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VIA EMAIL – Shereen.smithanik@ontario.ca

Ministry of Energy
Shereen Smithanik
Senior Policy Advisor, Indigenous Energy Policy
Unit 77 Grenville St.
6th Floor
Toronto, ON
M7A 1B3

Dear Ms. Smithanik:

Re: Ladysmith Well Drilling Project (TL9H)

The revised *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (the “Guidelines”) issued by the Ontario Energy Board (the “Board”) on August 11, 2016 indicate that a project applicant shall provide the Ministry of Energy (the “Ministry”) with a description of a project, in the planning process, such that the Ministry can determine if there are any Duty to Consult requirements for the project.

The purpose of this letter is to inform the Ministry that Enbridge Gas Distribution Inc. (“Enbridge”) has identified the need to drill a stratigraphic test well in the Ladysmith Designated Storage Area (the “Project”). The well will be cored and upon completion of drilling activities, instrumentation will be installed in the well and it will be used in 2019 and 2020 to monitor the effects of injection/withdrawal on the geological formations overlying the storage reef. When sufficient data has been collected, the well will be re-entered and converted to a horizontal injection/withdrawal well in 2021. Enbridge is therefore contacting the Ministry to determine whether the Project triggers the Duty to Consult.

Attachment 1 contains a description of the Project’s characteristics and its location for the Ministry’s review and to assist it with its determination as to whether it will delegate the procedural aspects of the Duty to Consult to Enbridge. While work on the Project is still in its early stages, Enbridge would be pleased to discuss the Project with you should you have any questions.

Regards,

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Cc: Emma Sharkey, Ministry of Energy

Attachment 1: Ladysmith Well Drilling Project Description (TL9H)

1.0 Project Summary

Enbridge Gas Distribution Inc. (“Enbridge”) has identified the need to drill a stratigraphic test well in the Ladysmith Designated Storage Area (“DSA”). The stratigraphic test well is required to core the well and to allow the installation of instrumentation that will monitor the effect of storage injection/withdrawal activities in the Guelph reef formation. The well will be completed above the Guelph reef formation, and will reach total depth of approximately 620m in the A-2 Carbonate formation. It is proposed that the well initially be drilled and operated as a stratigraphic test well for 2019 and 2020. Once sufficient data has been gathered, the well will be re-entered in 2021, the instrumentation will be removed and the well will be deepened and completed as a horizontal injection/withdrawal well.

The proposed stratigraphic test well will not be used for natural gas injections or withdrawals and a pipeline will not be installed to connect to this well. When the well is completed as an injection/withdrawal well, a lateral pipeline will be installed from the well to the Ladysmith gathering pipeline system. Enbridge plans to file an application with the Ministry of Natural Resources and Forestry (“MNRF”) to drill the well. In accordance with the OEB Act¹, the Minister of Natural Resources & Forestry shall refer to the Ontario Energy Board (“OEB”) every application for the granting of a license relating to a well in a designated gas storage area, and the Board shall report to the Minister of Natural Resources & Forestry on it.

The drilling will take place on previously disturbed lands. The stratigraphic test well will be drilled on property owned by a private landowner. The stratigraphic test well site is expected to measure approximately 40 square metres or 0.00004 square kilometres. It will be an extension to an existing well pad.

Figure 1 below shows the location of the Ladysmith DSA and the location of the proposed stratigraphic test well and final horizontal well within it.

2.0 Project Information

Enbridge serves over 2.1 million active customers, 92% of which are residential customers whose gas demands increase as temperatures decline. Gas demand on the Enbridge distribution system therefore follows a seasonal pattern: Gas demand is high in the winter and low during the summer. Gas storage allows Enbridge to optimize the use of upstream transportation and purchase gas during periods when gas prices are low and then utilize that gas at a later date (i.e. during the winter) when gas demand, and therefore gas prices, are high.

