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### **Summary of Canada's Offshore Oil & Gas Industry (1/2)**

While all of Canada's current offshore production is concentrated in Newfoundland and Labrador, Nova Scotia has a history of oil & gas production. Although there are no active projects in offshore Nova Scotia today, the region still holds future development potential.

#### Offshore Exploration and Production Activity

- From 1966-2024, roughly \$81 billion dollars has been spent cumulatively, from inception to completion, on offshore oil & gas projects in Newfoundland and Labrador. In Nova Scotia, roughly \$8 billion dollars has been spent cumulatively from 1998-2012 on offshore oil & gas development, from inception to completion.
- Oil production in offshore Newfoundland and Labrador averaged approximately 209 MB/d in 2024, down over 40% from the peak in 2007 of 368 MB/d. Offshore production has declined since 2007 due to a confluence of factors, such as natural declines, lower oil prices, and cost and competitiveness. These factors have had a pronounced impact on capital-intensive offshore projects.
- All four of Canada's active offshore producing facilities (Hebron, Hibernia, Terra Nova, and White Rose) are located in the Jeanne d'Arc basin. These are the only producing offshore oilfields in Canada. The projects are located roughly 300-350 km off the coast of Newfoundland.
- The West White Rose facility, an extension to the the White Rose field, is currently in the midst of commissioning and start-up activities and is targeting first oil in 2026. Additionally, a final investment decision (FID) for the proposed Bay du Nord project is expected in 2027, with first oil potentially in 2031.
- A series of independent resource assessments commissioned by the Government of Newfoundland and Labrador found there to be an estimated 123.5 billion barrels of oil and 292.6 trillion cubic feet (Tcf) of natural gas potential.<sup>(1)</sup>Similarly, an independent resource assessment in 2023 from the Government of Nova Scotia<sup>(2)</sup>found that the Scotian Basin in offshore Nova Scotia contains significant exploration opportunity with approximately 22.6 billion barrels of oil and 64.6 Tcf of natural gas potential.
- Offshore natural gas production in Nova Scotia ended in 2018 following the decommissioning of the Deep Panuke facility. The development of low-cost natural gas in North American, particularly in nearby Pennsylvania, has driven the slowdown in offshore natural gas development. However, there is potential for future oil & gas development in offshore Nova Scotia.



### **Summary of Canada's Offshore Oil & Gas Industry (2/2)**

Source: Canadian International Merchandise Trade Web Application,

Statistics Canada. Table 36-10-0402-01, Government of Canada, CAPP

#### **Exports and Imports**

- In 2024, crude oil exports from Newfoundland and Labrador were approximately \$7.5 billion, representing 55% of the province's total exports of \$13.6 billion.
- Offshore oil & gas producers in Newfoundland and Labrador can leverage their strategic location along international shipping routes to gain unique access to global markets. There is no pipeline infrastructure linking offshore Newfoundland and Labrador crude oil inland to North American markets.
- In 2024, total crude oil imports into Atlantic Canada were 286 MB/d (57% from the U.S.). The only remaining active refinery in Atlantic Canada is the Irving Oil Refinery in New Brunswick.
- Canada's lone liquefied natural gas (LNG) import terminal is located in Saint John, New Brunswick. Saint John LNG (formerly Canaport LNG) is a receiving and regasification terminal that supplies natural gas to the region to meet winter demand. When Nova Scotia was producing natural gas from 2000-2018, it was transported via the Maritimes & Northeast Pipeline to local and U.S. markets. The pipeline flow has since been reversed.

#### **Economic Impact**

- Since 2007, as a percentage of total gross domestic product (GDP) in Newfoundland and Labrador, the oil & gas extraction (1) sub-sector has ranged from 17-26%. By comparison, using this same measure, in 2024, the oil & gas extraction<sup>(1)</sup> sub-industry accounted for 19% of the Alberta's total GDP, which illustrates that both of the province's economies similarly benefit from the oil & gas industry.
- When including direct, indirect and induced jobs, there were 15,834 total jobs in Canada's offshore oil & gas sector in 2023. From 2019-2023, total jobs (including indirect and induced) in Canada's offshore oil & gas industry averaged over 17,000.<sup>(2)</sup>
- Offshore oil & gas capital spending in Canada was \$2.4 billion in 2023, down roughly 60% from the 2016 peak of \$5.6 billion. There is significant offshore oil development potential in Atlantic Canada given its vast reserves and direct access to key markets in Europe. However, despite this potential, there has been no exploration drilling in offshore Newfoundland and Labrador to date in 2025, underscoring the investment uncertainty the industry faces.
- Offshore royalties are a significant source of government revenue. For 2023-2024 (for the fiscal year ended March 31, 2024), Newfoundland and Labrador's offshore royalties were \$0.9 billion, representing roughly 10% of the government's total revenue. Offshore royalties equated to over 50% of the government's \$1.7 billion of operating costs. (3)



Province of Newfoundland and Labrador - Public Accounts Consolidated Summary Financial Statements for the Year Ended March 31, 2024

