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BY EMAIL

February 8, 2024

Mark Emery
Acting Manager, Petroleum Operations Manager
Ministry of Natural Resources and Forestry
659 Exeter Road
London, On N6E 1L3
mark.emery@ontario.ca

Dear Mr. Emery:

**Re: Report to the Minister of Natural Resources and Forestry
Enbridge Gas Inc. - Well Drilling License Application
Bluewater and Mandaumin Well Drilling Project
OEB File Number: EB-2023-0271**

Pursuant to Section 40 of the *Ontario Energy Board Act, 1998*, the Minister of Natural Resources and Forestry referred to the Ontario Energy Board (OEB) an application by Enbridge Gas Inc. (Enbridge Gas) for licences to drill an A-1 carbonate observation well in each of the Bluewater Storage Pool and the Mandaumin Storage Pool. Please find attached the OEB's report to the Minister of Natural Resources and Forestry that recommends the issuance of well drilling licences to Enbridge Gas for these two wells, subject to certain Conditions of Licence.

Please direct any questions relating to this application to Natalya Plummer, Advisor at 416-440-7645.

Yours truly,

Nancy Marconi
Registrar

Attachment

c: Evan Tomek, Evan.Tomek@enbridge.com
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EB-2023-0271

**REPORT OF THE ONTARIO ENERGY BOARD TO THE MINISTER OF NATURAL
RESOURCES AND FORESTRY**

**Application by Enbridge Gas Inc. for licences to drill A-1 carbonate observation
wells in each of the Bluewater Storage Pool in the City of Sarnia and the
Mandaumin Storage Pool in the Town of Plympton-Wyoming**

By Delegation, before: Theodore Antonopoulos
Vice President
Applications

Date: February 8, 2024

1 INTRODUCTION AND SUMMARY

Enbridge Gas Inc. (Enbridge Gas) applied to the Minister of Natural Resources and Forestry (Minister) for licences to drill two (2) new A-1 observation wells, Well UBW3 and Well UMD8. The wells will be drilled within the Designated Storage Areas¹ in each of the Bluewater Storage Pool (Well UBW3) located in the City of Sarnia and the Mandaumin Storage Pool (Well UMD8) located in the Town of Plympton-Wyoming (together, these two wells are referred to as the Project). The pools are designated storage areas in which Enbridge Gas is authorized to store gas.²

On September 21, 2023, the Minister referred the application to the Ontario Energy Board (OEB) pursuant to section 40(1) of the *Ontario Energy Board Act, 1998* (OEB Act).

On October 6, 2023, Enbridge Gas requested from the OEB a favourable report (Report) to the Minister in respect of its well drilling licence applications.

The OEB recommends approval of the application for the well drilling licences. The OEB's recommendation includes the Conditions of Licence in Attachment A to this Report.

2 PROCESS

Section 40(2) of the OEB Act states that the "Board may hold a hearing before reporting to the Minister if the applicant does not have authority to store gas in the area or, in the Board's opinion, the special circumstances of the case require a hearing."

On October 30, 2023, the OEB issued a Case Information Letter (Letter). The Letter set out a process for OEB staff questions and comments from the Ministry of Natural Resources and Forestry (MNRF). As Enbridge Gas has the authority to store gas in each of the Bluewater Storage Pool and Mandaumin Storage Pool and there are no special circumstances that require a hearing, the Letter stated that the OEB will review the application and issue the Report without holding a hearing.

OEB staff filed questions on November 17, 2023. Enbridge Gas responded on November 29, 2023.

On December 14, 2023, the MNRF advised, by email, that it will not file any comments with respect to the application.

3 FACTORS CONSIDERED BY THE OEB

¹ Ontario Regulation 274/00

² Granted by the OEB in RP-1999-0047

When reviewing and reporting to the Minister on well drilling licence applications, the OEB considers the following factors:

- Project need and timing
- Proposed facilities and regulatory compliance
- Project costs and impact on ratepayers
- Environmental impacts of the project
- Landowner matters associated with the project
- Indigenous consultation associated with the project
- Conditions of Licence

The sections below summarize the evidence filed by Enbridge Gas and provide the OEB's findings related to each of these factors.

3.1 PROJECT NEED AND TIMING

Need for the Project

Enbridge Gas stated that Well UBW3 and Well UMD8 are needed to assist in the safe and reliable operation of its storage facilities by monitoring natural gas inventory and pressure in each storage pool. Enbridge Gas also stated that the 2023-2032 Asset Management Plan filed in its 2024 rebasing proceeding³ describes the requirement and plan to drill A-1 carbonate observation wells in some pools that currently do not have an A-1 carbonate observation well.

