



**EB-2010-0302**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O.1998, c. 15 (Schedule B) pursuant to section 90(1);

**AND IN THE MATTER OF** an application by Enbridge Gas Distribution Inc. for an order granting leave to construct a natural gas pipeline in the Township of St. Clair, Lambton County.

**BEFORE:** Marika Hare  
Presiding Member

## **DECISION AND ORDER**

Enbridge Gas Distribution Inc. (“Enbridge” or the “Company”) filed an application with the Ontario Energy Board (the “Board”) on December 17, 2010, under section 90 of the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B (the “Act”) for an order granting leave to construct approximately 3,500 meters of 4 segments of extra high pressure pipeline, to enhance the connections between Dow Moore, Corunna, and Seckerton natural gas storage pools in the Township of St. Clair in Lambton County (“Pipeline Project”). The Board has assigned the application file number EB-2010-0302.

For the reasons set out below, the Board finds the construction of the proposed pipeline to be in the public interest and grants leave to construct on the terms and conditions (Conditions of Approval) set out in this Decision. The Board’s Conditions of Approval are attached as Appendix A.

### **The Proposed Pipeline**

The four proposed pipeline segments are required to deliver and take away gas to and

from the Seckerton, Corunna or Dow Moore storage reservoirs, and the Corunna Compressor Station. The proposed routes for the four segments are described below.

The first segment is approximately 1,900 meters of NPS 20 steel pipeline (“Interconnect Pipeline”). The Interconnect Pipeline will connect to the existing Dow Moore Pool Line via a new metering station (“Dow Moore Metering Station”), and then to two metering stations at the Seckerton and Corunna storage reservoir sites (“Seckerton Metering Station” and “Corunna Metering Station”, respectively).

The second segment is approximately 1,500 meters of NPS 20 steel pipeline. This pipeline will connect to the gas wells in the Seckerton storage reservoir through new lateral connections, and the pipeline will tie-in to the Seckerton Metering Station.

The third segment is approximately 50 meters of NPS 20 steel pipeline (“Seckerton Pool Line Station Tie-In”). The Seckerton Pool Line Station Tie-In will connect the existing NPS 20 steel Seckerton pool line to the Seckerton Metering Station.

The fourth segment is approximately 50 meters of NPS 16 steel pipeline (“Corunna Pool Line Station Tie-In”). The Corunna Pool Line Station Tie-In will connect the existing NPS 16 steel Corunna pool line to the Corunna Metering Station.

A map showing the location of the proposed pipeline segments route is attached as Appendix “B”. Construction is proposed to start in June 2011. The in-service date is planned for September 2011.

The Pipeline Project is a component of Enbridge’s storage enhancement project which also includes: construction of a replacement pipeline for the Corunna Pool Gathering Pipeline; and increasing operating pressure (“delta pressuring”) of the Corunna and Seckerton storage pools. Enbridge stated in the pre-filed evidence that Board approvals are not required for these two components.

Enbridge also stated in its pre-filed evidence that the storage enhancement project is being undertaken as part its unregulated storage business and is financially underpinned by the Company’s shareholders.

## The Proceeding

The Board issued a Notice of Application and Hearing (“Notice”) on January 20, 2011 which Enbridge served and published in accordance with the Board’s direction.

In response to the Notice, the Board received a letter of comment, dated February 5, 2011, from Mr. Tom Wilson on his own behalf and on behalf of Mr. Joe Wellington. Mr. Wilson and Mr. Wellington, landowners in the affected storage pool areas, requested “an oral hearing to be held locally”. On February 9, 2011, the Board received a letter from Mr. Wellington requesting observer status. The Board granted observer status to Mr. Wellington. Union Gas Limited requested and was granted intervenor status in this proceeding.

As there were no compelling reasons given for holding an oral hearing, the Board, as is typically the case, decided to proceed by way of a written hearing. A proceeding schedule was set out in Procedural Order No. 1 issued on February 23, 2011. In accordance with the procedural schedule the following steps were completed: Board Staff filed interrogatories (“IRs”) on February 28, 2011; Enbridge responded to the IRs on March 3, 2011; Board staff filed submissions on March 9, 2010 and Enbridge filed reply submissions on March 11, 2010.

Board staff supported Enbridge’s application subject to the conditions Board Staff proposed as part of its interrogatories and written submissions.

