Socio-economic Benefits from Oil and Gas Industry Activity in Newfoundland and Labrador, 2018-2024

Final Report

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1 Introduction

In November 2003, Petroleum Research Atlantic Canada (PRAC) released a report on the 'Socio-Economic Benefits from Petroleum Industry Activity in Newfoundland and Labrador' (Community Resource Services Ltd. (CRS), 2003) during the 1999 to 2002 period. The report found that the socio-economic effects of the Newfoundland and Labrador offshore petroleum industry have been 'large, widely distributed, and long-term. It has made, and will continue to make, an important contribution to the economy and society of Newfoundland and Labrador' (p.viii). The report also concluded that offshore petroleum activity had helped transform the provincial economy. Updates to this report for 2003 and 2004 (Jacques Whitford 2005), 2005-2007 (Stantec 2009), 2008-2010 (Stantec 2012), 2011-2014 (Stantec 2015) and 2015-2017 (Stantec 2019) reinforced these conclusions and determined that production activity, exporting and diversification into other industries had become increasingly important components of the industry, resulting in a more stable pattern of activity and subsequent economic benefits.

This further update has been prepared for Energy Research & Innovation Newfoundland & Labrador (ERI) by Stantec Consulting Ltd (Stantec), with funding from ERI and the support of the Newfoundland and Labrador Department of Finance. It builds on the earlier reports, providing information and analysis for 2018-2024 on:

- Offshore oil and gas industry activity and expenditures in Newfoundland and Labrador
- The resultant direct, indirect, and induced economic benefits to the province
- Other benefits-related developments in such areas as infrastructure, education, training, and research and development (R&D)

This study also summarizes the involvements of a range of companies and organizations with the offshore petroleum industry in Newfoundland and Labrador, and the ways in which interactions with the industry have led them variously to develop new goods and services, hire new personnel, provide them with further training, acquire new facilities and equipment, and improve quality, health, safety, and environmental policies, practices and performance. It also considers the way in which the resultant increases in experience and capabilities have led to them diversifying, winning related work in other jurisdictions, and undertaking work in other industries, both locally and outside the province.

The provincial government also receives income, consumption and other taxes from activity and labour income generated by the offshore petroleum industry, and corporate income taxes paid on oil and gas company profits; however, that information is confidential and hence not available for this study.

In addition to the socio-economic benefits that are documented here, oil and gas companies operating in Newfoundland and Labrador make substantial contributions to local charities and community groups. During the study period, these included:

Cenovus and Rovers Search and Rescue

Rovers Search and Rescue has a new and improved rescue unit thanks to funding from Cenovus Energy. The volunteer-run charity has been providing emergency response and prevention services in Newfoundland and Labrador since 1972 with teams trained in advance search and rescue, high angle rescue, and cold water/ice rescue. The new unit replaces their original 30-year-old rescue unit with improved capability and reliability. Partnering with organizations like Rovers is one way the company helps support residents in the Atlantic region.

Hebron and Johnson Geo Centre

In late 2022, the Johnson Geo Centre launched its expanded Oil and Gas Gallery. The exhibit allows visitors to explore the science and technology behind the formation, search, and extraction of oil and gas, highlighting ways it has shaped our lives today and research enhancements. Key upgrades include a larger gallery space, refreshed exhibits, new technology, and the installation of an interactive drilling animation. ExxonMobil Canada Properties (EMCP) (as operator of the Hebron project and on behalf of the Hebron co-venturers), along with the former Hebron Project Employers' Association, funded the exhibit upgrades.

Hibernia and AEDs for Fishers

The crews of 105 fishing vessels in Newfoundland and Labrador received Automated External Defibrillators (AEDs) through funding by Hibernia Management and Development Company Ltd. (HMDC) and Heart & Stroke Foundation of Canada's collaboration with the Newfoundland and Labrador Fish Harvesting Safety Association (NL-FHSA), the Fish Food and Allied Workers Union (FFAW/UNIFOR), the Professional Fish Harvesters Certification Board (PFHCB), and One Ocean. Hibernia's experience of hearing a distress call about a fisher in cardiac arrest was the impetus to lend financial support to its neighbours on the Grand Banks. Heart & Stroke certified instructors trained fishers on each vessel in cardiac emergency education, including CPR and AED use. This will enable fishers to respond to cardiac emergencies both at sea and in their communities, substantially increasing the chances of survival.

Suncor and Junior Achievement of Newfoundland and Labrador

Suncor invests in communities where it operates to build a better future and ensure these vibrant communities remain sustainable and resilient. Suncor and the Suncor Energy Foundation (SEF) have been active supporters of Junior Achievement of Newfoundland and Labrador for over 15 years, providing hands-on volunteer opportunities with students and monetary donations totaling more than $500,000. Junior Achievement is the global leader in work preparedness, financial literacy, and entrepreneurial education for young people aged five to 25, including in Newfoundland and Labrador. Specifically, as part of the partnership, Suncor and SEF supported the Collaboration for Youth initiative and the Business Hall of Fame Gala, ensuring that the province’s youth develop a robust understanding of financial literacy, entrepreneurship and develop critical skills, such as problem-solving, innovative thinking and resilience.

Hibernia and Tech NL

In 2021, TechNL introduced the High School Tech Internship Program, which offered high school students summer training programs and work-integrated learning opportunities in partnership with local businesses. Interest in the program has increased exponentially over the past three years, thanks to initial support from the provincial Department of Immigration, Population Growth and Skills and the Atlantic Canada Opportunities Agency to establish the program.

In June 2024, Hibernia provided ~$1.8 million in funding to allow the programs to significantly expand and therefore increase capacity for more students to participate. Further benefits of the funding include the addition of new engagement activities and creation of a Makerspace in the new Co. Innovation Centre, to give students access to hands-on tools like 3-D printing and design software to develop vital technical skills.

Hebron and CNA School for Sustainability

In October 2024, College of the North Atlantic (CNA) announced the expansion of its climate change and sustainability programming through a contribution from Hebron of $10 million over five years. This is the largest donation in CNA’s history and will support CNA to advance scientific discovery and knowledge, providing a focal point for educational programming concerned with meeting the needs of future generations. These innovative efforts will bring together students, educators, scientists, and researchers to foster interdisciplinary and innovative solutions to climate and sustainability challenges.

2 Context

Offshore petroleum activity in Newfoundland and Labrador began in 1963, with the first exploration well being drilled in 1966. The industry has experienced fluctuating levels of exploration, development, and production activity over the succeeding decades. In the first case, the pace of exploration has fluctuated in response to varying levels of success, changing oil prices, and the availability of government support (e.g., federal Petroleum Incentive Plan grants in the 1970s). Exploration, including both drilling and seismic activity, peaked in the early-1980s, with smaller increases in activity in the mid-1990s and late-2000s. This exploration led to the discovery of the Hibernia oilfield in 1979, the Hebron field in 1981, the Terra Nova and White Rose fields in 1984, and discoveries in the Flemish Pass, including Mizzen (2009), Harpoon (2013), Bay du Nord (2013), Cambriol (2020), and Cappahayden (2020).

The first development activity did not occur until 1990. Since then, four Grand Banks oilfields, as well as satellite developments such as North Amethyst and the Hibernia Southern Extension, have been brought into production.

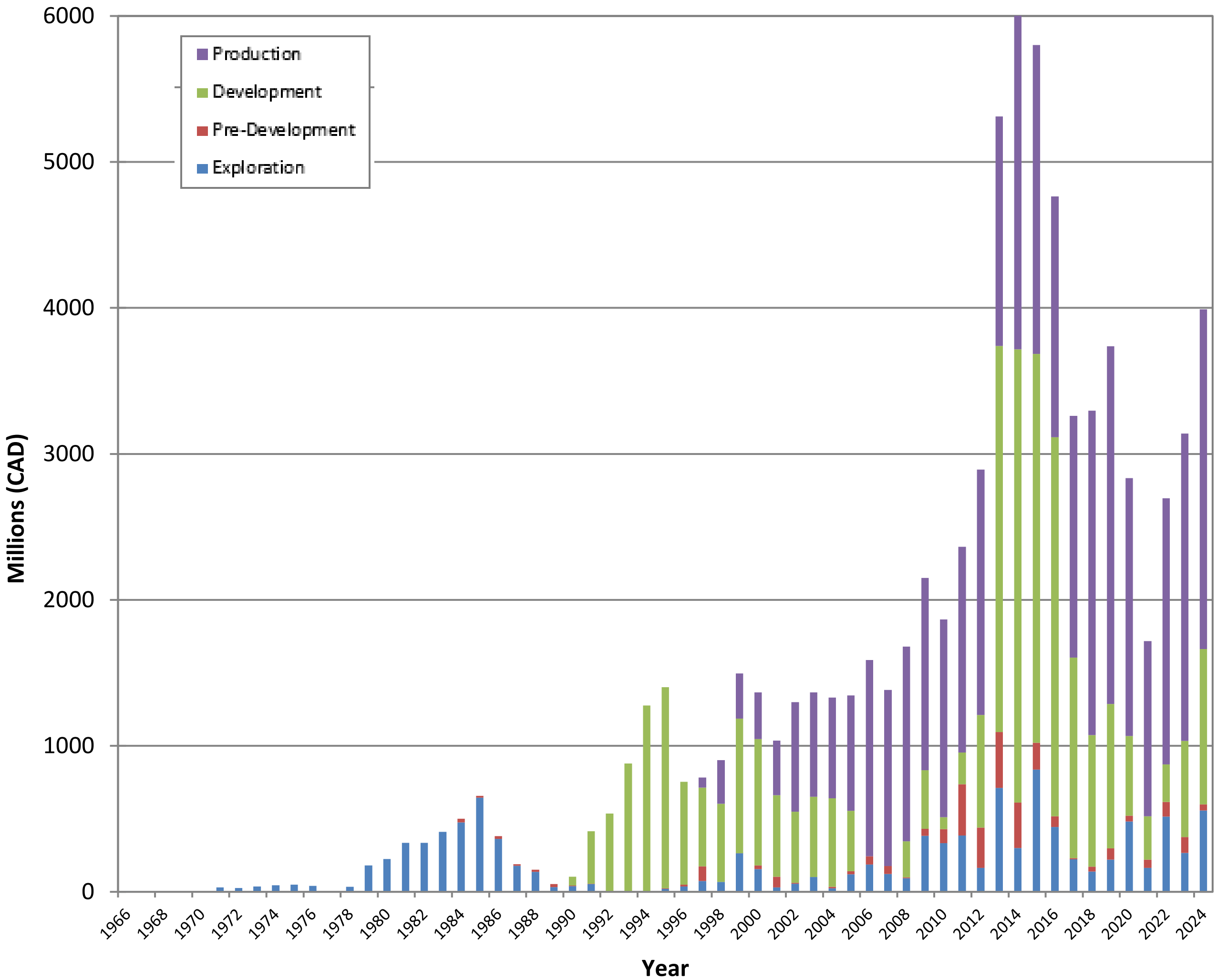
Hibernia: The approximately $5.2 billion development of this field, including the construction of a concrete gravity-based structure (GBS) and some topsides components at Bull Arm, Trinity Bay, started in 1992. The GBS and topsides were mated in early 1997 and the complete platform was towed to the field in time for first oil production in November 1997. Hibernia produced its one billionth barrel of oil in December 2016 and production as of the end of 2024 totalled approximately 1.29 billion barrels of oil is expected to continue producing until at least 2040 (C-NLOER 2025). The Hibernia project had an estimated 332 million barrels of recoverable reserves remaining. (C-NLOER 2025). In 2024, Hibernia spent $2.3 million in research and development, and $10.1 million in education and training, for a total of $12.4 million in project-eligible expenditures (C-NLOER 2025).

