



**The Future Supply of Natural Gas in Our Region:  
Impacts, Challenges and Opportunities**

Prepared for:  
Atlantica Centre for Energy

October 2012

## Foreword: John Herron, President

Founded in 2005, the Atlantica Centre for Energy is an association dedicated to the sustainable growth and economic development of the regional energy sector. The Centre strives to serve as a bridge between corporations and the community by providing a meeting ground for representatives of the federal and provincial governments, education and research sectors and the community at large to foster engagement on energy-related matters and policy development. It aims to be a source of information on issues related to our regional energy sector and our economy.

Often the Centre has tried to fulfill this role through the production of discussion papers. The Centre has commissioned or authored papers on a range of subjects including: energy efficiency and renewable energy; regional impacts of the Lower Churchill hydroelectric project; a review of the New Brunswick natural gas distribution model; and a comparative analysis of royalty and regulatory regimes of shale gas in North America. The Centre's most recent paper from last spring outlined the interconnection between natural resources (renewable and non-renewable), our energy sectors and how these could potentially be a major contributor to the future economic development of the province. These discussion papers can be downloaded at the Centre's website.<sup>1</sup>

In recent months the supply of natural gas in the mid and longer term has emerged as an issue of concern for other energy analysts, potential investors in our region and regional consumers of natural gas. The two principal factors that that are causing this concern are:

1. Existing natural gas production from Nova Scotia's offshore is projected to end in 8-13 years.
2. Access to liquefied natural gas (LNG) through Canaport LNG has become constrained given that LNG shipments garner multiples of the price in Europe and Asia compared to North America.

This paper has been prepared to help industry, government and the broader public understand the changing natural gas landscape in the region. It provides an overview of the global, continental and regional supply dynamics for this important source of energy. It also discusses a range of scenarios that may emerge in the coming years and their associated impacts, challenges and opportunities.

### ⇒ Key Observations in this Paper

1. **Originally, the gas was meant for Boston.** *The natural gas from offshore Nova Scotia was originally meant to serve markets in New England.*
2. **Now, we use a lot.** *The vast majority of natural gas from offshore Nova Scotia is now used in the Maritimes.*
3. **It is running out.** *Offshore Nova Scotia natural gas will run out in a few years and we need alternative sources.*
4. **We could reverse the pipe.** *The Maritimes & Northeast Pipeline could be reversed bringing in natural gas from the shale basins in the U.S. and western Canada but that would disadvantage the region because of cost of tolls to bring the gas here.*
5. **Let's determine if we have a commercially viable supply here.** *New Brunswick and Nova Scotia may have trillions of cubic feet worth of natural gas reserves. It would be counterintuitive to bring in shale gas from elsewhere when we have the potential to responsibly develop it here.*
6. **The time for planning is now.** *It will take years for any major changes to the system to happen. We must ensure that the region does not become forced to rely on inward liquefied natural gas (LNG) at premium prices.*

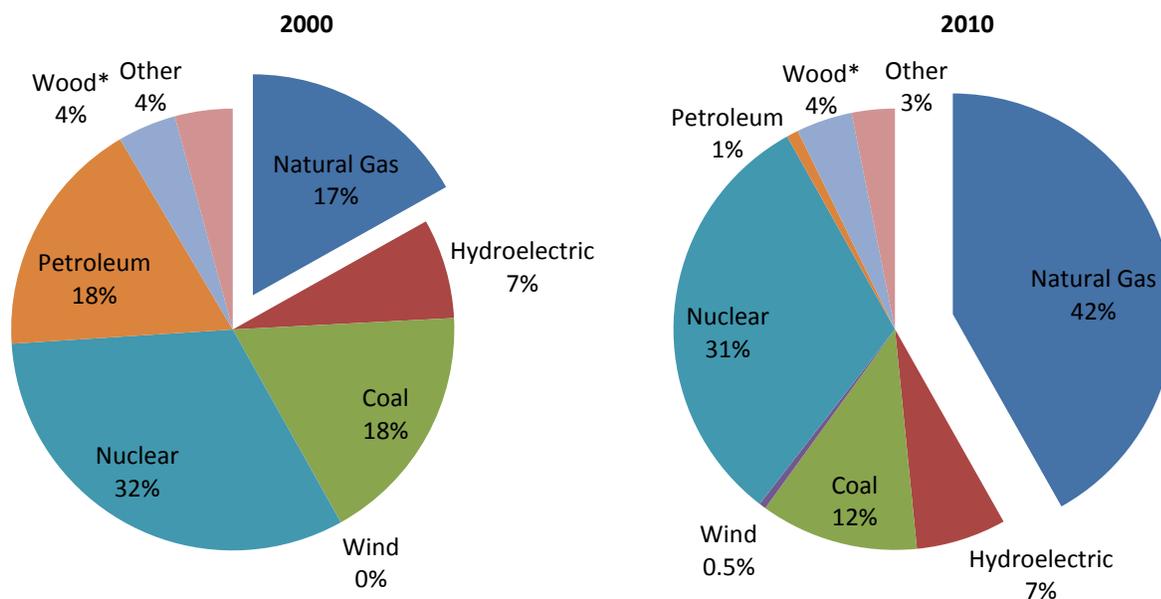
<sup>1</sup> <http://www.atlanticaenergy.org/publications>

