



Canadian LNG Import Projects: Status as of September 2007

October 2007
Natural Gas Division
Petroleum Resources Branch
Energy Policy Sector



Natural Resources
Canada

Ressources naturelles
Canada

Canada

TABLE OF CONTENTS	2
LIST OF ACRONYMS	3
INTRODUCTION	4
CANADIAN LNG IMPORT PROJECTS	4
USEFUL LNG-RELATED LINKS	
Federal	6
Provincial	7
Canadian Port Authority	7
CANADIAN LNG PROJECTS	
Kitimat	9
Westpac	10
Westpac (Texada Island)	11
Rabaska	12
Cacouna.	13
Grande-Anse Inc	14
Canaport	15
Bear Head	16
Keltic Petrochemicals	17
Newfoundland LNG	18
LNG-RELATED PIPELINE PROJECTS	
Brunswick Pipeline	19
Kitimat-to-Summit Lake	20
Eastern Access - TQM Pipeline	21

LIST OF ACRONYMS

BAPE: Bureau d'audiences publiques sur l'environnement du Québec
BCEAO: British Columbia Environmental Assessment Office
Bcf: Billion Cubic Feet
CDN: Canadian
CEAA: Canadian Environmental Assessment Agency
CSR: Comprehensive Study Report
CTA: Canadian Transportation Agency
DFO: Department of Fisheries and Oceans
EC: ENvironment Canada
INAC: Indian and Northern Affairs Canada
LNG: Liquefied Natural Gas
MDDEP: Quebec Ministère du Développement durable, de l'Environnement et des Parcs
MNP: Maritimes and Northeast Pipeline
NEB: National Energy Board
PD: Project Description
PRPA: Prince Rupert Port Authority
RA: Responsible Authority
TC: Transport Canada
TQM: TransQuebec Maritimes Pipeline
US: United States

CANADIAN LNG IMPORT PROJECTS: STATUS AS OF MAY 2007¹

INTRODUCTION

North America has historically relied on indigenous natural gas supplies, with very small amounts of imported liquefied natural gas (LNG) from overseas to supplement its indigenous production. Today, however, the conventional reservoirs and producing areas of western Canada and the United States (US) Gulf Coast (which supply about 65% of North America's natural gas) are maturing, and high drilling rates are required to maintain production at current levels. Meanwhile, demand for natural gas continues to be robust.

In order to meet this expected growth in demand, new sources of natural gas supply, including increased LNG imports, will be required. There are nearly sixty LNG import projects proposed in North America. This report provides an update on the **ten** LNG import terminals and **three** natural gas pipelines (associated with LNG projects) proposed for Canada.

CANADIAN LNG PROJECTS

While Canada does not yet import LNG, there are **ten** proposals to construct LNG import facilities in Atlantic Canada (four projects), Quebec (three projects) and British Columbia (**three** projects), many of which are approved or involved in the environmental assessment (EA) or regulatory review process. The proposed LNG import facilities, from west to east, are:

- WestPac Terminals (Prince Rupert, British Columbia);
- **WestPac Terminals (Texada Island, British Columbia);**
- Kitimat LNG (Kitimat, British Columbia);
- Enbridge, Gaz Métro, and Gaz de France (Beaumont, Québec – Rabaska project);
- TransCanada and Petro-Canada (Gros Cacouna, Quebec – Cacouna Energy project);
- Énergie Grande-Anse (Saguenay, Quebec – Projet Grande-Anse);
- Irving Oil Limited and Repsol YPF (Saint John, New Brunswick –; Canaport LNG project);
- Keltic Petrochemicals (Goldboro, Nova Scotia);
- Anadarko Petroleum Corporation (Canso Strait, Nova Scotia – Bear Head LNG project); and,
- Newfoundland LNG (Grassy Point, Newfoundland & Labrador).

Four projects – Canaport LNG (Saint John, New Brunswick), Bear Head LNG (Port Hawkesbury, Nova Scotia) Kitimat LNG (Kitimat, British Columbia) and the Cacouna Energy Project (Gros Cacouna, Quebec) – have received federal and provincial EA approval, as well as the required permits to construct and operate their respective facilities. The most advanced project is the Canaport LNG terminal which has secured its LNG supply source and is under construction (expected to begin operations in November 2008). Kitimat and

¹Natural Resources Canada has prepared this report based on publicly-available information. Natural Resources Canada will strive to keep the information as up-to-date and accurate as possible but notes that this information may change pending further project developments.

Cacouna are currently seeking natural gas supply. The Bear Head project was cancelled in February, 2007 citing an inability to sign a contract for LNG supply.