# Offshore Exploration and Production Activity



## **Canada's Offshore Oil & Gas Industry Map**



- All four of Canada's active offshore producing facilities (Hebron, Hibernia, Terra Nova, and White Rose) are located in the Jeanne d'Arc basin. These are the only producing offshore oilfields on the Atlantic coast of North America.
- The projects are located roughly 300-350 km off the coast of Newfoundland.
- A detailed map of land tenure regions and activity in the area can be found <a href="here">here</a>.
- The Bay du Nord project is a proposed development by Equinor, located roughly 500 km northeast of St. John's in the Flemish Pass basin.
- Within this zone, a country has sovereign rights over the exploration, exploitation, management and
- (2) Not all land tenure regions and offshore sedimentary basins are displayed on this map
- There are four active production facilities located in offshore Newfoundland and Labrador: Hebron, Hibernia, Terra Nova, and White Rose

### The Basics of Offshore Oil & Gas (1/2)

#### **Exploration**

- ▲ Exploration and discovery is the first stage of offshore oil & gas development. To understand an area's resource potential, geophysical companies perform seismic surveys by releasing bursts of compressed air into the ocean and analyzing the soundwaves that bounce off the seafloor, with underwater microphones capturing the echoes. These surveys, conducted with safeguards to protect marine life, are used not only for oil & gas exploration but also for offshore wind power project planning and coastal restoration.
- The seismic survey data then allows industry professionals to identify prospects by assessing potential <u>resources</u> and quantifying the associated <u>reserves</u>.

#### **Drilling**

- ▲ Once a potential offshore reserve is located, companies drill exploratory wells using Mobile Offshore Drilling Units (MODUs), which may later be replaced or converted for crude oil production. The purpose of a MODU is to bore into the seabed in search of underground oil & gas deposits. This is a critical stage of offshore oil & gas project development, and a costly endeavor. There are two main MODU types used in Atlantic Canada:
  - **Semi-submersible Drilling Rig**: A floating rig that is stabilized by submerged pontoons and multiple anchors. Some semisubmersibles are capable of self-propulsion and conversion to production use. They operate in water depths of 500 to 3,000 meters.
  - **Drill Ships**: Ships with onboard drilling rigs that operate through a hull opening. They are suited for deepwater drilling and operated in water depths of 500 to 3,650 meters.
- ▲ During the exploration drilling phase, a company may drill one or multiple wells on a geological structure that could contain crude oil or natural gas. Drilling an offshore well can take anywhere from one to three months and the planning phase typically takes more than a year.



### The Basics of Offshore Oil & Gas (2/2)

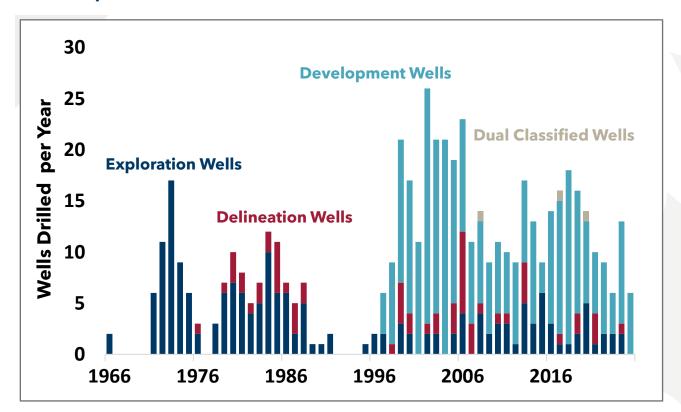
#### **Production**

- After confirming an exploration well has enough resources to be economically developed—and meeting all regulatory requirements—companies transition from exploration and drilling to full-scale production. The offshore oil & gas sector has engineered advanced systems capable of extracting resources under extreme pressure and temperature conditions in deep and ultra-deep waters. Offshore Atlantic Canada is a particularly challenging operating environment due to high wave heights and the presence of sea ice. In Atlantic Canada, there are two main types of production facilities being used:
  - Floating Production, Storage and Offloading (FPSO): Consists of a large tanker-like vessel that is anchored to the seafloor. An FPSO is designed to process and stow production from surrounding subsea wells, and to periodically offload the stored oil to a smaller shuttle tankers which then transport the oil for further processing. FPSOs are especially effective in remote, deepwater locations where pipeline infrastructure is unavailable or impractical.
    - A network of flexible flow lines are used to transport hydrocarbons to and from the wells. Produced gases are separated from the oil and re-injected into the reservoir to support oil production and for possible future extraction.
  - **Gravity Based Structure (GBS)**: Structures that feature one or more concrete legs that hold offshore oil & gas platforms above a foundation of oil storage cells. Made from thick, steel-reinforced concrete, GBSs are weighted down during installation to anchor them firmly to the seafloor. They are designed to withstand extreme operating conditions of the stormy waters.
- ▲ Of the four active production facilities in offshore Atlantic Canada, two are FPSO vessels, and the other two are GBSs.
- $lap{4}$  In Atlantic Canada, offshore oil is offloaded from the FPSO or GBS onto large shuttle tankers for shipment.



