Enbridge's Feedback on Proposed changes to the OGSRA to regulate projects to test or demonstrate new or innovative activities, such as geologic carbon storage, and to safeguard people and the environment

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ENBRIDGE

Introduction

Enbridge Inc. and its affiliated companies (Enbridge) appreciate the opportunity to provide comments on the proposed changes to the *Oil, Gas and Salt Resources Act* (OGSRA) to regulate projects to test or demonstrate new or innovative activities, such as geologic carbon storage, and to safeguard people and the environment.

In the fight against climate change, experts like the International Energy Agency and the Canadian Energy Regulator agree that carbon dioxide (CO_2) capture and storage/sequestration (CCS) solutions are among the most critical decarbonization technologies.[i] In Ontario, Enbridge believes CCS will play a key role to decarbonize local industry, including steel and cement manufacturing, petrochemicals, refining and power generation, among others. CCS will also unlock and facilitate production and adoption of "blue hydrogen" or low-carbon hydrogen.

Enbridge is very pleased to see the Ministry of Natural Resources and Forestry (MNRF) proposing important steps to unlock Ontario's CCS potential, including through the proposed amendments to the OGSRA. Enbridge has reviewed and commends the Government of Ontario (Government) on publishing a Roadmap towards Regulating Geological Storage (Roadmap).

With its extensive and growing experience with CCS projects in other jurisdictions and with gas storage and other related projects in Ontario, Enbridge has an informed perspective of how CCS projects are best enabled to address public interest considerations. Through this lens, Enbridge is providing preliminary comments and suggestions on the Roadmap, to enable successful deployment of each phase.

This submission is complementary to comments made by Enbridge on March 14, 2022 (ERO 019-4770) in response to the MNRF's January 2022 Discussion Paper on Geologic Carbon Storage in Ontario (Discussion Paper).[ii] Subject to some updated perspectives set out below, many of the detailed recommendations that Enbridge provided in its March Submission remain relevant and we have referenced them throughout.

About Enbridge

Enbridge is a leading North American energy infrastructure company. We safely and reliably deliver the energy people need and want to fuel quality of life. Our core businesses include Liquids Pipelines, which transports approximately 25% of the crude oil produced in North America; Gas Transmission and Midstream, which transports about 19% of the natural gas consumed in the U.S.; Gas Distribution and Storage, which serves approximately 3.9 million retail customers in Ontario and Quebec; and Power Operations which has projects in North America and Europe (operating or under construction) with the capacity to generate 2,173 MW of renewable power. Enbridge is committed to reducing the carbon footprint of the energy we deliver, and to achieving net zero greenhouse gas (GHG) emissions from our own operations by 2050. Enbridge recently announced a new energy-as-a-service line of business called Enbridge Sustain. This service offers dependable and convenient energy solutions to help homeowners, developers and commercial customers in Ontario to reduce their GHG emissions and energy costs. Offered technologies include geothermal heating, solar photovoltaic, hybrid heating and electric vehicle chargers.

Our regulated utility, Enbridge Gas Inc. (Enbridge Gas), is Canada's largest natural gas storage, transmission, and distribution company, based in Ontario and just celebrated its 175th year of providing safe and reliable service to customers including over 75% of Ontario homes.

Importance of CCS for future energy pathways

Enbridge applauds the Government's actions in amending both the OSGRA and the Emission Performance Standards (Ontario Regulation 390/18) to remove the prohibition on carbon sequestration and recognizing carbon capture as a means of lowering GHG emissions for large emitters. To continue this momentum, we urge the Government to expedite the consultation and amendments necessary to fully enable and support CCS in Ontario to maximize the value of Ontario's unique geology, the environmental imperative and business case for CCS and the growing regulatory momentum in this space. The urgency of these statements has only increased since March 2022, as highlighted in the Pathways to Net-Zero Emissions for Ontario Study (Study), prepared by Guidehouse Inc. for Enbridge Gas.