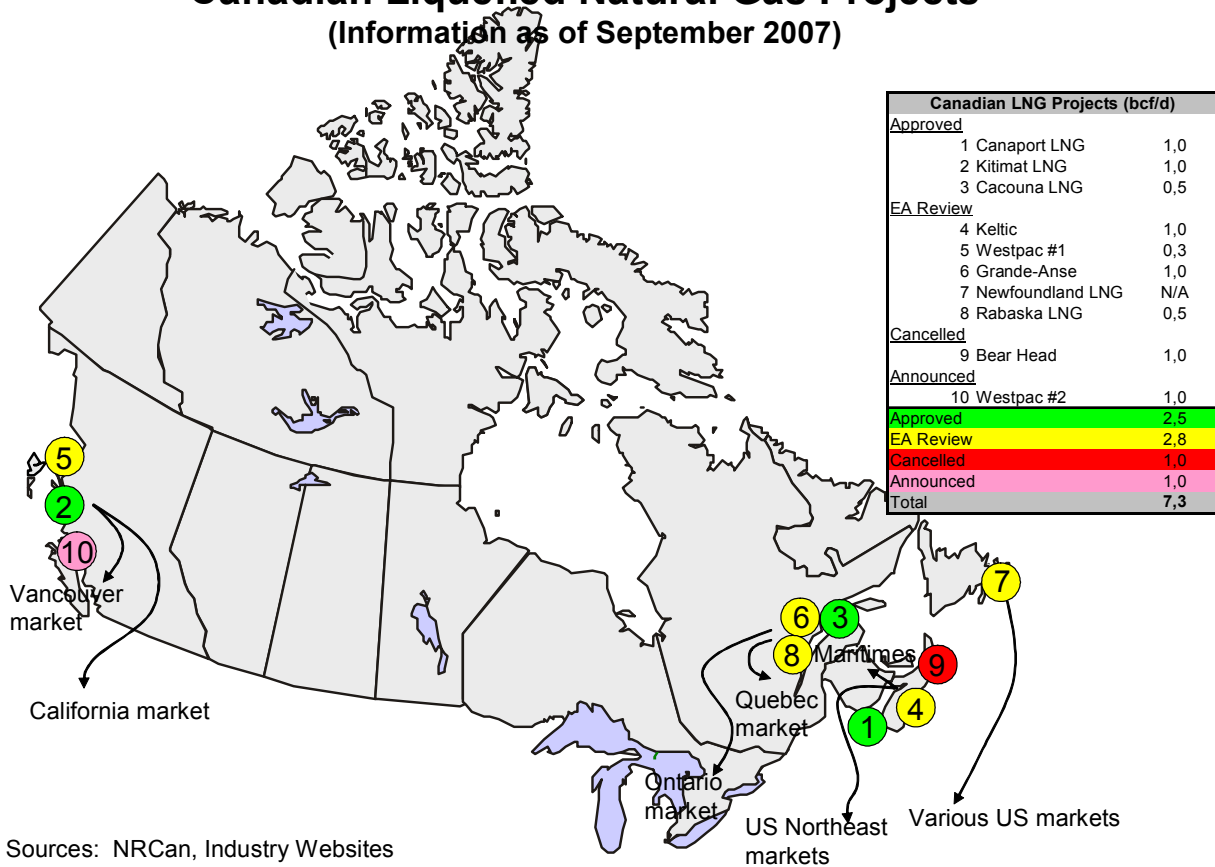
Two projects – Rabaska LNG (Beaumont, Quebec), and Keltic Petrochemicals / Maple LNG (Goldboro, Nova Scotia) – are in the latter stages of the EA / regulatory review process. Regulatory approvals are expected in 2007 and these LNG facilities could be in service in the 2010-2011 time frame.

Three projects – Énergie Grande-Anse (Saguenay, Quebec), Grassy Point LNG Transshipment and Storage Terminal (Placentia Bay, Newfoundland), and Westpac LNG (Prince Rupert, BC), are in the early stages of the EA / regulatory review process. Note: The Grassy Point LNG Transshipment and Storage Terminal in Newfoundland & Labrador is not an LNG import terminal but rather an LNG drop off and storage facility. Most recently, Westpac LNG announced a second project in BC – located on Texada Island – however, no regulatory filings have been made.

The LNG projects being contemplated for Atlantic Canada are primarily destined to supply the US Northeast market, as the demand for natural gas in Atlantic Canada is met entirely by natural gas production from offshore Nova Scotia. The Quebec LNG projects would provide an alternative source of natural gas supply to markets in eastern Canada, as Quebec is almost entirely dependent on natural gas supply from western Canada. The projects being proposed in BC are largely to supply natural gas to consumers on Vancouver Island and the Lower Mainland.

The locations and details of the terminals are shown in the map below.

Canadian Liquefied Natural Gas Projects (Information as of September 2007)



The combined send-out capacity of all proposed Canadian LNG projects is 7.3 Bcf/d. Before the end of this decade, it appears likely that the North American natural gas supply picture will include at least one, perhaps two Canadian LNG import facilities. Ultimately, market forces will determine how many facilities will be required and built in Canada.

