POLITICS, POLICY, PIPELINES, PETROLEUM (...AND NATURAL GAS)

Maurice B Dusseault, Emeritus

Earth and Environmental Sciences



What Are the Questions?

Where does Canada's O&G come from?

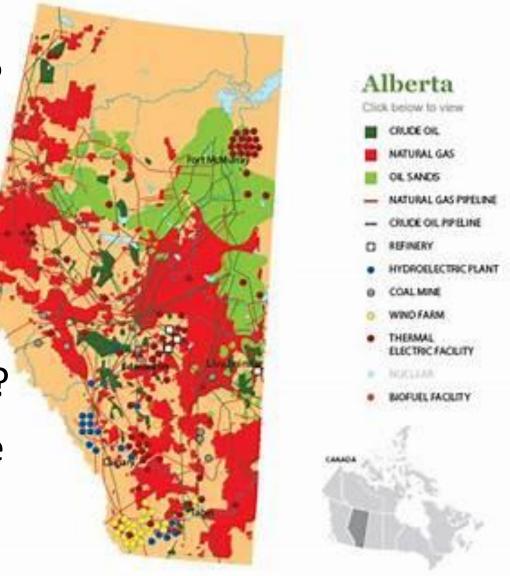
Where do our exports go?

How do these resources get there?

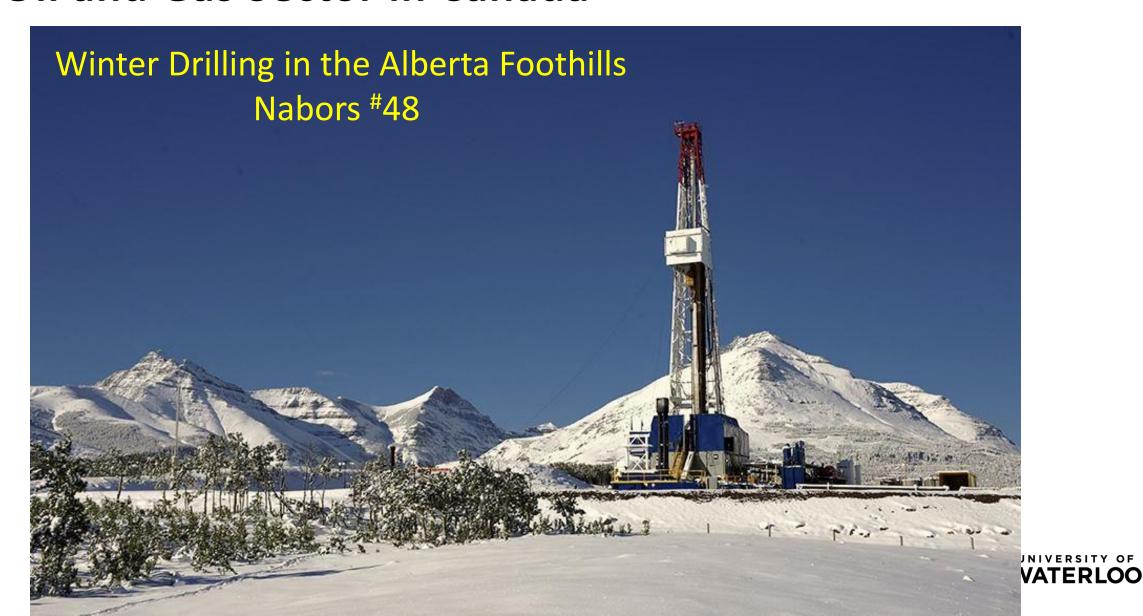
Are these factors changing over time?

More pipeline capacity needed? New pipelines needed? Old projects revived?

Politics and policy? Can you predict the future these days?