## **Newfoundland and Labrador Offshore Activity Summary**

Annual | 1966 to 2025<sup>(1)</sup>

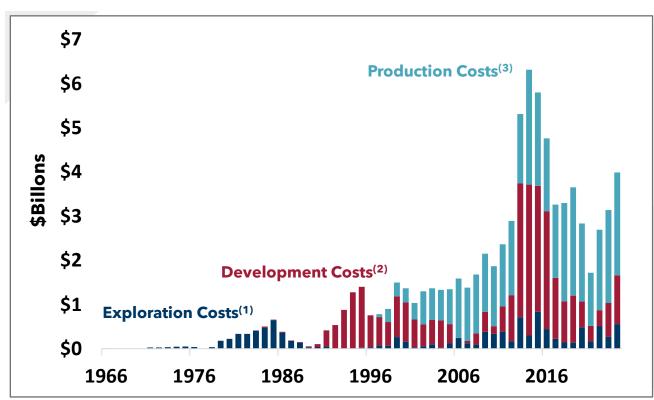


- Exploration drilling in offshore oil & gas is critical to determining the potential commercial viability of subsurface hydrocarbon reservoirs.
- Due to the high costs associated with exploration drilling, these activities bring significant benefits to province through local economic stimulus.
- On a cumulative basis, since 1966, there have been a total of 295 development wells drilled, 183 exploration wells drilled, 61 delineation wells drilled, and 3 dual classified wells drilled in offshore Newfoundland and Labrador.
- In 2024 and YTD 2025, there have been only two exploration wells drilled, and there is currently no exploration wells planned for 2026. The last time a similar two-year gap occurred was in 1994.



- (1) 2025 is YTD to May
  - Rystad Energy Global oil and gas exploration shrinks as companies shift focus to lower-risk core assets and regions

## Newfoundland and Labrador Offshore Historical Program Expenditures Annual | Nominal Dollars | 1966 to 2024



- Similarly, exploration<sup>(1)</sup> and development<sup>(2)</sup> costs account for a significant portion of a project's total costs. These costs occur before the commissioning of a project.
- From 1966-2024, roughly \$81 billion dollars has been spent cumulatively, from inception to completion, on offshore oil & gas projects in Newfoundland and Labrador.
- ◄ Inflation-adjusting this to present day dollars (i.e., 2024 dollars), it equates to roughly \$115 billion. Of this, exploration and development costs accounted for close to 60% of the total costs.
- ▲ Compared to onshore oil & gas exploration, offshore oil & gas exploration is very risky due to the high upfront costs and challenging technical environment.
- ) Costs include Wellsite Surveys, Seismic Surveys, Exploration Wells and (usually) Delineation Wells
- 2) Costs expended from receipt of the Development Application to 'first oil' production. Includes expenditures which advance a project to the Development Phase such as Engineering and Conceptual Studies, Office Costs and costs in support of preparing a Development Application
- (3) Costs expended from 'first oil' production to the end of production



## Canada's Offshore Oil & Gas Production Facilities (1/2) Key Facts

#### **Hebron**

Operator: ExxonMobil Canada



- Discovered in 1980, located 350 km eastsoutheast of St. John's. NL.
- ▲ First production: 2017
- Situated in the Jeanne d'Arc Basin.
- Contains three main reservoirs: Ben Nevis, Hibernia, and Jeanne d'Arc Formations.
- Initially treated as three separate fields: Hebron, West Ben Nevis, and Ben Nevis. Merged into a single field (Hebron Field) in 2017.
- Produced using a Gravity Based Structure (GBS).

#### Hibernia

Operator: Hibernia Management and Development Company Ltd.



- Discovered in 1979, located roughly 300 km east-southeast of St. John's, NL.
- First production: 1997
- ▲ Situated in the Jeanne d'Arc Basin.
- Contains two main reservoirs: Hibernia and Ben Nevis-Avalon.
- Produced using a GBS.

#### **Terra Nova**

**Operator: Suncor** 



- Discovered in 1984, located 350 km eastsoutheast of St. John's, NL.
- ▲ First production: 2002
- Situated in the Jeanne d'Arc Basin.
- Contains a single reservoir: Jeanne d'Arc Formation.
- Produced using an <u>Floating Production</u>, <u>Storage</u> and <u>Offloading</u> (<u>FPSO</u>) vessel.
- Production restarted in later 2023 following the completion of the Terra Nova Asset Life Extension project.





- Discovered in 1984, located 350 km eastsoutheast of St. John's. NL.
- First production: 2005
- Situated in the Jeanne d'Arc Basin.
- Contains one main reservoir: Ben Nevis-Avalon.
- ♠ Produced using an <u>FPSO</u> vessel.
- Includes the North Amethyst, West White Rose and South White Rose fields.



## Canada's Offshore Oil & Gas Production Facilities (2/2) Key Facts

#### **West White Rose (Commissioning)**

**Operator: Cenovus** 



- An extension of the White Rose field.
- Will be produced using a Concrete Gravity Structure (CGS), tied back to the existing White Rose SeaRose Floating Production, Storage and Offloading (FPSO) vessel for processing and storage.
- ▲ Targeting first oil in 2026.

