ERO Posting

Submission by Lagasco Inc.

January 9th, 2025

Re: Bill 228, Enabling the Development of Commercial-Scale Geologic Carbon Storage in Ontario: The *Geologic Carbon Storage Act* and Associated Regulations

Background

This is a submission filed by Lagasco Inc. ("LCO"), in respect of the proposed *Geologic Carbon Storage Act* ("*GCSA*") enabling legislation and its regulations, which are under development by the *Ministry of Natural Resources and Forestry* ("MNRF") and related ministries/agencies. LCO is highly supportive of the general direction that the Ontario Government is headed with this commercial-scale carbon storage ("CS") initiative, with certain specific reservations and requests set out herein. LCO's active business is presently heavily involved, deeply invested and knowledgeably expert in the commercial development of Lake Erie's subsurface natural resources.

LCO

LCO is Ontario's only sub-lake natural gas Crown lease holder, proactively operating its specialized marine fleet and Dive Team to service its 370 offshore natural gas wells and extensive connected network of underwater natural gas gathering pipeline assets on the Lake Erie bed, since 2018. While LCO has extensive onshore and offshore operations extending across most of the length of Lake Erie, LCO's most concentrated lease holdings and operations are located at the eastern end of Lake Erie. As such, the development of this legislation is anticipated (expected) at a minimum, to carefully consider and respect existing and future commercial resource extraction and potential for future natural gas development, possible gas storage and also CS activities as the detailed carbon sequestration regulatory framework is designed and implemented.

Crown Agency Responsibilities

The Ontario Crown, through its various, coordinated regulatory agencies, is the paramount regulatory authority responsible for the life cycle and delegation of these private CS and Crown sub-lake CS activities. LCO submits that:

- the MNRF is the most appropriate, expert regulatory agency having sole authority over subsurface geological and formation approvals, evaluations, management and related storage activities, as set out in the draft *GCSA*. Under the *GCSA*, MNRF is also responsible, *inter alia*, for monitoring developers' ongoing activities and decommissioning plans.
- The *Ontario Land Tribunal* ("OLT") is the optimal agency to be charged with managing land organization through unitization and that associated framework, including any necessary expropriation of land corridors for associated CS easements.
- The *Ontario Energy Board* ("OEB"), as an experienced quasi-judicial economic regulatory authority with 65 years of expertise in the provincial energy sector, is the appropriate agency to be confirming CS franchise boundaries recommended by the MNRF, and setting market-based storage and related range rates for storage developers, who proposed to develop a hub model in Crown-controlled pore space.

LCO Basic Submissions

LCO and its Counsel have reviewed the draft *GCSA* and endorse the basic approaches taken in the ERO Posting dated November 25, 2024. The safe, responsible and permanent commercial-scale storage of carbon dioxide within certain of Ontario's geologic formations can be achieved in a manner that protects the environment, public safety and drinking water while minimizing impacts on the activities of other land and resource users.

LCO is supportive of the proposed legislative division embedded throughout the draft *GCSA* between (i) research and evaluation activities and (ii) the permanent commercial storage licencing and permitting that may follow a successful application submission. This division makes sense as it facilitates a logical progression from research and testing towards permanent storage facilities, once sufficient evidence is in place to ensure environmental protection, commercial

workability and public safety. It is important that the regulations recognize that the party which undertook and invested in the research and evaluation be accorded priority, akin to a right of first refusal, in a delineated area in order to proceed towards a commercial storage licence.

The suggested provisions dealing with closing a carbon storage facility and returning the site to the Crown appear reasonable in respect of the need for decommissioning, remediation and restoration obligations. The Carbon Stewardship Fund is a reasonable cost-set-aside concept (utilized in other jurisdictions where CS programs exist or are in the process of being rolled out).

LCO believes that in the early stages (minimum first 5 years of post-initial operations), the Ontario government should consider supporting the initiation of the Stewardship Fund if monies are needed. When CS is successfully operating after a few years, then as long as the Fund fees are economically balanced and commercially sound so as not to jeopardize the overall facility development objective and long-term viability, fees can be proposed according to the known requirements at that time. An economic regulatory agency such as the OEB could be a suitable, qualified agency body to evaluate, update and make these detailed decommissioning financial determinations pursuant to the regulations. The MNRF respectfully does not currently have the economic regulatory horsepower to undertake this fee-setting evaluation and structure, cost allocation and rate design experience, so administering the ongoing, indefinite funding monitoring and collection set-aside processes could be a challenge.