The Study evaluates two energy pathways, a diversified pathway and an electrification pathway, to meet Ontario's 2030 emissions reduction target of 30% below 2005 levels and net-zero by 2050. For both pathways, the associated investments that would be needed in electricity, hydrogen, and methane supply capacity and storage were evaluated, as well as the infrastructure required for each. It also quantified the combined end-user costs, providing the total cost for Ontario to reach net-zero emissions via a diversified pathway and via an electrification pathway. It is important to note that the diversified pathway was found to be the more practical pathway for Ontario, due to several advantages over the electrification pathway such as:

1. **Reliability** – In addition to being a lower cost pathway, utilizing both the gas and electric systems means that consumers continue to have reliable energy when they need it, including on the hottest and coldest days of year.
2. **Resiliency** – Having multiple systems provides more protection against extreme events such as severe weather. Enbridge's system is largely underground and provides this resiliency to our customers at a low cost (approximately $50/month).
3. **Affordability** – the diversified pathway is more cost-effective. The report shows that the electrification pathway is the higher cost scenario.
4. **Consumer Choice** – Diversification allows Ontario energy consumers to transition to the energy solution that best meets their needs. A wider range of options enables choice, which will support a more achievable pathway, as customers will more willingly make choices that reduce their GHG emissions if they can choose which solution is best for them.
5. **Competitiveness** – Diversification allows the costs of operating and maintaining the gas system in Ontario, a system that is shown to be required in both pathways, to be spread among millions of users as opposed to concentrating the costs across those in hard-to-abate sectors of industry that have no reasonable alternative.

The Study supports that regardless of the pathway chosen, there are certain "safe bet" actions that should be taken immediately to support Ontario's 2030 emissions reductions goals and to set Ontario on a path to net-zero. **One safe bet is the investment in and use of CCS**. The development of carbon storage in Ontario will be needed in all net zero pathways and the study identifies that: "In the Diversified scenario, the total storage required up to 2050 is for 415 megatonnes of CO_2 ($MTCO_2$), reaching 26 $MTCO_2$ of new storage needs per year in 2050. In the Electrification scenario, the storage required up to 2050 is 194 $MTCO_2$, with 16 $MTCO_2$ of new storage needs each year from 2050 onward."[iii] This is a safe bet as using CCS to produce low-carbon hydrogen for industrial customers and to decarbonize hard-to-abate industrial processes is required in both pathways. It is important to note that in the diversified pathway CCS is used to produce low-carbon hydrogen for more widespread use, including building heat. Therefore, CCS is critical to enabling the diversified pathway in Ontario, a pathway that provides greater consumer choice, resiliency, competitiveness and affordability. In summary, large or "utility scale" CCS is needed in Ontario to achieve decarbonization goals regardless of pathway.

Our March Submission sets out several other important environmental, economic and safety considerations that position CCS as a significant opportunity and necessity to help Ontario achieve GHG reduction targets and remain competitive in North America. The main points are summarized below and details and references are provided in the March Submission:

- CCS represents a significant opportunity to help Ontario achieve GHG reduction targets;
- CCS is safe and secure, resilient, and a feasible option for climate mitigation and in thoroughly screened sites, is safe over geological timescales and leakage is unlikely;
- Large CCS projects have been safely developed and operated for decades; and
- Ontario must develop a viable CCS framework in the near term in order to provide large emitters and heavy industry, especially the emissions intense, trade exposed (EITE) industry, with a viable option to mitigate GHG emissions and remain competitive. Ontario depends on these industries for its economic prosperity and for employment of thousands of Ontarians.

Enbridge's leadership on CCS and gas storage

Enbridge is a leading North American project developer in the CCS space, with a particular focus on CO_2 transportation and storage. We have CCS projects under development across North America, including Ontario, Alberta, Saskatchewan, the U.S. Gulf Coast, and the U.S Midwest.

