

Premier Blaine Higgs is <u>pushing</u> a private-sector company, Repsol, to convert its <u>Saint John LNG</u> (liquefied natural gas) import terminal into an export terminal for energy security, economic development and energy transition.

We are told that shipping liquified methane gas to Europe can address energy supply issues due to the Russian invasion of Ukraine. We are told we could convert the Saint John LNG plant from an import facility to an export facility within three years. We are told that there could be economic development if we lift the province's shale gas moratorium to speed up the process and make the conversion more cost effective relative to other methane gas supply and pipeline options. The Premier also says New Brunswick can advance energy transition by converting the LNG export terminal to hydrogen in the future and that it could "easily be converted."

Are these arguments FACTUAL? YOU DECIDE.



Converting an import terminal into an export terminal cannot happen in time to meet Europe's near-term worries about winter heating. This will be a multi-year, multi-billion-dollar endeavor. Projects optimistically require three to five years to complete. Cost of conversion is significantly

higher today than the 2016 estimate of \$2 to \$4 billion (CAD) when Saint John LNG (then Canaport) was approved to convert the plant to an export terminal in 2016.

Today, Repsol's Saint John import terminal primarily receives LNG from foreign markets in the United States and Qatar and after a regasification process ships methane gas through a pipeline to parts of New Brunswick, Nova Scotia, and New England. The maximum daily send-out capacity of the terminal is 1.2 billion cubic feet, enough to heat five million homes. Converting the plant for export requires increased access to gas supply, which could come from building additional pipeline capacity or from shale gas supply in New Brunswick.

Premier Higgs has spoken publicly about lifting the shale gas/hydraulic fracturing moratorium, put in place in 2014 by the previous provincial government, to supply the export terminal. If New Brunswick's shale gas moratorium is lifted to supply the plant methane gas, exploration and production of shale gas reserves in New Brunswick would likely take more than five years to prove the reservoir amounts to warrant an LNG investment.



- Shale gas extraction poses <u>risks</u> to New Brunswick's freshwater supply, forests and biodiversity, marine life, climate, and human health (see Appendix).
- Exporting liquefied gas does not line up with provincial and <u>federal</u> climate targets and the need to achieve near-zero greenhouse gas emissions as soon as possible.
- Shale gas extraction is controversial in New Brunswick with <u>Indigenous</u>, <u>environmental</u>, and <u>citizen</u> organizations opposing it. Lifting the shale gas moratorium will spark stiff backlash and opposition from First Nations, environmental and citizen organizations.

- In response to Premier Higgs' recent comments about lifting the moratorium, a member of the Elsipogtog First Nation remarked that "there's going to be a battle on the table, there will be a battle on the streets if there needs to be," in reference to the violent clash with RCMP near Rexton, NB in 2013.
- A key requirement for shale gas development is early and meaningful consultations with First Nations, which Natoaganeg First Nation Chief George Ginnish said is an area the government is "falling short."
- Germany has been vocal about the possibility of accessing Canadian methane gas. Yet Germany has indefinitely banned fracking and reaffirmed that stance in light of the energy crisis, raising the question of why the risks of fracking are not okay for German citizens, but considered acceptable for New Brunswickers as part of the LNG export conversion?



Liquefaction of methane gas is an energyintensive process. The energy need is estimated to be the equivalent of up to 10 per cent of the supplied methane gas.

- Converting an import terminal into an export terminal requires a significant plant overhaul and added hazards, including:
 - → Increased risks of fire and explosion
 - Greater complexity, plant size and use of high-pressure and reactive chemicals
- Premier Higgs argues that the LNG export terminal could be "easily" converted for hydrogen. This is disputed by experts who note that:

- → Hydrogen must be cooled to <u>-250C</u> to keep it in a liquid state suitable for storage and shipment, unlike methane gas requiring -160C.
- → Converting to hydrogen requires new vessels, storage systems, and potentially pipelines.
- Gasified hydrogen can damage existing pipeline infrastructure.
- → The electricity generation required to produce enough hydrogen to meet the send-out capacity of Repsol's LNG is significant.

Say NO to methane gas!



Focus on energy security at home. It will take at least five years
to develop a resource Europe
needs this winter.



Keep shale gas in the ground; leave the moratorium in place.



Build renewable energy, especially on and offshore wind to supply regional electricity systems, and industrial and export needs.



Be honest with New Brunswickers about the costs, timelines, and environmental and health risks associated with converting Repsol's Saint John LNG plant.