LCO agrees that the proposed Part III, Section 12(1)(c) municipal endorsement for CS projects on Crown lands is a laudable objective. However, LCO respectfully cautions the Provincial Government that a municipal endorsement (otherwise known as a Municipal Support Resolution or MSR in the renewable energy world) ought not to be a required, mandatory, determinative or a necessary precondition to receiving a Ministerial permit for establishing a DSA and associated storage repository hub. It seems from the Roundtable discussion, that it would be preferable that the regulations should direct a negotiated and completed 'Community Benefits Agreement', which effectively allows the municipality and its residents to benefit financially and annually from the project revenues over the facility's life cycle. A further voluntary engagement with an interested municipality

could lead to a possible municipal equity interest in the project. Parties can be creative.

In southwestern Ontario, LCO's operations are deeply involved in many municipalities and communities. LCO has considerable experience in negotiating agreements with municipalities. A municipal veto is possibly a correct tool for some project which is truly local, but a veto also creates potential for unequal bargaining power and higher costs of an essential provincial service, which CS is becoming to preserve heavy emitting industries to remain in Ontario. Regrettably worse is the prospect that as multiple municipalities share a project geolgraphy, such as a shoreline and lakebed, all it takes is for one municipality to veto a CS project for whatever reason and that will kill the CS project.

A municipal rejection will adversely affect the industries that may need the nearby hub repository. At least for provincial Crown lakebed CS projects, municipal approval ought not to be a firm prerequisite as there are few if any services offered; these are offshore operations with minimal, if any, involvement or impact on municipal residents, which will receive fresh commercial tax revenues. LCO notes that in another provincial jurisdiction with existing CS development, decisions of an energy regulatory tribunal are binding on municipalities, which are required to issue appropriate approvals to facilitate a provincially approved energy development, including an approved CS development. See section 619 of the Alberta *Municipal Government Act*.

Engaging with local First Nations rights holders is a welcome feature of a commercial CS project. Depending on the consultation and levels of interest, this engagement could voluntarily evolve into a commercial relationship.

LCO is satisfied that at a high level, the proposed *GCSA* provisions appropriately address the ownership and balancing of rights in respect of both public and private pore space. What the regulations provide will be essential to establish this matrix correctly. The *GCSA* clearly sets out carbon sequestration and landowner rights and required consents in the case of private lands in a manner that is known in Ontario for natural gas storage development and ownership. These frameworks are consistent, already proven and workable, sometimes with considerable effort to gather the landowners together. Similarly, with respect to public lands, the enabling legislative framework seems reasonable, but LCO notes

there are many unknown potential pathways the Crown may take to ensure that the legislative framework objectives appropriately balance existing with new competing interests. Carefully defining, prioritizing existing and balancing new stakeholder and rights holder interests in the regulatory framework will be fundamental to comprehensive planning, attracting critical potential private capital investment, avoiding litigation and ensuring the best chances for successful CS developments.

LCO and Other Development Interests

Given the multiple, proximate existing Crown natural gas leaseholds that LCO holds, it matters greatly that there be a strong recognition in the enabling legislation and associated regulations that existing natural gas and future development interests be fully respected for safety, commercial, operational and environmental reasons. As a practical matter, LCO submits that the following critical issues must be addressed in the development of the regulations:

1. LCO's natural gas Crown leases currently convey the exclusive right to produce gas from <u>all</u> geologic formations underlying those specific blocks, including the pre-Cambrian and Cambrian formations. These rights are already contracted, reserved and must be respected and protected, as in Part III, Section 12(3)(d) of the *GCSA* appears to recognize. Respectfully, the Minister should not be permitted to issue CS authorizations in respect of pore space containing gas where the right to produce gas from that pore space has already been conveyed, however broadly, without the consent of the holder of those gas rights. Given the potential for overlapping interests in the same formations, doing so would create significant technical/operational and economic concerns for LCO and other existing gas rights holders.