These LNG import facilities would provide a new source of natural gas supply for Canadian consumers, direct economic benefits in the form of employment and taxes, and an opportunity for Canadian pipelines to expand. In addition to the approximately CDN \$500-1,000 million each in investment, the development of any Canadian LNG import terminal will require access to pipeline infrastructure to deliver natural gas from the LNG terminal to consuming markets. In some circumstances, this will mean the expansion, extension or reversal of an existing pipeline system, while in other cases, this will require that a new pipeline system be built.

A brief description and status update on each of the ten proposed Canadian LNG import projects and the associated three natural gas pipelines is provided in the Appendix.

USEFUL LINKS

For accurate and up-to-date information regarding the federal-provincial EA status of the proposed Canadian LNG import projects, please visit the following Web Sites. These Web Sites also provide useful information about the federal (NEB, CEAA) and provincial (British Columbia, Quebec, New Brunswick, Nova Scotia, and Newfoundland) EA / regulatory processes.

Federal

- National Energy Board
<http://www.neb-one.gc.ca>
- Canadian Environmental Assessment Agency
<http://www.ceaa.gc.ca>

Provincial

- British Columbia Environmental Assessment Office
<http://www.eao.gov.bc.ca>
- Ministère du Développement durable, de l'Environnement et des Parcs
http://www.mddep.gouv.qc.ca/index_en.asp
- Nova Scotia Environment and Labour
<http://www.gov.ns.ca/enla/>
- New Brunswick Department of the Environment and Local Government
<http://www.gnb.ca/0009/0377/0002/0002-e.asp>

- [Newfoundland and Labrador Department of the Environment and Conservation](http://www.gov.nl.ca/)
<http://www.gov.nl.ca/>

Canadian Port Authorities

- Prince Rupert Port Authority
<http://www.rupertport.com/>
- Port Saguenay
<http://www.portsaguenay.ca/>

October 2007

Natural Gas Division

Petroleum Resources Branch

Energy Policy Sector

Appendix

Canadian LNG Import Projects and Associated Pipeline Projects

Kitimat LNG Inc. (Kitimat, British Columbia)
(www.kitimatlng.com)

Project Description

- Kitimat LNG Inc. (Kitimat), a Calgary-based company, is proposing to construct, own, and operate a CDN \$500 million LNG import terminal at Bish Cove near the Port of Kitimat. Kitimat's LNG terminal will include marine offloading, LNG storage, natural gas liquids recovery, re-gasification and send-out facilities to deliver natural gas into a new pipeline – The Pacific Trail Pipeline will connect regasified LNG from the terminal to the Spectra Energy Transmission Pipeline (formerly the Duke Energy Transmission System), the main pipeline running through British Columbia. **Send-out capacity will be up to 1 bcf/d (scaled up from 0.6 bcf/d).**
- Kitimat is expected to commence operations in 2010. The construction of the LNG terminal is estimated to generate approximately 700 jobs and 50 permanent full-time positions once the facility is in commercial operation.

Regulatory Overview

- Kitimat's LNG project is subject to an EA under both the *Canadian Environmental Assessment Act (CEAA)* and the *British Columbia Environmental Assessment Act (BCEAA)*. The project also requires a 'Project Approval Certificate' under the *BCEAA*.
- The British Columbia Environmental Assessment Office (BCEAO) and federal Responsible Authorities (RA's) – Transport Canada (TC), Environment Canada (EC), and Indian and Northern Affairs Canada (INAC) – harmonized the EA process and prepared a joint Comprehensive Study Report (CSR). The report, which serves as a common basis for federal and provincial EA decisions on the Project, was submitted to the federal Minister of the Environment and the provincial Minister of the Environment and the Minister of Energy, Mines, and Petroleum Resources on April 26, 2006.
- Kitimat received a provincial EA certificate from the BCEAO on June 6, 2006 and its federal EA approval on August 1, 2006. Kitimat is now the only LNG terminal on the west coast of Canada or the US that is fully permitted.

Other

- On April 26, 2006, Kitimat and the Haisla First Nation (Haisla) finalized an impacts and benefits agreement. The agreement provides the Haisla the opportunity to purchase equity in Kitimat LNG, minimum standards of employment, including training, as well as procurement opportunities.
- Kitimat LNG continues to work on securing LNG supply for the terminal. Kitimat has one potential contract with Australia's LNG Ltd. that would fill about 25 per cent of the terminal.