An exciting CCS project under development is our Open Access Wabamun Carbon Hub (the Wabamun Hub) located north and west of Edmonton, Alberta. The Wabamun Hub will support recently announced world-class CO_2 capture projects by Capital Power and Heidelberg Materials, which is an opportunity to avoid nearly 4 million tonnes per annum (Mtpa) of atmospheric CO_2 emissions —the equivalent of taking more than 1.2 million cars off the road every year.

Once built, the Wabamun Hub will be one of the world's largest integrated CO_2 transportation and storage complexes, effectively doubling the amount of CO_2 captured and stored in Canada today. In alignment with the commitments made in Enbridge's inaugural Indigenous Reconciliation Action Plan (IRAP), particularly those that focus on advancing Indigenous economic partnerships, the Wabamun Hub is being developed in partnership with local Indigenous communities (Alexander First Nation, Alexis Nakota Sioux Nation, Enoch Cree Nation, Paul First Nation, and the Lac Ste. Anne Métis Community). These communities will have the opportunity to co-own (up to 50%) the Wabamun Hub's CO_2 transportation and storage assets.

With the support of Indigenous partners, Capital Power, and Heidelberg Materials, Enbridge applied to develop the Wabamun Hub through the Government of Alberta's competitive carbon hub selection process. In late March 2022, the Government of Alberta announced that Enbridge was awarded the right to pursue development of the Wabamun Hub. In September 2022, Enbridge signed a carbon sequestration evaluation agreement with the Government of Alberta, an important step that allows Enbridge to advance evaluation of the geology underlying the Wabamun area. We completed drilling the first evaluation well in Q1 2023 for the Capital Power project and plan to drill a second evaluation well later this year for the Heidelberg Materials' project. Further evaluation activities are planned for 2024.

Other active, public CCS initiatives involving Enbridge include:

- Enbridge and Oxy Low Carbon Ventures exploring development of a CO_2 transportation and sequestration hub near Corpus Christi, Texas.
- Collaboration with the Petroleum Technology Research Centre (PTRC), including in the development of the Wabamun Hub. Enbridge was also a founding member of the Aquistore Project led by the PTRC, a commercial-scale project tied to real injection considerations, taking industrial CO_2 at variable and intermittent rates between 250 and 500 tonnes per day from

SaskPower's CO_2 capture facility at Boundary Dam near Estevan, Saskatchewan and injecting it to a depth of 3,400 metres into the Deadwood formation.

- Enbridge, Svante Inc., Cross River Infrastructure Partners LLC, and OTS Ltd. establishing Cross Carbon Ventures to explore commercial opportunities across North America to develop, build, own, and operate CO_2 capture projects for CO_2 -intensive industries

Enbridge has also been involved in CO_2 transportation and storage initiatives for years. For example:

- **Alberta Saline Aquifer Project –** Enbridge and Capital Power (then EPCOR) co-launched the Alberta Saline Aquifer Project (ASAP) in 2007. Led by Enbridge, ASAP was a broad-based initiative to advance CO_2 sequestration technology and capacity in Alberta. Initially comprising a group of 19 private sector companies, the number of ASAP participants eventually grew to 36 industry participants, one academic institute, and one research institute. This project was aimed at gaining a better understanding of the potential costs, procurement constraints, and technological considerations of the various components required for successful CO_2 sequestration projects in Alberta.

- **Project Pioneer –** Enbridge and Capital Power partnered with TransAlta for Project Pioneer, which aimed to capture 1 Mtpa of CO_2 from the Keephills 3 power plant, located west of Edmonton, Alberta. Project Pioneer assessed CO_2 storage in a deep saline aquifer (the Nisku formation) in the Wabamun area west of Edmonton, Alberta through a drilling program that included an extensive characterization program. The Pioneer well (Highvale 08-17-51-3W5M) was drilled, cased, and tested between October and December 2011. The purpose of this evaluation well was to confirm the reservoir quality of the saline aquifer.