Section 96 of the Act provides that the Board shall make an Order granting leave if the Board finds that “the construction, expansion or reinforcement of the proposed work is in the public interest”. When determining whether a project is in the public interest, the Board typically examines the need for the project, the economics, impact on ratepayers, environmental impact, the impact on land owners and pipeline design technical requirements.

The following issues defined the scope of the proceeding:

Is there a need for the proposed pipeline?

Are there any undue negative rate implications for Enbridge’s rate payers caused by the construction and operation of the proposed pipeline?

What are the environmental impacts associated with construction of the proposed pipeline and are they acceptable?

Are there any outstanding landowner matters for the proposed pipeline routing and construction?

Is the pipeline designed in accordance with the current technical and safety requirements?

How will Enbridge meet the provincial regulatory requirements for increasing operating pressure (“delta pressuring”) of Corunna and Seckerton pools?

The term “delta pressuring” means operating a storage pool above the discovery pressure which is defined as pressure in the reservoir at the initial discovery.<sup>1</sup>

The Board notes that Board staff had proposed a set of conditions which Enbridge has agreed to including a condition related to the increased operation pressure. The Board addresses this particular condition below.

### **Need for the Proposed Pipeline**

The Pipeline Project will add about 4.5 billion cubic feet (“Bcf”) of storage capacity to Enbridge’s market base storage services. It is part of a series of storage enhancement projects which may add approximately 17.5 Bcf of unregulated storage capacity. Enbridge stated that market demand for incremental storage will determine the timeline for developing the full 17.5 Bcf additional capacity. The demand for the 4.5 Bcf of new storage has been secured in Enbridge’s contracts executed on December 15, 2010. These contracts were acquired through Enbridge’s open seasons held in March and November 2010.

The Board is satisfied that the need for the proposed pipeline is supported by demand secured in the executed contracts for 4.5 Bcf of additional market based storage.

### **Cost of the Pipeline**

Enbridge has indicated that the project is funded by Enbridge’s shareholders and will not be part of the regulated rate base. Enbridge’s evidence did not address the

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<sup>1</sup> Exhibit K.1.1 page 5, Union Gas Limited, Technical Conference Board File No. EB-2008-0038

economic feasibility of the project and construction costs estimates. In response to Board staff interrogatory number 1 Enbridge confirmed that the cost for the construction of the Pipeline Project is outside of the Cost of Service and/or Incentive Regulatory Methodology applications for rate setting of the regulated utility and in accordance with the Natural Gas Electricity Interface Review (“NGEIR”).

Enbridge noted that; “Consistent with the NGEIR Decision, this project is funded by Enbridge’s shareholders...” Enbridge stated on the record that it is preparing a report on the cost allocation between regulated and unregulated storage services which will be filed in March 2011 with the Earnings Sharing Mechanism proceeding. In response to a Board staff interrogatory Enbridge indicated that its forthcoming report will address cost allocation but will not address transactional services revenues. Enbridge explained that this is consistent with Enbridge’s commitment to the Board in the EB-2010-0042 Settlement Agreement (page 9) wherein it agreed to file “an analysis of the appropriate allocation of costs of regulated and unregulated storage operations.” Enbridge further stated that due to the limited capacity of unregulated storage, Enbridge does not currently generate transactional services revenue from unregulated storage. However, should it commence offering transactional services Enbridge expects to file with the Board its proposed method for managing the transactional services revenues of its regulated and unregulated storage operations.

The Board finds that Enbridge’s evidence on the treatment of this unregulated Pipeline Project is in accordance with the NGEIR decision. The Board finds that the Proposed Pipeline has no effect on Enbridge’s ratepayers as it is part of Enbridge’s unregulated operations and associated costs are not part of Enbridge’s regulated business and will not be included in Enbridge’s rate base.

### **Environmental Matters**

Stantec Consulting Inc. (“Stantec”) conducted an environmental and routing study and completed the “Dow Moore, Corunna and Seckerton Pipeline Project Environmental Report” (“ER”) in November 2010. The ER was completed in accordance with the Board’s Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario (2003). Stantec filed an Addendum to the ER, dated December 16, 2010 (“Addendum”). The ER and the Addendum were reviewed by the Ontario Pipeline Coordinating Committee (“OPCC”). Enbridge stated that the construction of the pipeline will be conducted pursuant to the recommendations

of the ER, the OPCC, Enbridge's Construction Manual and the Contract Specifications.