WestPac LNG Corporation (Prince Rupert, British Columbia)
(www.westpaclng.com)

Project Description

- Calgary-based WestPac LNG Corporation (WestPac) is proposing to construct an LNG receipt and transshipment terminal on Ridley Island, an industrial park about 11-km outside the northern port city. The CDN \$350 million LNG facility would use the existing docking facilities at Ridley Island, which were once used to ship coal.
- WestPac plans to offload LNG at Ridley Island, where it will be transferred to insulated storage tanks before being moved onto smaller barges for delivery to markets on Vancouver Island and in the Lower Mainland.
- In December 2004, WestPac entered into a 30-year land lease agreement with the Prince Rupert Port Authority (PRPA) to develop its LNG import terminal on PRPA lands. The agreement gives WestPac the exclusive rights for LNG development on 100 hectares of industrial land on Ridley Island. The minimum initial send-out capacity for the LNG import facility is estimated at 150 MMcf/d, with a maximum size capacity of 500 MMcf/d. It is expected that the LNG terminal would create approximately 300 jobs during construction and about 30 jobs once operational in 2011.
- After an internal assessment, WestPac's central development focus has shifted to its second proposed LNG terminal on Texada Island, with Ridley Island playing a future role depending on economics, market supply and demand. The Texada Island project best enables WestPac LNG to service the gas needs of the BC coastal and lower mainland populations and better utilize existing gas pipelines and electricity transmission infrastructure. Further details on the Texada Island project are provided on the following page.

Regulatory Overview

- On June 6, 2006 WestPac filed its official Project Description (PD) with the PRPA, formally beginning the provincial regulatory review and EA process for the project. The PRPA began its Comprehensive Review Study (CSR) on December 12, 2006.
- Under section 9 of the *Canadian Environmental Assessment Act*, and EA is required for this project because the Prince Rupert Port Authority may provide federal lands for the purpose of enabling this project to be carried out.

WestPac LNG Corporation (Texada Island, British Columbia)
(www.westpaclng.com)

Project Description

- WestPac's second announced terminal (and primary focus) is proposed for Texada Island, British Columbia.
- Texada Island LNG will be a combined natural gas and power generation facility positioned to receive LNG from southeast Asia, the Pacific Rim and the Middle East.
- The project will include a marine jetty capable of safely receiving LNG carriers up to 165,000m³ capacity, smaller capacity barges and tugboats, with transfer piping to onshore LNG storage tanks. WestPac expects up to about 36 LNG carriers a year to arrive at its facility, or one every ten days or so.
- Onshore, there will be two full-containment LNG storage tanks, each with a gross volume of 165,000m³ capacity for storing LNG. There will also be an LNG re-gasification plant with a capacity of up to 500 million cubic feet per day; in-tank and external LNG export and trans-shipment pumps; a vapour handling system, and pipeline interconnection and compression.
- The location offers access to the Vancouver Island natural gas pipeline, and nearby connection to the BC Hydro power grid midpoint on the island.

Regulatory Overview

- WestPac will formally begin the regulatory review and environmental assessment process for the project in Fall 2007. WestPac's first step will be to file a Project Description with the BC Environmental Assessment Office (EAO) and the Canadian Environmental Assessment Agency. The EAO will coordinate a single harmonized federal-provincial environmental assessment, based on the provincial process.

Gaz Métro / Enbridge Inc. / Gaz de France Rabaska LNG Project (Beaumont, Quebec)
(www.rabaska.net)

Project Description

- Developed by Gaz Métro, Enbridge, and Gaz de France, the Rabaska LNG project consists of building a CDN \$840 million, 500 MMcf/d LNG import terminal in the Ville Guay-Beaumont area, Quebec. The Rabaska project includes a terminal comprised of two storage tanks, a jetty to receive LNG tankers, pumping, compression and vaporizing facilities, and a pipeline of about 50 km to connect the LNG terminal to the existing Trans Québec & Maritimes Pipeline in St. Nicolas, Quebec.
- Gaz Métro and Enbridge intend to fund the project together, while Gaz de France will arrange natural gas supplies and provide shipping support. The bulk of natural gas will be purchased by Gaz Métro and Enbridge to serve the growing needs of its Quebec and Ontario customers. The remaining natural gas could be purchased by customers in Quebec, Ontario and the US.
- The LNG facility, which is expected to be in-service by mid-2010, will generate about 70 full-time positions.

Regulatory Overview

- The Rabaska LNG project is subject to an EA under both the *CEAA* and the *Quebec Environment Quality Act*. The main permitting agency for the project is the Quebec Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP), who must issue a "Certificate of Authorization" for the project to proceed.
- In January 2005, the federal Minister of the Environment determined that a review panel was the most appropriate level of EA for the Rabaska LNG project. The Minister's decision was based on the report and recommendation submitted by the RA's – the National Energy Board (NEB), Department of Fisheries and Oceans Canada (DFO), Transport Canada and the Canadian Transportation Agency (CTA) – concerning the determination of the EA process for the project.
- On January 13, 2006, the proponents informed the NEB that it would not file an application to the NEB for the LNG facilities, but rather only for the related pipeline expansion. Subsequently, on February 7, 2006, the NEB notified CEAA that it would no longer be an RA for the EA review process for the Rabaska LNG project until such time as the NEB becomes officially triggered by the filing of a pipeline application under the *NEB Act*.
- Rabaska filed its preliminary environmental impact study (EIS) on January 25, 2006 with MDDEP and the Canadian Environmental Assessment Agency (CEAA). Joint federal-provincial (i.e., Bureau d'audiences publiques sur l'environnement du Québec (BAPE) – CEAA) public hearings took place in December 2006 and February 2007. In July 2007, the Joint Panel Report was approved and submitted to the federal and provincial Ministers of the Environment.
- A federal government response to the panel's recommendations is being prepared as per CEA Act requirements.