2. It would be a sensible and normal adjunct/commercial amendment to the existing leasehold interests to allow for a Lessee, to be the first rights holder of any new, proximate storage repository space within and close to its ongoing operations as other proposed commercial activities must be precluded around existing, valid, multi-formation leasehold interests. It is LCO's position that CS operations which may be proposed by other

proponents - within the Ordovician and Cambrian Formations underlying or proximate to its leased lands - would highly and likely adversely impact its present and planned operations within those formations (and potentially others) and create uncertainty for LCO (ultimately impacting LCO's ability to finance its business and produce gas that generates royalties for the Province).

The regulations should have the effect of precluding other storage repository development or sequestration authorizations nearby existing resource development operations, without the consent of the gas rights holder. LCO recommends that the regulations should clearly reserve and preserve excluded public pore space and that there be a heavy onus on any party seeking to operate in or near existing leasehold public pore spaces to unequivocally demonstrate that there is no potential for disruption or sterilization of gas reserves, similar to how the existing legislation prevents development near existing natural gas storage sites. In LCO's view, and as our experts have advised, there are no suitable measures to mitigate such impacts, therefore, no CS authorizations should be issued in pre-existing leased areas other than to the proponent holding those leases. That approach would incent proponents to explore CS opportunities while being in a position to manage (and continue exploiting) existing rights.

3. Carbon plume migration is a known and practical geologic reality arising due to injection dispersion into adjacent leasehold spaces from the originating injection location. There are no fence lines or barriers in the Mount Simon sands in the Cambrian Formation, where injection is proposed – a Formation to which LCO has pre-existing leasehold rights and development interests as mentioned above. LCO strongly advocates that, similar to gas storage boundary determination, the *GCSA* regulations should allow for the creation of a storage repository within a Designated Sequestration Area ("DSA") boundary, for which a project proponent can apply to the MNRF. In the regulations, once the research and evaluation activities are completed and the overall location is proven sufficiently suitable for permanent carbon storage, the MNRF may endorse and

subsequently licence the DSA for proposed and future expansion operations.

At a minimum, a 'claim and hold' designation in the regulations should be available for existing Crown lake lease holders for the DSA proposed; this is similar to how Alberta reserves a given area for the proponent to convert to commercial-scale storage over time following the research, exploration and evaluation stages. In addition, to effect efficiency and consolidation where practical for an existing, concentrated leasehold area, the *GCSA* regulations should provide for an existing, qualified, local proponent to consolidate its lease holdings and access and include available adjacent in-fill leasehold interests in the proposed DSA [LCO emphasis]. However, this revised leasehold grant and licence into a consolidated DSA should *only* be permitted as long as the proposed DSA is being established on the conditional basis that the DSA will become an open-access CS hub, where multiple, qualified emitting entities will have the right, subject to the regulations and paying sequestration payments, to store their carbon emissions within the proponent's DSA hub.

4. The DSA hub is effectively a utility franchise area, which is a well-known model for a commercially protected regionalized asset and is seen to work well for natural gas storage. Such a hub must effectively be a protected (and lightly regulated) area for the CS developer in order to publicly secure an area, but it will also serve the purpose of notifying others of pre-existing rights, who may be considering similar developments in the region. The CS proponent must be able to justify the proposed boundary based on science and set-backs, and demonstrate its ability to knowledgeably develop, in a projected orderly manner, the entire requested DSA including performing geological and other studies to show plume containment within the desired storage structure.

   Reasonable regulations can properly specify these requirements in the proper commercial staging order, as long as they are commercially sensible and industry-acceptable, as the OEB can attest from its project and facilities approval experience. Regulations requiring expensive bid security, well/end-

of-life security too early, pre-mature application security, coring evaluations *prior* to filing or processing applications is to be avoided as these are inconsistent with good commercial practice and increases risks/creates significant impediments for the proponents. All of these requirements will happen – in due commercial course, but not when there is an absence of allocated funding raised or set aside. Prior Ontario experience in fostering new industries and energy ventures points to inviting proposals from parties without having to post unreasonable security at an application or bid submission stage.

LCO notes that there is no need in the *GCSA* or regulations for minimum storage volume requirements, nor minimum numbers of CS market participants as long as the principles of non-discriminatory, open-access are adhered to. North American energy markets generally work well and experience demonstrates that monitored, open-access conditions will attract participants in an evolving, functioning market environment, whether via a utility-type hub or private local CS facility.