- **Wabamun Area Sequestration Project –** The Wabamun Area Sequestration Project (WASP) was a University of Calgary-led project with industry partners including Project Pioneer partners Enbridge and TransAlta. The project involved a comprehensive characterization study of large-scale CO_2 sequestration opportunities in the Wabamun area. It examined the feasibility of storing 20 Mtpa of CO_2 per year within a 60 km by 90 km area extending south of the Wabamun Lake area. The Nisku formation (a deep saline aquifer) was selected as the primary target for CO_2 sequestration.

- **Fort Nelson Carbon Storage Project –** In 2012, Spectra Energy (which combined with Enbridge in 2017) explored the technical and economic feasibility of sequestering CO_2 from a commercial natural gas processing facility in Fort Nelson, British Columbia in a deep carbonate saline formation in northeast British Columbia.

Ultimately, these CCS initiatives did not proceed because the policy landscape at the time did not support the projects' economics. We are very encouraged to see this changing in Canada and Ontario, specifically.

Finally, Enbridge has substantial and relevant experience developing and operating natural gas underground storage facilities. Enbridge owns or operates eight natural gas storage facilities in the United States and 36 natural gas storage fields at the Dawn Hub storage facility in Ontario. With a net working storage of about 288 billion cubic feet. The "Dawn Hub" is Canada's largest underground natural gas storage system and is considered a "hub" because it is connected to most of North America's major natural gas supplies, as well as major demand markets. More than half a dozen major pipelines connect at the Dawn Hub with a large number of transacting counterparties and price transparency through industry bulletin boards and exchanges. Enbridge sees this experience as directly relevant to develop, build, and operate CO_2 transportation and storage hubs.

Designating proposed projects as special projects

A pivotal next step in advancing CCS in Ontario is better characterization of Ontario geology, specifically the regional Cambrian aquifer that extends from the north shore of Lake Erie southwest across the lake and towards the Windsor-Essex region as well as the north of Sarnia in Lambton county. Enbridge supports the timely advancement and establishment of criteria for special projects to ensure CCS remains a viable near-term GHG reduction solution for Ontario's large emitters including the hard-to-abate industries.

It is imperative that special projects are evaluated, and due consideration is placed on maximizing data collection while ensuring that infrastructure for short-term projects is planned to be utilized for full-scale projects with a focus on optimizing well efficiency and pore space over the long-term. With special projects estimated to cost in the millions to tens of millions of dollars, this means that the designation of proposed projects has to consider how to better characterize the subsurface in the short-term while at the same time ensuring adequate separation between individual projects to maximize injectability for the long-term.

Starting the evaluation of special projects with an ultimate end state in mind, the Crown should strongly consider the extent of the storage areas required and approve special projects based on optimal spacing requirements within the regional aquifer so that the projects, once converted to full-scale operations, do not cause interference with each other. Approving special projects without a long-term development plan for a defined storage area would ultimately require more infrastructure and significantly more cost over the long-term unnecessarily.

Enbridge is recommending for the MNRF to award storage or evaluation areas to successful project proponents as part of the designating proposed projects process. Storage/evaluation areas should be awarded in large enough extents that it is incumbent on the operator to ensure that infrastructure is being planned, optimized and located appropriately for the estimated life of the storage area while at the same time locating special projects to minimize transportation requirements for regional emitters should the special project be successful. Enbridge, who is working closely with large emitters, will ensure that infrastructure is carefully designed and placed within the storage area to maximize well efficiency and pore space for the benefit of minimizing impacts on the environment, reducing infrastructure requirements and minimizing costs for large emitters.

Enbridge recommends that the following outstanding items be addressed to provide more clarity and more certainty for investment before significant capital is deployed for special projects:

1) Remaining amendments to legislation including the Mining Act

Enbridge recommends timely amendments to legislation (including the *Mining Act*) to allow special projects involving CCS to be developed or at least contemplated on Crown land at the same time as those on private land given the Cambrian saline aquifer is regional across both private and Crown lands. Crown vesting of pore space will enable the development of special projects on both Crown and private lands at the same time.