Terra Nova: In 1998, Petro-Canada began developing the Terra Nova field using a floating production storage and offloading (FPSO) vessel with much of the topsides fabrication and installation occurring at Bull Arm. The FPSO arrived at the field in August 2001 and produced first oil in January 2002. The total Terra Nova pre-production capital expenditures were approximately $2.8 billion. After shutting down in 2019, the Terra Nova FPSO was back in operation in December 2023 following an extensive maintenance program to extend the asset's life. As the end of 2024, Terra Nova's production has totalled 436 million barrels of oil (C-NLOER 2025). In 2024, Terra Nova spent $0.7 million in research and development, and $0.5 million in education and training, for a total of $1.2 million in project-eligible expenditures (C-NLOER 2025).

White Rose: Work developing this field started in 2002. Like Terra Nova, White Rose uses an FPSO with a hull built in South Korea. Much of the topsides fabrication and installation work for the SeaRose FPSO occurred in Marystown, Placentia Bay, while some fabrication work, and the testing of some sub-sea components, took place at Bull Arm. The project had a total capital cost of approximately $2.35 billion and first oil was produced in November 2005. Since then, the project has evolved to include satellite fields at North Amethyst, the South White Rose Extension and the West White Rose Extension. Full field development of West White Rose will utilize a concrete gravity structure with drilling topsides tied back to the SeaRose FPSO production vessel. First production is forecast for 2026. As of the end of 2024 more than 328 million barrels of oil had been produced through the SeaRose FPSO (C-NLOPB 2025).

Hebron: The Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB), now the Canada-Newfoundland and Labrador Offshore Energy Regulator (C-NLOER), approved the Hebron development plan application in 2012. The project was sanctioned by Hebron's partners, EMCP (as operator of the Hebron project), Chevron Canada Limited, Suncor Energy Inc., Equinor Canada Ltd. and Oil and Gas Corporation of Newfoundland and Labrador) in 2012. Construction of the Hebron GBS began at the Bull Arm Fabrication Site in 2012, and four of the six components of the GBS topsides were produced at various locations throughout the province, including Bull Arm, Port aux Basques, and Marystown. Integration of the topsides modules and mating onto the GBS was completed in December 2016, and the platform was towed out and placed on the ocean floor in June 2017. Hook up and commissioning were completed in the Fall of 2017 and the project produced first oil in November of that year. Cumulatively, Hebron production totaled 308 million barrels of oil as of the end of 2024, and it is estimated that the project had 365 million barrels of recoverable reserves remaining at the end of 2025 (C-NLOER 2025). The capital cost for the project is estimated at $14 billion and it is estimated to have a 30-year lifespan (NLDF 2018).

Early 2020 saw the arrival of the COVID-19 pandemic, which resulted in a global crash of oil prices. Actions to reduce the spread of COVID-19 including reduced air travel and commuting, had a significant impact on the Canadian energy system (Canada Energy Regulator 2024; NLDF 2020). By March 2020, global demand for crude oil had fallen by over 35% from the start of 2020. This dealt a major blow to Newfoundland and Labrador's oil and gas industry and its local supply and service sector. For example, the Come-by-Chance refinery was temporarily shut down, and work on the West White Rose project construction and Terra Nova's maintenance program were suspended. In addition, Equinor Canada decided to defer the Bay du Nord project due to challenging market prices. However, post-pandemic, the province saw substantial oil and gas exploration potential for new discoveries and tieback opportunities for existing projects in offshore Newfoundland and Labrador (NLDF 2021) (Section 3). Figure 2-1 identifies the Newfoundland and Labrador offshore petroleum activity and area expenditures from 1966-2024.



Source: C-NLOPB 2025

Figure 2-1 Newfoundland and Labrador Offshore Petroleum Activity and Area Expenditures, 1966-2024

Twelve exploration wells were drilled in Newfoundland and Labrador's offshore during the study period (Table 2-1). The last exploration well in the Jeanne d'Arc was drilled in 2019; since then, activity is predominantly located in the Eastern Newfoundland Offshore region (East NL). Indeed, despite the COVID-19 pandemic, 2020 was one of the busiest years on record for exploration well drilling. Since 2020, only four exploration wells have been pursued – all within East NL (C-NLOPB 2025). In 2018, a record $1.4 billion exploration license bids were received.

Table 2-1 Exploration Wells in the Newfoundland and Labrador Offshore: 2018-2024

Well Name	Area	Spud Date*	Well Termination Date
White Rose A-24	Jeanne d'Arc	08-Mar-2018	11-May-2018
Tiger's Eye D-17	Jeanne d'Arc	03-Apr-2019	22-Jun-2019
Harp L-42A	East NL	18-Oct-2019	23-Apr-2020
Cappahayden K-67	East NL	24-Apr-2020	21-Jun-2020
Hampden K-41	East NL	02-May-2020	11-May-2020
Cappahayden K-67Z	East NL	21-Jun-2020	06-Jul-2020
Cambriol G-92	East NL	07-Jul-2020	21-Sep-2020
Sitka O-02	East NL	22-Oct-2020	23-Oct-2020
Pelles A-71	East NL	30-Apr-2021	06-Jul-2021
Cambriol J-31A	East NL	24-May-2022	24-Jul-2022
Ephesus F-94	East NL	08-May-2023	29-Jun-2023
Gale N-66	Jeanne d'Arc	17-Jul-2023	31-Aug-2023
Persephone C-54	East NL	24-May-2024	06-Sep-2024
Sitka C-02	East NL	10-Jul-2024	14-Sep-2024

*Start of drilling
Source: C-NLOPB (2025)

Environmental assessment work continued to be an important element in the development of the offshore industry between 2018 and 2024. A large part of this work conducted is related to Equinor Canada, including from its Flemish Pass exploration drilling project and the Bay du Nord Development Project. Other environmental assessment work included exploration drilling projects from Cenovus (formerly Husky Energy), BP, BHP Canada, and ExxonMobil Canada Ltd. in the areas of Jeanne D'Arc, Orphan Basin, and Central Ridge. During this period, a regional assessment of offshore oil and gas exploratory drilling east of Newfoundland and Labrador was conducted. This was the first regional assessment under the federal *Impact Assessment Act*. Its purpose was to improve the efficiency of the environmental assessment process pertaining to oil and gas exploration drilling within its geographic scope, instead of each new drilling project requiring its own full assessment. By completing this process, many drilling programs proposed for this area will be excluded from the requirements to undergo a project-specific federal Impact Assessment should they be compliant with the conditions identified under the regional assessment (C-NLOPB 2025). These programs indicate that exploration and development hold important opportunities for future growth in oil and gas production, and by extension the provincial economy.

3 Economic Benefits 2018-2024

This section of the report provides a more detailed picture of the economic effects of offshore oil and gas activity on Newfoundland and Labrador during the 2018 to 2024 study period. These findings are presented in the context of a revised analysis of the impacts discussed in the earlier reports.

The analysis was prepared by the Economic Division, Economics and Statistics Branch, Department of Finance, Government of Newfoundland and Labrador. It examines the direct, indirect, and induced effects of offshore oil and gas industry activity during the 2018-2024 period. The Department of Finance report is provided in Appendix A.

3.1 Industry Background

Between 2018 and 2024, Newfoundland and Labrador's oil and gas sector underwent notable shifts in production and investment, influenced by global market conditions, the COVID-19 pandemic, and project-specific factors.

Following the global oil price crash in 2014–2015, the province's oil industry gradually recovered over the next four years. From 2016 to 2018, exploration activity increased, aided by strategic measures from the provincial government to encourage sector growth. A milestone was reached in 2018 when exploration license bids totaled a record $1.4 billion, reflecting heightened industry engagement. That same year, the Hebron project entered its first full year of production, contributing to a rise in offshore oil output that peaked in 2020 at the highest level since 2008 (Department of Finance 2025).

However, the industry encountered operational difficulties in subsequent years, worsened by the pandemic. In December 2019, the Terra Nova project paused production and subsequently began a planned Asset Life Extension (ALE) of the FPSO, aimed at extending operations by approximately 10 years to recover an extra 70–80 million barrels of oil. Although the vessel was scheduled for refitting in Spain in early 2020, pandemic-related disruptions delayed the departure and postponed the upgrade. The FPSO eventually left in December 2021 and resumed production in late 2023.

The pandemic also impacted other projects, including the suspension of construction at West White Rose in March 2020, which pushed back its development schedule. As a result of these setbacks, the province experienced a drop in oil production between 2021 and 2023.

In May 2022, Cenovus Energy announced plans to restart construction on the West White Rose project. Installation and hook-up of offshore facilities took place in 2025 with production anticipated in the first half of 2026. The restart decision included funding to extend the life of the SeaRose production vessel for another 14+ years. In 2024, oil production increased, driven by the return of the upgraded Terra Nova FPSO to full operation, though this was somewhat counterbalanced by a temporary shutdown of the White Rose project for a similar ALE upgrade of the SeaRose FPSO (Department of Finance 2025).

3.2 Methods

This impact assessment relies on two economic models developed by the Department of Finance: the Newfoundland and Labrador Econometric Model (NALEM) and the Newfoundland and Labrador Input-Output Model (NALIOM).

NALEM is a macroeconomic forecasting tool that outlines the core relationships between key economic indicators within the provincial economy. It generates annual projections for metrics such as Gross Domestic Product (GDP), household income, employment, the labour force, consumer spending, and exports. In this study, NALEM was used to estimate direct impacts for years lacking Statistics Canada data and to apply model-based ratios to assess broader effects on indicators like household income, retail activity, and population.

NALIOM is designed to model how different industries interact through their inputs and outputs, assuming that input requirements remain proportional to output levels. Its main strength lies in identifying indirect effects—such as the impact on suppliers—resulting from the oil industry's purchases of goods and services.

In this analysis, NALIOM was used to estimate the indirect economic effects of the oil industry. These were then combined with direct impacts and induced impacts (which account for spending by those employed directly or indirectly due to oil sector activity), the latter of which were estimated using NALEM. Together, the direct, indirect, and induced impacts provide a comprehensive estimate of the offshore oil industry's total contribution to the provincial economy.

Table 3-1 provides data from the benefits reports produced by both operators and the C-NLOER, which were used as inputs for this analysis. It should be noted that it consists of final data for 2018 to 2023 plus interim figures for 2024; finalized numbers for that year will become available in the Fall of 2025.

Table 3-1 The Macroeconomic Impacts of the Offshore Oil Industry, 2018-2024 (Department of Finance 2025)

	2018	2019	2020	2021	2022	2023	2024
Capital Costs ($ Millions							
Exploration	139.2	357.8	482.4	164.7	514.6	266.1	556.4
Pre-Development	32.5	78.3	40.0	54.9	100.4	108.6	42.2
Development	901.5	987.1	544.1	297.8	257.1	659.7	1,064.4
Production	2,223.9	2,452.2	1,767.6	1,823.1	1,823.1	2,104.7	2,328.0
Total	**3,297.1**	**3,875.4**	**2,834.1**	**2,695.2**	**2,695.2**	**3,139.1**	**3,991.0**
Employment (person years)							
Development	1,377	2,001	540	270	253	1,322	1,127
Production	4,665	4,965	3,632	3,394	3,596	3,905	3,603
Total	**6,042**	**6,966**	**4,172**	**3,664**	**3,849**	**5,227**	**4,730**
Oil Production (millions of bbl)	**84.0**	**95.5**	**104.0**	**94.0**	**84.3**	**73.1**	**76.5**

3.3 Macroeconomic Results

The oil industry has made a substantial contribution to Newfoundland and Labrador's economy. From 2018 to 2024, offshore oil activity added an average of $8.9 billion annually to the province's nominal GDP, with 2024 adding $9.5 billion. During this period, oil development and production accounted for 23.3% of nominal GDP, with an estimated 22.5% share in 2024. The oil industry also contributed to $7.2B in royalties from 2018 to 2024, of which $1.6 billion occurred in 2024.