## 1. Overview of natural gas in the Maritimes: 1999-2012

When Sable Island natural gas first started flowing on December 31, 1999 virtually all of it was exported to the United States. The business case needed to raise the financial capital for the \$3 billion Sable Offshore Energy project (SOEP) and its supporting infrastructure, the \$2 billion Maritimes & Northeast Pipeline (M&NP), was predicated on serving the large Boston and New England market. By 2001, average monthly net production was 15.8 billion cubic feet of which 95 percent was exported to the United States. However, the M&NP pipeline would also provide the Maritime Provinces, Maine and beyond with a new source of energy. In New England electrical generation began a massive transformation away from coal and oil to the less carbon intensive fuel that has greatly aided the Northeastern states' Regional Greenhouse Gas Initiative (RGGI)<sup>2</sup>.

In 2000, coal and oil was the fuel for 36 percent of all electricity generation capacity in New England. By 2010, coal and oil represented only 13 percent of total generation capacity (Figure 1). Natural gas increased from 17 percent in 2000 to over 42 percent by 2010. In 2012, 72 percent of all new electricity generation capacity to come on line in New England is natural gas-fired<sup>3</sup>.

**Figure 1: Electricity Generation Capacity – New England (2000 & 2010)**



Source: United States Energy Information Administration.

In the Maritime Provinces, the region's access to natural gas changed numerous manufacturing processes in sectors such as refining, pulp and paper, mining and power generation.

Beginning in 2002 an increasing share of the offshore Nova Scotia natural gas began to serve local markets in Nova Scotia and New Brunswick. In 2006, the average monthly net production from Sable Island had declined to 11 billion cubic feet of which 69 percent was exported. By 2011, the average monthly net production from Sable Island was down to 8.3 billion cubic feet of which only 26 percent was exported to U.S. markets (Figure 2).

<sup>2</sup> [www.rggi.org](http://www.rggi.org)

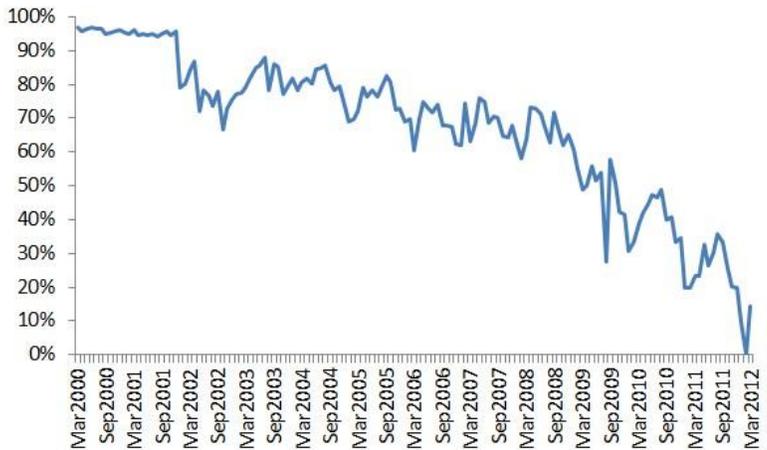
<sup>3</sup> Source: U.S. Energy Information Administration.

In the first three months of 2012, only 8.5 percent of net production was exported (in February 2012 no Nova Scotia gas reached export markets). The reasons for the decline in exports are twofold:

- 1) The drop in production – down nearly 40 percent in 2011 versus 2008; and
- 2) The significant increase in the amount of natural gas being used with the Maritime Provinces.