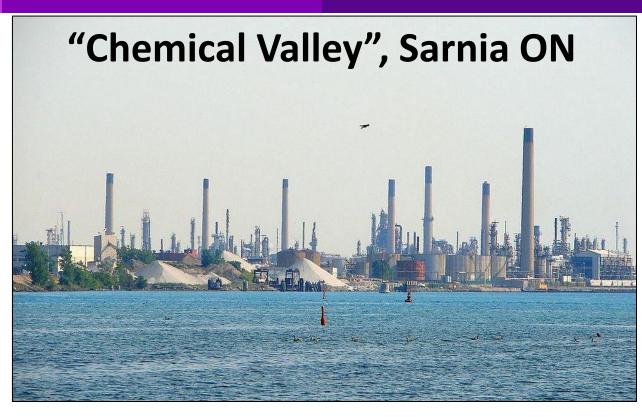


The Oil and Gas Sector in Canada



Oil and Gas

- Liquid fuels have a very high energy density (high utility)...
- Mature technology (production, pipelines, refining...)
- Huge existing infrastructure
- Trade history (with the USA...)
- Major provincial income source: royalties, jobs... (AB, SK, NL, BC)
- And refining in Central Canada



Sarnia, Ontario region has over 50 processing & manufacturing plants thriving at the "...end of Enbridge Line 5 pipeline".

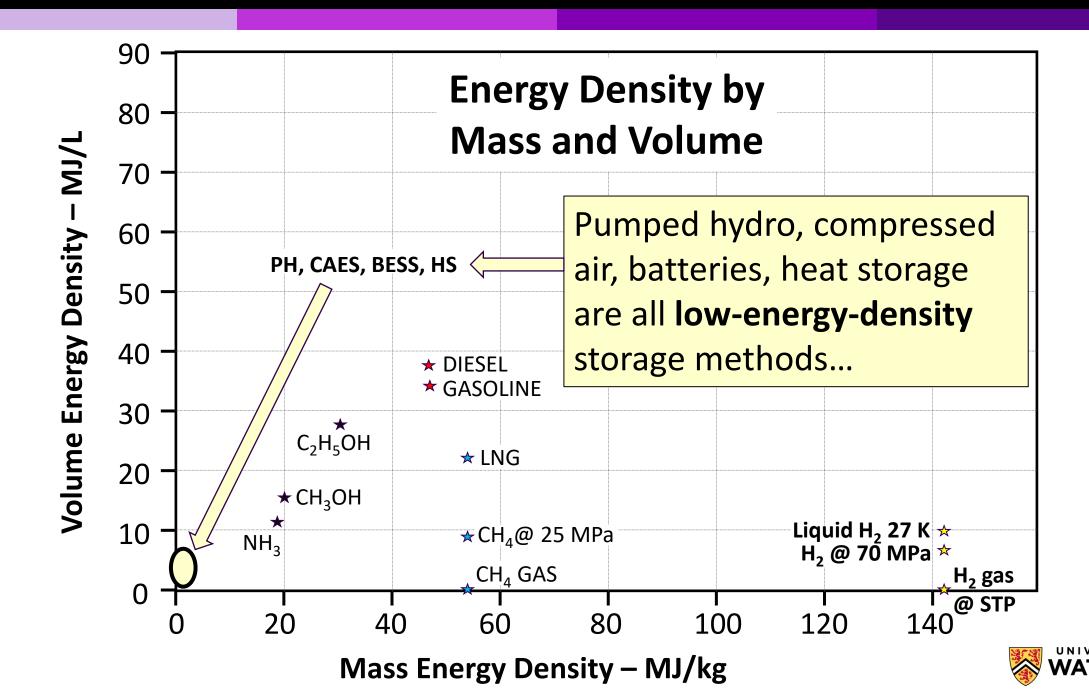


Batteries (BESS) Rather than O&G?

- BESS will play a vital role in any high renewables content grid
 - ◆ Excellent response time, local use, scalable, etc.
- So, why are liquid fuels still of interest?
- There remain BIG issues with BIG BESS
 - ◆ Co − Ni − Li − Cu − Zn − Graphite supply lines
 - ◆ Environmental factors minerals mining, manufacture, recycling...
 - Freezing risk, life span (7-9 yr), weight, mobility
 - Safety (fires, chemicals), security (sabotage, vandalism)
 - ◆ Cost per kWh is high, but technology is advancing...







SOME OF THE FOLLOWING COMMENTS ARE FROM CANADIAN PRESS ARTICLES POSTED IN JANUARY AND ON FEB 07, 2025

Pipelines and Politics



Federal Energy Minister Jonathan Wilkinson



Pipelines and Politics (Feb 06 2025)

"Federal Energy Minister Jonathan Wilkinson says Ottawa and the provinces <u>should</u> discuss the <u>possibility</u> of an oil <u>pipeline</u> to Eastern Canada to improve energy security and diversify trade."