Labour compensation increased by an average of $1.8 billion per year (10.8%) due to offshore oil activities. Household income rose by $2.3 billion (7.9%), while disposable household income—after income tax, Employment Insurance (EI), and Canadian Pension Plan (CPP) deductions—was up by $1.5 billion annually. Consumer spending, measured through retail sales, was $670 million (6.4%) higher on average.

Employment related to the oil industry averaged 19,000 jobs (8.2% of total employment) over the period. In 2024, this number rose to 20,500 jobs (8.4%) due to ongoing construction work on the West White Rose project.

The oil industry's effect on population is harder to model. Increased economic and job activity is generally expected to reduce out-migration and attract in-migration, with net migration tied to employment levels. This led to an interim population estimate that was 6.6% higher in 2024. However, because migration is difficult to model, the population impact, and by extension, related indicators like labour force size and unemployment rate, carries a higher margin of error.

Contributions to the provincial economy are provided in Table 3-2.

Table 3-2 Economic Contributions Related to the Offshore Petroleum Industry in Newfoundland and Labrador, 2018-2024

	2018	2019	2020	2021	2022	2023	2024	Average
GDP ($ Millions)	8,531	9,145	6,136	8,276	11,559	8,813	9,487	8,850
Share of Total (%)	24.7	25.5	19.1	21.4	27.5	21.8	22.5	23.3
Real GDP Chained ($2017 Millions)	7,253	8,162	7,799	6,591	6,568	6,468	6,941	7,112
Share of Total (%)	22.1	23.9	24.0	20.1	20.2	20.5	21.5	21.8
Household Income ($ Millions)	2,499	2,641	1,977	1,518	1,894	2,610	2,795	2,276
Share of Total (%)	9.7	10.1	7.3	5.3	6.5	8.3	8.4	7.9
Labour Income ($ Millions)	1,928	2,037	1,525	1,171	1,461	2,014	2,156	1,756
Share of Total (%)	12.8	13.4	10.6	7.4	8.8	11.3	11.5	10.8
Other Income ($ Millions)	571	604	452	347	433	596	639	520
Share of Total (%)	5.3	5.5	3.6	2.7	3.4	4.4	4.4	4.2
Household Disposable Income ($ Millions)	1,640	1,733	1,298	996	1,243	1,713	1,834	1,494
Share of Total (%)	9.6	9.9	7.0	5.0	6.3	8.1	8.1	7.7
Retail Sales ($ Millions)	735	777	582	447	577	768	882	670
Share of Total (%)	8.0	8.4	6.2	4.3	5.0	6.7	6.8	6.4
Employment (000s)	23.8	25.0	16.3	13.0	15.0	19.7	20.5	19.0
Share of Total (%)	10.4	10.8	7.5	5.8	6.4	8.3	8.4	8.2
Labour Force (000s)	25.8	27.2	17.7	14.2	16.3	21.4	22.3	20.7
Share of Total (%)	9.8	10.3	7.0	5.5	6.2	8.1	8.2	7.9
Population (000s)	41.9	44.1	28.6	22.9	26.4	34.7	36.2	33.6
Share of Total (%)	7.9	8.4	5.4	4.3	5.0	6.4	6.6	6.3

3.4 Conclusion

From 2018 to 2024, Newfoundland and Labrador's oil and gas sector experienced significant fluctuations in both production and investment, influenced by global market trends, the COVID-19 pandemic, and project-specific factors. Even with these challenges, the industry remained a key and steady driver of the provincial economy. Between 2018 and 2024, offshore oil activity contributed an average of $8.9 billion annually to nominal GDP, climbing to $9.5 billion in 2024—representing 22.5% of total provincial GDP. Over this period, labour compensation in the province was 10.8% higher, with yearly increases averaging $1.8 billion. The industry also sustained roughly 19,000 jobs each year—often peaking during project development—accounting for about 8.2% of total provincial employment.

4 Infrastructure, Education and Training, And Research and Development

4.1 Infrastructure

The presence of the offshore petroleum industry is supported by, and has made a substantial contribution to, infrastructure development in Newfoundland and Labrador. This contribution has been documented in previous reports in this series (see Section 1.0). Over the long term, the availability of infrastructure reduces the costs of development, increases the likelihood of additional petroleum industry investment, and ultimately increases Newfoundland and Labrador's participation in the industry. Some of this infrastructure has also contributed to the diversification of Newfoundland and Labrador's economy. For example, many Newfoundland and Labrador companies have successfully leveraged harsh environment engineering expertise developed in provincial facilities to gain additional experience in Arctic environments.

The 2018 to 2024 period saw continued growth in supporting infrastructure for the Newfoundland and Labrador offshore petroleum industry. In November 2021, the Newfoundland and Labrador Offshore Oil and Gas Industry Recovery Assistance Fund established financial support for 26 supply and service projects, amounting to $35.5 million. Combined, the projects were expected to result in 230 full-time jobs (NL Department of Industry, Energy and Technology 2021).

Of the 26 projects, the Marine Institute received more than $1.3 million to support the Subsea Centre of Excellence, which was officially unveiled as "The Launch" in Holyrood in May 2023 (Marine Institute 2025; Travis 2024). The $22 million expansion to the Marine Institute is an ocean research and technology facility, providing a "living lab" for research and development that provides real world conditions, allowing clients to demonstrate and test their technology. The Launch features sheltered access to the Atlantic Ocean with an extensive marginal wharf, finger pier, slipway and floating docks in clean, year-round cold-water conditions of Holyrood Harbour. It provides shared access to a range of autonomous surface vehicles, metocean buoys, autonomous and remotely operated vehicles, and gliders for use in a variety of marine applications (Marine Institute 2025).

The Subsea Centre of Excellence at The Launch will allow university and industry collaborators to position Newfoundland and Labrador as a research, testing, and training location for ocean technology. The centre will also grant operators the ability to improve environmental safety and reduce the potential for damage or spills when completing offshore maintenance work in a simulated North Atlantic operating environment (Marine Institute 2025). The Launch currently has partnerships with several technology companies and is already in use by students and faculty for experiential learning (CBC News 2023).

In 2022, the Premier of Newfoundland and Labrador and the Chief Executive Officer (CEO) of techNL announced a $9.6 million joint funding initiative to create an Innovation Centre. The Centre would address the technology development needs of established and growing companies, especially, but not limited to, companies pursuing remote operations in sectors such as ocean, energy, healthcare, mining, fisheries, transportation, and defence. The Co. Innovation Centre, the largest infrastructure project built for Newfoundland and Labrador's tech sector, provides a hub for local technology talent and companies, fostering innovation, diversification, and collaboration across various sectors, including technology, energy, healthcare, mining, ocean, aquaculture, and fisheries. The provincial government is contributing $7.1 million over six years through the Innovation and Business Development Fund, while the federal government is providing $2.5 million over three years through the Atlantic Canada Opportunities Agency. This investment is expected to contribute to a stronger economy through increasing the province's technology and innovation sector (NL Department of Industry, Energy and Technology 2022).

In December 2023, it was announced that the Newfoundland and Labrador provincial government would provide $605,000 in funding to support Scanmudring Canada Inc. in establishing a Digital Remote Operation Support Centre in St. John's, in partnership with the Marine Institute's The Launch facility. The total project funding amounts to over $1.2 million. The new centre will enhance access to global supply chains and subsea excavation opportunities for oil, gas, and renewable energy projects in the province. The centre caters to both local and global offshore projects and will help develop and test Digital Remote Operation Support Centre technology, while also expanding local supply, export, and diversification opportunities (NL Department of Industry, Energy and Technology 2023).

4.2 Education and Training

During the study period, undergraduate enrollment in the Faculty of Engineering and Applied Science at Memorial University fell from 1,222 full-time students in 2018 to 1,067 in 2022, then increased to 1,101 in 2024. During this period, the faculty awarded 1,521 undergraduate engineering degrees (CIAP 2024).

In 2018, Memorial University launched two new Master's degree programs in safety and risk and energy systems in the Faculty of Engineering and Applied Science. The Master of Applied Science in Safety and Risk Engineering is relevant to the oil and gas and other natural resources sectors, such as mineral processing, and transportation. The second offering, the Master of Applied Science in Energy Systems, emphasizes sustainable energy solutions, focusing on innovative and sustainable approaches to energy production, distribution, and use (Memorial University Gazette 2018).

In 2019, Cenovus donated over $1 million to Memorial University's Faculty of Business Administration to establish the Cenovus Centre of Excellence in Sales and Supply Chain Management (Memorial University 2019). In collaboration with the Faculty of Business Administration, it supports consulting projects aimed at strengthening the oil and gas supply and service sector. The Centre enhances both practical skills and research-based knowledge in sales and supply chain management, equipping graduates to contribute to globally competitive companies, supporting the province's business community and economic growth (Memorial University 2019).

In 2018, the College of the North Atlantic (CNA) received a $447,000 donation from the Hebron Project Employers' Association to establish the Hebron Project Skilled Trades Apprenticeship Bursary Program for women and Indigenous students, aimed at increasing access to trades education for underrepresented groups (CNA 2018). The program supports students enrolled in eligible skilled trades programs at CNA who demonstrate financial need and academic merit, providing assistance at the beginning of their training and recognizing their progress towards journeyperson certification. This donation brings Hebron's total support for CNA to over $3.0 million, including previous investments in diversity initiatives. The bursary is part of a broader commitment by the Hebron project to foster diversity and workforce development in Newfoundland and Labrador's trades sector (CNA 2018).

The study period also saw a range of further investments in student awards and scholarships, the creation of work-terms and internships, and new and existing research and training programs.

A donation from Teekay Offshore in 2019 enabled the Marine Institute's Centre for Marine Simulation (CMS) to expand its capacity for offshore and maritime simulation training with The Heritage Bridge Simulator (Marine Institute 2019). The class-A ship simulator is designed to mimic the bridge of an offshore shuttle tanker, and can recreate operating conditions, environment and scenarios encountered during the loading and transport of oil cargo from a variety of offshore production installations, including those operating on the Grand Banks. The Heritage Bridge Simulator combined with CMS's expertise provides opportunities to improve safety for maritime workers through the advance training platform that helps fleet crews develop and maintain their ship-specific skills and competencies (Marine Institute 2019).

In 2020, the Marine Institute opened its Underwater Exploration Laboratory (Memorial University 2020). Funding for the lab came from multiple sources: $77,495 each from the Government of Canada through the Atlantic Canada Opportunities Agency (ACOA), and the Government of Newfoundland and Labrador, as well as $283,707 from the Fisheries and Marine Institute. Part of the School of Ocean Technology, the Laboratory aims to enhance student education in subsea robotics and support ocean mapping research (NL Department of Industry, Energy and Technology 2020). Students train to pilot remotely operated vehicles and perform complex underwater tasks using industry-standard technology in a safe environment. The Underwater Laboratory's virtual remotely operated vehicle technology, supplied by GRi Simulation Inc. in Mount Pearl, offers high-fidelity solutions for critical marine operations, including real-time visualization and integrated engineering technologies to improve safety, security, and productivity.

In 2022, Memorial University announced the appointment of Dr. Bing Chen as the UArctic Chair in Marine and Coastal Environmental Engineering, expanding its research capacity in Arctic-related areas. Dr. Chen was selected to lead a research program focused on marine and coastal environmental sustainability and community resilience in the Arctic, specifically targeting oil/chemical spill prevention and response, and the management of persistent and emerging contaminants. Advancements from Dr. Chen's work will benefit both local and global communities (Memorial University 2022).

