

LNG and Atlantic Canada's Opportunity

**Remarks to
Saint John Board of Trade, Atlantica Energy, Enterprise Saint John, and
Saint John Port Authority**

**Repsol YPF and Canaport
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By
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Thank you and good afternoon. It is an honour to be here today to talk about the economic benefits of LNG and what it means for Atlantic Canada and the community of Saint John.

I have been following developments in the natural gas markets for some time, particularly the potential for LNG to make inroads into the North American Markets. Research I've done suggests that Atlantic Canada has an opportunity to be one of the first to capture the growing North American LNG market¹. It is a pleasure to be here today to see Atlantic Canada and Saint John moving even closer to realizing this advantage.

Today I will share with you a few thoughts on how Atlantic Canada has a window of opportunity to be a prominent energy hub in the North American market, and what that means in terms of benefits for the region. I also want to show you why this is still a fleeting opportunity, and what Atlantic Canadians can do to maximize the benefits.

Most of you here are familiar with LNG -- liquefied natural gas -- which is an extremely cold liquid form of natural gas. By cooling this energy source to -256 degrees Fahrenheit, the volume is reduced 600 times. This enables remote, otherwise low value natural gas production to be connected to high value consuming markets through the liquefaction and shipping by specially designed large ocean tankers.

LNG Demand and Supply

The LNG business is undergoing unprecedented growth. Environmental concerns, the need to find additional supply sources to offset declining production in North America, and growth of the emerging economies are a few of the driving forces behind LNG's

¹ "Casting a Cold Eye on LNG: The Real Possibilities and Pitfalls for Atlantic Canada", The AIMS Oil and Gas Papers, Atlantic Institute for Market Studies, 2006. www.aims.ca

world wide expansion. The largest area of growth is in the Atlantic basin where the needs of the US and Europe are expected to support an average annual growth rate of 14% from today to 2015.²

From 1993 to 2003, the amount of LNG traded grew by 62%. Total LNG traded on a global basis is expected to nearly triple by 2015. Today two-thirds of the world's LNG is consumed in Asia with Japan being the biggest importer. By 2015, the US could well be among the largest importers of LNG, rivaling Japan.

On the supply side, Asia produces about 45% of the world's supply. But that is about to change. The Middle East, currently having just under 25% of global supply, will probably increase this share to nearly 28% in ten years. Atlantic suppliers will produce the remaining 36%, and that's up from today's 28%.

All in all, there is more than \$250 billion of spending going on in the LNG industry. Much of it is private investment, and not without risks.

There are over 60 proposed regasification terminals to be built in North America. Three are located in Atlantic Canada. If all the terminals proceeded as planned on the continent, receiving capacity would far outstrip demand. Even with the most optimistic LNG demand forecasts, it is clear that not all the projects will be built.

What makes a project more likely to be built than others? Here's a checklist of selected key success factors that drive the economics of a project.

An ideal terminal would:

- Be located close to consuming markets;
- have local support;
- satisfy safety criteria;
- be located in a jurisdiction with a stable business and regulatory environment;
- have access to pipeline transportation to move gas to markets;
- have deepwater accessibility all year round;
- have access to storage to mitigate demand swings;
- have access to reliable long term supplies, and
- have well structured contractual agreements that would mitigate supply, market and other risks.

² Michael D. Tusani, "Sheer Realities of LNG" Oil and Money: The End of Cheap Oil: Cost, Consequences and Opportunities, September 19, 2006

Atlantic Canada scores well against the critical success factors.

- It is close to consuming markets – especially the US Northeast and Eastern Canadian markets – which are both growing faster than the average of North American regions.
- It has potential access to existing transportation infrastructure to move the gas to higher priced markets like the US Northeast.
- It has local support – the three projects in Atlantic Canada – the Irving Oil-Repsol terminal at Canaport right here in Saint John, New Brunswick, the Anadarko terminal at Bear Head, Nova Scotia, and Keltic Petrochemical’s integrated petrochemical plant and LNG terminal at Goldboro, Nova Scotia, are located in industrial areas where local support is strong.
- It has a relatively stable regulatory and business environment. Two out of the three projects – Canaport and Bear Head -- have major environmental and regulatory approval while Keltic Petrochemicals is undergoing environmental assessment. Saint John is ranked by Canadian Business Magazine as one of the most attractive places to do business in Canada.
- In terms of market location, Atlantic Canada is thousands of nautical miles closer to some of the world’s most prolific supplies, including Qatar LNG, resulting in shipping cost savings.
- Thanks to Irving Oil’s partnership with Repsol, Canaport LNG is one of the few facilities in North America to have lined up long term supplies.

Why are these factors so critical to the LNG project? LNG is a capital intensive business. The regasification terminal is usually part of a large integrated value chain where the construction of several billion dollars worth of the extraction and liquefaction facilities, tankers, and the pipeline transportation infrastructure, occurs simultaneously. Economies of scale are important here and delays are costly. Few developers can afford to take risks if these critical success factors were not met.

Economic Benefits

Many of you are seeing economic benefits right here in Saint John. Activity is increasing thanks to spin-offs from the construction of the Canaport. Over the next couple of years, the project will generate 700 temporary construction jobs, translating into wages and indirect expenditures of \$39 million. Canaport, together with the \$1.4 billion refurbishment of the Point LePreau nuclear power generation facility will be major drivers of economic activity in the province for the next few years.

While impressive, the longer term benefits for all Atlantic Canada are even greater.