A very "measured" invitation to negotiate...?

- **→** Energy security...?
- → Trade diversification...?

What do "should" & "possibility" mean?



Pipelines and Petroleum

Enbridge Line 5 pipeline transports western Canadian crude **through the United States** to supply Ontario and part of Québec's needs.

There is no "Canadian only" crude pipeline from western Canada to central and eastern Canada.

But Irving Oil (Saint John NB) asked for one (2013).

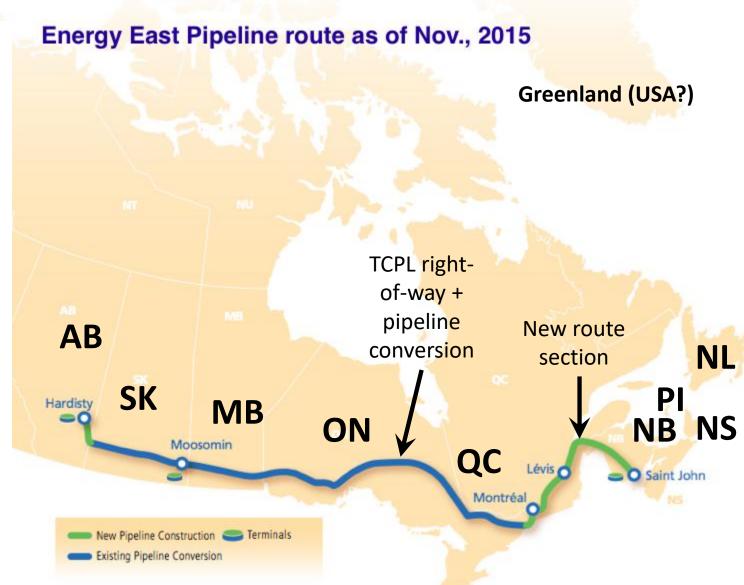
Irving Oil Refinery in Saint John, New Brunswick





Energy East Pipeline (Cancelled)

- Conversion + new section
- Major eastern refineries
- Lévis QC: 235,000 b/d
- Saint John: 320,000 b/d
- Montréal: 123,000 b/d
- Foreign oil: ≈600,000 b/d
- And to supply exports for Canaport, NB terminal (near Saint John)



Pipelines and Politics (Feb 06 2025)

Premier Houston of Nova Scotia wants Energy East Project revived.

"Premier Houston asks the Feds, in light of the threatened tariffs, to immediately renew the Energy East Project (Jan 22 – Global News)."

(The CBC is skeptical... ②.)





Pipelines and Politics (Feb 06 2025)

Premier Legault of Québec said that if a pipeline were proposed, his government would consider it.

"But of course ... what Mr. Trump is doing may change the situation in the future. So if there's social acceptability, we will be open to these kinds of projects."





Social Acceptability?



- Anti-development activism...
 - ◆ NB, NS, NL have "rejected" fracturing
 - QC prohibited all new O&G drilling (2022)
 - All in political responses to strong activism
- QC imports most of its oil from elsewhere
- NS, NB, PI import oil and gas
 - "Fracked gas" from USA
 - Oil from various sources
- ON, QC have no O&G to speak of
- NL offshore oil: \$\$\$ to develop



An Academic opinion: (Feb 06 2025)

"Janzwood** said it's quite possible there will be no more major oil pipelines built in Canada. "There's a lot of risk and uncertainty around the future of the oilsands," she said. "Proposing a massive new oil pipeline that would be dramatically expanding oil production doesn't make economic sense given the current

context.""

**Professor Amy Janzwood, assistant professor of Political Science, McGill University, specializes in pipeline politics





And Quebec Environmentalists? (Feb 06 2025)

Charles-Édouard Têtu**:

"They're banking on a temporary political or economic crisis.

Then to answer it, they're proposing projects that would have permanent consequences," he said. "When faced with a crisis, they try to rely on opportunism. And it would be Québecers who pay in the end."