In 2022, a memorandum of understanding (MOU) was signed between the Marine Institute and the Department of Marine Technology at the Norwegian University of Science and Technology (NTNU) (Marine Institute 2022). The agreement aims to allow both institutions to collaborate in new marine technologies for remote operations and autonomous vehicles. The MOU facilitates the sharing of best practices and collaborative opportunities in applied research and development in ocean technologies, remote operations, educational exchanges, industry partnerships, and financial support to advance mutual goals. Both institutions will use their research facilities, including NTNU's Centre of Excellence for Autonomous Marine Operations and Systems (NTNU AMOS) and Marine Institute's cold ocean innovation centre, the Launch.

4.3 Research and Development

Between 2018 and 2024, Research and Development (R&D) experienced a high level of activity in the provincial offshore petroleum industry, with industry, educational institutions, and research organizations providing support for the advancement of industry locally, as well as providing a mechanism for the transfer of local expertise into international markets.

In February 2018, the provincial government launched Advance 2030: The Way Forward on Oil and Gas initiative, which outlines 17 strategic actions aimed at accelerating exploration, fostering innovation, and enhancing global competitiveness (Government of NL No Date). Through this initiative, the province collaborated with industry stakeholders to enhance the sector's development, global competitiveness, and long-term sustainability. Key targets included creating at least 7,500 direct jobs in operations and drilling over 100 new exploration wells by 2030. Additionally, the government planned to double oil production to over 65,000 barrels per day by 2030. To facilitate this growth, the oil and gas division of Nalcor Energy was transitioned into a standalone Crown corporation in 2018-19. To strengthen the regulatory environment, the Generic Offshore Oil Royalty Regime was introduced, with the goal to offer fiscal certainty, transparency, and a simplified royalty structure (Government of NL No Date).

Also, in 2018, the provincial government signed an agreement with Equinor for the Bay du Nord project. This deepwater offshore project contains nearly 300 million barrels of recoverable oil. The agreement included R&D and education and training investments, positioning Newfoundland and Labrador as a "centre of excellence" for deep-water developments.

Later in 2018, the provincial government launched the Innovation and Business Development Fund. This will provide $60 million in funding over 10 years to strengthen and diversify the province's oil and gas supply and service capabilities, including opportunities to diversify capacities in other energy sectors. The key objectives of the fund are to:

- Facilitate energy sector supply chain collaboration
- Expand local supply, export and diversification opportunities
- Attract inward investment in areas where there are gaps in innovation, technology and supply chain capabilities and is not duplicating other funding programs
- Improve energy sector competitiveness by reducing costs related to exploration, development, and operations
- Contribute to long-term job creation and economic growth in Newfoundland and Labrador (Government of NL 2023).

In 2019, Canada's Ocean Supercluster, of which Energy Research & Innovation (ERI) was a founding member and lead applicant, announced Supercluster's first Technology Leadership Project, OceanVision, led by St. John's-based marine technology company Kraken Robotics. OceanVision was a three-year, $18.8 million project focused on the development of new marine technologies and products to enable an underwater robotics data acquisition and data analytics as a service business. The project enabled the deployment of innovative technology platforms across ocean sectors and supported expanding global reach and market opportunities (Canada's Ocean Supercluster 2025a).

Canada's Ocean Supercluster announced its 15th project in 2020, the $3.1 million Rutter Internet of Things (IoT) Project, based in St. John's (Government of NL 2020). The Rutter IoT Project is backed by a group of funding partners, including a contribution from the Government of Newfoundland and Labrador through the Innovation and Business Investment Corporation, Canada's Ocean Supercluster, and Rutter itself. Additional support includes funding from the National Research Council of Canada's Industrial Research Assistance Program, as well as Cenovus, which is providing vessels and technical support for testing and demonstrations. This project aims to modernize Rutter's radar systems by integrating IoT capabilities. The upgraded system offers remote monitoring as a managed service with specialty radar system data acquisition, and cloud-based storage and analytics. Twelve new jobs are estimated to be created, four during the implementation phase and eight upon completion. This initiative was designed to enhance operational efficiency, promote cross-collaboration between ocean sectors, and improve the accuracy and accessibility of marine research. Researchers have access to real-time offshore data to support studies in areas such as ice drift modelling, oceanographic forecasting, and oil spill drift modelling (Government of NL 2020).

Canada's Ocean Supercluster launched the $3.4 million GeoScan Project in 2021, a Newfoundland and Labrador-led initiative aimed at reducing risks associated with offshore wind, oil and gas, and other marine installations (Canada's Ocean Supercluster 2025b). This project aims to enhance underwater robotic systems with broader scanning capabilities to improve sub-seabed imaging. PanGeo Subsea Inc., in partnership with Cellula Robotics from British Columbia and the Marine Institute, the GeoScan team will integrate PanGeo's Acoustic Corer with Cellula's robotic platform. This integration will enable deeper and wider scans and deliver high-resolution 3D images of sub-seabed geology, boosting Canada's competitiveness in the global offshore renewable energy sector. This collaborative research aims to improve decision-making for offshore infrastructure projects in complex glacial seabed environments, expected to reduce the need for offshore personnel, speed up data collection, and enhance operational efficiency.

In 2022, Canada's Ocean Supercluster announced four new projects with a combined value exceeding $3.5 million, spanning sectors such as marine renewable energy, fisheries, aquaculture, oil and gas, defense, shipbuilding, transportation, and ocean technology. Among these projects is the BridgeVUE Project, a Newfoundland and Labrador-led initiative that brings together industry and academic partners to advance marine navigation (Canada's Ocean Supercluster 2025c). BridgeVUE is a Canadian-developed solution designed to enhance navigational safety and efficiency by contextualizing radar data over an individual's field of vision using augmented reality (AR). By equipping vessel crews with AR headsets that overlay critical navigational information in real time, regardless of visibility conditions, BridgeVUE improves situational awareness and operational safety, even in low-visibility environments (Canada's Ocean Supercluster 2025b).

In 2020, ERI led the development of the Digital Offshore Canada Project (DOC) with partners Hatch Ltd, MNP, Virtual Marine, GRI Simulations, in collaboration with Memorial University and with support from Canada’s Ocean Supercluster. DOC brought together local technology companies in partnership with large scale industry members to accelerate the use of digital twins in Canada’s offshore energy as well as for other ocean industries that can deliver enhanced safety, reduced operating costs, increased production, and reduced carbon emissions through production optimization (Canada’s Ocean Supercluster 2025d).

In 2022, techNL and NOIA (now Energy NL) introduced the Digital Oil and Gas Initiative (DOI), a strategic program designed to uncover high-value digitalization opportunities with Newfoundland and Labrador’s offshore oil and gas sector (techNL 2022). This initiative brings together key industry stakeholders to support local technology firms and offshore supply and service providers through targeted activities focused on: Thought Leadership, Capacity Building, and Technology Leadership. The DOI seeks to cultivate a digitally empowered local supply chain, enabling companies to grow while also attracting new entrants to the sector. The initiative aims to accelerate the digital transformation of the offshore oil and gas industry. At the kick-off of this initiative, DOI hosted a three-part webinar series open to both technology and oil and gas professionals, focused on the role of artificial intelligence (AI) in offshore oil and gas (techNL 2022).

In 2021, the Minister of Industry, Energy and Technology announced over $900,000 in funding to support several Newfoundland and Labrador-based companies as they develop and market innovative technologies in the oil and gas supply and service sector (Government of NL 2021). This investment aligned with the goals of Advance 2030, the province’s strategic plan for growth in the industry. Among the recipients, Terrapure was awarded $545,892 to develop an automated tank cleaning system aimed at improving efficiency and safety, while PanGeo Subsea was granted $125,000 to design and test the GeoArm, a tool for shallow water site surveys. AltoMAXX technologies received $89,000 to explore a UAV-mounted laser methane detector for leak detection. SubC Control was approved for $75,000 to enhance its digital marketing efforts, while GFI Composites received $72,544 to support market development and technical consulting. The Minister emphasized that these investments reflect Newfoundland and Labrador’s commitment to fostering innovation and creating skilled local jobs (Government of NL 2021).

Digitalization offers significant opportunities and benefits for the offshore energy industry to improve efficiency and reduce costs, enable development, enhance safety and reduce emissions. In 2023, ERI and the Digital Resources Initiative (a partnership between techNL and Energy NL) launched Digital Offshore ’23 – a conference aimed at raising the profile of digitalization capabilities and opportunities in NL’s innovation ecosystem. They recognized that producers, supply chain partners and the technology industry would benefit by working together, with a common understanding of NL’s digitalization challenges and opportunities, and that there was an opportunity to accelerate digitalization by focusing their collective talent on developing and implementing innovative solutions that can benefit the energy sector and the province. A second conference was held in 2024; it is anticipated that it will continue as an annual event, bringing together leaders in the innovation ecosystem to collaborate and advance digitalization.

The conferences bring together approximately 300 leaders, innovators and experts to:

- advance digital literacy within the Newfoundland and Labrador offshore, ocean and energy industries
- hear about leaders' experiences in implementing digitalization initiatives, including the oil and gas, mining, defence and aerospace sectors
- explore and celebrate the Province's innovation ecosystem
- foster collaboration in technology innovation, and
- build a capable, future-ready workforce equipped for the digital transformation of these sectors.

In April 2024, the provincial government announced a $467,500 investment in SubC Imaging to support the company in developing a multi-channel inspection system (NL Department of Industry, Energy and Technology 2024). The offshore energy sector requires regular inspections of subsea equipment. SubC's new technology will include up to six cameras for an ROV to provide full situational awareness and new software will be developed to merge the various sources of data into one system. The solution provides an important service in the energy sector to closely monitor and inspect underwater assets in a more cost-effective and efficient manner than is currently being used.

5 Company and Organization Case Studies

This section of the study summarizes the involvement of a range of companies and organizations with the offshore petroleum industry in Newfoundland and Labrador, and the ways in which support from and interactions with the oil and gas industry have led them variously to develop new goods and services, hire new personnel, provide them with further training, acquire new facilities and equipment, and improve quality, health, safety, and environmental policies and practices. It also considers the way in which the resultant increases in experience and capabilities have led to them winning work in other jurisdictions, and undertaking work in other industries, both locally and outside the province.

The case study companies and organizations have been selected to help reflect the diversity of activity in and around the province's oil and gas industry. This includes companies and organizations of different sizes, engaged in construction, manufacturing and the provision of technical and professional services, located in St. John's and elsewhere in Newfoundland and Labrador. Some companies are engaged in cutting-edge engineering and R&D activity, while others provide important services around benefits measurement, labour force diversity, and accommodations.

NetBenefit Software

NetBenefit Software (NBS) is a St. John's-based company whose growth has been accelerated by meeting the needs of the oil and gas industry in Newfoundland and Labrador, across Canada, and internationally.

It was founded as SCI Resource Software in 2005 in response to the needs of the Voisey's Bay mining project in Labrador. Regulators require natural resource companies to provide data about local and provincial employment and expenditure benefits. Success in doing so had to be monitored and reported, and NBS built on earlier local capabilities to develop, deliver, and use software that meets these requirements efficiently. The result is a company that:

- Supports regulatory compliance with tools designed for simplicity and efficiency.
- Streamlines data collection and socio-economic reporting across projects.
- Shortens project approval timelines by automating stakeholder engagement compliance reporting.
- Fosters stronger relationships by simplifying and automating administrative tasks.
- Enables data-driven decisions that demonstrate real-world community impact.
- Generates clear, on-demand insights to support Environmental, Social and Governance reporting.

Under the federal/provincial Atlantic Accord, the offshore oil and gas industry is subject to benefits requirements and fuelled NBS's expansion in Newfoundland and Labrador. Its local clients for this work include multiple active and planned offshore project operators.