Now, in 2012, the domestic market for natural gas in the Maritimes is substantial – driven by a small number of large industrial players and by electric power generation. A few industrial players drive most of the demand in New Brunswick. There are also developing commercial and residential markets and also markets not currently served by using compressed natural gas (CNG).

**Figure 2: Exports of Nova Scotia natural gas (as a % of total net production)**



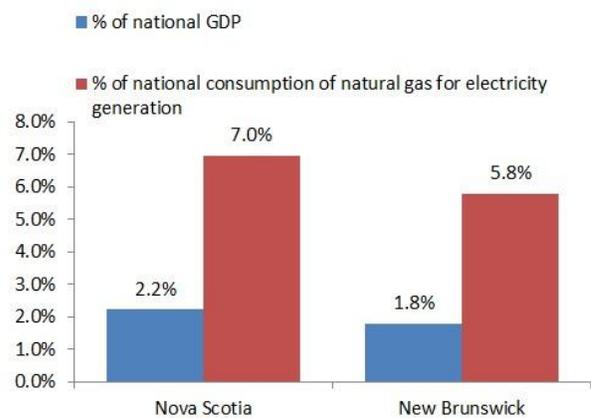
Source: Statistics Canada CANSIM Table 131-0001.

**1.1 Natural gas and electric power generation**

Despite having just one plant in each province, New Brunswick and Nova Scotia are now consuming significant amounts of natural gas for electric power generation. Statistics Canada publishes data on fuel consumed for electric power generation<sup>4</sup>. In 2010, New Brunswick and Nova Scotia accounted for 13 percent of all natural gas consumed across Canada for electricity generation.

Both provinces now use three times as much natural gas for the production of electricity compared to the rest of Canada (adjusted for the size of the economy) as shown in Figure 3. Nova Scotia generates 2.2 percent of national gross domestic product (GDP) but has seven percent of the nation’s natural gas consumption for electricity generation.

**Figure 3: Natural gas for electricity generation (% of national total consumption)**



Source: Statistics Canada CANSIM Tables 379-0025 and 127-0004.

**1.2 Natural gas and industrial, commercial and residential markets**

In New Brunswick, 57 percent of the final demand natural gas in 2010 was used by a handful of industrial companies in energy intensive areas such as forest products, oil refining and mining<sup>5</sup>. Nationally, only 31 percent of gas flows to industrial companies. In Nova Scotia, the final demand for natural gas is concentrated more in the commercial and institutional sector (58 percent of the total in 2010) compared to New Brunswick (33 percent). Residential markets account for 26 percent of the total demand in Nova Scotia compared to only nine percent in New Brunswick.

<sup>4</sup> Statistics Canada provides data starting only in 2005 and it is currently available only through 2010.

<sup>5</sup> This excludes natural gas used for electricity production.

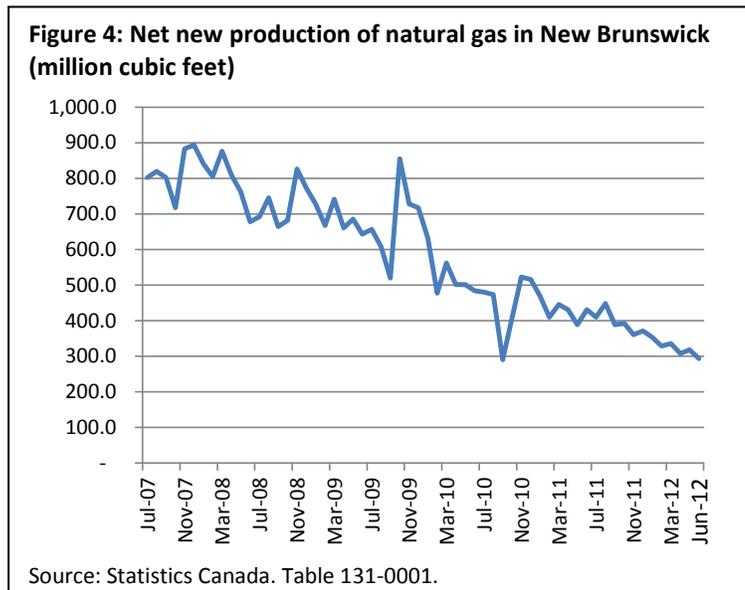
It is clear that natural gas has become a vital source of energy for electricity generation, industrial and commercial users across the Maritime Provinces. At the same time there is considerable opportunity to more broadly develop residential markets and use compressed natural gas (CNG) to service markets not currently in range of the existing pipeline infrastructure. The outlook for natural gas domestic markets in the Maritimes is covered in Section 4 below.