2) Crown vesting of pore space prior to designating special projects

Pore space vesting by the Crown prior to designating special projects will create alignment and standardization for pore space treatment across all projects, creating a consistent approach working with landowners. If pore space is not vested prior to the designation of special projects, the Crown needs to provide guidance to the project proponents on landowner compensation models for surface access and

pore space valuation for injection testing. An inconsistent and ad-hoc approach to landowner compensation across special projects will create undue issues by setting precedent for valuations based on individual negotiations.

See below for further information provided on benefits for a pore space vesting approach.

3) Clear regulatory framework for approvals and codes & standards adoption

A clear and transparent regulatory framework with known approval timelines will enable project proponents to develop project schedules with more certainty, which significantly improves the caliber of capital cost estimates and the investment timing decisions that project proponents require to seek internal funding approvals.

Enbridge recommends the adoption of codes and standards at the national level to enable best practices across as many jurisdictions as possible.

4) Project closure requirements and assignment of long-term liability post-closure

Amendments to the OGSRA for special projects should take into account and address short and long-term liability in relation to the special project. It is imperative that successful project proponents have competence and industry leading experience with a proven track record of developing, executing and operating subsurface projects with the capability and means to conduct measurement, monitoring and verification (MMV), safely operate, respond to emergencies, educate the public, collaborate across industry and academia, and partner with Indigenous and local communities to grow public confidence for CCS in Ontario.

Assignment of long-term liability post-closure for CCS projects varies in ownership and assignment term in each jurisdiction where CCS projects are in development. In some US states, the Crown assumes liability year 1 post-closure and in other jurisdiction's assignment of ownership to the Crown is accepted once the project proponent can verify through MMV that the storage region has stabilized. In any event, project proponents in Ontario will need to understand the post-closure requirements in order to be able to plan, cost, and design services that cover the ultimate life of the project.

Eligibility Requirements for Special Projects

Enbridge recommends that the designation of special projects be conducted through a robust request for project proposal that requires detailed information, including but not limited to a Business Model, Project Description & Location, Proponent's Operational Capacity, Risk & Mitigation, MMV Planning, Consultation & Regulatory Experience along with capability to provide open access CCS solutions for large emitters. On March 3, 2022 the province of Alberta issued a Request for Full Project Proposals for Carbon Sequestration Hubs[iv] which provides a good starting point for detailed information requirements for special projects with respect to evaluating eligibility.

Designating proposed projects to observe, test, assess, pilot or demonstrate a CCS activity should be evaluated with a high standard of care with successful project proponents required to have the technical, financial and operational capacity to manage such an important component of Ontario's energy system. Project proponents must be able to obtain all necessary regulatory approvals and ensure the safe and effective operation and closure of the project, to protect the integrity of Ontario's sequestration assets, while protecting the public and environment.

Authorizing special projects

For the authorization of special projects, Enbridge recommends that all special projects that involve the drilling of wells for observation, testing, piloting or demonstrating sequestration be approved alongside a

Risk Management Plan that demonstrates knowledge of the subsurface, how protection and integrity of the aquifer is preserved, the initial requirements of the MMV plan and develops the contingencies required to manage changes to plans as the project progresses including response to protection of the public and environment.

Enbridge is concerned that without knowing the details around how a special project is authorized, there may not be a method of resolving competitive projects that is in the best interest of the province. Enbridge supports a competitive process where project proponents that are interested in a "special project" are awarded and authorized based on merit and capability and not on a queue or an ad-hoc basis.

Special Projects are likely to be the potential pre-cursors to full scale commercial projects and therefore should be assessed, evaluated, and compared based on their likelihood of achieving utility scale commercial success.

