

Nova Scotia's

Natural Gas Industry



Highlights from 'Final Report: A 12-Year Retrospective
on Natural Gas Production in Nova Scotia'

Made in Nova Scotia

The background of the entire page is a photograph of several offshore oil rigs silhouetted against a bright, orange sunset sky. The sun is a glowing orb on the horizon, partially obscured by the rigs. The water in the foreground is dark and calm.

The Story of Secunda

Founded in Dartmouth, NS, Secunda Marine Services was formed in the early 1980s in response to offshore petroleum exploration programs underway off the Canadian east coast. Beginning as a small operation with a single vessel, today the organization is truly an international company. A company that has completed work in various international locations, including the North Sea and West Africa. Employing approximately 275 Nova Scotians, Secunda is a leading supplier of offshore support vessels servicing the Atlantic offshore, and the global oil and gas industry.

The Dominion Diving Way

Dominion Diving is truly a homegrown success story with a rich history that dates back to the late 1960s. From its headquarters in Dartmouth, NS, Dominion Diving operates throughout Canada and around the world. Active in Nova Scotia's offshore oil and gas industry since the early 1990s, today the company is one of the largest diving, remote operated vehicle (ROV), and marine services providers in Canada. From completing work on the world's largest deepwater and semi-submersible drilling rig, to removing abandoned well heads, this diverse company is making a significant contribution to the local economy.

Educating an Industry

The Nova Scotia Community College (NSCC) and Cape Breton University (CBU) have seen tremendous economic and social gains from their provision of education and training services for the offshore oil and gas industry. NSCC estimates it has spent close to \$9 million in petroleum-related infrastructure, including laboratories and equipment, in the last decade. Furthermore, LearnCore International (a wholly owned subsidiary and foundation company of CBU) and NSCC have developed world-class education and training programs. Today they are the preferred suppliers of these services to large international companies such as ExxonMobil.



Transforming Nova Scotia

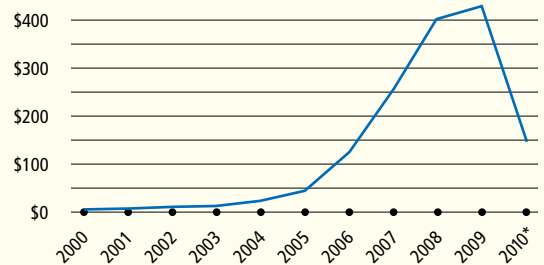
Exploration for oil and gas in Nova Scotia's offshore began nearly half a century ago, with the first well drilled in 1967. Today, evidence of the transforming effect the industry has had on the province is all around us.

The oil and gas industry is a cornerstone of Nova Scotia's economy—providing thousands of jobs and attracting international investment and trade opportunities. By building essential energy

infrastructure, supporting world-class education and training facilities and advancing research and development capabilities, the industry has built a solid foundation for future economic growth.

While Nova Scotia's offshore natural gas industry is still in its formative years, with first gas from the Sable Offshore Energy Project only a decade ago, the economic benefits already have been significant. The oil and gas industry reported over \$9 billion in spending for development and production of Nova Scotia's offshore between 1996 and 2008. Approximately \$2.5 billion of that amount was spent right here in Nova Scotia.

Royalty Revenue from Offshore Oil and Gas Production (\$ Millions)