## 2. Natural gas: Declining local supply

The supply of natural gas from the original Sable Island field is in decline. As mentioned above, in February 2012 no gas from Sable crossed the St. Croix River into the United States. Analysts suggest the output of Sable Island gas is on the decline and will likely run out within the next five years.

After several delays, Encana Corporation’s Deep Panuke gas field is expected to come online in late 2012 or early 2013. This is a smaller field than Sable Island and is projected to have only an 8-13<sup>6</sup> year life. Further, Deep Panuke gas is reported to be under license to Repsol, principally to supply its United States markets<sup>7</sup>. It is unknown how much of Deep Panuke’s production will be available for customers in the Maritime Provinces.

Onshore natural gas production in New Brunswick has always been a fraction of the level produced Nova Scotia (Figure 4). Only Corridor Resources’ McCully field near Sussex is producing natural gas and production levels have been cut in half as a result of current market conditions (see Section 5.2 below for more on the potential of onshore shale gas development). Onshore gas production in Nova Scotia is currently zero.



## 3. Liquidified Natural Gas: The Role of Canaport LNG

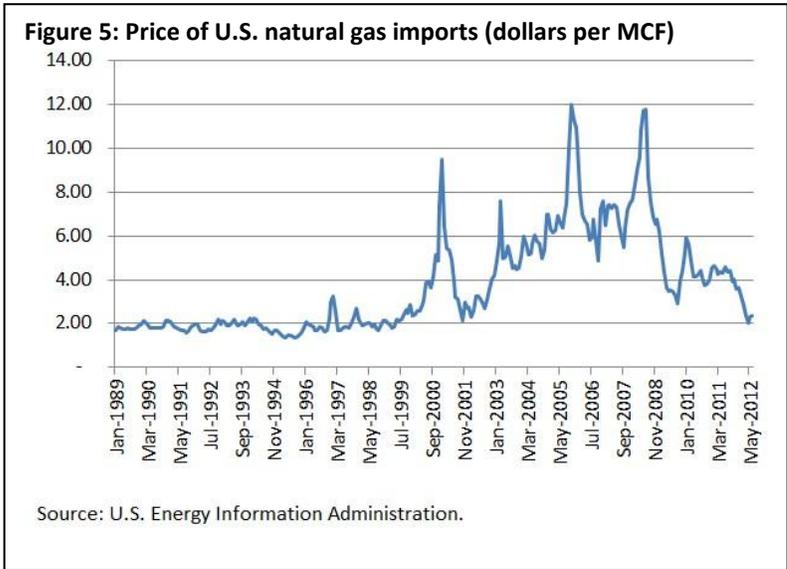
In theory the Canaport LNG inbound facility in Saint John could bring in more than enough natural gas to supply the total market in the Maritime Provinces for now and the foreseeable future. However, there is very little natural gas coming in through the facility because LNG fetches a much higher price just about everywhere else in the world than in North America. The vast quantities of natural gas being produced throughout North America from the continent's shale reserves have greatly skewed global natural gas markets. Just 10 years ago, there was essentially no production of natural gas from shale, today nearly 25% of U.S. natural gas comes from shale reserves - the largest and most noteworthy is the Marcellus (Pennsylvania)<sup>8</sup>.

<sup>6</sup> <http://www.gov.ns.ca/energy/oil-gas/offshore/current-activity/deep-panuke.asp>

<sup>7</sup> <http://www.reuters.com/article/2009/02/17/encana-repsol-idUSN1737941020090217>

<sup>8</sup> Source: U.S. Energy Information Administration, Annual Energy Outlook 2012. Tight gas, also extracted using hydraulic fracturing, accounts for another 25 percent of U.S. natural gas production.