Enhancing Protection of the Public and the Environment

Enbridge is supportive of the points listed in the ERO posting on enhancing protection of the public and the environment. Adding and expanding authority for inspectors to help protect the public and the environment is appropriate. Enbridge would encourage the province to go much further and consider the larger issues around protection of the public and the environment as it relates to facilitating utility scale CCS. Specifically:

1. A "whole of government" approach is needed to ensure alignment and consistency to best enable and support the development of a CCS industry in Ontario. The scope of "protecting the environment" should consider how best to maximize the overall quantity of CO_2 in Ontario to be captured and not released into the environment and instead, be permanently sequestered. Additional steps should include:
    a. The EPS needs to be amended to allow offsets whereby non-EPS registered emitters participating in CCS are able to create and sell offset credits to EPS registered emitters. Currently only the 360 large emitters in Ontario are able to reduce their exposure to carbon charges using sequestration of CO_2. Others should be able to participate.
    b. The Mining Act should be amended to allow the long term storage or sequestration of CO_2 on crown land. Enbridge estimates that two thirds of the saline aquifer pore space that may be suitable for CCS currently lies under crown land in the Great Lakes.
    c. The Ministries of Economic Development, Energy and Finance should also be involved to help facilitate and implement a CCS framework that helps Ontario's industry stay competitive and continue to grow.

2. Enbridge would encourage the government to amend the current Roadmap plans from a "two step" approach with private land first and then crown land later to merge these two tracks of work. The saline aquifer pore space currently considered the best and largest target for CCS in Ontario is a regional aquifer – stretching hundreds of kilometres and laying under thousands of square kilometres. Unlike traditional oil or natural gas reservoirs or natural gas storage reservoirs, (with a known and limited areal extent), injecting CO_2 into a regional aquifer will likely result in a plume that could develop and extend under dozens and dozens of private properties and, if the well is close to the shoreline of a Great Lake, it could easily extend under the crown land there. We encourage a plan that begins with the end in mind. To best protect the environment, we need to maximize the quantity of CO2 sequestered over time and start quickly. Enbridge supports an approach that would best facilitate large "utility" scale projects that have the best potential to drive costs down, via economies of scale, to achieve more affordable GHG reductions.

3. Given the relatively small area of the province that has potentially good geology for CCS and the magnitude of the industry and emissions, and that the Government already controls the pore space under crown land, Government should be taking a more assertive and strategic stewardship role in managing all saline aquifer pore space in Ontario, including that under private land. Other provinces like Alberta and recently British Columbia have recognized the importance of this stewardship role of government and have vested the pore space on behalf of all their industry and residents. Vesting the pore space will clearly put the management of this limited resource in the hands of the Ontario government and allow for strategic optimization and planning of how best to manage and develop CCS capacity in Ontario. This will also help expedite the timing of CCS development and provide certainty to CCS project developers that access to suitable pore space will be through a robust and competitive process whereby the province has significant influence over how the resource is developed and optimized.

In proposed amendments to the OGSRA, to remove the prohibition on carbon sequestration ERO posting Enbridge submitted specific comments around Crown vesting of pore space in saline aquifers for the reasons mentioned above. The rationale for vesting remains valid and Enbridge re-iterates and summarizes this again below.

Crown vesting of CCS pore space in saline aquifers

For the Government to manage Ontario's saline aquifer resources most efficiently for CCS opportunities, Enbridge suggests that the province of Ontario take an assertive and strategic stewardship role in overseeing the optimization of suitable pore space by following the leads of Alberta and BC and vest all pore space in saline aquifers for the purpose of CCS.

While Enbridge appreciates that Crown vesting of pore space is not a familiar concept in Ontario legislation,[v] we strongly recommend its adoption as the most sound and efficient approach to successful and timely CCS project development in saline aquifers. This is because it is best suited to Ontario's geologic potential and geographic location of its largest emitters and it has already been applied successfully in Alberta, Canada's leading jurisdiction for the development and implementation of CCS projects.