Local, regional, national, and Indigenous resource project benefits have become an increasing focus across Canada. This led to NBS having success working for some of the largest resource companies in Canada, including on oil and gas projects in Ontario, Alberta, and British Columbia. Industrial benefits delivery is also a growing requirement, for corporate reputation and regulatory reasons, worldwide. This has led to NBS delivering services to clients in the USA and countries in South America. In addition to mining and oil and gas industries, NBS also works with clients in the renewables and utility markets. Since rebranding in 2021, NBS has grown by over 100% on an annual basis.

While NBS initially employed a couple of founding employees, it now has 12 permanent staff. Looking to the future, NBS is investing heavily in artificial intelligence to enhance its current platform. NBS plans to continue to grow in St. John's, recruiting technical talent from MUN, CNA, and Get Building.

AtlanticXL

St. John's-based AtlanticXL designs, procures, installs, commissions, and maintains digitalization, telecommunications, navigation and environmental monitoring systems. The company was founded in the late 1990s following a trade mission visit to Newfoundland and Labrador by the CEO of the Aberdeen-based XL Global Group. Since then, it has diversified and grown by expanding its range of services and by entering other markets.

AtlanticXL's first project was providing the communication system for Sable Offshore Energy development in Nova Scotia, and such systems are still the 'bread and butter' of the company. Other key projects were the SeaRose FPSO construction in Marystown, the Hebron topsides, and the West White Rose Platform. The company has subsequently formed agreements with Newfoundland and Labrador operators and has provided services and/or personnel to every offshore asset in the province, most recently collaborating with Equinor Canada to advance manufacturing in the province. AtlanticXL has also expanded its reach to Quebec, Manitoba and Nunavut, as well as the United States and South Korea.

The company's initial focus on communications and navigation systems expanded in 2021 with the acquisition of Industrial Engineering Automation Solutions Ltd., a company with complimentary capabilities but a more diversified client base including increased onshore clients. This acquisition increased AtlanticXL's capabilities in electrical engineering, control systems, instrumentation, and automation.

The process of expanding AtlanticXL's capabilities has continued, including the launch of the Additive Manufacturing Division. The benefits of this new division have included a reduced reliance on out-of-province manufacturing, enhanced local production and supply chain resilience, and providing support to other than the oil and gas industry. AtlanticXL now operates the only commercial metal 3D printer in Atlantic Canada.

This success and these expansions have seen AtlanticXL increase its St. John's labour force from an initial 10-12 employees to the current approximate 30 staff, with hiring continuing. This has been supported by student work terms and placements, participation in Skills Canada initiatives (including hosting the instrumentation competition for many years), and curriculum development in additive manufacturing. Driven largely by the offshore oil industry, this has expanded the province's skills base and capabilities, as has the company's development of expertise in offshore communication and navigation systems and in specialized engineering.

Energy NL

Energy NL was founded as the Newfoundland Ocean Industry Association in 1977, but the potential opportunities provided by the province's offshore oil and gas industry led to it being renamed as NOIA in 2011. In 2022, the organization was once more renamed, as Energy NL, in response to member consultation on the emerging renewable energy sector.

The organization still undertakes a wide range of activities related to the province's energy industry by:

- Advocating for beneficial public policy, industry policy and resource allocation decisions within political, economic and social systems and institutions that directly affect its members' participation in the energy industry.
- Undertaking marketing and communications activities to raise the profile of the Newfoundland and Labrador energy industry to a national and international audience.
- Capturing and disseminating information relevant to its membership's business opportunities. Energy NL gathers and provides analysis of information relevant to the market segments of its membership, for the purpose of facilitating participation in the local energy industry.
- Providing members with a wide range of program and events aimed at introducing its members to key stakeholders in the industry. These events include its flagship annual conference, networking lunches, seminars, and supplier development sessions.

Examples of Energy NL activities included, in 2023, R&D workshops, trade missions, and meetings with trade commissioners responsible for Belgium, Luxembourg, and Brazil. Some of the events and meetings in which the organization participated included Expo Labrador, the Offshore Northern Seas conference in Norway, the Placentia Bay Industry Showcase, and meetings with the Lewisporte and Area Chamber of Commerce, the Canadian Home Builders Association of Newfoundland and Labrador, the St. John's Airport Authority Board, and a Women in Science and Engineering Newfoundland & Labrador (WISE NL) panel session. Other jurisdictions where Energy NL has investigated and facilitated export services opportunities include Scotland, Germany, the Netherlands, Mexico, and Guyana.

In 2023, the organization also provided input and feedback to the federal and provincial governments and regulators on issues of importance to its members and continued to pursue its Digital Oil and Gas Initiative and Net Zero Project.

Two Energy NL events that inform, celebrate, and promote developments in the local supply and service sectors are:

- The annual Energy NL Conference & Exhibition. The premier industry event of the year, in June 2023 it featured over 30 speakers, 57 exhibiting companies, a demonstration stage, a tech market and attracted approximately 641 registrants. The agenda included sessions on both the non-renewable and renewable energy sectors, including updates on offshore oil activities, hydro electricity, and discussions of the wind and clean fuels industries and pathways to net zero. Pursuing export services opportunities, the conference also explored the growing relationships between Newfoundland and Labrador and Europe, along with opportunities for Energy NL members to participate in the Northeastern United States offshore wind sector. The event also provided direct local supply and service benefits, including in the areas of transportation, accommodations and catering.
- The Industry Achievement Awards Gala. This event promotes and celebrates individuals who have made an Outstanding Contribution and are recognized as a Rising Star in the industry. There are also awards for outstanding contributions in the areas of Diversity and Inclusion, Business Growth, and Environmental Sustainability.

Energy NL also makes a direct contribution to the local economy; it has nearly a dozen employees and an annual budget of approximately $4 million.

Altomaxx

Altomaxx was founded in 2018 by individuals with over two decades of experience in the water and wastewater industry. Wanting to transition into a more innovative and emerging field, they established the company to specialize in drone-based services, especially for offshore operations. While drone technology was not entirely new, Altomaxx distinguished itself early by acquiring the necessary regulatory certifications to operate safely, particularly in offshore and confined space environments. Headquartered in St. John's, Altomaxx has since expanded to multiple offices across Canada and internationally, including in the United States, Denmark, and the United Arab Emirates.

From the beginning, the oil and gas industry played a crucial role in the company's foundation and continued success. The sector remains central to its operations, with Altomaxx providing essential services such as drone-based methane detection, being the first in North America to do so. Its focus on offshore oil and gas projects has driven the growth of their capabilities, including inspections in tight or dangerous environments where human access is limited. Over time, Altomaxx has expanded its offerings to include bathymetry, fugitive emissions management, and confined space inspections using a large and diverse fleet of drones.

The company has experienced substantial growth since its inception, now employing over 25 people, with an estimated 70% hailing from Newfoundland and Labrador. These employees are often trained at local institutions like the Marine Institute and the College of the North Atlantic, gaining the necessary technical skills and mobility for global deployment. In the previous year alone, Altomaxx operated in 27 countries, reflecting both its international reach and the strong demand for its specialized services.

While oil and gas remain their core market, Altomaxx has also branched out into industries such as mining and infrastructure, though it continues to prioritize large-scale, complex projects. Its ability to handle unique challenges, including areas where even helicopters cannot operate, sets it apart. Its presence at Energy NL and subsequent invitation to Abu Dhabi by trade commissioners also led to its international expansion in the United Arab Emirates.

Altomaxx is actively working on expanding drone-based services within Canada's oil and gas sector, particularly focusing on offshore delivery solutions. This involves transporting supplies from ships to offshore platforms using drones. Its approach to growth is client-driven, often shaped by direct inquiries from the field.

A key source of pride for the company is the longevity and loyalty of its workforce, supported by a collaborative and engaging corporate culture with a high retention rate. Additionally, Altomaxx takes pride in its approach to safety, risk management, and policy development. By investing heavily in pre- and post-flight protocols, it provides not only regulatory compliance but also client trust and repeat business, reinforcing its reputation as industry leaders in innovation and safety.

CoLab

CoLab was founded in 2017 by a team of two after completing their mechanical engineering degrees. Drawing on their experience on the Hebron and Hibernia projects, and on work for Equinor and Tesla, they launched the company in St. John's, aiming to create tools they wished they had in the industry. From the outset, their goal was to build globally-applicable solutions rather than focusing on sector-specific tools like those for oil and gas. While based in the province, they chose to make international connections to understand industry problems in an effort to scale their business outside the region. Despite this global ambition, CoLab organically reconnected with Newfoundland and Labrador due to local demand and supportive networks, including those in the oil and gas sector.

The company's flagship product is a collaborative software designed to streamline key design review processes for engineering teams and their partners. CoLab has enabled enterprises to substantially improve the quality of designs while reducing review cycles from weeks to days, or even hours. Used by large teams distributed across the globe, the software has been CoLab's main offering for the past seven years. More recently, with the rise of artificial intelligence, they developed a second product, ReviewAI, with funding from the Hibernia and Hebron projects. ReviewAI takes the collective knowledge of a team and delivers it in context at the point in time a decision is being made, and it will soon allow the review to be fully automated, which automates initial reviews and reduces costs. CoLab is beginning to draw international interest, particularly in Texas and Norway. Although the company initially avoided sector-specific markets, it has recently seen increased traction in the oil and gas industry.

The firm has grown, hiring 55 new employees over the past year, 20 of whom are dedicated to the ReviewAI project. These new hires bring the CoLab employee count to approximately 130 people, located in Newfoundland and Labrador, the Maritimes, Ontario, the United States, and Europe.

CoLab's leadership takes great pride in its commitment to remaining headquartered in St. John's, despite external pressure to relocate in the early days. They have built a strong culture and community around the company, including hosting annual conferences that bring clients to Newfoundland and Labrador and help them feel connected to a broader purpose. Co-founder Adam Keating has publicly expressed admiration for the exceptional work ethic of Newfoundlanders and Labradorians and credits the local tech ecosystem and supportive partnerships, particularly within the oil and gas sector, for much of the company's success. These foundational values and strategic investments in R&D position CoLab for continued growth and global expansion.

Edgewise Environmental

Ashley Noseworthy started her career conducting marine mammal and seabird observations and anthropogenic noise monitoring for offshore oil and gas clients. Early on, she identified a gap in crew-related training in marine fauna observation. She then focused on developing her expertise so that she could launch her own business with the capacity to provide environmentally-focused training programs and custom consulting services to individuals and corporate clients.

Ashley is now President and CEO of Edgewise Environmental, a marine environmental consultancy she founded in Newfoundland and Labrador in 2018. Ashley's leadership and contributions to the ocean sector have been widely recognized. She is the recipient of the 2025 Industry Champion Award from econext, the Trailblazer Award from Newfoundland and Labrador Organization of Women Entrepreneurs (NLOWE) in 2022 and was named one of the Top 100 Women in Ocean by The Ocean Opportunity Lab in 2023.

The company specializes in marine mammal and seabird monitoring, mitigation, and anthropogenic noise solutions. Edgewise offers regulation-compliant training programs that help companies meet Canadian environmental standards. Courses include Canada-Marine Mammal Observer, Passive Acoustic Monitoring Operator, and Seabird Observer. The company has since expanded its consulting services into such areas as emergency wildlife response and acoustic modelling. Edgewise also has an internal R&D department focused on developing faster, auditable, and autonomous monitoring solutions.

Starting as a one-woman operation, Edgewise now employs 10 full-time employees across Canada. The company has a majority (80%) female workforce and takes pride in 75% of permanent staff and the majority of seasonal contractors being based in Newfoundland and Labrador.

While oil and gas initially dominated its portfolio, Edgewise has diversified into sectors such as renewable energy, marine and coastal operations, and municipal, federal, and Indigenous government projects. However, oil and gas can still account for up to 50% of annual business.