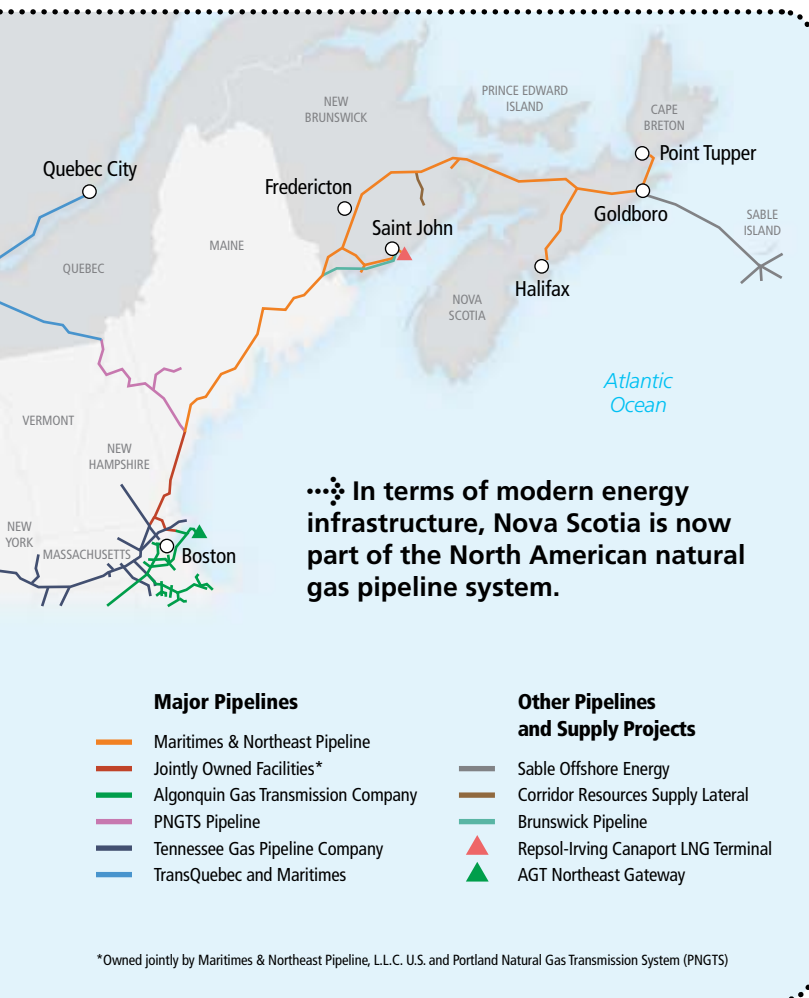


* based on most recent forecast published with finance

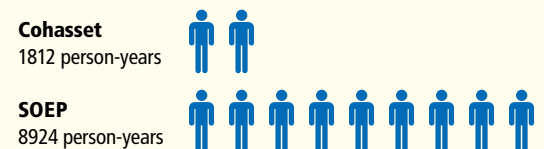
Furthermore, between 1996 and 2008, Nova Scotia received over \$1.5 billion in offshore royalty-related revenue. Currently, offshore royalties signify the sixth largest source of provincial revenue. These payments represent an important revenue stream, contributing to core public program areas such as education, health care, infrastructure and debt reduction.

The province's oil and gas industry employed about 3,200 Nova Scotians, directly and indirectly, each year between 1996 and 2007. These jobs were in a wide variety of professional, trades and technical areas and translated into household income of over \$115 million a year.

❖❖❖ In terms of modern energy infrastructure, Nova Scotia is now part of the North American natural gas pipeline system.



Direct Nova Scotia Employment 1996-2007



The Spinoff Effect



Economic Impact

...❖ The offshore petroleum industry employs, directly or indirectly, about 3,200 Nova Scotians (average between 1996 and 2007)

...❖ During that time span, the total household income from the offshore petroleum industry was approximately \$1.4 billion—an average of \$117 million a year

...❖ Over the past several years, natural gas production accounted for an average of 3 per cent of Nova Scotia's GDP (Gross Domestic Product)



Offshore Benefits Onshore

From manufacturing and fabrication companies, to catering businesses and legal firms, offshore oil and gas activity benefits a variety of Nova Scotia industries, onshore. The industry offshore has helped create a cluster of world-class support industries onshore, while also increasing the international profile of many Nova Scotia businesses. A range of companies and institutions, from large national and international corporations to small and medium-sized Nova Scotia enterprises, provide required goods and services for our offshore industry. Nova Scotians have also benefited through a range of socioeconomic impacts, including the development of energy infrastructure, such as pipelines, and export strength.

For the first time these benefits have been captured in an extensive report, prepared by Stantec (formerly

Jacques Whitford and Associates), which documents the full impact of Nova Scotia's offshore oil and gas industry.

This report examines the socioeconomic



benefits realized through oil and gas exploration, development and production; and highlights the range of sectors impacted. The report demonstrates, through case studies, that Nova Scotia-based companies are characterized by a strong entrepreneurial spirit and a remarkable ability to adapt to the high standards, demanding time lines and cyclical nature of the offshore oil and gas industry.

Extraordinary Potential

Nova Scotia's oil and gas industry continues to represent an important revenue stream for the province. Revenue from the Sable Offshore Energy Project accounted for nearly one-tenth of the provincial budget in 2009. However, production from Sable has peaked and no exploratory wells have been drilled offshore since 2005. While there is cautious optimism about the future of the province's onshore and offshore industries, continued growth and prosperity of this important sector is ultimately tied to our ability to attract new exploration activity.

Independent estimates suggest Nova Scotia's offshore contains in excess of 40 trillion cubic feet of natural gas potential, and 2 billion barrels of oil. The promise of our offshore industry remains extraordinary. To put that figure in perspective, 2.5 trillion cubic feet of natural gas was used in all of Canada during 2008. Furthermore, the petroleum industry reported spending of over \$9 billion for

development and production of Nova Scotia's offshore resources between 1996 and 2008. Considering approximately \$2.5 billion of that total was direct spending within the province, the potential is truly exceptional.

This promise is even brighter when you consider the environmental benefits associated with natural gas. Natural gas burns cleaner than oil or coal and produces fewer greenhouse gases and other harmful emissions. As such, it presents an attractive option for quick and efficient backup of intermittent renewable sources such as wind power—helping diversify Nova Scotia's energy supply and enhancing our energy security. Our future truly is bright—and the potential for our industry is extraordinary.

Project Spending in Nova Scotia 1996-2007



Challenges and

Opportunity

Offshore Royalties

❖ Nova Scotia has received more than \$1.5 billion in offshore royalties between 1996 and 2008

❖ Royalties represent an important revenue stream for government and are used to support health care, education, infrastructure and debt reduction

Natural Gas

- ...❖ A made-in-Nova Scotia solution that generates lower greenhouse gas emissions than other fossil fuels
- ...❖ Provides Nova Scotia homes, businesses and industries with an alternative economical fuel choice
- ...❖ Strengthens the province's position in meeting environmental goals and achieving energy security

A copy of 'Final Report: A 12-Year Retrospective on Natural Gas Production in Nova Scotia' can be downloaded at: www.gov.ns.ca/energy