#### **Bay du Nord (Proposed)**

**Operator: Equinor** 



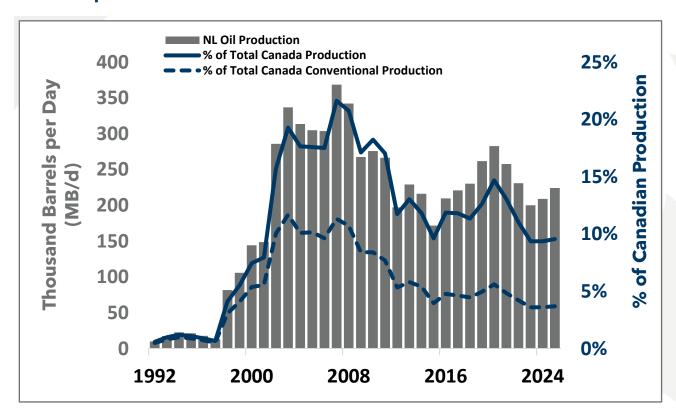
- A proposed project located approximately 500 km east of St. John's, NL.
- Situated in the Flemish Pass Basin.
- The first discovery was made by Equinor in 2013, followed by additional discoveries in 2014, 2016 and 2020.
- Delayed in May 2023. A positive final investment decision (FID) could potentially happen by 2027, with first oil in 2031.
- Oil will likely be produced using an <u>FPSO</u> vessel.



Source: C-NLOER, Cenovus, Equinor

### Newfoundland and Labrador Oil<sup>(1)</sup> Production

Annual | 1992 to 2025<sup>(2)</sup>

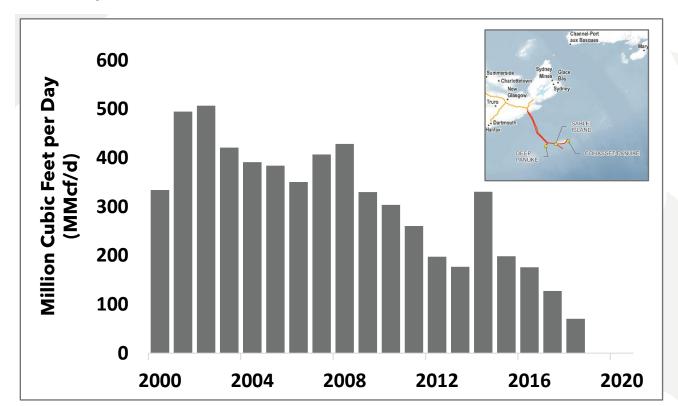


- Presently, Newfoundland and Labrador oil production is from the Hibernia, Hebron, Terra Nova, and White Rose fields in the Jeanne d'Arc Basin.
- Oil production in offshore
  Newfoundland and Labrador averaged
  approximately 209 MB/d in 2024, down
  over 40% from the peak in 2007 of 368
  MB/d. For context, in 2024, oil
  production in offshore Newfoundland
  and Labrador represented 9% of total
  Canadian conventional oil production
  and 4% of total Canadian oil
  production, respectively.
- Of note, the production dip during the 2020-2023 period was due to temporary shutdowns at two facilities for significant retrofit programs. More broadly, the production decline since 2007 is due to multiple factors, such as natural declines, lower oil prices, and cost and competitiveness. These factors have had a pronounced impact on capital-intensive offshore projects.



### **Nova Scotia Natural Gas Production**

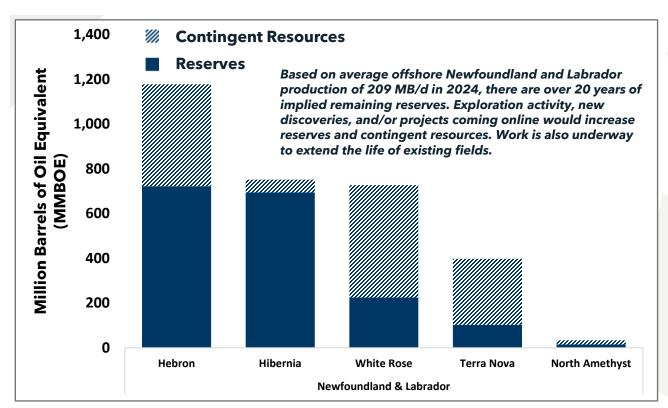
Annual | 2000 to 2020



- Cohasset-Panuke was Canada's first offshore oil project, producing from 1992 to 1999, peaking at 26,000 B/d before declining to 6,000 B/d. The project was decommissioned in 1999.
- Two offshore natural gas projects, the Sable Offshore Energy Project and Deep Panuke, were commissioned in 1999 and 2013, respectively. Following a period of production decline, both projects were shutdown in 2018 and have been plugged and abandoned.
- Collectively, the Sable Offshore Energy Project and Deep Panuke produced over 2.7 Tcf while operational. (1),(2)
- While producing, natural gas was transported via the Maritimes & Northeast Pipeline to local and U.S. markets. The pipeline flow has since been reversed.