Edgewise has expanded to the UK to explore new opportunities, particularly in offshore renewable energy. Edgewise aims to leverage their oil and gas network to support expansion into wind energy. A key achievement of the company, to date, has been the development of advanced tools for storing and analyzing large datasets, which have enhanced client services and positioned the company as a leader in innovation.

Enaimco

Enaimco is a St. John's-based business-to-business software as a service company launched in 2021 by former Technip Canada president Sam Allen and offshore energy leader Steve Follett, who identified a costly "digital gap" for energy companies in global offshore operations. Guided by the mission to change the way people in the energy sector work, Enamico develops transformative solutions that enhance the digitalization of the offshore sector, particularly subsea field construction and operations, to reduce cost, risk and emissions.

By basing the company in Newfoundland and Labrador they tap into the province's deep pool of offshore and developer talent while keeping costs lower than living and working in hubs such as Houston yet still serving international customers. Early proof-of-concept work was carried out with a local offshore energy company and asset, whose research and development collaboration helped shape Enaimco's flagship subsea digital twin platform. Pilot deployments and early sales soon followed in Equatorial Guinea, Australia and the Philippines, with key partnerships established in Senegal, Nigeria, Malaysia, and Australia.

Today the firm employs about 20 people locally and is a growth phase, raising investment to bridge to profitability. As its clientele expands, Enaimco will expand and plans to onboard more staff in the coming years internationally, while maintaining most of its team and head office in Newfoundland and Labrador. While its first commercial focus is offshore oil and gas, a market that is beginning to recognize the savings that digitalization can unlock, management is targeting deployment of its digital twin technology to adjacent sectors such as offshore wind, marine services, subsea mining and carbon-capture infrastructure once the core business is firmly established.

Enaimco's leadership is particularly proud that world-class industrial software is being conceived and built in Newfoundland and Labrador, a signal, they argue, that local expertise can match and exceed the best in other offshore energy and tech global centers, such as Norway, Houston and Silicon Valley. Access to top talent is both a strength and an ongoing challenge, because as Enaimco hires qualified personnel, larger tech employers are also interested in their skills. Enaimco view their growing international client list and the region's supportive tech ecosystem as proof that a globally competitive, export-oriented offshore-software business can thrive from St. John's.

JAG Hotel

Steele Hotels Ltd. opened JAG Hotel in downtown St. John's in 2014. With its music-inspired design, the award-winning hotel provided a new option for accommodations in the city at a time when the oil and gas industry was contributing to an increased number of visitors to Newfoundland and Labrador. In the decade leading up to the opening of the JAG hotel, demand for accommodation services in the province had increased along with its growing economy. The provincial accommodations sector posted strong indicators during that time with increased occupancy rates and room night sales. This trend has been particularly evident in the St. John's Census Metropolitan Area, the largest urban area in the province. Business travel to the province associated with the establishment of oil and gas company offices in St. John's had an important role to play in the need for more hotel rooms. According to John Steele, CEO/President of Steele Hotels, when JAG opened in 2014 a healthy portion of its business was from oil and gas employees, including company executives and crews of vessels servicing the offshore projects.

JAG initially had a staff of approximately 60 people, but that has increased substantially since then, due in part to the hotel's recent expansion. This saw the opening of a second tower, which includes 85 guest rooms bringing the hotel's total to 169. The expansion includes other additions to downtown St. John's, including JAG Soundhouse, a two-story venue accommodating up to 600 guests for banquets, 1,000 for receptions, and 1,500 for concerts.

The oil and gas industry continues to contribute to the success of JAG hotel and Mr. Steele says the company always considers how potential new developments or changes to planned developments could affect local hotel business, now and in the future. The hotel's new conference facilities will allow it to serve the industry in a new way through the hosting of oil and gas-related events.

Virtual Marine

Virtual Marine was established in 2004 based on research driven in response to the Ocean Ranger disaster. The disaster highlighted significant gaps in evacuation training, particularly under extreme weather conditions. Recognizing the risks of conducting real-life training in such environments, Virtual Marine developed simulation technologies to replicate these challenging scenarios in a controlled and safe environment. This innovation marked the company's entry into a niche but critical area of safety training, making it a pioneer in maritime simulation. Today, Virtual Marine has a core mission to enhance life safety training for offshore workers, including those working offshore oil platforms and rigs, and in the Coast Guard, Navy, shipping, and ferry industries.

The oil and gas industry played a crucial role in the company's early development, offering both financial support and pilot opportunities. Virtual Marine initial grant funding from Petroleum Research Atlantic Canada (now ERI) and established key partnerships with companies in offshore oil companies such as HMDC and Cenovus in Newfoundland and Labrador. Initially, the company focused on building and selling simulators along with the associated training materials required for regulatory compliance. Over time, client demand led Virtual Marine to offer training and certification services directly, expanding its operations to international training sites in St. John's, Saskatchewan, Aberdeen, Qatar, and Louisiana.

The company's market presence quickly expanded beyond Newfoundland and Labrador, reaching the Canadian Coast Guard and eventually the European defense industry. Today, Virtual Marine's simulators are in use globally, especially in coastal regions from Canada to Australia. Growth has been substantial and has been driven by regulatory change and digital adoption strategies. It took Virtual Marine six years to sell its first 100 simulators, but only four years to sell the next 100. The workforce grew from a steady 12-person team to 45 employees and is continuously supported by researchers from Memorial University and the National Research Council.

While the oil and gas industry remains a foundational market, comprising 40–60% of annual business depending on market conditions, the defense sector has emerged as a strong secondary revenue stream. As the company continues to evolve, it is investing in data-driven personalization of training based on human performance indicators and expanding its scope to include Arctic sovereignty initiatives. Virtual Marine takes great pride in its Newfoundland and Labrador roots, highlighting the province's harsh conditions as ideal for developing globally recognized safety solutions.

eDNAtec

eDNAtec was founded in 2014 and is led by its founder and current interim CEO, Mehrdad Hajibabaei, a tenured professor at the University of Guelph whose research underpinned the company's core technology. The company's early development was shaped by a collaborative project with HMDC, supported by R&D funding via ERI. This project, which began officially in September 2015, laid the groundwork for the company's growth and the eventual establishment of the Centre for Environmental Genomics Applications in St. John's.

Support from R&D allocations from the oil and gas industry played a critical role in eDNAtec's formation and growth. As a capital-intensive enterprise, not a software startup, the company required large upfront investment for infrastructure and highly-skilled personnel. Early support from the oil sector's R&D contributions to Newfoundland and Labrador provided seed funding, personnel, and an initial customer base. This early involvement led to strategic partnerships, including with HMDC, helping to scale the business and anchor its reputation in the environmental genomics field.

Initially, eDNAtec focused on general biodiversity analysis, providing baseline environmental assessments. This foundational service expanded into a suite of offerings including the detection of invasive species, monitoring endangered species, environmental remediation, and site-specific assessments. These services grew organically from their original capabilities and were shaped by customer needs and regulatory requirements in the energy and environmental sectors.

While eDNAtec's first project was rooted in Newfoundland and Labrador, their market reach expanded early through connections to Houston's international research community. This opened access to global data and collaborations. The company has since broadened its footprint, serving federal agencies like the Fisheries and Oceans Canada (DFO), and collaborating with Indigenous organizations in Nunavut, Newfoundland and Labrador, and western Canada. The company has also diversified beyond oil and gas into aquaculture, renewables, and mining, reflecting its increasing relevance across various natural resource sectors.

Today, eDNAtec employs 24 highly-skilled people, mostly located in St. John's, Newfoundland and Labrador. In its early days, there were concerns about the availability of skilled local labour, but the company has built a strong highly technical workforce. Financially, the company has transitioned from a grant-dependent model to one driven more by commercial revenue. Oil and gas now accounts for approximately 40% of its business, on par with its work for DFO.

Looking ahead, eDNAtec has ambitious plans for expansion. The company is currently raising capital to open a Houston office, positioning themselves closer to U.S. oil and gas customers and the broader energy transition ecosystem. They also have long-term plans to expand beyond North America, signaling their aspirations to become a global leader in environmental genomics.

The company takes particular pride in having built a world-class centre of excellence in environmental genomics, underpinned by industry-leading technology and a top-tier team. The company's International Organization for Standardization (ISO) certification, achieved in 2022, accelerated its operational maturity and allowed it to lead global efforts in eDNA standardization. Furthermore, the automation of laboratory processes led to the development of new intellectual property, enabling scalable growth and reinforcing the company's role as pioneers in the field.

Women in Resource Development Corporation

The Women in Resource Development Committee (now Women in Resource Development Corporation (WRDC)) was established in 1997 in response to longstanding issues with natural resource projects in Newfoundland and Labrador, for example as documented in the study 'Women, Employment Equity and the Hibernia Construction Project' (WITT 1996). These issues included interactions with co-workers which were often negative, discriminatory and involved harassment, and a very low representation of women in the construction labour force.

WRDC is a non-profit organization committed to addressing these problems with the goal of increasing women's participation in technology and skilled trades work. With extensive experience and focus on collaboration, WRDC leverages existing projects and partnerships to facilitate systemic change for equitable access to trades and technology employment opportunities for women. WRDC aims to increase women's participation in trades and technology by:

- Offering programs and services that raise awareness of, and provide linkages for, girls and women to trades and technology opportunities.
- Finding solutions to common issues affecting women which relate to entering and/or remaining in trades and technology careers.

Key activities of WRDC are:

- Career services - career development and employment assistance services for women.
- Workplace services - diversity, equity, and inclusion consultation services and training for employers/workplaces.
- Research services - research, collaboration and partnerships to identify solutions to challenges commonly identified by women.

A career development program of special note is STEMforGIRLS, an online Science, Technology, Engineering and Mathematics career exploration, education and outreach initiative for girls and gender diverse youth. Participants build confidence through contact with other youth, professional role models, and local champions. Students can join virtually from home, or as part of school or community centre chapters located across the province.

In carrying out its mandate, WRDC maintains a strong provincial presence, offering tailored support to help women pursue training and employment opportunities in trades and technology. WRDC's certified Career Development Practitioners, who bring extensive experience in the field, are based in St. John's, Stephenville, and Happy Valley-Goose Bay. They work closely with women in urban, rural, remote, and Indigenous communities, providing one-on-one guidance and support. This work has empowered thousands of women to secure meaningful employment across Newfoundland and Labrador.

WRDC has partnered with hundreds of employers across Newfoundland and Labrador to deliver customized support and strategies that promote inclusive and equitable workplaces. Through a comprehensive suite of services, including workplace assessments, consultations, employee training, and surveys, WRDC empowers organizations to foster meaningful and measurable progress in equity and inclusion. A key offering is WRDC's Workplace Culture & Inclusion Survey, a tool that informs strategic planning, HR decision-making, and workforce development. Since 2015, WRDC has collaborated with numerous employers to collect over 5,000 survey responses, contributing valuable insights into workplace culture and driving inclusive change across the province.

Over the years, WRDC has worked on, and been responsive to the needs of, the oil and gas, mining, hydroelectric, transportation, and pipeline projects and activities, not only across the province but also in the Maritimes and Nunavut. In the case of the province's oil and gas industry, its work has seen partnering with and/or received funding from Cenovus Energy, Equinor Canada, Suncor Energy Inc, the Hebron and Hibernia projects, as well as Energy NL and several suppliers of goods and services. WRDC prides itself on its ability to build relationships and have repeat clients in this and other industries, and its collaboration with such organizations as the College of the North Atlantic, Trades NL, Canadian Career Development Foundation, Office to Advance Women Apprentices, Ampere, Indigenous Skills Trade Office and many more.