Having access to gas through an LNG terminal would offer:

- Energy Diversification and environmentally friendly options Canada is the largest per capita energy user in the world due to climate, distances and a resource based economy that is energy intensive. Reliable and competitively priced energy sources are critical to the social and economic well-being of all Canadians. Atlantic Canada currently depends on fuel oil, coal, nuclear power and hydro for its electricity generation and uses comparatively little gas in the energy mix – about 7 percent of all power generation capacity in New Brunswick and 13 percent in Nova Scotia. Increased gas supplies would offer environmentally clean burning options for Atlantic Canada's energy mix.
- Gas supply diversification Additional supplies of LNG would provide access to global supply sources for natural gas. The majority of gas consumed in Atlantic Canada comes from offshore Eastern Canada like Sable Island, where reserves are significant, but production is currently declining. Natural gas from other geographic sources offers assurance of continued reliable supply.
- Regional Prosperity A positive spin-off is more regional economic development. A conservative estimate of the multiplier effect indicates that every one dollar of project investment generates another one to two dollars of economic benefits.³ Thus spin-offs and benefits for a billion dollars of project investment like Canaport could amount as high as \$1.5 billion. These benefits include growth in economic activity in support industries and others ranging from manufacturing, services, and transportation down to retail spending.
- Access to an assured supply of competitively priced natural gas could lead to expansion of existing industries including oil refining and other manufacturing processes. Economic development could enhance the formation of new cluster industries, and attract a technical talent pool. The arrival of the families from Repsol represents a welcome addition to the talent pool where best practices can be shared.
- Stable and more competitively priced energy from diversified supplies could contribute to more predictable costs in doing business, particularly in the energy

³ Philip Cross and Ziad Ghanem, Multipliers and Outsourcing: How Industries interact with each other and affect GDP. *Canadian Economic Observer*, January 2006. Statistics Canada Catalogue No. 11-010. www.statcan.ca

intensive industries. In the long term, secure energy supplies at a competitive cost could enhance Atlantic Canada's global market position.

It's important to keep these long term benefits in mind because Atlantic Canada has a fleeting window of opportunity to capture this market.

- Atlantic Canada is not the only region vying for the new markets. There are more than 60 terminals being proposed in North America, of which ten are located in the US Northeast. Even though some projects currently face local opposition, with persistence, attitudes may change over time.
- The majority of proposed projects that are closer to fruition are located along the Gulf Coast because of favourable industrial zoning, strong local support and access to Henry hub, the most liquid and visible natural gas pricing point in North America. As these projects are built, it may become possible to delivery gas from the Gulf Coast to the US Northeast markets as economically as from Atlantic Canada – provided transportation capacity is available.
- Demand for gas in the US Northeast is expected to be the fastest growing in North America because of new gas fired power generation and population growth. But even with that growth, gas consumption in the area is expected to increase to a limited extent, from the current 5 to 6 Bcf/day by 2015. When you add up all the existing and proposed terminals to serve that market, there could be as much as 10 Bcf a day in additional receiving capacity. And that doesn't include terminals that have been announced in the past year.
- Markets are changing. One year ago, gas prices were \$14/mcf. At shipping costs of around \$3.75/Mcf the economics of an LNG terminal looked attractive. This week, gas prices fell below \$4.60 per million cubic feet at Henry Hub, a level not seen in four years. At the same time, shipping and construction costs have risen. Lower prices and rising costs may change the economics of some projects.
- There is no certainty of high gas prices supporting a project indefinitely. The Mackenzie Valley Gas Project exports were approved by the National Energy Board in the late 80s/early 90s after many delays, only to be cancelled due to the changed market conditions. If this project is approved in 2007, the first gas might flow in 2012, more than two decades after that initial approval. The delay resulted in a whole generation of lost benefits, not just a year or two.

These potential challenges highlight first mover advantage. The projects that line up the long-term supplies and the shipping, secure pipeline transportation, obtain regulatory

permits, and are able to manage their costs, will have first mover advantage. In a growing market with initially limited supplies, first movers generally enjoy higher prices, access to better customers, and economies of scale.

The Canaport project is certainly among the few in Canada that is far along. The next step is to obtain regulatory permits to build a pipeline and connect to existing transportation infrastructure.

What can Atlantic Canada do to maximize the potential benefits?

- The provinces should look at the long term benefits for Atlantic Canada as a whole, rather than individual local benefits. Access to reliable, environmentally responsible energy supply that allows for diversification of energy mix and dependence will create the infrastructure for Atlantic Canada to become a major Energy Hub. As other projects advance, it will be cheaper expand existing infrastructure rather than to start new projects.
- Atlantic Canada energy ministers should extend regional cooperation on energy matters to include opportunities associated with LNG. The groundwork has already been laid in planning Atlantic Canada's electricity supply future.
- More coordination could be made between government agencies, industry stakeholders and host communities to share information and resolve concerns.

In conclusion, Atlantic Canada is about to realize a huge opportunity. Out of the numerous proposed terminals in North America, only a handful are at an advanced stage of development, of which some are in Atlantic Canada.

It is important to consider the benefits to Atlantic Canada as a whole rather than focus on the local benefits of each individual project.

The benefits include access to competitively priced global gas supplies that would bolster Atlantic Canada's role as an energy hub in North America. Securing diversified and reliable supplies of natural gas could complement domestic supplies from offshore Atlantic Canada. Access to additional gas supplies allows for more environmentally friendly options in planning Atlantic Canada's energy future, and competitive energy prices that will support the regions energy intensive industries and regional development.

Repsol YPF and Canaport LNG are welcome additions to Saint John and Atlantic Canada. Canaport is in an enviable position that many other North American projects are still working hard to obtain. Canaport is one type of project that represents keys to Atlantic Canada's prosperity. This region is endowed with vast untapped resources, a business friendly climate and a talented labour pool. In a world of scarce commodities,

access to diversified, reliable, and competitively priced energy supplies to support economic growth is an attractive place to be.

Thank you.