The substantial expansion of natural gas production using hydraulic fracturing in the United States forced prices downward to levels not seen in almost 20 years and the large supply is likely to keep prices relatively low for many years. At the same time, it has led to less investment in conventional natural gas field exploration and production in areas such as offshore Nova Scotia. It has also dramatically shifted the economics of liquefied natural gas (LNG). The price of imported natural gas into the United States is a good illustration of this new dynamic. Before the onset of the shale gas industry, the price of imported natural gas averaged \$7.50/per thousand cubic feet (MCF) range<sup>9</sup>. As of 2012, the price is back down to its average in the 1990s of around \$2.00 per MCF (Figure 5).



In 2004 the outlook for imported LNG to North America was good. Now LNG producers can sell their product in Asia and Europe for a multiple of the price they can command in North America. The price of LNG on the world market is shown in Figure 6 below. LNG producers have much more incentive to ship their product to markets in Europe, Asia and South America. According to estimates recently published by United States Federal Energy Regulatory Commission LNG can be sold into Europe as much as \$9.82/MCF and at \$13.40/MCF in China compared to less than \$3.00/MCF in the United States.

**Figure 6: World LNG Estimated October 2012 Landed Prices (\$US/MCF)**



Source: United States Federal Energy Regulatory Commission. Natural Gas Overview: World LNG Prices (Sept. 2012)

<sup>9</sup> Between 2004-2009. Natural gas is imported into the United States from Canada (by land) or through LNG facilities.

## 4. The future of natural gas and economic development

### 4.1 Electricity production in the Maritimes

The use of natural gas to produce electricity has led to a significant reduction in the use of more carbon intensive fuels in the production of electricity. In New Brunswick, the amount of coal used to produce electricity dropped 28 percent between 2005 and 2010 and the use of heavy fuel oil declined nearly 80 percent from 1.58 million kilolitres in 2005 to only 0.330 million kilolitres in 2010. While the use of coal for electricity production was up slightly in Nova Scotia (2010 versus 2005), the amount of petroleum coke used was down by 54 percent and the use of fuel oil has all but been eliminated dropping from 384,000 kilolitres in 2005 to only 7,400 in 2010.

There is more opportunity to convert electricity generation plants to natural gas. The 978 MW Colson Cove thermal generation station in Saint John could be converted to natural gas for a relatively small upfront investment. Nova Scotia is still among the most reliant on coal-fired electricity generation of any jurisdiction in North America. In 2010 the province used over 2.7 million metric tonnes in the generation of electricity – or more than six percent of the national total.

The effective cost of natural gas for electricity generation has been in decline in both Nova Scotia and New Brunswick while the cost of coal has been on the rise. The United States Energy Information Administration is forecasting that natural gas prices for electricity generation will remain below 2010 price levels (in constant dollars) through 2021 and will face only moderate increases after that time. Forecasting the long term price of energy is notoriously difficult. However, the vast quantities of proven natural gas in the Marcellus, Barnett and other shale gas regions will likely keep prices down for the foreseeable future.

⇒ **The Muskrat Falls project:** *The 824 MW Muskrat Falls project involves the production and transmission of hydro-electricity for use in Newfoundland and Labrador, the Maritime Provinces, and potential in central Canada and the northeastern US. The project is being developed collaboratively by Nalcor and Emera and will reduce, if not eliminate, Newfoundland's need for thermal generation and the utilization of coal-fired power plants in Nova Scotia. As such, the project will have a significant impact on the structure of future electrical generation in Atlantic Canada.*

### 4.2 The future of natural gas and industrial development

There are a number of industrial projects that could be facilitated in New Brunswick and Nova Scotia if the industrial price for natural gas remains competitive moving forward. New potash mining, fertilizer plants and other forest products manufacturing could benefit from natural gas. By using compressed natural gas (CNG) delivered by trucks, industries around the region could access natural gas.

⇒ **Did You Know?** *Electricity production, forest products manufacturing, petroleum refining and mining are among the 10 most energy-intensive industries. The New Brunswick economy is reliant on all four of these industries.*

### 4.3 Pipeline infrastructure

The two main pipelines – the M&NP and Brunswick Pipelines - both have take-or-pay contracts in place that were necessary to generate the initial investment needed for their construction. The Maritime Provinces are blessed with relatively new gas transmission pipeline infrastructure but could end up with no locally sourced gas to fill them up once Sable Island and Deep Panuke are depleted.