**Climate and energy policy analyst with Équiterre https://www.equiterre.org/fr



And an Industry View (Feb 14 2025)

"TC Energy CEO (François Poirier) throws cold water on pipeline revival talk, but 'bullish' on LNG"

https://financialpost.com/commodities/energy/tc-energy-ceo-pipeline-revival-lng

TC Energy says the climate is not right for new oil pipelines in Canada (...amid claims of delays, permitting challenges, endless negotiations, injunctions, blockages and sabotage in the field, demonstrations, uncooperative governments, changing the rules, existing laws...).

But very bullish on a second pipeline phase for Kitimat LNG.



Another Industry View (Feb 18 2025)

"For us to be willing to seriously consider reinvesting in a project like that, whether it's east to west or just west, we need to see real changes on numerous fronts." Enbridge CEO Greg Ebel Feb 18 2025.

https://financialpost.com/commodities/energy/oil-gas/enbridge-ceo-revisiting-northern-gateway-require-real-changes-governments

"Canada would have to designate major pipeline projects such as Northern Gateway as being 'in the national interest' and therefore legally required before companies will consider investing again..."



It is difficult to know where self-interest and ideology end, who is a knowledgeable, credible, rational actor to give guidance, which opinions are factually founded, and who is just making noise or enjoys hearing themselves speak. Experts are denounced as being "part of the cabal", politicians accused of being "in the lap of industry", activists of being "misguided and naïve agents", local groups of being "anti-jobs"; these are just the more polite terms. What can we do?



From Anti-Government to Anti-Science: Why
Conservatives Have Turned Against Science
Naomi Oreskes and Erik M. Conway, 2022



Pipelines, Petroleum & Refining – Canada East

Refineries are finely-tuned systems optimized for a particular blend of crudes. Immediate conversion to western Canadian crude is not feasible. It would take many years for a complete conversion.

But part of the plan was to open a major eastern seaboard crude export terminal at Canaport, NB.

Also, in April 2022, Québec became the first jurisdiction in the world to explicitly ban oil and gas development.



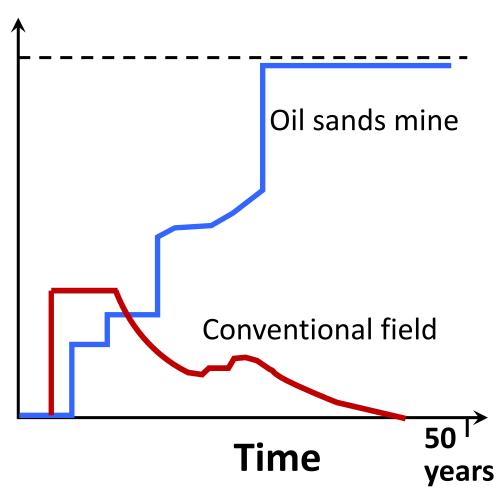


Project to bring more Canadian crude to Cushing, OK, and to the Gulf of ??.

HOUSTON NEDERLAND

Canada's Oil Sands

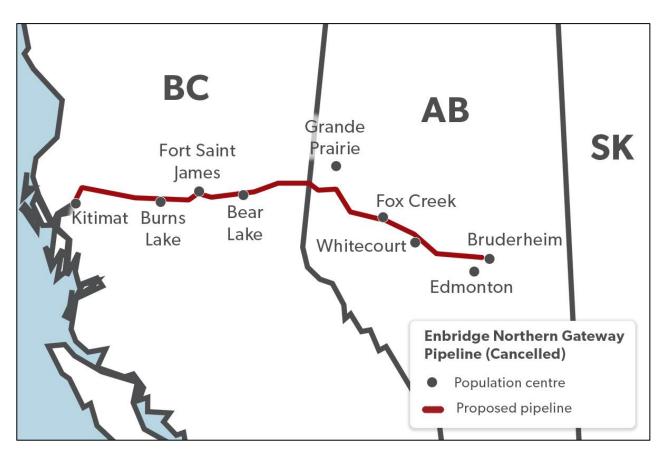
- Currently >3.4% of World oil 300,000 b/d
- Very different production profile
 - Conventional oil fields deplete
 - ◆ Oil sands projects grow (efficiency ↑)
- Large expansion potential exists...
- And environmental concerns are large
 - ◆ CH₄ burned for steam (in situ) \rightarrow CO₂
 - ◆ Hydrogenation needed (more CH₄), etc.
 - ◆ Landscape alteration (1% of boreal forest)