Recent steps taken by the Government of British Columbia in advancing a regulatory framework for CCS in that province affords learnings for Ontario as well. In November 2022, BC introduced Bill 37, *Energy Statutes Amendment Act, 2022.* While speaking in the BC legislature, the Honourable Bruce Ralston (Minister of Energy, Mines and Petroleum Resources) announced "Additional amendments to the Petroleum and Natural Gas Act will move forward the CleanBC strategy to decarbonize our economy by providing regulatory clarity for carbon-capture-and-storage projects. The proposed legislation will also give the government the right to use underground storage space deep under private land and authorizes government to use it as it would any other subsurface resource owned by government. These changes will clarify the government's authority to regulate the safe and effective storage of carbon dioxide and support the carbon reduction goals in the CleanBC Roadmap to 2030."[vi]

Interestingly, in March 2023, when the Canadian Federal Budget was released, the details pertaining to the Investment Tax Credit (ITC) for Carbon Capture, Utilization and Storage included a recommendation that the ITC eligibility be extended to British Columbia: "Following an evaluation of the province's regulatory framework, the Minister of Environment and Climate Change Canada has recommended that British Columbia be considered an eligible jurisdiction for dedicated geological storage. As such, Budget 2023 proposes that British Columbia be added to the list of eligible jurisdictions for dedicated geological storage, applicable to expenses incurred on or after January 1, 2022"[vii]

Ontario needs to take similar, meaningful steps, like BC, to uncap our province's geological and investment potential for CCS projects, by providing regulatory certainty regarding pore space access/rights and joining the ranks of provinces that are eligible for the federal ITC for CCS (currently, BC, Alberta, and Saskatchewan).

Furthermore, the Crown vesting option is preferred for the following reasons:

- **Prudent management of a scarce resource for the public good –** Saline aquifers in Ontario that are extensive and accessible enough for CCS projects are a finite resource and they must be developed in an efficient and effective manner to preserve their full potential for Ontario residents and businesses. Title to pore space is a critical element of the CCS Roadmap for the Government to "get right" and to manage it closely to enable successful CCS project development, especially given the large tracts of pore space that will be required for CCS projects in Ontario. Project proponents need title certainty and Crown vesting as proposed will enable dealings with a single, responsible pore space owner who can then establish consistent conditions for access in the public interest.

- **Ensuring public safety and environmental protection –** Because CCS projects have not yet been developed in Ontario, there will inevitably be a period of testing and evaluation that the Crown will be able to closely manage and monitor through agreements with project proponents, as noted above. In addition, the existence of a single pore space owner will more effectively facilitate the development of a prudent long-term liability regime (further discussed below) to ensure the integrity and safety of CCS sites post-closure. The Government can also adjust its arrangements with project proponents to help achieve Government objectives for emissions abatement in a controlled manner.

- **Certainty for CO_2 storage project developers, stimulating investment –** Clear Government sponsorship and leadership and the ability for project proponents to access all necessary pore space for a CCS project, will stimulate investment in CCS projects. The proposed Crown vesting approach avoids the need to create or adapt a compulsory acquisition regime which would otherwise be required to address pore space ownership uncertainties/opposition. It also avoids potentially challenging valuation problems.

- **Unlocking timely and lowest-cost CO_2 storage solutions –** Deep saline aquifers in Ontario are the most extensive, useable, well-situated and logical geological formations to target for Ontario CCS projects, and Crown vesting of these formations will not result in significant interference with existing property rights because these formations are not currently used to any significant degree for commercial activities. Enbridge proposes that surface landowners be entitled to compensation and fair land access terms where surface rights are required for CCS project facilities.

Enbridge suggests modelling the required Ontario legislative amendments after section 15.1 of Alberta's *Mines and Minerals Act* (see Attachment 2). The primary elements of this vesting legislation would be:

- A declaration that the pore space contained in saline aquifers below the surface of all land in Ontario is vested in and is the property of the Ontario Crown despite any existing grants to the contrary;
- The responsible Government ministry can enter into agreements with respect to the use of the pore space; and
- Deeming that no expropriation occurs and no person has a right of action to claim damages or compensation from the Crown as a result of this enactment.