Enbridge Gas noted that there are observation wells in each of the Bluewater and Mandaumin pools that monitor pressure in the Guelph reef where gas is stored but not A-1 Carbonate observation wells. A-1 Carbonate is adjacent to the Guelph reef and can be a tighter formation that forms secondary storage around the reservoir. Enbridge Gas stated that regional geology suggests that there is potential for gas to move between the Guelph and the A-1 Carbonate, and that A-1 Carbonate observation wells are used to monitor that movement. According to Enbridge Gas, A-1 Carbonate observation wells are also used as a tool in storage pool material balance studies to supplement the information obtained from the Guelph observation wells. Storage pools are stabilized biannually, and the Guelph pressure is used to calculate an inventory based on pressure. This is then compared with the pool's metered inventory and any variances are monitored and investigated. Gas movement from the Guelph into the A-1 Carbonate can contribute to these variances.

³ EB-2022-0200, Exhibit 2, Tab 6, Schedule 2, p. 198 and EB-2022-0200, Exhibit 2, Tab 6, Schedule 2, Appendix B, p. 94.

Enbridge Gas stated that A-1 Carbonate observation wells provide a more accurate measurement of gas pressures in the A-1 Carbonate which generally improves the ability to effectively manage inventory. Well UBW3 and Well UMD8 will support inventory material balance studies in the future and will help enhance Enbridge Gas's understanding of any gas movement between the A-1 Carbonate and Guelph reef. The Project will not increase storage capacity or deliverability of either storage pool.

Enbridge Gas stated that it is not aware of any comparable facility, or non-facility, solution that would enable it to monitor natural gas movement from the Guelph reef and the A-1 Carbonate or that would provide the ancillary benefit of an A-1 Carbonate observation well with respect to improving inventory management.

Findings

The OEB finds that the Project is needed to enable Enbridge Gas to monitor movement of natural gas volumes between the Guelph Formation and the A-1 Formation, and to assist Enbridge Gas in improving inventory management for the storage pools. The OEB notes that by drilling an A-1 Carbonate observation well in the Mandaumin Storage Pool and the Bluewater Storage Pool, Enbridge Gas stated that it is complying with Section 5.5 of the CSA Z341.1-22 which states that observation wells are required to monitor "low-permeability zones or formations adjacent to and in communication with the storage zone."⁴

Timing of the Project

Enbridge Gas requested a favourable report from the OEB to the Minister by March 1, 2024, to ensure that drilling can be completed by June 1, 2024, when the pressure in the reservoir is below 5,500 kPa. Enbridge Gas stated that drilling when the reservoir is below 5,500 kPa will ensure that pressure is suitable to safely drill the wells and that there will be no disruption to service from the Mandaumin and Bluewater storage pools. Otherwise, the Project will be deferred to 2025 following the close of storage withdrawal operations to avoid disruption to service from the storage pools.

In its application, Enbridge Gas stated that all activities related to drilling will occur on the drill pads and laneways and that the drilling of the temporary all-weather drilling pads would occur in fall 2023 and spring 2024.

In a response to OEB staff questions, Enbridge Gas stated that the timeline for completion of the drilling pads and access roads for both sites had been revised to conclude in late 2023.⁵

⁴ Application and Evidence, Exhibit B, Tab 1, Page 3 and 4

⁵ Enbridge Gas Response to OEB Staff -1b)

Findings

The OEB finds that the proposed drilling schedule to be acceptable as it ensures the safe drilling of Well UBW3 and Well UMD8 and that there is no disruption to service in the Bluewater Storage Pool and the Mandaumin Storage Pool.

3.2 PROPOSED FACILITIES AND REGULATORY COMPLIANCE

Proposed Facilities

The Project requires the construction of gravel pads and permanent access lanes.

For Well UBW3, Enbridge Gas must construct the following features:

- A gravel pad temporary work area of approximately 8,000 m² with a slit fence around the perimeter.
- A 5m wide x 300 m long permanent access lane off an existing gravel road to allow access to the well site.

For Well UMD8, Enbridge Gas must construct the following features:

- A gravel pad temporary work area of approximately 8,000 m² with a silt fence around the perimeter.
- A 5m wide x 500 m long permanent access lane from Churchill Line to allow access to the well site.