TransCanada / Petro-Canada Cacouna Energy Project (Gros Cacouna, Quebec)
(www.cacounaenergy.ca)

Project Description

- TransCanada, in partnership with Petro-Canada, is proposing to construct a CDN \$1 billion (revised upward from CDN \$660 million due to a general run up in labour and material costs), 500 MMcf/d LNG terminal on Gros Cacouna Island in Quebec, about 15 km northeast of Rivière-du-Loup. The facility would be adjacent to the existing harbor on land leased from Transport Canada.
- From the LNG import facility, natural gas would be delivered, via a new 240-km pipeline, to the existing TQM Pipeline. In January 2007, TransCanada applied to the NEB to add a new receipt point at the site of its planned Gros Cacouna terminal. The NEB approved the new receipt point.
- Provided the necessary approvals are received, it is expected that the LNG import facility will be in-service by 2010 creating about 35 full time positions to operate the LNG import facility.
- In October 2004, Petro-Canada and Russian giant Gazprom, signed an MOU to investigate the possibility to jointly develop a liquefaction plant. Gazprom is expected to announce in 2007 whether Petro-Canada will be granted a share of the LNG from its Baltic LNG Project, scheduled for 2011-2012.
- Most recently, TQM submitted a Preliminary Information Package to the NEB for the construction of a pipeline required to connect LNG supplies at Gros Cacouna to the existing TQM system. TQM plans to file an application with the NEB in December 2007 with construction beginning in late 2009 for an in service date of late 2010. A full discussion of the project is provided on page 21.

Regulatory Overview

- The Cacouna LNG Project is subject to an EA under both the *CEAA* and the *Quebec Environment Quality Act*. The MDDEP must also issue a “Certificate of Authorization.”
- In August 2005, the federal Minister of the Environment determined that a review panel was the most appropriate level of EA for the Cacouna LNG project. The Minister's decision was based on the report and recommendation submitted by the RA's – Transport Canada and DFO – concerning the determination of the EA process for the project.
- The EIS was filed with the MDDEP and the CEAA in May and June 2005, respectively. On February 22, 2006, the BAPE announced the commencement of the 45-day public consultation period in Quebec. On March 23, 2006, the Minister of the Environment of Quebec informed the BAPE that they would be required to hold public hearings. The two-part public hearing took place in May and June 2006, respectively. On December 12, 2006, the Panel Report was made public.
- The project was awarded federal and provincial regulatory approval in June 2007.

Energie Grande-Anse Inc. (Saguenay, Quebec)
(www.energiegrandeanse.com)

Project Description

- Quebec-based Énergie Grande-Anse Inc. propose to develop and build an LNG import terminal in the Port of Grande-Anse, along the Saguenay River in Quebec. The project will be carried out in collaboration with the Saguenay Port Authority (SPA), owner of the land where the terminal will be constructed. SPA is also responsible for the construction and operation of the maritime aspect of the project.
- The facility is expected to have an initial send-out capacity of about 1Bcf/d. Énergie Grande-Anse is expected to commence construction in the spring of 2009 with operations scheduled to begin in mid-2012. Construction of the LNG terminal is estimated to generate more than 1,200 direct and indirect jobs during construction and 100 direct jobs once operational.

Regulatory Overview

- The Grande-Anse Project is subject to an environmental assessment under both the *Canadian Environmental Assessment Act* (CEAA) and the *Quebec Environment Quality Act*. In addition, the ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) du Québec must issue a "Certificate of Authorization" for the project to proceed.
- In September 2005, Énergie Grande-Anse submitted a preliminary project description to the Canadian Environmental Assessment Agency, which commenced the federal EA process. Under the *CEAA*, an EA is required for this project because the Saguenay Port Authority (SPA) may provide federal lands for the purpose of enabling this project to be carried out.
- In November 2006, the Saguenay Port Authority updated the Notice of Commencement indicating that it is an RA (providing federal lands). It also indicated that it will conduct a Comprehensive Study of the project. The next step is for the RA's to make a track decision and recommend whether the EA should be continued by means of a CSR or if the project should be referred to a Review Panel.
- The Canadian Environmental Assessment Agency will act as the Federal Environmental Assessment Coordinator for this environmental assessment. The federal EA process is to be coordinated with the provincial review.