The organization makes a direct contribution to the Newfoundland and Labrador economy through its province-wide activity expenditures and its core employment of 13 women, as well periodic program-specific hiring of approximately 30 additional staff. WRDC plays a vital role in strengthening Newfoundland and Labrador's economy by increasing the participation of women in trades and technology sectors that are essential to the province's growth. Through innovative career development programs, industry partnerships, and training initiatives, WRDC helps women access meaningful employment in high-demand fields, addressing critical labour shortages and building a more inclusive and resilient workforce. By empowering underrepresented groups and supporting equitable access to employment opportunities, WRDC not only improves individual economic outcomes but also contributes to the broader economic sustainability and competitiveness of the province.

The work of WRDC, allied with that of such organizations as WISE NL and the NLOWE, together with federal and provincial requirements for project diversity plans, has made the province a national leader in increasing and improving the involvement of women and other diverse groups in resource development and other projects and activities. For example, women's share of engineering positions in Cenovus's White Rose labour force was only 11% in 2006 but rose to 35% in 2023. Their share of the total White Rose labour force increased from 14% in 2000 to 28% in 2023.

The Killick Inn & Suites

This business, located in Arnold's Cove, 146 km west of St. John's, was established in 2016 by Newfoundland residents Andy and Darlene Hennebury. Combining their experience and qualifications in hospitality, tourism, regional economic development, business, and accounting, they recognized that there were opportunities to specialize in corporate travel. They saw an opportunity to provide accommodations to executives, engineers, project managers and others traveling for business at local oil and gas operations. These are comprised of the Bull Arm fabrication site, the NL Transshipment Facility at Whiffen Head, and Braya Renewable Fuels operation in Come by Chance. All of them are 'on the doorstep', within a 10-minute drive of The Killick Inn & Suites.

In the Hennebury's words: "Our vision is to be among the top places to stay in our province and to be top-of-mind for business and leisure travel in our region. We will do this by continuing to provide top quality accommodations and service." The accommodations include 3 one-bedroom suites and 16 two-bedroom suites, each with ocean view, a fully equipped kitchen, living and dining area, washer, dryer, desk/workspace, and other amenities. There is also a conference room available for meetings and training events. The Killick Inn & Suites provides a 'home away from home' for their guests, whether the stays are just a night, a few days, weeks or even a few months. Overall, oil and gas-related guests are responsible for 75 to 80% of Killick's business, critical to its success and sustainability, located as it is in an area in which the main other markets, tourism and the fishery, are highly seasonal.

The Killick Inn & Suites makes an important contribution to the local economy. For example, it employs residents for its year-round operation, allowing individuals to be employed year-round instead of just seasonal. The business also supports other local businesses whenever possible when procuring supplies and services. In addition, its guests support local food establishment, supermarket, gas station and other local businesses, adding to the region's benefits from the oil and gas industry.

6 Conclusion

Early in the 2018-2024 period, Newfoundland and Labrador experienced a decline in economic activity and a decrease in oil and gas industry expenditures. At that time, major oil and gas projects had moved past their peak of development activity and oil production began to decrease as a result of natural declines in existing fields. Oil and gas industry expenditures also declined in 2020 as a result of the COVID-19 lockdowns and associated project deferrals and suspensions. While local companies were affected by the fall in oil industry expenditures, the adverse effects on many companies were cushioned by the substantial supply and service community focus on supporting ongoing long-term production, and by success in using oil industry-developed expertise to diversify into other markets and industries. Market pressures also drove greater efficiencies, leading to increased competitiveness. Furthermore, project restarts in 2022 and other field activities supported new positive trends in the contribution to the provincial economy from the oil and gas industry through 2024, the oil and gas industry averaged a 23.3% contribution to the Newfoundland and Labrador GDP.

Newfoundland and Labrador's continued commitment to developing the province's oil and gas sector is being delivered by the provincial Oil and Gas Industry Development Council. It aims to support Newfoundland and Labrador as a preferred location for oil and gas development and to create a long-term vision for the province's oil and gas industry, with a focus on promoting development, competitiveness, and sustainability. This and the other initiatives discussed in this report demonstrate that the offshore oil industry will continue to be a major contributor to the economy of, and economic development in, Newfoundland and Labrador for decades to come.

7 References

Canada Energy Regulator. 2024. Energy Supply and Demand in a Pandemic: Effects of COVID-19. Available at: https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2020/covid/index.html#:~:text=By%20March%2C%20demand%20for%20crude,other%20Canadian%20refineries%20reduced%20output.

CBC News. 2023. MUN launches $22M Marine Institute expansion in Holyrood. Article, CBC News, May 16 2023. Available at: https://www.cbc.ca/news/canada/newfoundland-labrador/marine-institute-expansion-1.6844382

Centre for Institutional Analysis and Planning (CIAP). 2024. Fact Book 2024. Available at: https://www.mun.ca/ciap/fact-book/fact-book-2024/

Canada's Ocean Supercluster. 2025a. Canada's Ocean Supercluster & OSC Stakeholders Announce Exciting Milestone. Available at: https://oceansupercluster.ca/canadas-ocean-supercluster-osc-stakeholders-announce-exciting-milestone/

Canada's Ocean Supercluster. 2025b. Geoscan Project. Available at: https://oceansupercluster.ca/project/geoscan-project/

Canada's Ocean Supercluster. 2025c. BridgeVUE Project. Available at: https://oceansupercluster.ca/project/bridgevue-project/

Canada's Ocean Supercluster. 2025d. Digital Offshore Canada – Zones. Available at: https://oceansupercluster.ca/project/digital-offshore-canada-zones-extracotieres-numerique-du-canada/

CNA (College of the North Atlantic). 2018. CNA women, indigenous students receive 10-year Hebron funding award. Available at: https://www.cna.nl.ca/news/news-article?messageID=1254

C-NLOER (Canada-Newfoundland Offshore Energy Regulator). 2025.

C-NLOPB (Canada-Newfoundland Offshore Petroleum Board). No Date. Call for Bids Chronology. Available at: http://www.cnlopb.ca/pdfs/bidchron.pdf?lbisphpreq=1

C-NLOPB. 2017a. C-NLOPB 2016-2017 Annual Report. Available at: http://www.cnlopb.ca/pdfs/ar2017e.pdf?lbisphpreq=1

C-NLOPB. 2017b. Offshore Area Historical Program Expenditures (1966-2016). Available at: http://www.cnlopb.ca/pdfs/historical_offshore_exp.pdf?lbisphpreq=1

C-NLOPB. 2025. Data and Information Hub. Available at: https://home-cnlopb.hub.arcgis.com/

Community Resource Services Ltd. (CRS). 2003. Socio-economic Benefits from Petroleum Activity in Newfoundland and Labrador, 1999-2002. Prepared for: Petroleum Research Newfoundland and Labrador (PRNL), prepared by: Stantec Consulting Ltd.

Fisheries and Marine Institute of Memorial University. 2021. Canada's Ocean Supercluster Announces $3.4M GeoScan Project. Available at: https://www.mi.mun.ca/news/newstitle,72582,en.php

Government of NL. No Date. Double Oil and Gas Production in Newfoundland and Labrador. Available at: https://www.gov.nl.ca/thewayforward/action/double-oil-and-gas-production-in-newfoundland-and-labrador/

Government of NL. 2018. Advance 2030: A Plan for Growth in the Newfoundland and Labrador Oil and Gas Industry. Available at: https://www.gov.nl.ca/iet/files/advance30-pdf-oil-gas-sector-final-online.pdf

Government of NL. 2020. Canada's Ocean Supercluster Announces Project. Available at: https://www.gov.nl.ca/releases/2020/iet/1210n04/

Government of NL. 2021. Innovative Research and Development Supports Oil and Gas Industry. Available at: https://www.gov.nl.ca/releases/2021/iet/0519n04/

Government of NL. 2023. Innovation and Business Development Fund Applicant Guide. Available at: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.gov.nl.ca/iet/files/IBDF-Applicant-Guide-Nov.-23.pdf

Government of NL. 2025. The Macroeconomic Impacts of the Offshore Oil Industry of the Economy of Newfoundland and Labrador Update 2025.

Jacques Whitford. 2005. Socio-economic Benefits from Petroleum Activity in Newfoundland and Labrador, 2003-2004. Prepared for: Petroleum Research Newfoundland and Labrador (PRNL), prepared by: Stantec Consulting Ltd.

Marine Institute. 2019. Marine Institute and Teekay Offshore to Unveil Bridge Simulation Facility. Available at: https://www.mi.mun.ca/news/newstitle,72612,en.php

Marine Institute. 2022. MI Signs MOU with Norwegian University's Department of Marine Technology. Available at: https://www.mi.mun.ca/news/newstitle,71986,en.php

Marine Institute. 2025. Marine Institute officially opens The Launch in Holyrood. Available at: https://www.thelaunch.mi.mun.ca/marine-institute-officially-opens-the-launch-in-holyrood/

Memorial University. 2019. Preparing to Compete. Available at: https://www.mun.ca/business/news-articles/preparing-to-compete.php#:~:text=Earlier%20today%2C%20the%20Faculty%20of%20Business%20Administration,students%20to%20gain%20experience%20in%20the%20field.

Memorial University. 2020. Marine Institute officially opens Underwater Exploration Laboratory. Media Release. Available at: https://us8.campaign-archive.com/?u=8d5aba2dfa38a076c746599f4&id=02b087ff03

Memorial University. 2022. Arctic champion: Engineer announced as research chair in marine and coastal environmental engineering. Available at: https://www.mun.ca/engineering/news-articles/arctic-champion-engineer-announced-as-research-chair-in-marine-and-coastal-environmental-engineering.php

Memorial University Gazette. 2018. 'Extraordinary thinking' Memorial launches master's degrees in safety and risk, energy systems. Available at: https://gazette.mun.ca/teaching-and-learning/extraordinary-thinking/#:~:text=Memorial%20launches%20master's%20degrees%20in,could%20be%20translated%20into%20risk.

NL Department of Finance (NLDF). 2018. The Economy. Available at: https://www.economics.gov.nl.ca/E2018/TheEconomy2018.pdf

NLDF. 2021. The Economic Review 2021. Available at: https://www.gov.nl.ca/fin/files/The-Economic-Review-2021.pdf

NL Department of Industry, Energy and Technology. 2020. NL Offshore Oil and Gas Industry Recovery Assistance Fund. Available at: https://www.gov.nl.ca/iet/nl-offshore-oil-and-gas-industry-recovery-assistance-fund/

NL Department of Industry, Energy and Technology. 2020. Marine Institute Officially Opens its Underwater Exploration Laboratory, News Release, October 13, 2020. Available at: https://www.gov.nl.ca/releases/2020/education/1013n05/

NL Department of Industry, Energy and Technology. 2021. Provincial Government Announces Support for Oil and Gas Supply and Service Sector Projects, News Release, November 23, 2021. Available at: https://www.gov.nl.ca/releases/2021/exec/1123n06/

NL Department of Industry, Energy and Technology. 2022. Propelling Innovation – Provincial Government Announces Support for New Innovation Centre. News Release, December 19, 2022. Available at: https://www.gov.nl.ca/releases/2022/exec/1219n03/

NL Department of Industry, Energy and Technology. 2023. Supporting Innovation in the Offshore Sector. News Release, December 12, 2023. Available at: https://www.gov.nl.ca/releases/2023/iet/1212n04/

NL Department of Industry, Energy and Technology. 2024. Provincial Government Funding Assisting SubC Imaging with Next-Generation Technology Development. Available at: https://www.gov.nl.ca/releases/2024/iet/0423n02/

Stantec. 2009. Socio-economic Benefits from Petroleum Activity in Newfoundland and Labrador, 2005-2007. Prepared for: Petroleum Research Newfoundland and Labrador (PRNL), prepared by: Stantec Consulting Ltd.