APPENDIX. Environmental risks from liquified methane gas exports

Risks to climate

- GHG emissions from extraction, transport, liquefaction, and re-gasification can be comparable to the emissions from burning coal if methane leakage rates are high, meaning there is little climate benefit. Despite leakage rates declining in hydraulic fracturing sites in the U.S., leakage is a concern because methane is 84 times more potent GHG than carbon dioxide over a 20-year period.
- Companies claim future greenhouse gas emissions standards can be met using carbon capture and storage technology. CCS only captures a <u>fraction of the total life-cycle</u> <u>emissions</u> occurring from the extraction, transport, and use of methane gas. CCS is expensive, uses a lot of energy, and, to date, has produced <u>mediocre results</u>.
- The International Energy Agency, however, concluded in its <u>analysis</u> of how to avoid 1.5 degrees global warming that no new fossil fuel projects can proceed in order for the world to avoid dangerous global warming.
- The effect hydrogen has on atmosphere chemistry is a concern. Preliminary studies show that hydrogen leakage worsens global warming, partially offsetting gains from switching away from fossil fuels.

Risks to marine water and marine life

 Exporting LNG would lead to increases in super-tanker traffic in sensitive Atlantic waters.
 Increased traffic risks impacting whale habitat and other marine life.

- Collisions between large ships and whales or other marine animals is already a <u>major issue</u>. Endangered North Atlantic right whales have been found <u>dead or injured</u> from collisions with tankers. <u>Collisions with ships</u> are one of the leading causes of injury and death for North Atlantic right whales.
- Noise in the ocean harms whales. <u>Tanker traffic</u> creates significant noise. <u>Studies</u> have <u>shown</u> that noise from tankers increases stress hormones for North Atlantic right whales, causing them to 'shout' when communicating over tanker noise, change their behaviour, and move to other areas.
- Tanker traffic and coastal export facilities disrupt local fisheries by extending the fishing <u>exclusion</u> <u>zone</u> when a tanker is in port. Increases in traffic disturbs local fisheries critical to Atlantic Canadian economies.

Risks of Shale Gas Fracking To Water

Risks to freshwater drinking supplies and wildlife:

- There is a <u>localized risk</u> of water depletion if large volumes of surface and groundwater are extracted over a short period of time.
- Surface water can be <u>contaminated</u> by the release of inadequately-treated shale gas wastewater as well as through leaks and spills, erosion, sedimentation, and increased runoff due to land clearing, and creation of impervious surfaces for well pads and access roads.
- In areas of North America where there has been significant <u>shale gas development</u>, researchers find elevated levels of <u>ammonium</u>, <u>benzene</u>, <u>barium</u>, strontium, chloride, halides, <u>bromide</u>, and <u>radium</u> in rivers downstream from facilities.

- Previous estimates of New Brunswick shale gas operations suggested facilities could generate between four and 12.4 million liters of wastewater in the first four years of operation.
- Fracking wastewater contains many toxic and cancer-causing chemicals and companies have not produced a viable plan for treating it in New Brunswick.

Shale Gas Development in New Brunswick

- In 2016, then-Premier Brian Gallant extended the moratorium indefinitely as the conditions for lifting it, set out by the New Brunswick Commission on Hydraulic Fracturing, were not met.
- Estimates of New Brunswick gas reserves are projected to be 13.4 trillion cubic feet, (some

estimates are as high as <u>70 trillion cubic feet</u>), enough to source an LNG export project for at least 50 years.

Indigenous Opposition to Shale Gas Development

- In 2013, <u>violent</u> clashes between Indigenous peoples defending their unceded territory from methane gas exploration and <u>200</u> Royal Canadian Mounted Police (RCMP) officers resulted in 40 arrests and five burned cars.
- Indigenous leaders in New Brunswick continue to voice opposition to shale gas expansion, calling a partial lifting of the moratorium in the Sussex region in 2019 "shocking, unacceptable, and unlawful."



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Established in 1969, the Conservation Council of New Brunswick is the province's leading public advocate for environmental protection. A member of the United Nations' Global 500 Roll of Honour, we work to find practical solutions to help families and citizens, educators, governments and businesses protect the air we breathe, the water we drink, the precious marine ecosystem and the land, including the forests, that support us.

The New Brunswick Anti-Shale Gas Alliance is a coalition of civic and environmental groups from across the province's anglophone and francophone communities, working in concert with Indigenous allies. Its mandates are to keep unconventional fossil fuels out of the province, and to advance the transition to a clean energy economy to halt climate change.

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