Irving Oil Limited / Repsol YPF SA Canaport LNG project (Saint John, New Brunswick)
(www.canaportlng.com)

Project Description

- Irving Oil Limited (Irving) and Repsol YPF SA (Repsol) plan to develop a CDN \$750 million, 1 Bcf/d, LNG import facility near Irving's existing Canaport deepwater marine terminal in Saint John, New Brunswick. The Canaport terminal receives crude oil tankers from overseas and is delivered to Irving's Saint John refinery, the largest in Canada.
- Irving's LNG import terminal would be located approximately 105 km from the US border. A portion of the LNG will be sold into Atlantic Canada and Irving plans to consume some of the natural gas as fuel in its nearby crude oil refinery. A larger portion will be shipped to the US Northeast.
- The terminal is scheduled to begin operations in late 2008. At commissioning, the terminal will have a send-out capacity of 1 Bcf/d of natural gas, with a peak capacity of 1.2 Bcf/d and will be expandable to 2 Bcf/d. There will be up to 700 jobs created during peak construction of the facility. Once in operation in late 2008, the LNG facility will create approximately 40 permanent jobs.
- Clearing of the site was completed in May 2005. The initial phase of construction, which involves site excavation and leveling, began in September 2005. Onshore construction commenced in mid-2006. As of September 2007, construction was approximately 50% complete.
- Canaport LNG announced in September 2007 that a third storage tank will be constructed along side its two existing tanks. The third tank means another 12 months of construction jobs for hundreds of workers.

Regulatory Overview

- The project was subject to an EA under both the *CEAA* and *New Brunswick's Clean Environment Act*. On August 6, 2004, Irving received federal EA approval. The federal Minister of the Environment issued a positive EA decision statement and referred the project back to the RA's – Transport Canada, DFO and Environment Canada – for appropriate decision-making. Days later, on August 10, 2004, the New Brunswick Department of the Environment and Local Government granted Irving provincial EA approval. Irving was also required to obtain other necessary federal and provincial approvals, permits or authorizations before commencing work on the undertaking.

Other

- In June 2005, Irving and Repsol entered into an agreement to develop the LNG import terminal. The agreement formed a new company, Canaport LNG, which will construct, own and operate the terminal. Repsol, based in Spain, is one of the US' largest suppliers of LNG.
- An indirect subsidiary of Repsol, Repsol Canada, has contracted for 100% of the capacity of the Canaport LNG terminal on a long-term basis and will be the importer of LNG into Canada, the shipper of re-gasified LNG on the Brunswick Pipeline in Canada and the exporter of re-gasified LNG to the US.

Anadarko Petroleum Corporation Bear Head LNG project (Strait of Canso, Nova Scotia)
(www.anadarko.com)

Project Description

- Anadarko proposed to construct a 1 Bcf/d LNG import facility on the Strait of Canso, near Point Tupper, Nova Scotia. On August 12, 2004, Anadarko acquired Access Northeast Energy Inc. (ANE), a private Canadian company whose sole project was its proposed LNG import facility at Bear Head, Nova Scotia.
- The LNG facility was expected to deliver natural gas to markets in Atlantic Canada and the US northeast at an estimated cost of CDN \$650 million.
- However, in February 2007, Anadarko officially mothballed its Bear Head LNG terminal stating that it was unable to secure LNG supply for the terminal. This is the first terminal in Canada to be cancelled.

Regulatory Overview

- The project was subject to an EA under both the *CEAA* and the *Nova Scotia Environment Act*. On August 9, 2004, ANE secured federal-provincial EA approval. The proponent was also required to obtain other necessary federal and provincial approvals, permits or authorizations before commencing work on the undertaking. On November 21, 2005, the Nova Scotia Utility and Review Board issued a Permit to Construct to Anadarko to construct tank base concrete foundations for its proposed LNG facility at Bear Head, Nova Scotia.

Keltic Petrochemicals / Maple LNG (Goldboro, Nova Scotia)
(www.kelticpetrochemicals.ca)

Project Description

- Halifax-based Keltic Petrochemicals (Keltic), in partnership with Maple LNG is proposing to develop an integrated petrochemical and LNG facility in Goldboro, Nova Scotia. Maple LNG will develop and control 100% of the proposed LNG import terminal, while providing Keltic with access to the natural gas liquids for its own petrochemical production.
- Keltic's integrated project consists of a petrochemical plant, an LNG import terminal and natural gas storage facility, de-methanizing units, power generation up to 200 megawatts, as well as offsite infrastructure. The project will be located on land in the Goldboro Industrial Park to be purchased from the Municipality of the District of Guysborough.
- Construction of the complex is expected to generate more than 3,000 jobs during construction and 500 permanent full-time jobs upon initial operation. Construction is expected to take approximately three years. The complex is estimated to cost CDN \$4 billion. Pending regulatory approvals, project construction is expected to begin in the spring of 2008 with operations scheduled to commence in 2011.
- Negotiations with LNG suppliers are expected to begin in January 2008.