### Canada's Offshore Oil & Gas Recoverable Reserves/Resources



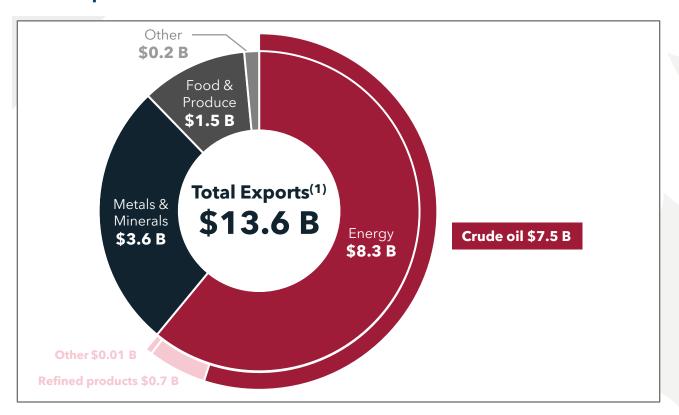
- In offshore Newfoundland and Labrador, based on May 2025 estimates from Canada-Newfoundland and Labrador Offshore Energy Regulator (C-NLOER), there are 1,759 million barrels of combined oil reserves within the producing fields. Over 80% of the oil reserves are in the Hebron and Hibernia fields. There are an additional 1,328 MMBOE of estimated contingent resources, which includes natural gas and natural gas liquids (NGLs), within these fields.
- While not shown in the graph on the left, an independent resource assessment in 2023 from the Government of Nova Scotia<sup>(1)</sup> found that the Scotian Basin in offshore Nova Scotia contains significant exploration opportunity with approximately 22.6 billion barrels of oil and 64.6 trillion cubic feet (Tcf) of natural gas potential.
- Meanwhile, a series of independent resource assessments commissioned by the Government of Newfoundland and Labrador found there to be an estimated 123.5 billion barrels of oil and 292.6 Tcf of natural gas potential.<sup>(2)</sup>
- (1) Scotian Basin Integration Atlas 2023
- (2) Oil and Gas Corporation of Newfound and Labrador (OilCo) Understanding the Resource Potential



## Exports and Imports



## Value of Newfoundland and Labrador Exports by Category Annual | 2024

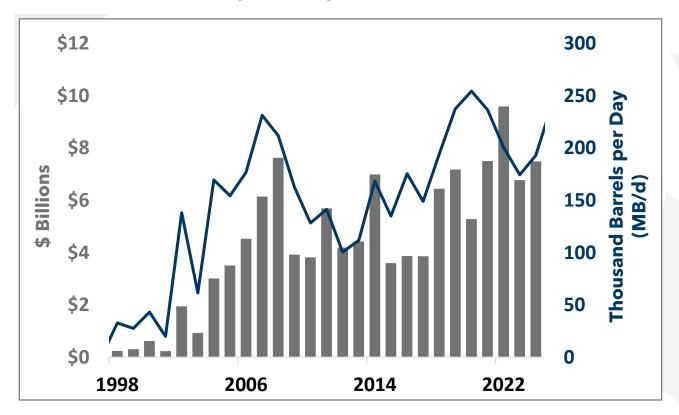


- The oil & gas industry is vital to Newfoundland and Labrador's economy.
- ▲ In 2024, oil exports from Newfoundland and Labrador were approximately \$7.5 billion, representing 55% of the province's total exports of \$13.6 billion.
- By comparison, the next largest values for exports in 2024 were from the following sub-industries: Ores, slag and ash (\$2.8 B), Fish and crustaceans, mollusks and other aquatic invertebrates (\$1.4 B), and Nickel and articles thereof (\$0.8 B).



## **Annual Newfoundland and Labrador Oil Exports**

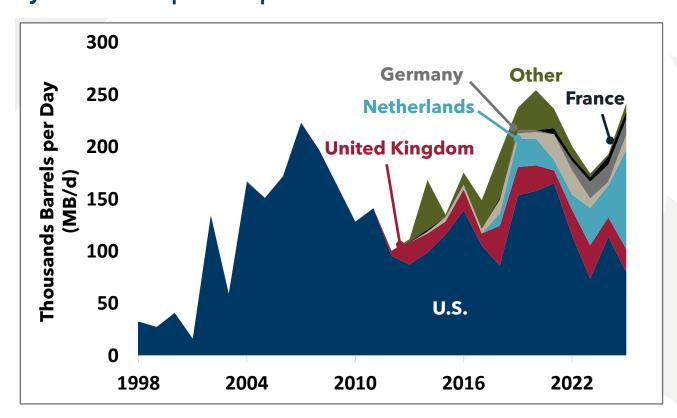
By Value and Volume | Annual | 1998 to 2024



- The value of oil exports is highly dependent on oil prices.
- Newfoundland and Labrador offshore oil is light and sweet and exported primarily to European markets. Brent crude oil pricing is the benchmark for offshore or waterborne light sweet oils produced in the North Sea and Atlantic Canada. Brent crude oil sells at a premium to inland North American crude oils.
- Newfoundland and Labrador oil exports peaked in 2022 at \$9.6 billion. Brent averaged roughly US\$100/B in 2022, its highest level since 2013, offsetting the lower export volumes (relative to 2021) of 201 MB/d.
- On a dollar basis, oil exports represent over 50% of the province's total exports. Further developing Newfoundland and Labrador's vast offshore resource base will bolster its exports, which is a strong driver of economic growth and fiscal stability.