Enbridge Gas stated that once drilling is complete, the permanent access laneways to the well sites will remain, the size of the drilling pads will be reduced to 64 m², and the rest of the land will be restored.

Findings

The OEB finds the construction of the proposed facilities to be appropriately planned.

Regulatory Compliance

Enbridge Gas stated that all design, installation and testing of the proposed wells will be in accordance with the *Oil, Gas & Salt Resources Act* (OGSRA), Ontario Regulation 245/97, OGSRA Standards v.2.0 and the Canadian Standards Association standard *Z341 Storage of Hydrocarbons in Underground Formations* (CSA Z341 1-22).

Enbridge Gas further stated that it will fulfill, to the satisfaction of the MNRF, all of the relevant requirements of CSA Z341 1-22, the OGSRA and related regulations.

Findings

The OEB accepts the statement by Enbridge Gas that all design, installation and testing of the proposed wells will be in accordance with applicable regulations.

3.3 PROJECT COSTS AND IMPACT ON RATEPAYERS

The total estimated cost for the Project is approximately \$3.3 million⁶, as outlined in Table 1, below.

Table 1: Project Costs

<u>Type of Expenditure (\$)</u>	<u>Well UBW3 – Drilling</u>	<u>Well UMD8 – Drilling</u>
Material Costs	306,877	304,079
Labour Costs	139,041	137,774
External Permitting	7,572	7,503
Land	33,333	33,333
Contractors	1,069,959	1,060,203
Internal Labour	88,217	87,109
Total Costs	1,645,000	1,630,000

Enbridge Gas is not seeking cost recovery of the Project as part of this application. The costs for the project have been included in Enbridge Gas's capital forecast supporting its 2024 rebasing application.⁷

The Bluewater Storage Pool and the Mandaumin Storage Pool are used by Enbridge Gas to fulfill part of its storage requirements for regulated and unregulated storage operations. Enbridge Gas stated that the costs for drilling Well UBW3 and Well UMD8 will be allocated to regulated and unregulated storage operations in accordance with Enbridge Gas's allocation factors as proposed in the 2024 rebasing application.

Findings

The OEB acknowledges that costs for the Project were included in Enbridge Gas's capital forecast supporting its 2024 rebasing application. The ratemaking implications of the Project, including the appropriate allocation of costs, are being addressed in that proceeding.

3.4 ENVIRONMENTAL IMPACTS

Enbridge Gas retained Dillon Consulting Ltd (Dillon) to undertake an environmental screening to identify potential environmental and socio-economic impacts associated with the Project. The results of the study are documented in the Environmental Report (ER) included in the application. The ER concluded that with the implementation of its

⁶ The total cost of the Project includes a 10% contingency applied to all direct capital costs.

⁷ EB-2022-0200

recommendations, ongoing landowner communication, and adherence to permit and regulatory requirements, potential adverse residual environmental and socio-economic impacts of the Project are not anticipated to be significant.

The draft ER was shared with members of the Ontario Pipeline Coordinating Committee on July 18, 2023.

In its pre-filed evidence, Enbridge Gas noted that a combined Stage 1 Archaeological Assessment (AA) and Stage 2 AA for the Bluewater Storage Pool site was completed in July 2023 and accepted by the Ministry of Citizenship and Multiculturalism (MCM) into the Ontario Public Register of Archeological Reports on August 1, 2022 recommending no further assessment. Enbridge Gas stated that the AA for the Mandaumin site was forthcoming. In response to an OEB staff question, Enbridge Gas stated that a combined Stage 1 AA and Stage 2 AA for the Mandaumin site was completed in October 2023 and accepted by the MCM into the Ontario Public Register of Archeological Reports on October 17, 2023 recommending no further assessment. Enbridge Gas also stated that a Cultural Heritage Evaluation Report (CHER) was completed for both sites and submitted to the MCM on October 11, 2023, and October 13, 2023. The CHER reports found that given that the properties do not contain any local cultural heritage significance, a heritage impact assessment was not recommended.⁸

Findings

The OEB has reviewed all of the OPCC recommendations and finds that Enbridge Gas has satisfactorily identified and addressed potential environmental impacts and where applicable acknowledged certain recommendations for pre- and post-construction. The OEB notes that one of the recommended conditions of Licence in Appendix A is that prior to commencement of construction of the proposed wells, Enbridge Gas shall receive all necessary approvals, permits, licences, certificates, agreements and rights required to construct, operate and maintain the proposed wells.