The Addendum to the ER included a recommendation from the Ministry of Natural Resources, Southern Region, District Office, Aymler ("MNR District Office") dated December 9, 2010 that Stantec obtain more information, either by field survey or from secondary sources, on the following: (i) Species at Risk ;(ii) Significant Wildlife Habitats;(iii) Significant woodlands; (iv) Significant wetlands; (v) Significant valleylands; and (vi) Petroleum resources. These were the only outstanding matters from the OPCC review of the ER.

In response to a Board staff interrogatory, Enbridge filed copies of its correspondence with the MNR's District Office and outlined its commitment to address all of the MNR District Office's concerns, as noted above, and collect additional information as requested by the MNR District Office. Enbridge also explained that the construction schedule will not compromise the timing for the field survey and that the field surveys themselves would not delay the construction schedule for the pipeline.

In reply submissions Enbridge explained that during construction "certain activities may need to be rescheduled to comply with the requirements of the Ministry of Natural Resources". Enbridge also noted that it does not foresee changing the proposed in-service date.

The Board finds that the evidence supports the appropriate mitigation and restoration measures required to construct the pipeline, including adjusting timing of construction activities to accommodate the recommendations by the MNR District Office. To ensure appropriate implementation of all the recommendations in the ER and the issues raised by the MNR District Office in the OPCC review the Board included the following condition of approval:

- 1.3 Enbridge shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee ("OPCC") review.

### **Landowner Issues**

The proposed pipeline route is on lands owned by Enbridge or on lands where Enbridge has rights to install the pipeline within designated storage pools under current and valid

gas storage leases and agreements. Therefore, there are no additional land rights required for the Pipeline Project.

Enbridge stated that it would “continue to engage the affected landowners along the preferred route regarding the construction and operational matters related to the Project”.

In response to the Notice, the Board received a letter of comment, dated February 5, 2011, from Mr. Tom Wilson on his own behalf and on behalf of Mr. Joe Wellington, both of whom are storage landowners in the Corunna Pool. The landowners raised concerns with their communication with Enbridge regarding the proposed project.

In response to Board staff interrogatory number 5 Enbridge described its communication history and future plans for communications with Mr. Wilson and Mr. Wellington and with other affected landowners. Board staff submitted that condition of approval 3.1 will ensure that Enbridge deals with landowner concerns appropriately:

- 3.1 Both during and after construction, Enbridge shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Enbridge shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.

Enbridge in reply submissions accepted all the conditions proposed by Board staff including the condition 3.1.

The Board is satisfied that there are no land rights to be acquired by Enbridge for the routing and construction of the Pipeline Project. The Board notes that Enbridge’s compliance with Condition of Approval 3.1 should ensure that Enbridge will record and resolve concerns and complaints of the affected landowners.

### **Technical Standards and Provincial Regulatory Requirements**

Enbridge’s pre-filed evidence indicates that the storage enhancement plans also include “the first stage of delta pressuring of the Corunna and Seckerton natural gas storage pools, which does not require an application”. Board staff, in its submission, agreed that

there is no requirement for Enbridge to apply to the Board for delta pressuring these pools. However, Board Staff's position was that Enbridge must adhere to certain provincial regulations when natural gas storage operating parameters are changed.

Board staff also noted that the Corunna and Seckerton gas storage pools were designated by the Board's Order in E.B.O. 5 dated December 5, 1963 and they were put in service in 1964. No codes or regulations governing the operation of gas storage pools at higher pressure gradients were in effect at that time. Since 1997, operation of gas storage pools in Ontario must conform to the Canadian Standards Association Z341 "Storage of Hydrocarbons in Underground Formations" ("CSA Z341"). The Petroleum Resources Centre of the Ministry of Natural Resources has the provincial authority to oversee the implementation of the CSA Z341 under Ontario Regulation 245/97 of the Oil, Gas and Salt Resources Act, R.S.O. 1990.

The following sections of the CSA Z341 apply to operating pressures of storage pools:

#### 7.6.2 Maximum operating pressure

The maximum operating pressure for the storage zone shall be

- (a) the discovery pressure of the reservoir; or
- (b) a higher pressure that has been shown by caprock testing (as specified in Clause 5.2) not to compromise the integrity of the storage zone. The maximum operating pressure shall not exceed 80% of the fracture pressure of the caprock formation. In the absence of local fracture pressure data, the maximum pressure shall be no greater than 18.1 kPa per meter of depth to the top of the reservoir.