Output



The Cancelled Northern Gateway Pipeline

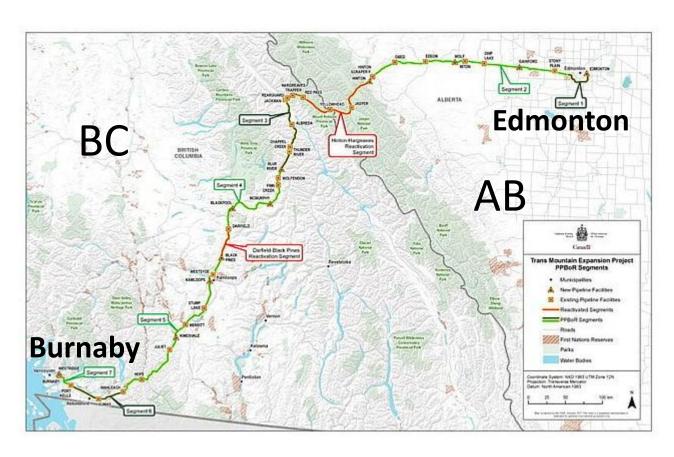


- 1177 km long (rough terrain)
- 525,000 b/d diluted bitumen
- Fierce eco-activist opposition
- First Nations appealed, <u>Federal</u>
 <u>Court of Appeal</u> ruled consultation with FN was inadequate...
- Cancelled 2016 (Trudeau gov't)
- Recently "talked about", but Trans
 Mountain achieved similar goals



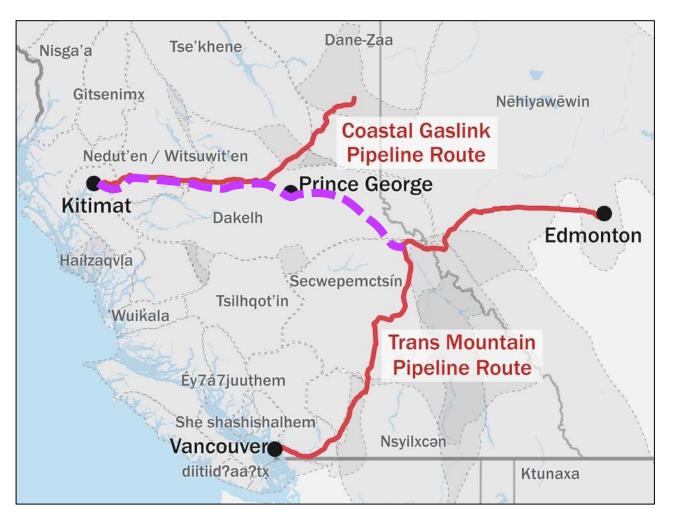
The Much-Criticized Trans Mountain Pipeline

- Twinned pipelines on the same right-of-way, Edmonton - Burnaby
- Aggressively opposed by locals in BC and environmental groups
- Huge cost overruns to build it all taxpayer-funded
- 875,000 b/d to Burnaby operating
- Feb 07 plans were recently announced to increase capacity to ≈1,200,000 b/d (1.2% of World's oil)