## 5. Impacts, Challenges and Opportunities: The Future Supply of Natural Gas in Our Region

Over the past ten years our region has developed a large and growing domestic market for natural gas particularly in the electricity generation and industrial sectors. However, there is considerable opportunity to expand the use of gas in the region to generate greater energy efficiencies and cost saving; foster economic development and reduce the region's carbon footprint. This opportunity, however, will be dependent on the region's ability to access competitively priced natural gas into the future. The future supply of natural gas throughout the region has emerged as a leading concern for potential investors in our region and existing consumers of natural gas given the onset of the declining production from Nova Scotia's offshore and the inability to attract competitively priced natural gas from LNG imports.

There are likely several scenarios and combinations of them that are apt to evolve in the coming months and years that will paint a new picture on how and from where we will source natural gas for our region. These scenarios present both challenges and opportunities.

### 5.1 Reversing the pipe

There has been considerable speculation in recent months from a number of foreign investors and regional consumers on how our region can best address the future supply of natural gas in the mid and long term. The potential reversal of the flow of the Maritimes & Northeast Pipeline has emerged as an option for consideration. Under this scenario natural gas from the shale gas reserves of the Marcellus and possibly traditional gas supply from western Canada would flow into New England and north to the Maritime Provinces.

⇒ **Key Point:** *Shale gas from Marcellus and other shale plays may or may not physically be part of the supply mix for the Maritime Provinces but the proliferation of supply from these sources across North America will moderate and cap the price of natural gas coming into the Maritimes whether from western Canada, Michigan, Ohio, Pennsylvania. Shale gas is recalibrating downward the price of natural gas from all sources. However, any gas imported into the Maritimes will be subject to higher tolls compared to the current supply.*

It is true that the relatively new and modern Maritimes & Northeast Pipeline does possess the ability to be reversed in whole and in part. However there are a number of challenges and financial impacts associated with this potential option.

Principally, the capacity available on systems interconnected with the Maritimes & Northeast Pipeline is constrained. This includes the Tennessee, Algonquin, and Portland pipelines (Figure 7). Increasing capacity on these systems will require significant capital investment and is being investigated by all three.

The associated costs to build out this infrastructure would need to be socialized (costed) in the tolling rates for consumers of the gas throughout the system. The cost impacts for consumers in the Maritime Provinces are apt to be significant as the tolling costs would increase measurably as they would no longer be paying one transmission toll (M&NP) but potentially three or four additional tolls. These costs are poised to disadvantage manufacturing, industrial uses and for power generation throughout the broader region.

There are some opportunities associated with the potential reversal of the Maritimes and Northeast Pipeline. Western Canadian gas would become accessible as it is interconnected near Portland, Maine thus bringing diversity of supply to the region.

⇒ **The Risk of U.S. Protectionism:** *This source of energy could also pose a risk because of the threat of U.S. energy protectionism. Some influential voices are calling for the government to limit or ban the export of natural gas preferring to find more ways to use the gas to fuel economic development in the United States. There have already been a number of large scale industrial plants set up in the United State that cited cheap natural gas as the main reason for locating there compared to offshore locations.*

**Figure 7: Natural Gas Pipeline Infrastructure – Offshore Nova Scotia to Massachusetts**



Source: Maritimes & Northeast Pipeline.

### 5.1.2 The Repurposing of Canaport LNG - Import and Export Terminal

As discussed in Section 3 of this paper, the economics of liquefied natural gas (LNG) have become very much skewed globally, given that LNG producers can sell their product in Asia and Europe for a multiple of the price they can command in North America. The Canaport LNG gasification (import) terminal and its supporting pipeline (Emera's Brunswick Pipeline) have been greatly affected by this shift in market dynamics. The facility was designed to serve as a base load supplier of natural gas for the region with its send out capacity of 1.2 billion cubic feet per day.

In recent months, the facilities owners (Repsol 75% and Irving Oil Limited 25%) have strategically invested \$43 million dollars to upgrade the terminal. The investment greatly reduced the quantity of boil-off gas (BOG) that was either flared or shipped at less than optimal pricing. In the short term the plant has essentially been repurposed to supply peak demand periods in New England when natural gas prices are more profitable. Nevertheless, the plant is sub-optimized.

Although the business case to construct this same terminal would be much more difficult to make today than it was in 2009, the plant remains an important regional energy asset. In July 2012, the Spanish energy company Repsol YPF SA announced its intention to sell its global LNG holdings. Repsol's interest in the Canaport LNG terminal is one of the four principal assets that the company currently has up for sale. Multiple sources have confirmed that firms from India (GAIL India Ltd.), China (Sinopec), Spain (Gas Natural), Britain (BG Group), Russia (Gazprom and Novatek), and France (GDF Suez) have expressed an interest in the facilities.

