# Canadian Liquefied Natural Gas (LNG) Import Projects: September 2005 Update

### INTRODUCTION

This report is an update of Natural Resources Canada's April 2005 report, *Canadian Liquefied Natural Gas Import Projects*. To meet projected natural gas demand requirements, North America will require increased imports of liquefied natural gas (LNG). More than fifty LNG import terminals are being proposed in the US, Canada, Mexico, and the Bahamas. This report provides background information and an update on the seven LNG import terminal projects that are proposed for Canada.

# NORTH AMERICA'S NEED FOR INCREASED LNG IMPORTS

Canada operates within an integrated North American natural gas market, where natural gas can be bought from many supply sources and delivered to any market through an extensive North American pipeline grid. Canadian natural gas requirements are met by domestic sources, as Canada produces natural gas in excess of what is required for domestic consumption. In comparison, the US consumes more natural gas than it produces, therefore natural gas imports are required to make up the difference. US natural gas imports are satisfied by pipeline (i.e., via Canada and Mexico) and by large ocean tankers that carry LNG (e.g., via Trinidad and Tobago).

Historically, natural gas has been relatively expensive to convert to LNG and end-use prices in North America were too low to support the economics and development of an LNG import facility. However, prices have risen, production from conventional North American natural gas basins is flattening, and demand for natural gas continues to be strong. This situation has opened the door for increased LNG imports. In addition to higher domestic natural gas prices, technological advances, which have lowered the cost of liquefying and transporting LNG, are enabling LNG to become more cost competitive with conventionally-produced North American natural gas.

The US is the key market for growth in the LNG industry, as the US currently accounts for 25% of the natural gas consumed in the world every day. There are five active LNG import terminals in the US. In 2004, the US imported a record amount of LNG, receiving 652 billion cubic feet (Bcf), accounting for nearly 3% of US natural gas consumption. Analysts predict that LNG imports will account for 15 - 20% of US natural gas consumption by 2025. This will require that existing US LNG import facilities are expanded and that new facilities are built. In addition to the expansions occurring at existing US LNG import facilities, there are currently more than fifty proposals for the development of LNG import facilities in the Bahamas, Canada, Mexico, and the US, almost all of which are entirely destined to supply natural gas to US markets.

### CANADIAN LNG IMPORT PROJECTS: SEPTEMBER 2005 UPDATE

Currently, Canada does not import any LNG. In order to supply natural gas for Canadian needs, as well as to export additional natural gas supplies to the US, there are seven proposals to construct LNG import facilities in Canada, six of which are at various stages of the environmental assessment (EA) / regulatory review process<sup>1</sup>. The proposed LNG import facilities, from west to east, are:

- WestPac Terminals (Prince Rupert, 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);
- Irving Oil Limited and Repsol YPF (Saint John, New Brunswick Canaport LNG project);
- Keltic Petrochemicals (Goldboro, Nova Scotia); and,
- Anadarko Petroleum Corporation (Canso Strait, Nova Scotia Bear Head LNG project).

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



# **Proposed Canadian LNG Import Terminals**

<sup>&</sup>lt;sup>1</sup>For more information on the federal EA process, see Annex 1.

In August 2004, two of these proposals – Irving Oil's and Anadarko Petroleum Corporation's (formerly Access Northeast Energy's) – received federal-provincial EA approval. Four other LNG projects – Gaz Métro et al.'s, TransCanada's, Keltic Petrochemicals', and Kitimat LNG's – are in the early stages of the EA review process. The final project (WestPac Terminals in BC) has not yet begun the EA / regulatory review process.

The LNG projects being contemplated for Atlantic Canada are, for the most part, "import-for-reexport projects," as the demand for natural gas in Atlantic Canada is met entirely by natural gas production 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 in the Lower Mainland.

A description and status of the proposed Canadian LNG import projects, from west to east, is provided below.

### British Columbia

a. WestPac Terminals Inc. (Prince Rupert, British Columbia) (www.westpacterminals.ca)

Calgary-based WestPac Terminals Inc. (WestPac) is proposing to construct an LNG import facility 60 kilometres (km) north of Kitimat at Prince Rupert, BC. The CDN \$200 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 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 250 acres of industrial land on Ridley Island.