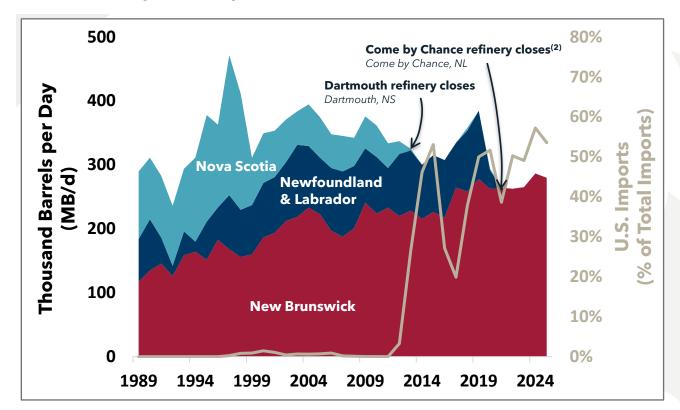
## Annual Newfoundland and Labrador Crude Oil Exports By Destination | Annual | 1998 to 2025<sup>(1)</sup>



- Newfoundland and Labrador offshore crude oil is exported primarily to international markets.
- There is no pipeline infrastructure linking offshore Newfoundland and Labrador crude oil inland to North American markets where West Texas Intermediate (WTI) pricing dominates. As such, offshore oil & gas producers in Newfound and Labrador can leverage their strategic location along international shipping routes to gain unique access to global and premium priced markets, particularly in Europe.
- Prior to 2012, Newfoundland and Labrador exported the vast majority of its crude oil to the U.S. In 2024, roughly 60% of all crude oil exports were to the U.S. (compared to ~100% pre-2012). This shift has been primarily driven by market dynamics, notably a surge in onshore light oil production in the U.S. that reduced their need for imports from Canada.



## Atlantic Canada Crude Oil Imports By Province | Annual | 1998 to 2025(1)



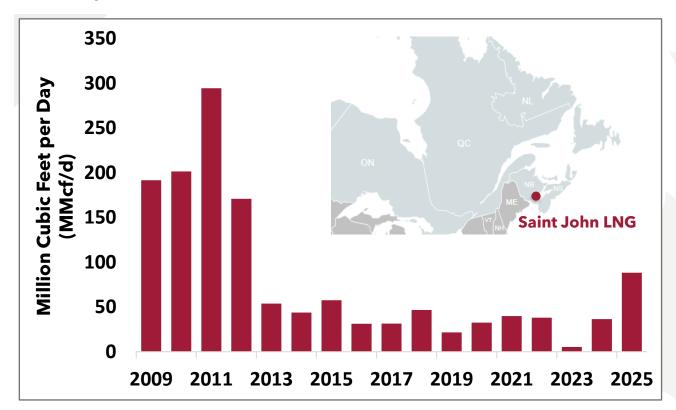
- Prior to 2012, crude oil imports into Atlantic Canada came from non-U.S. sources.
- The U.S. shale revolution caused a supply influx of U.S.-produced light, sweet crude oil which is compatible with refineries in Atlantic Canada.
- The closures of the Dartmouth Refinery in Nova Scotia (2013) and the Come by Chance Refinery<sup>(2)</sup> in Newfoundland and Labrador (2020) also shifted import dynamics.
- In 2024, total crude oil imports into Atlantic Canada were 286 MB/d (57% from the U.S./43% from overseas). The only remaining active refinery in Atlantic Canada is the Irving Oil Refinery in New Brunswick.



The Come by Chance refinery was repurposed into a renewable fuels production facility, commencing commercial operations in February 2024

<sup>2025</sup> is YTD to March

## Atlantic Canada LNG Imports Annual | 2009 to 2025(1)



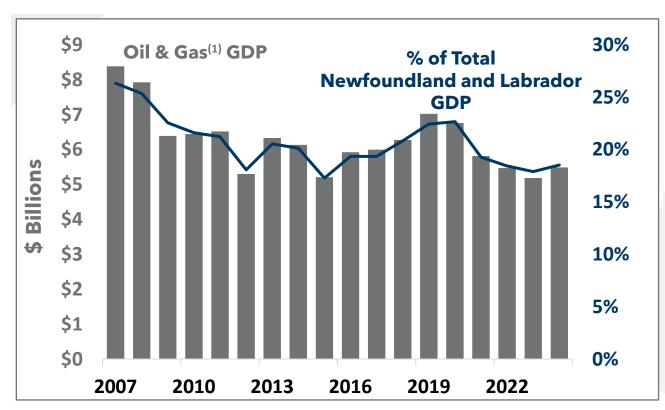
- Canada's lone liquefied natural gas (LNG) import terminal is located in Saint John, New Brunswick.
- Saint John LNG (formerly Canaport LNG) is a receiving and regasification terminal that supplies natural gas to the region to meet winter demand. The terminal received its first shipment in 2009.
- Saint John LNG imports peaked in 2011 at roughly 300 MMcf/d and have declined significantly amidst increased natural gas production in the U.S. Northeast.