#### 7.6.3 Delta pressure

Where the maximum operating pressure of the storage zone is planned to be above the discovery pressure of the reservoir, the operator shall determine the impact on reservoir integrity of the planned maximum delta pressure prior to injecting hydrocarbons at pressures exceeding the discovery pressure of the reservoir.

#### 5.2.3 Core analysis

The caprock core that is recovered shall be analyzed to determine

- (a) threshold pressure;
- (b) porosity; and
- (c) permeability to air in the direction of maximum horizontal permeability, normal to the direction of maximum permeability, and in the vertical direction.

The above cited sections of the CSA Z341 are directly applicable to operating parameters of any natural gas storage pool in Ontario and have been considered by the Board in its past reviews of the issue of increasing operating pressures.

By way of the Board's past practice, Board Staff referenced two recently approved applications by Union Gas Limited to increase the operating pressures of natural gas storage pools in order to increase storage capacity. (Decision EB-2008-0038<sup>2</sup> dated July 10, 2008 and Decision EB-2009-0144<sup>3</sup> dated July 31, 2009). In determining if these approvals should be granted, the Board considered whether or not Union was in compliance with the applicable sections of CSA Z341. In both proceedings the MNR was a participant. The Board found that, in both of the proceedings, Union would be permitted to increase the delta pressure from the originally set 0.7 pounds per square inch ("psi") per foot depth. However, should Union wish to increase the operating pressure of the existing storage pools above 0.73 psi per foot of depth, the Board ordered that Union must apply for leave of the Board and such an application should be supported with engineering and geological studies.

In the current proceeding, Board Staff submitted that delta pressuring of Enbridge's storage pools is subject to the same CSA Z341 regulatory and administrative requirements as delta pressuring of the Union Gas pools in the two above noted Board proceedings. Board staff therefore recommended that the following condition be added to the Board's Conditions of Approval as condition 4.2 under the "Other Approvals" section:

4.2. Enbridge shall comply with current CSA Z341 requirements for increasing the operating pressure of Corunna and Seckerton storage pools and shall file with

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<sup>2</sup> This application by Union Gas Limited dealt with operating pressures in Enniskillen 28 (EBRM 95), Oil Springs East (EBRM 167), Payne (EBRM 98) and Dow A (EBRM 172) Pools.

<sup>3</sup> This application by Union Gas Limited dealt with increasing operating pressures of Bentpath East Pool (EBO 206), Oil City Pool and Bluewater Pool (RP-1999-0047).

the Ministry of Natural Resources any supporting studies or information as required by the CSA Z341.

Enbridge submitted that the above proposed wording is reasonable and stated it was aware of CSA Z341 requirements.

Although the conditions of Board's Order in E.B.O. 5 dated December 5, 1963 do not require an application by Enbridge to seek leave of the Board to delta pressure the Corunna and Seckerton pools, the Board finds it prudent to direct Enbridge to apply for leave from the Board to delta pressure these pools above the 0.70 psi per foot depth (15.9 kPa/m) level so that Enbridge would complete an approval process equivalent to the process for leave to delta pressure all other storage pools in Ontario.

The Board notes that all the Union gas pools subject to EB-2008-0038 and EB-2009-0144 proceedings had the pressure gradient originally set by the Board to 0.7 psi per foot. Union applied to the Board to increase that gradient to 0.73 psi and, after a review of Union's evidence, the Board accepted that the operation threshold gradient be increased to 0.73 psi.

The Board further notes that Enbridge's Dow Moore pool was designated by the Board's Decision with Reasons in E.B.O. 147, May 27, 1988 and was subject to a delta pressuring related condition of approval. The condition stipulated that Enbridge will not operate the Dow Moore Pool above a pressure representing a pressure gradient of 0.7 psi per ft depth (15.9 kPa/m) without leave of the Board and that any leave application by Enbridge shall be supported with an engineering and economic study.

The Board finds that a pressure gradient to 0.7 psi per foot depth establishes an acceptable limit to increasing the maximum operating pressures of the Corunna and Seckerton pools which belong to the same geological basin as all the other Enbridge's and Union's pools in Ontario. The Board is of a view that the economic study shall not be required to support applications to delta pressure the Corunna and Seckerton pools as Enbridge would provide incremental non-regulated storage to the market. However, geological studies shall be required to support any application for leave to increase the maximum operating pressure of these pools above 0.7 psi per foot depth of the pool.