The minimum initial send-out capacity for the LNG import facility is estimated at 150 million cubic feet per day (MMcf/d), with a maximum size capacity of 500 MMcf/d. The facility is scheduled to be operational by 2009, following the completion of all detailed design, construction, and regulatory approvals. The facility is expected to create about 300 direct jobs during construction and 30 full-time jobs once operational.

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

Kitimat LNG Inc. (Kitimat), a Calgary-based company, is proposing to construct, own, and operate

an LNG import terminal in Emsley Cove, 18 kilometers south 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 the Pacific Northern Gas (PNG) pipeline and ultimately into the Duke Energy (Westcoast) transmission pipeline system. Initial natural gas send-out capacity will be 610 MMcf/d – 110 MMcf/d for local industrial loads and 500 MMcf/d to enter the Westcoast pipeline via the PNG pipeline.

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 EA process commenced in September 2004, when the proponent submitted a project description to the BC Environmental Assessment Office (BCEAO). In June 2005, the proponent submitted its formal EA application to the BCEAO, which marked the start of a 180-day review period after which time the province will decide whether to issue the required EA certificate.

The project is also subject to a Comprehensive Study Report (CSR) under the *CEAA*. Pursuant to the *CEAA*, Transport Canada and Environment Canada, as the federal responsible authorities (RA's) for the project assessment, must ensure that public consultation is carried out. The public consultation period ended May 25, 2005. In accordance with the *CEAA*, the RA's must now provide a report to the federal Minister of the Environment with a recommendation to either continue with the EA by means of a comprehensive study or refer the project to a mediator or a review panel. After this time, the proponent can prepare and submit the necessary EA documentation.

In July 2005, Kitimat announced that it had signed an Engineering, Procurement, and Construction (EPC) contract with Tractabel Gas Engineering (TGE). TGE was one of six firms bidding to become Kitimat's lead contractor for EPC activities. TGE will immediately begin work on the proposed LNG facility's front-end engineering and design (FEED) study. A FEED study is a standard and comprehensive pre-construction assessment encompassing detailed site specifications, work plans, schedules and specific costs.

Construction of the LNG terminal is estimated to generate 700 jobs and 50 permanent full-time positions once the facility is in commercial operation. Pending receipt of appropriate approvals, construction is expected to begin by spring 2006, with full operation set to commence in early 2009. Kitimat secured \$50 million in an initial round of financing in January 2005. The cost of the project is estimated at CDN \$500 million.

### Quebec

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

Developed by Gaz Métro, Enbridge, and Gaz de France, the Rabaska LNG project consists of

building a CDN \$700 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 the LNG tankers, pumping, compression and vaporizing facilities, and a pipeline of approximately 50 km to connect the LNG terminal to the existing facilities of Trans Québec & Maritimes Pipeline Inc. (TQM) in St. Nicolas, Quebec.

The Rabaska LNG project is subject to an EA under both the *CEAA* and the *Quebec Environment Quality Act*. In June 2004, Gaz Metro et al. officially registered a project description with the Canadian Environmental Assessment Agency (CEAA) and the Quebec Ministry of the Environment (MENV).

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–concerning the determination of the EA process for the project. This report was issued following a public consultation period.

In April 2005, the federal Minister of the Environment released the guidelines for the preparation of the EA document, which were submitted to the project proponents. The CEAA prepared the guidelines in collaboration with federal authorities and in accordance with the provisions of the Canada-Quebec Agreement on Environmental Assessment Cooperation.

The guidelines were subject to a 30-day public consultation period which ended in March 2005. They were finalized further in consideration of public comments received. The guidelines describe the issues that the proponents of the project will take into account when preparing their EA document. The Minister of the Environment will announce, in the coming months, the next steps in the process, which will include the appointment of review panel members and their terms of reference.

In addition to the federal-provincial EA, Gaz Métro et al. is expected to be seeking an NEB certificate to construct and operate the LNG terminal and the 50 km interconnecting pipeline. An application to the NEB is expected in late 2005 or early 2006.