## Economic & Fiscal Impact



## Newfoundland and Labrador Gross Domestic Product (GDP) Oil & Gas industry<sup>(1)</sup> | Annual | 2007<sup>(2)</sup> to 2024



- The oil & gas industry<sup>(1)</sup> is a major contributor to Newfoundland and Labrador's economy, accounting for over \$5.4 billion of GDP in 2024, equivalent to nearly 20% of the province's total GDP.
- Since 2007, as a percentage of total GDP in Newfoundland and Labrador, the oil & gas industry<sup>(2)</sup> has ranged from 17-26%.
- By comparison, using this same measure, in 2024, the oil & gas industry<sup>(1)</sup> accounted for \$88 billion in Alberta. However, as a percentage of the province's total GDP, it was roughly 25%. This highlights that the oil & gas industry is vital to Newfoundland and Labrador's economy, like Alberta

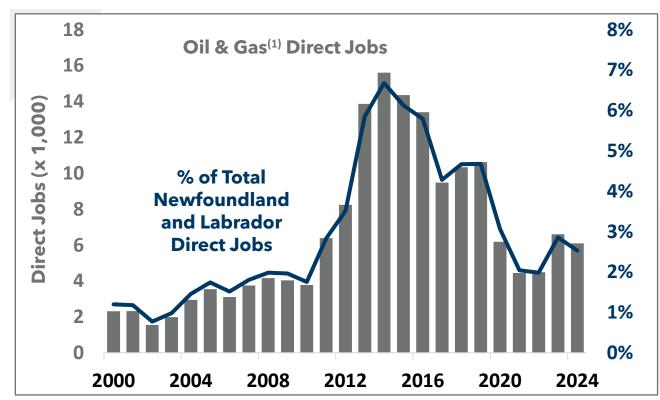


- (1) Includes oil & gas extraction, support activities for oil & gas extraction, oil & gas engineering construction, petroleum refineries, and pipeline transportation
- (2) Pre 2007 data unavailable for select sub-industries

## **Newfoundland and Labrador Direct Jobs**

Oil & Gas Industry<sup>(1)</sup> | 2000-2024

Source: Statistics Canada Table 36-10-0489-05



- The offshore oil & gas industry<sup>(1)</sup> is a major employer for the Newfoundland and Labrador economy.
- In 2024, the oil & industry(1) accounted for over 6,000 direct jobs, equating to 3% of the province's total jobs. Direct jobs in the oil & gas industry<sup>(1)</sup> in Newfoundland and Labrador peaked in 2014 at roughly 15,600 (7% of all direct jobs).
- When including indirect and induced jobs, there were 15,834 total jobs in the offshore oil & gas sector in 2023.(2) From 2019-2023, total jobs (including indirect and induced) in the offshore oil & gas industry averaged over 17,000.(3)



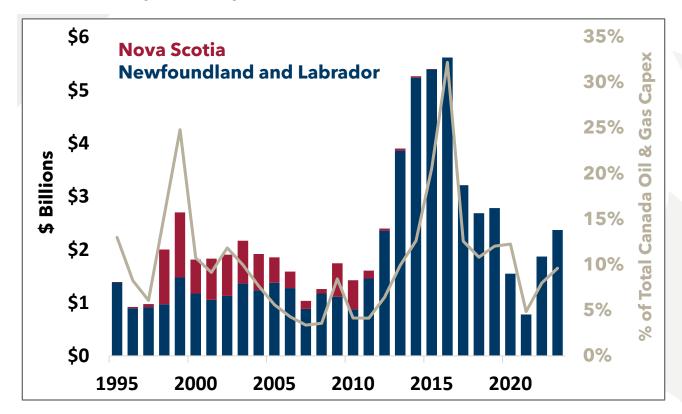
Includes oil & gas extraction, support activities for oil & gas extraction, oil & gas engineering construction, petroleum refineries, and pipeline transportation

Direct, indirect and induced employment by sector, 2023

Marine economy total employment by sector and year (# of jobs)

## **Canadian Offshore Oil & Gas Capital Expenditures**

By Province | Annual | 1995 to 2023

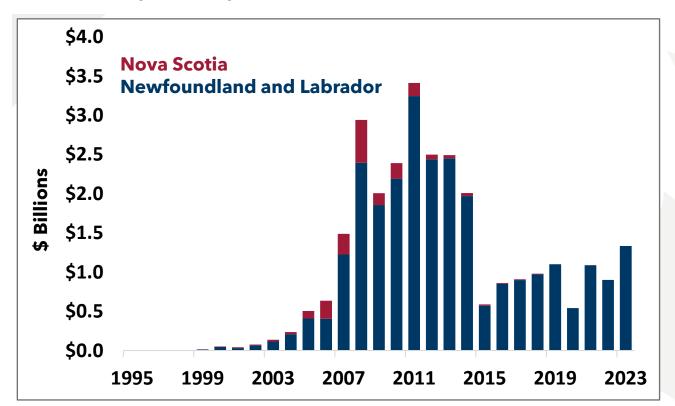


- Offshore oil & gas capital spending in Canada was \$2.4 billion in 2023, down roughly 60% from the 2016 peak of \$5.6 billion.
- In 2016, offshore oil & gas capital spending as percentage of total Canadian oil & gas capex was 32%, which compares to 10% in 2023. Since 2016, all the offshore oil & gas capital spending has been in Newfoundland and Labrador.
- According to Rystad Energy estimates, total global offshore investments will reach almost \$250 billion in 2025, signaling that the offshore oil industry will be a major source of growth in the next decade.<sup>(1)</sup>
- There is significant offshore oil development potential in Atlantic Canada given its vast reserves and direct access to key markets in Europe.