As Enbridge is aware, the MNR is the provincial authority responsible for implementing the CSA Z341. Therefore, the Board expects that Enbridge will seek direct guidance from the MNR regarding studies and information needed to support the request to the

Board for leave to delta pressure Corunna and Seckerton pools in compliance with the CSA Z341.

The Board is satisfied that insofar as the proposed increase in operating pressure is being implemented in a manner that is consistent with the applicable CSA standard, it should be approved. The Board is also mindful of Enbridge's considerable experience and expertise in the operation of storage facilities in the Province. The Company has also demonstrated a willingness to engage with landowners in a constructive manner. Development of enhanced natural gas storage facilities is an important element in meeting the reasonable expectations of a variety of natural gas users in the Province. When such projects can be implemented by a responsible company in a manner that meets the applicable safety and technical standards, as is the case here, they should be approved.

The Board finds that in addition to the other conditions proposed by Board staff that an amendment to condition 4.2 is required to ensure a consistent administrative approach to delta pressuring all gas storage pool operations in Ontario, including those designated and authorized by the Board prior to CSA Z341 or equivalent regulation was in effect. The Board therefore requires the following:

- 4.2. Enbridge shall not operate the storage pools Corunna and Seckerton above a pressure representing a pressure gradient of 0.70 pounds per square inch per foot of depth without leave of the Board. Enbridge shall file an engineering study and a geological study in support of any leave application.

**THE BOARD ORDERS THAT:**

1. Enbridge Gas Distribution Inc. is granted leave, pursuant to subsection 90 of the Act, to construct approximately 3,500 meters of extra high pressure natural gas pipeline of 20 inch diameter and of 16 inch diameter between Dow Moore, Corunna, and Seckerton natural gas storage pools in the Township of St. Clair in Lambton County subject to the Conditions of Approval set out in Appendix A.
2. Enbridge Gas Distribution Inc. shall pay the Board's costs incidental to this proceeding upon receipt of the Board's invoice.

**DATED** at Toronto, March 21, 2011

**ONTARIO ENERGY BOARD**

*Original signed by*

Kirsten Walli  
Board Secretary

**Appendix A**

**EB-2010-0302**

**Conditions of Approval**

**March 21, 2011**

**Enbridge Gas Distribution Inc.  
Leave to Construct Application  
EB-2010-0302  
Conditions of Approval**

1. General Requirements
  - 1.1 Enbridge Gas Distribution Inc. (“Enbridge”) shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2010-0302 except as modified by this Order and these Conditions of Approval.
  - 1.2 Unless otherwise ordered by the Board, authorization for Leave to Construct shall terminate December 31, 2011, unless construction has commenced prior to that date.
  - 1.3 Enbridge shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee (“OPCC”) review.
  - 1.4 Enbridge shall advise the Board’s designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Enbridge shall not make such change without prior approval of the Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.
2. Project and Communications Requirements
  - 2.1 The Board’s designated representative for the purpose of these Conditions of Approval shall be the Manager, Natural Gas Applications.
  - 2.2 Enbridge shall designate a person as project engineer and shall provide the name of the individual to the Board’s designated representative. The project engineer will be responsible for the fulfillment of the Conditions of Approval on the construction site. Enbridge shall provide a copy of the Order and Conditions of Approval to the project engineer, within seven days of the Board’s Order being issued.
  - 2.3 Enbridge shall give the Board’s designated representative and the Chair of the OPCC ten days written notice in advance of the commencement of the construction.
  - 2.4 Enbridge shall furnish the Board’s designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board’s Order.

- 2.5 Enbridge shall file with the Board's designated representative notice of the date on which the installed pipelines were tested, within one month after the final
- 2.6 Enbridge shall furnish the Board's designated representative with five copies of written confirmation of the completion of construction. A copy of the confirmation shall be provided to the Chair of the OPCC.

### 3. Monitoring and Reporting Requirements

- 3.1 Both during and after construction, Enbridge shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Enbridge shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.
- 3.2 The interim monitoring report shall confirm Enbridge's adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.  
The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of any mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

### 4. Other Approvals

- 4.1 Enbridge shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list thereof, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.
- 4.2 Enbridge shall not operate the storage pools Corunna and Seckerton above a pressure representing a pressure gradient of 0.70 psi per foot of depth without leave of the Board. Enbridge shall file an engineering study and a geological study in support of any leave application.

**Appendix B**

**EB-2010-0302**

**Map of the Pipeline Project**

**March 21, 2011**