3.5 LANDOWNER MATTERS

As noted in section 3.2 of the Report, the Project requires the construction of gravel pads and access lanes.

Enbridge Gas stated that it has Gas Storage Leases on the lands where Well UBW3 and Well UMD8 will be drilled, which give it the legal rights to drill the wells.⁹

Enbridge Gas also stated that its land agents have notified the parties directly impacted

⁸ Enbridge Gas Response to OEB Staff -2)

⁹ Application and Evidence, Exhibit H, Tab 1, Schedule 1, para 7 and 8

by the Project¹⁰ and that the landowners have been provided with a notice of work¹¹.

For Well UBW3, the impacted parties are the landowner and the tenant farmer. Enbridge Gas stated that the landowner has agreed to the compensation package.¹²

For Well UMD8, the impacted parties include the landowner of the well site and the landowner of the existing gravel road being used to access the well site. Enbridge Gas stated that the landowner of the well site has agreed to the compensation package and that it has executed a Roadway Agreement with the third-party landowner to use the existing gravel road that will be used to access the well site.¹³

Findings

The OEB finds that Enbridge Gas's proposed land use requirements, the associated impact on affected landowners/tenants, and its communications with affected landowners/tenants to date are acceptable.

3.6 INDIGENOUS CONSULTATION

The Ministry of Energy (MOE) coordinates the Crown's duty to consult obligations that may be triggered by applications for leave to construct (LTC) for projects.¹⁴ The Project does not trigger an LTC application.

In the application, Enbridge Gas indicated that based on its previous experience and understanding of Indigenous interests in the area of the Project as well as a consideration of the nature of the Project, Enbridge Gas identified Aamjiwnaang First Nation (AFN) as a community to be engaged on the Project. The application includes an Indigenous consultation log. While there was no formal delegation made to Enbridge Gas for it to lead consultation activities with respect to the Duty to Consult, the MOE reviewed the Indigenous consultation section of the ER and stated that it did not have any questions or concerns at this time.¹⁵

Findings

The OEB notes that the Project does not trigger an LTC application. The OEB has reviewed the consultation efforts and has no concerns with respect to the Indigenous

¹⁰ Application and Evidence, Exhibit H, Tab 1, Schedule 1, para 6

¹¹ Application and Evidence, Exhibit H, Tab 1, Schedule 1, para 7 and 8

¹² Ibid

¹³ Ibid

¹⁴ Report of the Ontario Energy Board, "Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Projects and Facilities in Ontario (8th edition).", March 28, 2023.

¹⁵ Application and Evidence, Exhibit G, Tab 1, Schedule 1, Attachment 2, Page 23

consultation undertaken by Enbridge Gas related to the Project. The OEB notes that no concerns or issues were raised by the affected community, and that the Ministry of Energy has no questions or concerns at this time regarding the sections of the ER pertaining to indigenous consultation for the Project.

3.7 CONDITIONS OF LICENCE

As part of a question for Enbridge Gas, OEB staff proposed certain Conditions of Licence that are similar to those recommended by the OEB in past well drilling licence applications.

In response to the OEB staff question, Enbridge Gas stated that it had no objections with the proposed conditions.¹⁶ Enbridge Gas asked for confirmation that condition 10 (a)(i) and 10 (b)(i) are accurate, or if condition 10 (b)(i) should be confirming adherence to condition 4.

Findings

The OEB approves the conditions proposed by OEB staff with a change to condition 10(b)(i). The OEB notes that condition 10(b)(i) should reference condition 4 (i.e., implement all of the recommendations set out in the ER) as suggested by Enbridge Gas. The OEB notes that this change to condition 10(b)(i) aligns the conditions of licence with the OEB's standard conditions of approval for leave to construct applications¹⁷ and reflects the intent of the condition.

4 RECOMMENDATION

For the reasons stated in the Report, the OEB recommends approval of the application for the well drilling licences, subject to the recommended Conditions of Licence in Appendix A. This recommendation shall expire twelve months from the date of this report.