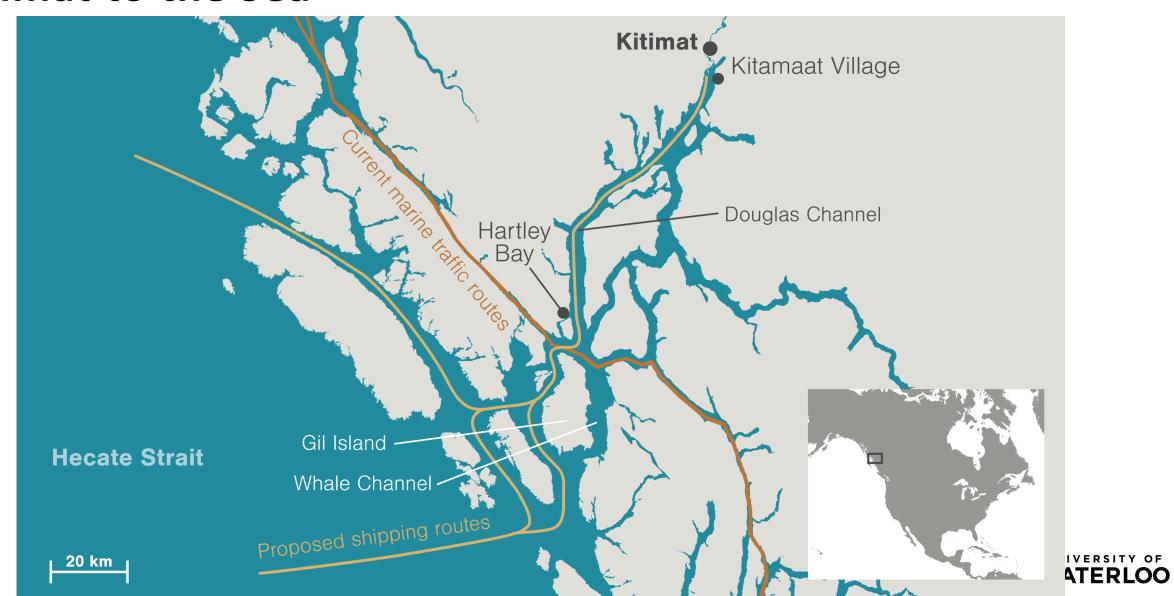
An Alternative to Increase AB Oil to Tidewater...?



- The TMPL has excess capacity from Edmonton AB to Valemount BC
- A Valemount-Kitimat branch idea is being "resuscitated"
- It will certainly be opposed by the hereditary Witsuwit'en Chiefs
- ...and would oil tankers ever be allowed to transit the 150 km Douglas Channel to Kitimat?



Kitimat to the Sea -

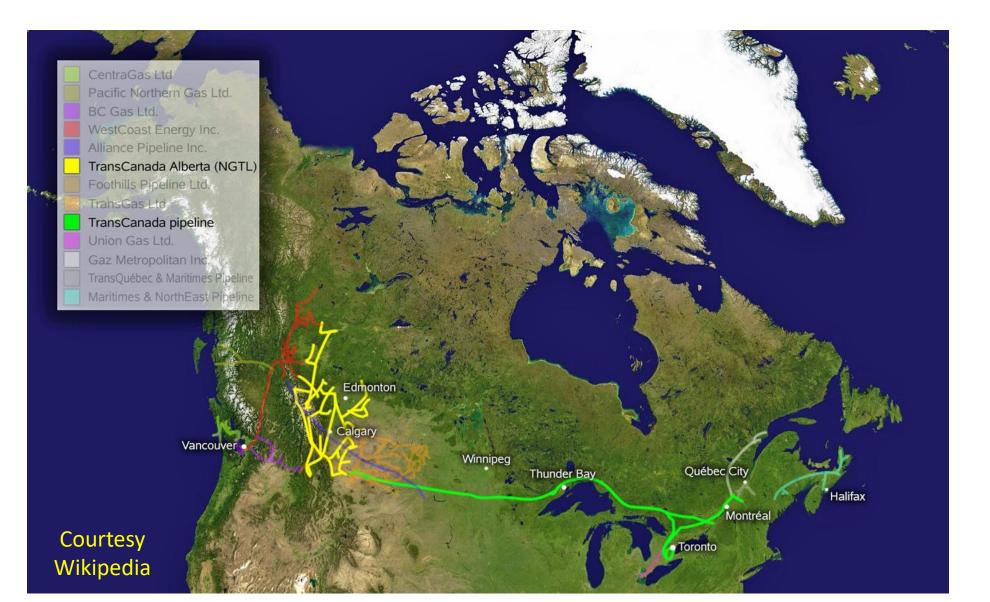


And Natural Gas?

- TransCanada Pipeline: all-Canadian natural gas pipeline built for CH₄ to ON & QC (but not NB, NS, PI) in 1956-58 (!!!)
- Originally, the natural gas in ON & QC was 100% Canadian
- But, the "shale gas revolution" hit OH and PA about 15 years ago!
 - Horizontal drilling, hydraulic stimulation (fracking), cheaper drilling...
 - ◆ So, USA CH₄ is now significantly cheaper than western Canadian CH₄!
 - ◆ Now, most ON, QC gas comes from the USA "fracked gas"
 - ◆ ... the Maritimes import USA gas (\$11.20/GJ in NB vs. \$1.80/GJ in AB)
- ...and the TransCanada Pipeline runs at ≈30% capacity