Gaz Métro and Enbridge plan to fund the project together, while Gaz de France will arrange natural gas supplies and provide shipping support. The bulk of natural gas from the Rabaska LNG project will be purchased by Gaz Métro to serve the growing needs of its Quebec customers and by Enbridge to serve its Ontario customers. The remaining natural gas will be purchased directly by industrial and commercial customers in Quebec and Ontario. Any excess natural gas could potentially flow to the US northeast.

During the three year construction period, approximately 3,460 direct and indirect jobs will be created. The facility, which is expected to be in-service by 2009, will generate about 70 full-time

positions.

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

TransCanada, in partnership with Petro-Canada, is proposing to construct a CDN \$660 million, 500 MMcf/d LNG import facility on Gros Cacouna Island in Quebec, about 15 kilometres northeast of Rivière-du-Loup. The LNG terminal would be adjacent to the existing harbor on land leased from Transport Canada.

The Cacouna Energy Project is subject to an EA under both the *CEAA* and the *Quebec Environment Quality Act*. In addition, the MENV must issue a "Certificate of Authorization" for the project to proceed.

In September 2004, the proponents submitted a project description to CEAA and the MENV. The project is subject to a comprehensive study assessment under the *CEAA*. Pursuant to the *CEAA*, Transport Canada and DFO, as the federal RA's for the project assessment, must ensure that public consultation is carried out. The public consultation period ended March 18, 2005.

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 – DFO and Transport Canada – concerning the determination of the EA process for the project. This report was issued following a public consultation period.

Draft federal guidelines, which will guide the preparation of the EA, will soon be made public in order to obtain comments. The guidelines will then be finalized and forwarded to the proponents so they can complete their EA.

The EA was filed with the Quebec Minister of Sustainable Development, Environment and Parks on May 16, 2005 and was filed with the CEAA on June 10, 2005. The Minister will indicate to the proponent when to begin the public information and consultation period pursuant to the *Quebec Environment Quality Act*.

TransCanada intends to operate the LNG facility, while Petro-Canada would provide the necessary natural gas supplies. On October 12, 2004, Gazprom (a Russian natural gas company) and Petro-Canada, signed a Memorandum of Understanding to investigate the possibility to jointly develop a liquefaction plant near St. Petersburg, Russia, which would deliver LNG to the Gros Cacouna LNG facility.

From the LNG facility, natural gas would be delivered, via a new 240 km pipeline, to the existing natural gas pipeline infrastructure in Quebec. Quebec, Ontario and the US northeast are the anticipated markets for any LNG delivered to the Gros Cacouna facility. Provided the necessary

approvals are received, it is expected that the LNG import facility will be in service by 2009. Cacouna Energy will create up to 35 new permanent positions to operate the LNG import terminal.

### Atlantic Canada

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

Irving Oil Limited (Irving) and Repsol YPF (Repsol) plan to develop a CDN \$750 million, 1 billion cubic feet per day (Bcf/d), LNG import facility near Irving's existing Canaport deepwater marine terminal in Saint John, New Brunswick. The Canaport terminal currently receives crude oil tankers from overseas in excess of 400,000 tonnes. The crude oil is delivered to Irving's Saint John refinery, the largest in Canada.

Irving's LNG project was subject to an EA under both the *CEAA* and the *New Brunswick's Clean Environment Act*. On August 6, 2004, Irving received federal and provincial EA approvals. Irving expects to obtain all the remaining federal and provincial permits, authorizations and approvals before the end of this year.

In June 2005, Irving Oil and Repsol entered into a definitive agreement to develop the LNG import terminal. The agreement forms a new company, Canaport LNG, which will construct, own and operate the terminal. Repsol, based in Madrid, Spain, is one of the US' largest suppliers of LNG.

Repsol will be responsible for providing all of the LNG and will hold the capacity of the terminal. Irving will market the LNG in Atlantic Canada and Repsol will market the LNG elsewhere in Canada and in the US.