DATED at February 8, 2024

ONTARIO ENERGY BOARD

Theodore Antonopoulos
Vice President
Applications

¹⁶ Enbridge Gas Response to OEB Staff -3)

¹⁷ OEB Natural Gas Facilities Handbook, March 31, 2022

Attachment A

To the EB-2023-0271

REPORT OF THE OEB TO THE MINISTER

**APPLICATION BY ENBRIDGE GAS INC. FOR THE BLUEWATER AND
MANDAUMIN WELL DRILLING PROJECT**

Recommended Conditions of Licence

February 8, 2024

Attachment A**Application Under Section 40 of OEB Act****Enbridge Gas Inc.****EB-2023-0271****Recommended Conditions of Licence**

1. Enbridge Gas Inc. (Enbridge Gas) shall rely on the evidence filed with the OEB in the EB-2023-0271 proceeding and comply with applicable laws, regulations and codes pertaining to the construction of the proposed wells.
2. The authority granted under this licence to Enbridge Gas is not transferable to another party without leave of the OEB. For the purpose of this condition, another party is any party except Enbridge Gas.
3. Enbridge Gas shall construct the facilities and restore the land in accordance with its application and evidence given to the OEB, except as modified by this licence and these Conditions.
4. Enbridge Gas shall implement all the recommendations of the Environmental Report filed in the proceeding.
5. Enbridge Gas shall develop a Project-specific Spill Response Plan prior to the start of well drilling operations and following the installation of the Project facilities, the location of the facilities will be added to Enbridge Gas's Emergency Response Plan.
6. Prior to commencement of construction of the Proposed Well, Enbridge Gas shall obtain all necessary approvals, permits, licences, certificates, agreements and rights required to construct, operate and maintain the proposed well.
7. Enbridge Gas shall ensure that the movement of equipment is carried out in compliance with all procedures filed with the OEB, and as follows:
 - i. Enbridge Gas shall make reasonable efforts to keep the affected landowner(s) as well as adjacent landowners and their respective tenant farmers, or their designated representatives, informed of its plans and construction activities; and
 - ii. The installation of facilities and construction shall be coordinated to minimize disruption of agricultural land and agricultural activities.

-
8. Enbridge Gas shall, subject to the recommendation by an independent tile contractor and subject to the landowner's approval, construct upstream and downstream drainage headers adjacent to the drilling area and access roads that cross existing systematic drainage tiles, prior to the delivery of heavy equipment, so that continual drainage will be maintained.
 9. Concurrent with the final monitoring report referred to in Condition 10(b), Enbridge Gas shall file a Post Construction Financial Report, which shall provide a variance analysis of project cost, schedule and scope compared to the estimates filed in this proceeding, including the extent to which the project contingency was utilized. Enbridge Gas shall also file a copy of the Post Construction Financial Report in the proceeding where the actual capital costs of the project are proposed to be included in rate base or any proceeding where Enbridge Gas proposes to start collecting revenues associated with the Project, whichever is earlier.
 10. Both during and after construction, Enbridge Gas shall monitor the impacts of construction, and shall file with the OEB one electronic (searchable PDF) version of each of the following reports:
 - a) A Post Construction Report, within three months of the in-service date, which shall:
 - i. Provide a certification, by a senior executive of the company, of Enbridge Gas's adherence to Condition 1.
 - ii. Describe any impacts and outstanding concerns identified during construction.
 - iii. Describe the actions taken or planned to be taken to prevent or mitigate any identified impacts of construction.
 - iv. Include a log of all complaints received by Enbridge Gas, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions; and
 - v. Provide a certification, by a senior executive of the company, that the company has obtained all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project.
 - b) A Final Monitoring Report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:

- i. Provide a certification, by a senior executive of the company, of Enbridge Gas's adherence to Condition 4;
- ii. Describe the condition of any rehabilitated land;
- iii. Describe the effectiveness of any actions taken to prevent or mitigate any identified impacts during construction;
- iv. Include the results of analyses and monitoring programs and any recommendations arising therefrom; and
- v. Include a log of all complaints received by Enbridge Gas, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions.

11. For the purposes of these conditions, Enbridge Gas shall conform with:

- a) CSA Z341.1-22 "Storage of Hydrocarbons in Underground Formations" to the satisfaction of the Ministry of Natural Resources and Forestry (MNRF); and
- b) The requirements for wells as specified in the *Oil, Gas and Salt Resources Act*, its Regulation 245/97, and the Provincial Operating Standards v.2 to the satisfaction of the MNRF.

12. Enbridge Gas shall designate one of its employees as project manager who will be the point of contact for these conditions, and shall provide the employee's name and contact information to the Ministry of Natural Resources and Forestry the OEB and to all affected landowners, and shall clearly post the project manager's contact information in a prominent place at the construction site.