Regulatory Overview

- Keltic's project is subject to an EA under both the *CEAA* and the *Nova Scotia Environment Act*. In January 2005, Keltic submitted a Project Description to the Nova Scotia Department of Environment and Labour. The Nova Scotia Minister of Environment and Labour determined that the proposal, including the petrochemical plant, the LNG facility, the public highway and the electric generating facility, is subject to a Class 2 individual EA under the *Nova Scotia Environment Act*. The Class 2 process includes public hearings.
- In January 2006, following public consultation and review of a report and recommendation from the RA's – Transport Canada and DFO – the federal Minister of the Environment determined that a comprehensive study process was the most appropriate level of EA.
- On February 21, 2007, the Nova Scotia Environmental Assessment Board recommended that the Nova Scotia Minister of Environment and Labour approve the Maple LNG terminal and petrochemical plant facilities, subject to conditions included in the Board's Final Report.
- Subsequently, on March 14, 2007, the provincial Minister of Environment and Labour issued its EA approval and associated terms and conditions for the project.
- TC and DFO will now continue with their respective CSRs and submit their final report to the Minister of the Environment. At that time, the public will have an opportunity to provide comments on the findings and recommendations of each RA's report before the Minister renders his final decision.

Newfoundland LNG Ltd. Grassy Point LNG Transshipment and Storage Terminal (Placentia Bay, Newfoundland)

(www.newfoundlandlng.com)

Project Description

- Newfoundland LNG Ltd., jointly owned by North Atlantic Pipeline Partners, LP (50%) and LNG Partners, LLC (50%), proposes to construct and operate an LNG transshipment and storage terminal at Grassy Point, at the head of Placentia Bay, Newfoundland and Labrador.
- This LNG project, unlike the other proposals in Canada, is not an LNG import terminal and will not involve re-gasification of LNG. Rather, this facility will operate as a component of the LNG delivery chain, providing transshipment and storage services. The terminal will provide storage and offloading for larger LNG vessels for transfer to smaller LNG carriers for distribution to eastern LNG import terminals, such as the Boston area terminal which only accepts 125,000 m³ tankers.
- All customers using the facility will be responsible for obtaining their own LNG supply. It is expected that all clients either have equity gas or have long-term supply arrangements with third-party producers. Construction will start immediately on receipt of all regulatory approvals, expected in 2007. The three year construction stage is expected to create 300 jobs in the region.

Regulatory Overview

- The Grassy Point LNG Transshipment and Storage Terminal is subject to the *CEA Act* and the Newfoundland and Labrador *Environmental Protection Act* (EPA). On November 22, 2006 Newfoundland LNG officially filed its official Project Description (PD) with the CEAA and the Newfoundland and Labrador Department of Environment and Conservation formally beginning the regulatory review and EA process for the project.
- Under section 5 of the *CEA Act*, an EA is required for this project because Transport Canada may provide federal lands for the purpose of enabling this project to be carried out and may issue an approval under paragraph 5(1)(a) of the *Navigable Waters Protection Act* and because Fisheries and Oceans Canada may issue a permit or license under subsection 35(2) of the *Fisheries Act*.
- On February 27, 2007, Transport Canada and the Department of Fisheries and Oceans commenced a Comprehensive Study of the project. On May 10, Newfoundland LNG released the schedule for public consultation. The RA's will make a track decision recommendation to the Minister of Environment as to whether the EA should remain on the Comprehensive Study track or if the project should be referred to a Panel Review.
- On September 11, 2007, the Minister of the Environment announced that the project will continue as a comprehensive study. Transport Canada and Fisheries and Oceans Canada will now continue their respective comprehensive studies and submit a final report to the Minister of the Environment. At that time, the public will have an opportunity to comment on the findings and recommendations of the report before the Minister renders his final decision.

Emera Brunswick Pipeline Company Ltd. – Brunswick Pipeline Project
(www.brunswickpipeline.com)

Project Description

- On May 23, 2006, Emera Brunswick Pipeline Company (Emera) filed an application with the NEB for a Certificate of Public Convenience and Necessity under section 52 of the *NEB Act* to construct and operate the Brunswick Pipeline Project. The 145-kilometre pipeline will connect Irving's Canaport LNG terminal to the U.S. portion of the Maritimes and Northeast Pipeline (MNP) at the international border near St. Stephen, New Brunswick, and then on to Baileyville, Maine.
- The Brunswick project has a total estimated capital cost of CDN \$350 million and can deliver approximately 0.855 Bcf/d. Repsol Energy signed an agreement with Brunswick whereby Repsol will pay for the transportation of 0.754 Bcf/d of re-gasified LNG from the Canaport Terminal. The Canaport Terminal is owned by Repsol (75%) and Irving Oil (25%).
- The Brunswick Pipeline is a stand-alone, separately owned pipeline project. It is not integrated with the system owned and operated by MNP in Canada.
- On May 15, 2006, MNP transferred all of its rights and interests in the Brunswick Pipeline Project to EBPC. EBPC is wholly owned by Emera Inc., an energy and services company based in Atlantic Canada with over \$4 billion in assets. Emera Inc. has been an investor in MNP since its inception in 1999. Emera's interest currently account for 12.9% of MNP.
- In May 2007, Emera reported it had awarded a conditional contract to Louisbourg Pipelines Inc. to construct the Brunswick Pipeline.