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, while Irving plans to consume some of the natural gas as fuel in its own nearby refinery. Additional volumes could be sold to local paper mills and power plants, as well as the US northeast.

The proponents have completed the FEED study for the LNG terminal and plan to request proposals for EPC contracts in July 2005. Construction is expected to begin in late 2005 or early 2006. There will be up to 700 jobs created during peak construction of the facility. Once in operation in 2008, the LNG facility will create about 40 permanent jobs.

b. Keltic Petrochemicals (Goldboro, Nova Scotia) (www.kelticpetrochemicals.ca)

Halifax-based Keltic Petrochemicals (Keltic) is proposing to develop an integrated petrochemical and LNG facility in Goldboro, Nova Scotia. 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 related utility and offsite infrastructure and systems. The project will be located on land in the Goldboro Industrial Park to be purchased from the Municipality of the District of Guysborough.

Keltic's project is subject to an EA under both the *CEAA* and the *Nova Scotia Environment Act*. In August 2004, Keltic submitted a project description to the CEAA, which commenced the EA process. In January 2005, Keltic submitted a project description to the Nova Scotia Department of Environment and Labour, which commenced the provincial EA process.

On April 8, 2005, the province provided the EA Terms of Reference (TOR) for the proposed petrochemical plant and LNG facility to the proponent. Keltic has up to two years to prepare the EA report in accordance with the TOR.

The project is also subject to a CSR under the *CEAA*. DFO and Transport Canada, as RA's for the project, each have a responsibility to ensure that an EA is conducted in accordance with the *CEAA*. The RA's must ensure that public consultation is carried out. The public consultation period ended July 3, 2005.

The RA's must now recommend to the federal Minister of the Environment whether the EA should be continued by means of a comprehensive study or whether the project should be referred to a mediator or review panel.

If the Minister of the Environment determines that the EA will continue as a CSR, an EA will be undertaken. The RA's will delegate the preparation of the CSR to the proponent. The CSR will be prepared, and then submitted to the Minister of the Environment and to the CEAA.

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 of the complex is expected to take approximately three years. The complex is estimated to cost CDN \$4 billion and could be in operation by 2009.

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

On August 12, 2004, US-based Anadarko Petroleum Corporation (Anadarko) acquired Access Northeast Energy Inc. (ANE), a private Canadian company whose sole project was its proposed 1 Bcf/d LNG import facility at Bear Head, Nova Scotia.

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. All remaining federal and provincial permits and approvals are expected before the end of 2005.

As a major US oil and natural gas producer with operations in North America, Qatar, Algeria, and

Venezuela, Anadarko has access to natural gas supplies, which could be used to supply the LNG facility. Anadarko is looking to forge long-term natural gas supply agreements with a third party, but has yet to sign any deals.

In August 2005, Anadarko announced that CB&I had been awarded a lump-sum turnkey contract contract for the design and construction of two 180,000 cubic meter storage tanks (the equivalent of approximately 3.8 Bcf of natural gas per LNG storage tank) required for the LNG facility. CB&I's work scope for the project includes the turnkey engineering, procurement and construction of the storage tanks, including foundations, insulation, paint, and piping to grade. Engineering and procurement activity for the project is under way.

The LNG facility is expected to deliver natural gas to markets in Atlantic Canada and the US northeast. The estimated cost of the LNG facility is CDN \$650 million and is expected to be in commercial operation by 2008.

# ACCESS TO PIPELINE INFRASTRUCTURE

In addition to the approximately CDN \$500 million each in investment, the development of any Canadian LNG import terminal, will require pipeline takeaway capacity in order to deliver natural gas from the terminal to consuming markets. In some circumstances, this will mean the expansion (i.e., added compression), extension or reversal of an existing pipeline system, while in other cases, this will require that a new pipeline system be built.

<u>Maritimes and Northeast Pipeline (MNP)</u> (www.mnpp.com)

The Maritimes & Northeast Pipeline (MNP) is a 1,300 km transmission pipeline built to transport natural gas from the Sable Offshore Energy Project (SOEP), located 160 km offshore Nova Scotia, to markets in Atlantic Canada and the US northeast. Built in 1999, MNP consists of 30" and 24" sections of pipe that run from the SOEP's natural gas processing plant in Goldboro, Nova Scotia, through the Maritime provinces of Nova Scotia and New Brunswick and then southbound into Maine, New Hampshire, and Massachusetts.