¹ OEB Act, 1998, S.O. 1998, c.15, Schedule B Section 40

Enbridge currently operates approximately 114 billion cubic feet of gas storage in 11 DSAs. Nine of the DSAs are in the Sarnia area, one in Chatham-Kent and one in the Niagara region. The gas storage operation includes 95 injection/withdrawal wells and 29 observation wells.

The Ladysmith DSA is one of the DSAs in the Sarnia area and has been in continuous operation since 1999. Enbridge operates 2 injection wells and 1 observation well in the Ladysmith DSA. The proposed stratigraphic test well will be drilled on property owned by a private landowner under the terms and conditions of the Gas Storage Lease for that property. The Ladysmith DSA only consists of Enbridge's gas storage operation.

The proposed stratigraphic test well is required to provide data to complete a geomechanical study that will provide assurance that any increase to the delta pressure in the Ladysmith storage formation will not adversely affect the caprock and/or the overlying formations.

3.0 Authorizations and Recommendations Required

The stratigraphic test portion of the well, the testing of the well and the recompletion of the well to a horizontal injection/withdrawal well are being planned in accordance with OEB regulations. Construction of the well is also regulated by the MNRF through the *Oil, Gas and Salt Resources Act* and the Canadian Standards Association Z341 Standard – Storage of Hydrocarbons in Underground Formations.

Pending confirmation from the environmental screening, it is expected that the following authorizations will be required.

- Recommendation from the Ontario Energy Board
- Approval from the Ministry of Natural Resources and Forestry

Other authorization, notification, permits and/or approvals may be required in addition to those identified above.

4.0 Project Activities

The well will be drilled in compliance with the *Oil, Gas & Salt Resources Act* and associated Regulations and Standards. The well will be designed to prevent the contamination of freshwater aquifers or other porous zones, prevent fluid losses and provide for the control of pressures and fluids encountered by the well. The drilling of the well will be recommended by the OEB and approved by the MNRF. The operation, maintenance and abandonment of the well are regulated by the MNRF.

A copy of the application will be sent to all landowners on the Ladysmith DSA. Landowners on a DSA are aware of the storage operator's ongoing storage-related activities. The landowners in the Ladysmith DSA are:

- Meindert and Gail Wolff
- Arthur W. Eyre
- Gary and Brenda Robbins

- Robbins Farms Limited
- The Corporation of the Township of St. Clair
- Barry and Julie Robbins
- Hilde Wolff
- Clare and Helen Robbins
- Hydro One Networks Inc.

Prior to drilling the well a gravel drill pad and laneway will be installed. Generally, the laneway and gravel pad will be constructed by stripping the topsoil and installing geotextile matting and gravel. A drilling rig will be moved onto location, the well will be completed and the drilling rig will be moved off of the location. Upon completion of the well as an injection/withdrawal well, the area will be restored; the laneway and a small site surrounding the well will remain. Instrumentation will be installed and the data measurements at the well will be relayed to Enbridge and stored on a computerized system. The total area affected is expected to be less than 0.00018 square kilometres.

5.0 Potential Environmental Effects and Mitigation Measures

The Environmental Screening will assess physical, natural and socio-economical features potentially impacted by construction activities. Mitigation measures will be recommended as part of the screening to minimize potential adverse effects to the environment. The mitigation recommendations, together with Enbridge's drilling program which meets the requirements of the *Oil, Gas & Salt Resources Act*, should effectively serve to protect environmental features within the proposed well location.

It is anticipated that the majority of adverse and/or socio-economic effects will be construction related, temporary and transitory, and likely avoided by locating the well within previously disturbed land.

6.0 Project Benefits

The Project initially allows the study and measurement of the effect of gas storage operations on the overlying geological formations. Upon completion of the well as an injection/withdrawal well, it also allows an increase in deliverability for the Ladysmith DSA.

7.0 Contact Information

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Figure 1: Location of the Ladysmith Designated Storage Area & Proposed Stratigraphic TL9H

