **Invest in the Clean Energy Transition:** Given the economic risks of continued oil and gas expansion, Canadian governments should leverage policy to redirect public and private investment away from oil and gas expansion and toward clean energy solutions such as renewable power generation, electrification infrastructure, efficient public transportation, and efficient homes.
- **Support Impacted Workers and Communities:** The risks highlighted in this report have clear implications for some Canadian workers and their families. Workers should be well supported in all scenarios — where production is limited or where demand falls suddenly — through dialogue with unions, retraining and employment supports, a strengthened social safety net, and early retirement opt-in programs. Similarly, communities near fossil fuel production sites need confidence that decommissioning, clean up and rehabilitation of the sites will happen in a timely manner and will be paid for by the relevant companies.
- **Mitigate Economic Risks of U.S. Tariffs on Oil and Gas through Diversification:** Rather than seeking new buyers for oil and gas while countries are reducing their reliance on imported fossil fuels, Canadian governments should diversify the economy by investing in clean, Canadian industries and infrastructure that can drive growth and jobs without depending on unreliable trading partners.

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