The Canadian portion of the pipeline was built with a design capacity of 610 MMcf/d and supplies natural gas throughout New Brunswick and Nova Scotia via four lateral pipelines – Saint John and Moncton, New Brunswick and Point Tupper and Halifax, Nova Scotia. The US section has a design capacity of 498 MMcf/d and interconnects with three US pipeline systems – the Portland Natural Gas Transmission System, Tennessee Gas Transmission, and Algonquin Gas Transmission.

According to the Canada-Nova Scotia Offshore Petroleum Board, raw natural gas production from the SOEP totaled 151 Bcf in 2004, a decline of 8% from 165 Bcf in 2003, and 15% from its peak of 193 Bcf in 2002. As a result, natural gas flows on MNP have been declining since 2002. MNP's

current throughput is approximately 420 MMcf/d, or about 69% of total design capacity.

In early 2005, MNP held an open season to gauge market interest in transportation service for incremental supplies of natural gas that could become available through LNG or other natural gas supply projects in the regoin. In response to the open season, customers requested natural gas transportation services for approximately 1.5 Bcf/d for deliveries in Canada and the US northeast.

In July 2005, MNP signed agreements with Anadarko to transport 793 MMcf/d of natural gas from the proposed Bear Head LNG terminal near Point Tupper, Nova Scotia, and with Repsol to transport 732 MMcf/d from the proposed Canaport LNG terminal near Saint John, New Brunswick.

MNP will commence work on detailed engineering design and stakeholder consultation for a system expansion. MNP expects to apply to the NEB and the Federal Energy Regulatory Commission by late 2005 or early 2006.

In addition to building new pipelines to connect the planned Nova Scotia and New Brunswick LNG receiving terminals to its existing pipeline, MNP will require additional compression and possibly looping on its existing system in the US.

#### SUMMARY TABLE

The table below provides a summary of the seven LNG import terminal projects being proposed for Canadian sites.

Propolsed Canadian LNG Import Terminals							
Proponent(s) (Name)	Location	Cost (\$CDN)	Send-Out Capacity (Bof/d)	Earliest Start Date	Status/Notes		
APPROVED PROJECTS							
Anadarko Petroleum Corporation (Bear Head LNG)	Canso Strait, NS	\$650 million	1.00	2008	Received federal-provincial environmental assessment approval in August 2004.		
Irving Oil Limited/Repsol YPF (Canaport LNG Project)	Saint John, NB	\$750 million	1.00	2008	Received federal-provincial environmental assessment approval in August 2004.		
PROJECTS UNDER REVIEW							
Enbridge/Gaz Métro/ Gaz de France (Rabaska)	Beaumont, QC	\$700 million	0.50	2009	Undergoing federal-provincial environmental assessment. Process commenced June 2004.		
Keltic Petrochemicals	Goldboro, NS	\$4 billion	1.00	2009	Undergoing federal provincial environmental assessment. Process commenced August 2004.		
Kitimat LNG Inc.	Kitimat, BC	\$500 million	0.61	2009	Undergoing federal provincial environmental assessment. Process commenced August 2004.		
Trans Canada/Petro-Canada (Cacouna Energy Project)	Gros Cacouna, QC	\$660 million	0.50	2009	Undergoing federal-provincial environmental assessment. Process commenced September 2004.		
ANNOUNCED PROJECTS							
Westpac Terminals Inc.	Prince Rupert, BC	\$200 million	0.30	2009	Project not yet under environmental assessment / regulatory review.		
TOTAL CANADA			4.91				
SOurces: NRCan industry press, and company websites. Note: (1) Integrated retrochemical plant and LNG import terminal							

## CONCLUSION

Both industry and government analysts project continued growth in North American demand for natural gas and a decreasing ability for domestic natural gas producers to meet that demand. Greater LNG imports represent one way to satisfy this expected growth in demand. Before the end of this decade, it appears likely that the North American natural gas supply picture will include at least one or two Canadian LNG import facilities.