Because vesting of pore space would be defined as limited to saline aquifers, a Crown vesting provision would not interfere with existing rights in any significant way as saline aquifers are only used for some brine disposal in Ontario today. Existing rights of this nature could be grandfathered as part of the legislative package. If the Crown vesting were extended to any pore space beyond saline aquifers, the Government would need to address any interference with existing rights, such as mining and mineral rights, oil & gas production rights and gas storage rights, more extensively. In any event, Enbridge favours preservation of all existing rights, given Ontario's well-established history of private ownership for many of its subsurface resources. Crown vesting for geologic formations other than saline aquifers is not as critical because to the extent they may be used for CCS, their geographic scope will be more limited and definable.

The Government may choose to enact a Crown vesting provision such as this in the *Mining Act*, *Conveyancing and Law of Property Act* or as a stand-alone statute. Upon request, Enbridge would be pleased to provide further examples of how other jurisdictions have addressed Crown vesting and similar requirements in the CCS and other contexts. Similar to the oil, gas and salt resource provisions of the *Mining Act* and the OGSRA, the Ontario Land Tribunal (OLT) could be authorized to determine disputes over surface land compensation or other elements of CCS project arrangements, as required. This is similar to the role of the Surface Rights Board in Alberta. Note that Alberta legislation ensures that existing rights related to oil & gas production, conservation or storage are preserved at the permitting stage for a CCS project.

If the province decides to proceed without vesting as described above, it will likely lead to further issues including, much more uncertainty for the Government and project proponents, the need to engage many more landowners, speculators leasing areas that they do not intend to actually develop, increased costs and it will require significant incremental time to acquire sufficient pore space rights to advance a project and potentially results in multiple proceedings before various tribunals, depending upon the legislative scheme adopted. It may also result in neighbouring projects interfering with each other and subsequent litigation. This alternative will not only take much more time to develop and implement (adding years to project schedules); it lacks a coordinated and systematic approach to develop limited geological resources, potentially squandering their full capabilities.

Conclusion

Enbridge appreciates the opportunity to provide feedback and recommendations on the proposed changes to the OGSRA to regulate projects to test or demonstrate new or innovative activities, such as geologic carbon storage, and to safeguard people and the environment. Enbridge requests consideration of the recommendations identified in this document and welcomes the opportunity to meet with you to discuss the consultation and recommendations in further detail. If you have any questions or require additional information, please do not hesitate to contact Nicole Gruythuyzen, Senior Advisor Government Affairs nicole.gruythuyzen@enbridge.com.

[i] International Energy Agency, *Net Zero by 2050: a Roadmap for the Global Energy Sector* (October 2021, 4th rev.), pp. 47, 60, 79-80; Canadian Energy Regulator, *Canada's Energy Future 2021* (2021), pp. 10, 16, 60, 76-78.
[ii] Enbridge's comments are available on the ERO here: https://ero.ontario.ca/comment/60191
[iii] From Page 40 of Pathways to Net Zero Emissions for Ontario, written by Guidehouse, for Enbridge and available here: https://www.enbridgegas.com/sustainability/pathway-to-net-zero
[iv] Available here: https://www.alberta.ca/assets/documents/energy-request-for-full-project-proposals-rfpp-guidelines.pdf
[v] An exception to this is Ontario's *Bed of Navigable Waters Act*, section 1, which provides that a grant is deemed to exclude the waterbed of a navigable body of water or stream for nearby lands.
[vi] Hansard for BC, Nov. 21, 2022, page 8225 – available here: https://www.leg.bc.ca/content/hansard/42nd3rd/20221121pm-Hansard-n250.pdf
[vii] The Canadian Federal Budget 2023 - https://www.budget.canada.ca/2023/pdf/tm-mf-2023-en.pdf