The TransCanada Natural Gas Pipeline



Pipelines
Carrying
Canadian
Natural
Gas



...And more Political History with Natural Gas

- The TC pipeline proposal in 1955 caused political chaos in Ottawa
- Liberals promised funding of the "national option"
- They forced the legislation using closure! The Pipeline Debate
- Stock trading scandals (1955-1957) implicated Ontario cabinet ministers, the mayor of Sudbury, and many smaller actors
- This all contributed to a 1957 Liberal defeat & rise of John Diefenbaker who strongly voiced western grievances...
- LESSON: "History never repeats itself, but it often rhymes..."



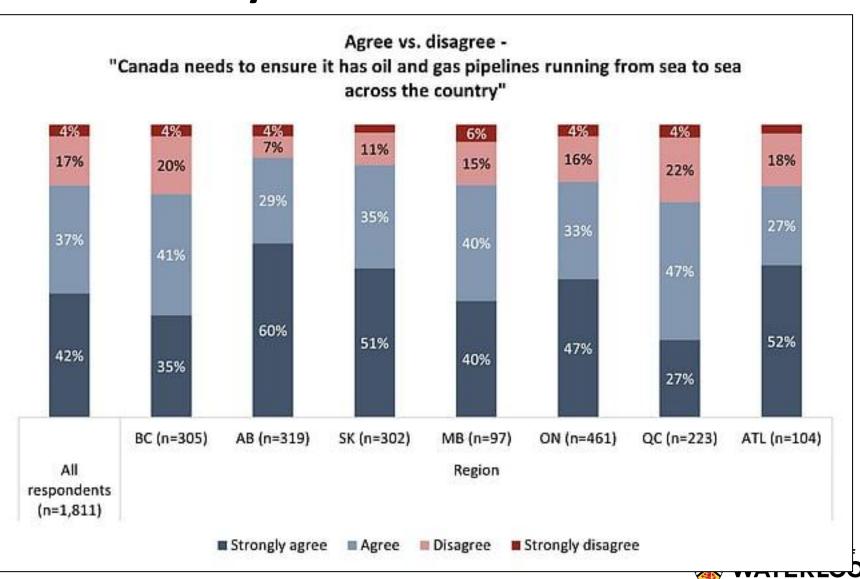
Canada's Resource Base in Natural Gas

- At current production levels, Canada has many <u>centuries</u> of CH₄
- Mainly BC, AB (NT), but QC & NB have significant CH₄ resources
- Is there a large CH₄ export market potential? (Actually yes.)
 - In 2022, Olaf Scholz (Germany Chancellor) asked Canada for CH₄ exports
 - ◆ Federal Gov't: "No., but we can discuss a green H₂ industry...."
 - ◆ So, a LOI was signed March 2024 to develop Maritimes' H₂ from wind...
- What will be the impact on Canada of the "New Regimes"?
- Hold on to your hats, it looks like a roller coaster ride!



Canadian Opinions in February 2025?

Angus Reid finds nearly **four in five Canadians** in all parts of the country support building more pipelines to bypass US tariffs. Even 74% agree in QC (89% in AB).



So, More Questions...

- Is a Border Adjustment C-Tax on O&G exported to USA warranted?
 - ◆ Europe has been laying the ground for border adjustment taxes on C...
- Should Canada strongly suppress O&G production of all kinds?
 - ◆ A strong anti-O&G lobby is very influential in Canada. (Not in AB. ⊕)
- Should more crude pipelines be built (Canada East, Northern Gateway...) with 100% Canadian right-of-way?
- Should the status of American O&G companies in Canada be redefined with explicit government strictures?
- Is there a viable argument for making and shipping product WATERLOO

...and More Questions...

- If oil is still needed in the world, shouldn't it just as well be Canadian oil? (i.e., more LNG and oil sands development...)
 - ◆ Even if oil as fuel is a sunset industry, why should we not profit?
- How much are climate change issues worth? To Canada? Others?
 - Should Canada be the Boy Scout in the G20 room?
- Does electrical energy fit into this picture? (e.g., Coal in NB, NS, SK)
- The older I get, the less I know about these things. The certainty of youth is gradually left behind...