### **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 will also provide useful information about the federal (NEB, CEAA) and provincial (British Columbia, Quebec, New Brunswick and Nova Scotia) EA / regulatory processes.

#### <u>Federal</u>

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

#### Provincial

- British Columbia Environmental Assessment Office
  <u>http://www.eao.gov.bc.ca</u>
- Ministère du Développement durable, de l'Environnement et des Parcs <u>http://www.mddep.gouv.qc.ca/index\_en.asp</u>
- Nova Scotia Environment and Labor 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

### Annex. 1

### Major Steps in Federal Environmental Assessment (EA) Process

The *Canadian Environmental Assessment Act (CEAA)* requires a federal environmental assessment (EA) when a federal authority<sup>1</sup> has a specified decision-making responsibility in relation to a project, also known as a "trigger" for an EA. For example, when a federal authority must provide a license, permit or approval that is listed in the *Law List Regulations,* then an EA is required.

- 1. Proponent prepares and submits a project description to CEAA;
- 2. Identify the responsible authorities<sup>2</sup> (i.e., federal departments with a decision-making responsibility) and expert departments for the EA;
- 3. Responsible authorities determine the type<sup>3</sup> (i.e., screening, comprehensive study, review panel) and scope of EA (i.e., a *'Scoping Document'* is prepared);
- 4. Public invited to comment on *Scoping Document*;
- 5. After public consultation, responsible authorities submit report and recommendation<sup>4</sup> (i.e., *'EA Tracking Decision Report'*) to the Minister of the Environment;
- 6a. Minister of Environment refers the project to responsible authorities to continue with comprehensive study or refers the project to a mediator or review panel;
- 6b. If the project is referred to a review panel, draft guidelines are issued, followed by a public consultation before the issuance of final guidelines by the Minister of the Environment to the proponent;
- 7a. Proponent prepares EA documentation (usually called an Environmental Impact Statement) in conformity to the scope of the EA as prescribed by the federal government;
- 7b. Public consultation on the comprehensive study or public hearings for a project referred to a review panel;
- 8. Minister of Environment issues an EA decision statement and refers the project back to the responsible authorities for appropriate decision making; and,
- 9. Responsible authorities issue permits, authorizations or licenses.

<sup>2</sup>A federal authority whose actions or powers trigger the environmental assessment of a particular project.

<sup>3</sup>An LNG project is of a type prescribed by *Comprehensive Study List Regulations*, which infers that the project is subject to a comprehensive study.

- <sup>4</sup>a. Report to the Minister of Environment regarding:
- (i) the scope of the project, and the factors to be considered in its assessment,
- (ii) public concerns in relation to the project,
- (iii) the potential of the project to cause adverse environmental effects, and
- (iv) the ability of the comprehensive study to address issues relating to the project; and,
- b. Recommend to the Minister to continue with the EA by means of a comprehensive study, or to refer the

project to a mediator or review panel.

<sup>&</sup>lt;sup>1</sup>In the context of the *CEAA*, the term federal authority refers to a federal body (e.g., a department or agency) that may have expertise or a mandate relevant to a proposed project.

Canadian LNG Import Projects Federal EA Review Process						
Project Sponsor(s) and Location	Type of Federal EA	Stage in EA Review Process				
Irving Oil and Repsol YPF – Saint John, New Brunswick	Comprehensive Study	9				
Anadarko Petroleum Corporation – Canso Strait, Nova Scotia	Screening	9				
Gaz Métro / Gaz de France / Enbridge Inc. – Beaumont, Quebec	Review Panel	7a				
TransCanada and Petro-Canada – Gros Cacouna, Quebec	Review Panel	6b				
Kitimat LNG Inc. – Kitimat, British Columbia	Comprehensive Study	5				
Keltic Petrochemicals – Goldboro, Nova Scotia	Comprehensive Study	5				
WestPac Terminals Inc. – Prince Rupert, British Columbia	Not yet applicable	Not yet under EA review				