A number of these global investors who have indicated their interest in these assets have visited Canaport LNG and the region in recent weeks. According to industry stakeholders if a significant source of supply of natural gas were to be available, Canaport LNG is uniquely positioned to be modified to serve as both an import (gasification) and an export (liquefaction) facility. The facility already boasts the required pipeline infrastructure (Brunswick Pipeline), a series of tanks, a jetty and a site that would enable this investment faster and at less cost than anywhere else on the eastern seaboard. It has been estimated that the required investment to enable

**Figure 8: Canaport LNG facility in Saint John**



Source: Canaport

Canaport LNG to also serve as an export terminal would be in the range of \$2.5-\$4 billion depending on the scale of the facility. The potential reversal of the Maritimes & Northeast Pipeline and a combination of gas from the Marcellus and western Canada could provide the required supply. The facility would become a global supplier.

Although the concept is technically possible an enormous amount of capital would be required to finance the required piping and facility infrastructure. Regulatory, supply agreements and timing restraints could all prove to be equally difficult hurdles.

### 5.1.3 The Proposed LNG Export Terminal at Goldboro, Nova Scotia

Pieridae Energy Canada (Pieridae), a Canadian energy infrastructure development company, announced on October 24, 2012 the proposed development of a liquefied natural gas (LNG) export facility in Goldboro, Nova Scotia - located approximately 200 kilometres east of Halifax. Goldboro is the location of the natural gas plant used by the ExxonMobil to process Sable gas and is the commencement point of MN&P's 1400 kilometre pipeline system built to transport natural gas between developments in Nova Scotia, Atlantic Canada and the northeastern United States.

In 2010, a European firm had planned to build a three-tank inbound LNG terminal in Goldboro. However, those plans were scuttled due to the rapidly changing economics of natural gas as a result of the emergence of the vast supply of natural gas from North America's large shale gas developments.

Canaport's existing infrastructure would complement the required new investment to enable the facility to serve as an export terminal in addition to its import terminal capabilities. Canaport would appear to be better positioned to serve as an export terminal for LNG to the Atlantic Basin (Europe and South America) and beyond (India and Asia) than a site that is essentially a greenfield development such as the proposed Goldboro LNG project at this time as it would require all new infrastructure.

## 5.2 Filling the Pipe with Indigenous Natural Gas

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Although the Atlantica Centre for Energy continues to be supportive is supportive of the responsible development of the region's potential onshore natural gas resources. It is not the principal intent of this paper to focus on current debate that exists in Nova Scotia and New Brunswick regarding the social and environmental acceptability of developing the potential shale gas resource that may exist within the region. The Centre continues to advise that all stakeholders need to be engaged in an evidence-based dialogue to depolarize and depoliticize the discussion. It is the Centre's view that industry cannot lead this discussion.

The Centre does believe that two primary questions need to be addressed within this dialogue:

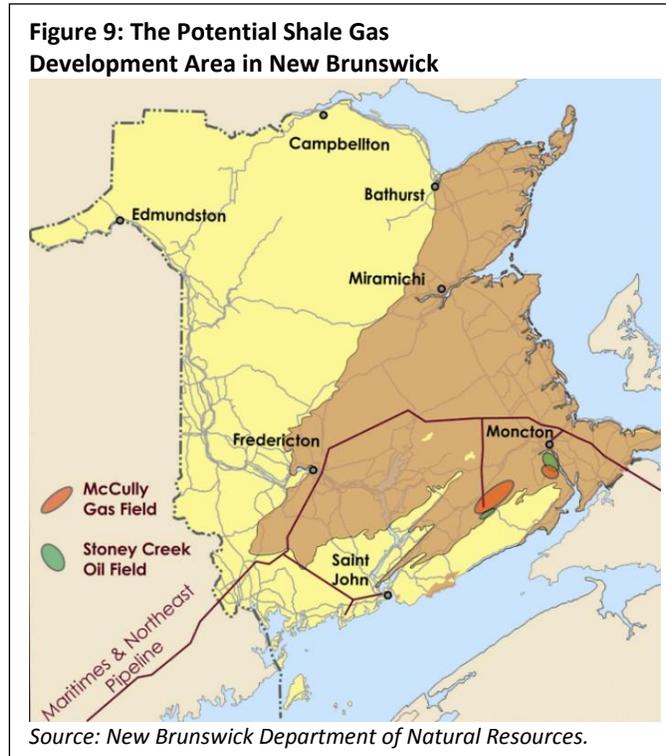
- 1) Is there in fact a significant and commercially viable discovery in the region? Further due diligence is required to validate; and
- 2) Does the Province (s) have a robust regulatory framework and the necessary enforcement capacity that ensures the protection of ground and surface water, the environment and human health?