Regulatory Overview

- The Project was referred to a review panel pursuant to section 25 of the *CEA Act*. The NEB process substituted for an EA by a review panel as provided for under section 43 of the *CEA Act*. This is the first application of the substitution provisions of the *CEA Act* since the proclamation of the original Act in 1995, and it is considered a trial to assess application of these provisions. Substitution by the NEB process aims at a more efficient and effective application of the federal EA process to the proposed project by avoiding duplication and ensuring that the public has opportunities to present its views to the NEB panel.
- The NEB held an oral public hearing in Saint John, New Brunswick in November 2006. Subsequently, on April, 11, 2007, the NEB released its EA Report on the project. The NEB concluded that the project is not likely to result in significant adverse environmental affects, if mitigation measures are implemented.
- The *CEA Act* requires the Government to respond to the EA report. A government response was released on May 24, 2007. The NEB approved the project and released its *Reasons for Decision* document on May 31, 2007.
- The project is fully approved. Emera expects to begin construction in the fall of 2007 and complete construction in November 2008.

**Pacific Trail Pipelines Limited Partnership – Kitimat to Summit Lake (KSL)
Pipeline Project**

http://www.png.ca/company_ksl.cfm

Project Description

- On July 17, 2006, Pacific Northern Gas Ltd. (PNG) and Kitimat LNG Inc. formed the Pacific Trail Pipelines Limited Partnership. Pacific Trail Pipelines, a 50-50 joint venture, has been established for the purpose of developing a new natural gas transmission pipeline system from Kitimat to Summit Lake, British Columbia (the KSL Project). The primary purpose of the KSL Project is to serve the proposed Kitimat LNG facility.
- The KSL Project involves the construction of 463-km of 36 inch diameter pipeline and any required compression facilities, at an estimated cost of CDN \$1.2 billion. Re-gasified LNG would be transported from the proposed Kitimat LNG import terminal at Bish Cove to the Spectra Energy Transmission BC pipeline system (formerly the Duke Energy Transmission System) at Summit Lake, near Prince George. From there, natural gas can flow west into Alberta or south into the BC Lower Mainland and Washington state, and on to other US markets such as California.
- Transmission system capacity on PNG's existing system would increase from about 115 MMcf/d to enable Pacific Trail Pipelines to accept delivery of up to 1 Bcf/d of natural gas from the LNG facility. Project development activities, including engineering design, route selection and environmental studies, will now be continued by Pacific Trail Pipelines.
- Upon completion of the KSL Project, PNG's existing mainline transmission system will be transferred to the Partnership and integrated with the KSL Project facilities. The KSL Project will make the PNG pipelines bi-directional, thus enabling natural gas to flow from west to east (as well as east to west) for delivery to (or from) the Spectra System.

Regulatory Overview

- The KSL Pipeline Project is subject to review under both the BC Environmental Assessment Act, and the *CEA Act*. The comprehensive review by federal and provincial government agencies is facilitated through a single, harmonized environmental assessment process by the B.C. Environmental Assessment Office (EAO). The KSL Project is also subject to legislation and regulations administered by the B.C. Utilities Commission and the B.C. Oil and Gas Commission.
- A 30-day public review of the draft Terms of Reference was held between March 15-April 16, 2007. On May 18, 2007, the British Columbia Environment Assessment Office approved the final Terms of Reference for the pipeline. The KSL Project's Environmental Assessment Certificate Application was filed in July 2007 with the BC EAO. The application was screened for 30 days to ensure it fully addressed the approved terms of reference. This is followed by a legislated 180 day Provincial review process that is harmonized with a Federal review process.
- A decision on the Environmental Assessment Certificate is expected in the first quarter of 2008. Once the necessary approvals in place, construction and clearing are scheduled to start in October 2008 with the pipeline in service in November 2010.

Eastern Access Pipeline Project

(N/A)

Project Description

- Trans Quebec & Maritimes Pipeline Inc. (TQM Pipeline), acting on behalf of TQM Pipeline Limited Partnership, proposes to construct the TQM Pipeline Eastern Access Pipeline Project. This Project consists of approximately 230 km of pipeline that will connect the proposed Cacouna LNG terminal to the existing TQM Pipeline in the Saint-Nicolas neighbourhood of the City of Lévis (St-Nicholas), Quebec.
- TQM seeks to commence construction of the Project in late 2009 and complete work in late 2010 to meet the proposed in-service date of Cacouna.

Regulatory Overview

- TQM plans to file an application with the NEB in December 2007 seeking a Certificate Of Public Convenience and Necessity, authorizing the construction and operation of the facilities associated with the Project. TQM will proceed with field studies, environmental and socio-economic assessments and other supporting work this fall in support of the application.