## **Canadian Offshore Oil & Gas Royalties**

**By Province | Annual | 1995 to 2023** 

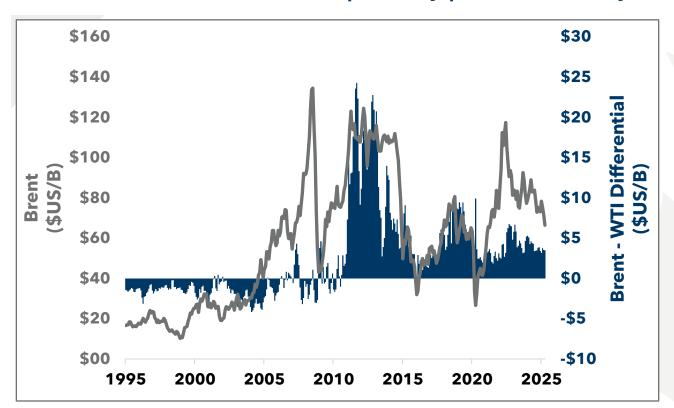


- ▲ Royalties from Newfoundland and Labrador's offshore oil & gas industry were \$1.3 billion in 2023.
- For 2023-2024 (for the fiscal year ended March 31, 2024),
  Newfoundland and Labrador's offshore royalties were \$0.9 billion, representing roughly 10% of the government's total revenue. Offshore royalties equated to over 50% of the government's \$1.7 billion of operating costs. (1)
- Newfoundland and Labrador's offshore crude oil royalties peaked at \$3.2 billion in 2011. Offshore crude oil production and commodity prices were higher during this period.
- Nova Scotia no longer collects royalties as there are currently no active offshore oil & gas projects.



### **Crude Oil Prices**

#### Brent and Brent-WTI Differential | Monthly | Jan 1995 to May 2025



- West Texas Intermediate (WTI) is a light, sweet crude benchmark priced at Cushing, Oklahoma, and reflects inland North American supply and logistics dynamics.
- Brent is similarly a light, sweet crude benchmark, but is based on offshore North Sea production and serves as the global seaborne pricing reference for much of the world's traded crude oil.
- Since 2011, Brent has traded at a premium to WTI. Prior to 2011, it traded at a discount. The flip in the pricing dynamics occurred as a result of the development of North American shale oil, which caused the United States to become net exporter of light crude oil.
- Newfoundland and Labrador offshore crude oil is light, sweet, and waterborne—making it linked to Brent pricing. By accessing Brent-indexed markets, Newfoundland and Labrador offshore crude oil captures higher revenue, especially during periods of wide Brent-WTI differentials, which translates to higher royalties and taxes.



Source: Bloomberg

### **Acronyms and Abbreviations**

**Bcf** - Billion Cubic Feet

**BOE** - Barrel of Oil Equivalent

**CAPEX -** Capital Expenditures

**CER -** Canada Energy Regulator

C-NLOER - Canada-Newfoundland and Labrador Offshore Energy Regulator

**CNSOER** - Canada Nova Scotia Offshore Energy Regulator

FID - Final Investment Decision

FPSO - Floating Production, Storage and Offloading

**CGS** - Concrete Gravity Structure

**GDP** - Gross Domestic Product

**LNG -** Liquefied Natural Gas

MMB - Million Barrels

**MMBOE** - Million Barrels of Oil Equivalent

**MMcf** - Million Cubic Feet

**NEB - National Energy Board** 

NGL - Natural Gas Liquids

NL - Newfoundland and Labrador

NS - Nova Scotia

Tcf - Trillion Cubic Feet

WTI - West Texas Intermediate



## **Glossary**

**Contingent Resources -** Volumes of hydrocarbons assessed to be technically recoverable that have not been delineated and have unknown economic viability. Includes oil, natural gas, and NGLs.

**Conventional Oil Production -** Conventional oil is extracted from the ground by drilling and pumping, which is what differentiates it from the oil extracted from oil sands. Compared to bitumen, conventional oil is less viscous and less dense.

**Development Well** - A well drilled on a geological feature on which a significant discovery has not been made.

**Delineation Well** - A well that is located in relation to another well penetrating an accumulation of petroleum that there is reasonable expectation that another portion of that accumulation will be penetrated by the first mentioned well and that the drilling is necessary in order to determine the commercial value of the accumulation.

**Dual Classified Well** - A well classified as either Exploration/Delineation or Development/Delineation.

**Exploration Well** - A well that is so located in relation to another well penetrating an accumulation of petroleum that it is considered to be a well or part of a well drilled for the purpose of production or observation or for the injection or disposal of fluid into or from the accumulation.

**Floating Production, Storage and Offloading (FPSO)** - Consists of a large tanker-like vessel that is anchored to the seafloor. An FPSO is designed to process and stow production from surrounding subsea wells, and to periodically offload the stored oil to a smaller shuttle tankers which then transport the oil for further processing. FPSOs are especially effective in remote, deepwater locations where pipeline infrastructure is unavailable or impractical.

**Gravity Based Structure (GBS)** - Structures that feature one or more concrete legs that hold offshore oil & gas platforms above a foundation of oil storage cells. Made from thick, steel-reinforced concrete, GBSs are weighted down during installation to anchor them firmly to the seafloor. They are designed to withstand extreme operating conditions of the stormy waters.

**Oil Reserves -** Those remaining quantities of anticipated to be commercially recoverable under a development plan to known accumulations from a given date. Proved, Probable, and Possible.



Source: C-NLOER