Stantec. 2012. Socio-economic Benefits from Petroleum Activity in Newfoundland and Labrador, 2008-2010. Prepared for: Petroleum Research Newfoundland and Labrador (PRNL), prepared by: Stantec Consulting Ltd.

Stantec 2015. Socio-economic Benefits from Petroleum Activity in Newfoundland and Labrador, 2011-2014. Prepared for: Petroleum Research Newfoundland and Labrador (PRNL), prepared by: Stantec Consulting Ltd.

Stantec 2019. Socio-economic Benefits from Petroleum Activity in Newfoundland and Labrador, 2015-2017. Prepared for: Petroleum Research Newfoundland and Labrador (PRNL), prepared by: Stantec Consulting Ltd. February 25th, 2019. Available at: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://iaac-aeic.gc.ca/050/documents/p80156/132836E.pdf

techNL. 2022. Digital Oil & Gas Initiative (DOI) Press Release. Available at: https://technl.ca/2022/02/02/digital-oil-gas-initiative-doi-press-release/

Travis, N. 2024. The Launch: N.L.'s Ocean Technology Innovation Hub. Article, The Navigator, December 10, 2024. Available at: https://thenavigatormagazine.com/the-launch-n-l-s-ocean-technology-innovation-hub/

Whiffen, G. 2019. Husky contributes $1 million for centre of excellence at Memorial University. Available at: https://www.saltwire.com/newfoundland-labrador/husky-contributes-1-million-for-centre-of-excellence-at-memorial-university-385374

WITT. 1996, 'Women, Employment Equity and the Hibernia Construction Project: a study of women's experiences on the Hibernia Construction Project, Mosquito Cove, Newfoundland'.

Appendices

Appendix A The Macroeconomic Impacts of the Offshore Oil Industry on the Economy of Newfoundland and Labrador Update 2025

THE MACROECONOMIC IMPACTS OF THE OFFSHORE OIL INDUSTRY ON THE ECONOMY OF NEWFOUNDLAND AND LABRADOR

UPDATE 2025

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Introduction

This report estimates the economic impacts of the offshore oil industry on the Newfoundland and Labrador economy for the period of 2018 to 2024.

It builds upon previous work that was originally completed in 2003, and subsequently updated in 2005, 2008, 2012, 2015 and 2018. This update estimates average annual impacts of the offshore oil industry on key economic indicators such as gross domestic product (GDP), employment and labour compensation for the seven-year period from 2018 to 2024. Over this time frame, there have been fluctuations in production and development related activity in the oil industry.

The following sections provide some industry background, describe the economic models used in the analysis and the input data and the methodology followed in applying the models. The paper ends with a presentation and discussion of the results.

Industry Background

Over the 2018 to 2024 period, the oil and gas industry in Newfoundland and Labrador experienced significant fluctuations in production and investment due to global market dynamics, the COVID-19 pandemic, and other project-specific developments.

In the wake of the global oil price collapse in 2014/2015, the province's oil industry slowly rebounded in the following four years. Over the 2016 to 2018 period, there was an exploration surge in the province, partly due to strategic initiatives introduced by the Provincial Government in support of industry growth and development. The year 2018 also marked the first full year of production for the Hebron project, providing a boost to total oil production from the province's offshore, which peaked at its highest level since 2008 in 2020.

In recent years, the industry has faced operational challenges that were magnified by the pandemic. Operations were halted at the Terra Nova oil project in December 2019, as the Terra Nova FPSO began the process of a planned comprehensive Asset Life Extension (ALE) project, aiming to extend its operation life by approximately 10 years to recover an additional 70 to 80 million barrels of oil. The FPSO was supposed to sail to Spain in early 2020 for extensive refit work, however, the onset of the pandemic led to significant delays, putting the refit work on hold while the FPSO remained docked in the province. The FPSO sailed to Spain in December 2021 and was safely reconnected to resume production in late 2023. The pandemic also had negative repercussions for other oil projects in the province over the period, as construction was halted at the West White Rose project in March 2020, delaying that project's timeline.

As a result, total oil production declined in the province from 2021 to 2023. Construction resumed at the West White Rose project in early 2022, and 2024 marked the first full year of production from the newly refit Terra Nova FPSO. This led to an increase in oil production that year, which was partly offset by the temporary shut-down of the White Rose project for the SeaRose FPSO to undergo its own ALE project. The SeaRose resumed production in March 2025.

Methodology

Two Department of Finance models are used in this impact assessment: the Newfoundland and Labrador Econometric Model (NALEM) and the Newfoundland and Labrador Input-Output Model (NALIOM).

NALEM is a *macroeconomic* model of the economy designed to capture the fundamental relationships among major economic variables affecting the provincial economy. It produces annual forecasts for all the main economic indicators of provincial economy, including GDP, household income, labour force, employment, consumer spending and exports.

NALEM was used to estimate direct impacts for the years that Statistics Canada data was not available. Ratios from the model were also used to estimate the impacts of the oil industry on a broader array of indicators, such as household income, retail sales and population.

NALIOM simulates the relationships between commodity outputs and commodity inputs at an industry level under the assumption of constant returns to scale (i.e., that the proportion of factor inputs used per dollar of output remains constant). The strength of NALIOM lies in its ability to capture indirect impacts in supplier industries that arise from local oil industry spending on goods and services used in its production process.

NALIOM is used in this study to obtain the indirect oil industry impacts. These indirect impacts are combined with the direct impacts and induced (i.e., impacts related to the spending of workers who are directly or indirectly employed as a result of oil industry activity) multipliers estimated using NALEM to complete the impact estimates. The direct, indirect and induced impacts are then summed together to get the total economic impacts of the offshore oil industry on the provincial economy.

Data

Data from the benefits reports produced by the operators and from the Canada-Newfoundland and Labrador Offshore Energy Regulator were used as inputs for the analysis. These inputs are summarized in Table 1.

Table 1: Summary Data

	2018	2019	2020	2021	2022	2023	2024
Capital Costs ($ millions)							
Exploration	139.2	357.8	482.4	164.7	514.6	266.1	556.4
Pre-Development	32.5	78.3	40.0	54.9	100.4	108.6	42.2
Development	901.5	987.1	544.1	297.8	257.1	659.7	1,064.4
Production	2,223.9	2,452.2	1,767.6	1,200.5	1,823.1	2,104.7	2,328.0
Total	**3,297.1**	**3,875.4**	**2,834.1**	**1,717.9**	**2,695.2**	**3,139.1**	**3,991.0**
Employment (person years)							
Development	1,377	2,001	540	270	253	1,622	1,127
Production	4,665	4,965	3,632	3,394	3,596	3,605	3,603
Total	6,042	6,966	4,172	3,664	3,849	5,227	4,730
Oil Production (millions of bbl)	**84.0**	**95.5**	**104.0**	**94.0**	**84.3**	**73.1**	**76.5**

Source: Canada-Newfoundland and Labrador Offshore Energy Regulator; Department of Finance

Macroeconomic Results

The Newfoundland and Labrador economy has benefited significantly from the oil industry. Nominal GDP, was on average, $8.9 billion higher per year over the 2018 to 2024 period, and $9.5 billion higher in 2024 as a result of offshore oil activity. [1] Oil development and production activities generated 23.3% of the province's nominal GDP between 2018 and 2024. In 2024, the industry's share of nominal GDP was 22.5%.

It should be noted that much of the company profits earned in the oil industry accrues to non-resident companies. This is the case with virtually all types of external investment in a small economy. Business income directly related to the industry generally does not accrue to residents and therefore has limited spill-over onto other economic indicators. Consequently, impacts on other economic indicators such as household income and employment are smaller than the GDP impacts.

Labour compensation was, on average, $1.8 billion higher over the reference period (10.8% of total) because of the offshore oil industry. Household income was $2.3 billion higher (7.9% of total) and household disposable income, which is household income after payment of direct taxes (income tax, EI, CPP premiums), was on average $1.5 billion higher over the 2018 to 2024 period (7.7% of total). Consumer spending in the form of annual retail sales was $670 million or higher on average (6.4% of total).

In fiscal year 2024-25, the Government of Newfoundland and Labrador received an estimated $1.6 billion in offshore oil royalty revenue. Income taxes and consumption taxes from labour compensation generated by the offshore oil industry and corporate income taxes paid on oil company profits are other significant sources of revenue for the Provincial Government.

Employment impacts averaged 19,000 over the reference period (8.2% of total). Employment impacts in 2024 were 20,500 (8.4% of total) as construction activity associated with the West White Rose project continued.

The impacts of the oil industry on the province's population are more difficult to model. Any increase in economic activity and employment in the province will tend to reduce out-migration and increase in-migration. Net migration is assumed to be a function of the employment impacts. The oil industry was estimated to have supported in-migration that accounted for 6.6% of population in 2024. It should be noted, however, that since migration is a difficult variable to model there is a high margin of error associated with the estimated population impact. Consequently, several other indicators that are affected by changes in population, such as labour force and unemployment rate, also have a higher margin of error.

The results of this analysis can be found below in Table 2.

[1] Nominal GDP is measured at current market prices.

Table 2
Economic Impacts of Offshore Oil Industry, 2018-2024

	2018	2019	2020	2021	2022	2023	2024	Average
GDP ($M)	8,531	9,145	6,136	8,276	11,559	8,813	9,487	8,850
Share of Total (%)	24.7	25.5	19.1	21.4	27.5	21.8	22.5	23.3
Real GDP Chained ($2017M)	7,253	8,162	7,799	6,591	6,568	6,468	6,941	7,112
Share of Total (%)	22.1	23.9	24.0	20.1	20.2	20.5	21.5	21.8
Household Income ($M)	2,499	2,641	1,977	1,518	1,894	2,610	2,795	2,276
Share of Total (%)	9.7	10.1	7.3	5.3	6.5	8.3	8.4	7.9
Labour Compensation ($M)	1,928	2,037	1,525	1,171	1,461	2,014	2,156	1,756
Share of Total (%)	12.8	13.4	10.6	7.4	8.8	11.3	11.5	10.8
Other Income ($M)	571	604	452	347	433	596	639	520
Share of Total (%)	5.3	5.5	3.6	2.7	3.4	4.4	4.4	4.2
Household Disposable Income ($M)	1,640	1,733	1,298	996	1,243	1,713	1,834	1,494
Share of Total (%)	9.6	9.9	7.0	5.0	6.3	8.1	8.1	7.7
Retail Sales ($M)	735	777	582	447	557	768	822	670
Share of Total (%)	8.0	8.4	6.2	4.3	5.0	6.7	6.8	6.4
Employment (000s)	23.8	25.0	16.3	13.0	15.0	19.7	20.5	19.0
Share of Total (%)	10.4	10.8	7.5	5.8	6.4	8.3	8.4	8.2
Labour Force (000s)	25.9	27.2	17.7	14.2	16.3	21.4	22.3	20.7
Share of Total (%)	9.8	10.3	7.0	5.5	6.2	8.1	8.2	7.9
Population (000s)	41.9	44.1	28.6	22.9	26.4	34.7	36.2	33.6
Share of Total (%)	7.9	8.4	5.4	4.3	5.0	6.4	6.6	6.3

Source: Economics Division, Department of Finance

Summary

Over the 2018 to 2024 period, the oil and gas industry in Newfoundland and Labrador experienced significant fluctuations in production and investment due to global market dynamics, the COVID-19 pandemic, and other project-specific developments. However, it continued to provide significant economic benefits to the Newfoundland and Labrador economy. Nominal GDP was on average, $8.9 billion higher per year over the period, and $9.5 billion higher in 2024 (22.5% of total) as a result of offshore oil activity. Labour compensation was $1.8 billion higher (10.8% of total), and employment impacts averaged 19,000 over the reference period (8.2% of total).