One-quarter of United States' natural gas is produced from shale reserves today. It is expected that this percentage will double within the next 10-15 years. There are active exploration and production industries in over two dozen U.S. states and Canadian provinces. The Centre is aware that there are a few jurisdictions that have decided against developing this resource - such as Quebec and New York State. Internationally, although France is a notable exception, countries such as Poland and Australia are moving ahead. Australia is aiming to develop their vast reserves of shale gas to become a leading LNG exporter that will rival the global LNG leader Qatar.

According to New Brunswick government data, there is an estimated 80+ trillion cubic feet (TCF) of natural gas trapped inside shale beds in the McCully and Stoney Creek fields alone (Figure 9). If this gas is proven to be commercially viable, approximately 20% of this total would be retrievable. Comparatively speaking it would be 2-3 times the size of the original reserves found in the Sable offshore. This would be a quantity that would supply our existing and future markets for several generations and provide additional justification for the export terminal investment at Canaport LNG.

The industry believes that other regions within New Brunswick and Nova Scotia may also possess reserves, however work still needs to be completed to validate these claims.

The Centre agrees with Dr. Louis Lapierre's conclusion in his review of the Province of New Brunswick's proposed regulatory framework for the development of oil and gas - released in October 2012 - that there is a *Path Forward for the province and the region to responsibly develop* of its indigenous natural gas resources.



It is a near certainty that our region will become reliant on natural gas produced from shale within the next 10-15 years either from indigenous sources or from the Marcellus and Utica shale reserves.

### 5.3 Offshore natural gas is not likely a viable solution – at least in the in the short to medium term

Both Sable and Deep Panuke gas will not provide enough supply of natural gas to service the Maritime Provinces' market for more than a decade. According to government estimates, there are additional reserves of recoverable gas in the offshore of Nova Scotia but its exploration and production is suggested by many observers to be too costly relative to U.S. shale gas and that is not expected to change. Current firms exploring the offshore are principally looking for oil – not gas. There is one scenario that could prove more viable for offshore gas in the near term - a find near the existing Sable offshore platforms and infrastructure would be much less costly than a green-field project. For the time being, most observers appear to believe that offshore natural gas is not likely to be a viable option over the 10-20 year timeframe.

## 6. Conclusion: The long term view with a short term planning cycle

Historically, the energy sector has been one characterized by a long term planning horizon. Because of the substantial capital investment required, firms have been forced to make decisions on a 20-30 year basis or longer. The emergence of shale gas, the prolonged economic slump in western economies and other factors have fundamentally changed the landscape and also complicated long term energy planning.

The future utilization and development of natural gas represent critical issues in the development of the Atlantic Canadian economy and are critical to New Brunswick and Nova Scotia's economic future.

Based on the research in this paper, the "post Sable Island/Deep Panuke" environment for the supply scenario of natural gas is uncertain. The region's supply of natural gas could be comprised of imported gas from Marcellus and Utica shale (United States) and western Canada and/or it could come from a potential indigenous onshore gas development backstopped by natural gas from Canaport LNG. An outbound LNG liquefaction plant to export gas could provide the base load of gas to supply the region and foster the time and space for the local natural gas industry to develop.

One thing is for sure. The natural gas from offshore Nova Scotia is winding down and the planning for natural gas in the Maritimes post 2020 needs to start now. Putting off the planning for post 2020 only heightens the risk that the spread between the end user price of natural gas here versus other jurisdictions will significantly increase in the coming years impacting both the competitiveness of our industries and also our ability to maximize the economic benefits of our own resources. There is a critical need for government, communities and industry to come together to develop a comprehensive gas strategy which addresses our domestic gas needs, ensures responsible development and maximizes the economic opportunity of both our resources and infrastructure. The time to address these challenges and opportunities is now.