5. LCO takes the position that others who drill through or into LCO's exclusive leasehold Formations are in effect committing an act of trespass, which is unnecessary if Ontario's conventional DSA principles are clearly adopted, refined and respected. Further, plume migration into existing leasehold areas from a prospective CS developer within a defined DSA, (which plume cannot be contained) constitutes a further act of trespass and interference. Interfering with LCO's present and future development opportunities in and around its existing leasehold interests is not welcome or recommended. LCO believes that clarity in the regulations will help alleviate tort and injunctive actions (e.g. in negligence and nuisance). The Minister will have the available regulatory tools to ensure that such conflicts and overlaps do not arise.

6. There does not appear to be a mechanism for a party to express concerns in respect of a third-party application for CS authorizations underlying or otherwise in proximity to leased lands. In Alberta, for example, a person who believes they may be directly and adversely affected by an application

in respect of an energy resource activity may file a statement of concern ("SoC") with the energy regulator. Where an SoC is filed, the regulatory authority may decide to hold a hearing on the application, in which case the SoC-filer would be afforded the opportunity to express their concerns and have those concerns considered by the regulator in determining whether to approve the application. The Alberta regulatory framework for CS development is based upon decades of acid gas disposal operations, and concerns of proximate gas rights holders with respect to potential lack of containment and migration of the acid gas plume have been repeatedly considered in acid gas disposal application hearings. The SoC process has proven to be an effective mechanism to prevent subsequent litigation in respect of subsurface conflicts. Beyond publicizing a proposed project by notice, the current draft *GCSA* does not expressly allow a potentially affected party to intervene in another party's application for CS authorizations, although this should be remedied in the proposed regulations.

7. The draft *GCSA* does not appear to allow a third party to appeal the issuance of a CS authorization. The draft *GCSA* allows a person who receives a notice of proposal under section 30(1) to appeal the proposal, or have the OLT review the proposal, if the notice relates to a research and evaluation licence or a storage licence. Section 30(1) requires the Minister to provide an applicant for an authorization or an authorization holder, as the case may be, with written notice if the Minister proposes to, *inter alia*, refuse to issue an authorization. Section 30(1) does not, however, require the Minister to provide potentially affected third parties with written notice if the Minister proposes to issue an authorization. As section 30(1) would not require the Minister to provide notice to LCO of its proposal to issue an authorization (even if the authorization is issued in respect of public pore space underlying or otherwise in proximity to the lands subject to the Gas Leases), the draft *GCSA* does not appear to enable LCO to appeal or have any agency formally review such a proposal. LCO submits that this unfairly prevents potentially impacted parties from having their concerns heard by way of an appeal.

8. LCO takes the position that the MNRF may wish to consider broadening the CS regulatory framework past the important geologic assessments and permitting to position some agency, such as the OEB, as the impartial economic regulator of any proposed hub structure and business. This will likely require amendments to the *OEB Act* and its regulatory framework. There are many well-known reasons to pursue this conventional pathway.

   The OEB has the requisite expertise to regulate many aspects of these types of projects in a balanced manner. The OEB has depth in regulating franchises and ensuring careful and prudent balancing of all stakeholder and rights holders' interests. The OEB's assessment would include determining a suitable level of project debt-equity financing, which leads to effectively assessing a project risk profile over various time horizons and ensuring to some extent the hub being economically sustainable over the long-term. Importantly, the OEB has extensive experience in setting 'just and reasonable' rates and conditions of utility-type services to ensure non-discriminatory access for multiple parties participating as customers at the hub. This is very important to the financial and investment community, and storage market participants, which will most effectively fund or pay fees towards these types of large-scale developments over multiple decades.

   A responsive, competent and flexible regulatory regime is a prerequisite to funding successful utility enterprises. Where hybrid market or 'range' rates for storage can prevail and substitute for intrusive, regulated monopoly rates, this is a worthy objective as it should invite a desired level of competition for investment into Ontario - where this makes sense. No energy agency in Ontario other than the OEB has this level of practical economic expertise, which in LCO's submission, is fundamental and necessary where *Crown* leaseholds are going to underpin and service multiple users in a hub context. This is the means by which the Crown, as Lessor on behalf of Ontarians, can be assured that there is no CS price gouging, no windfall profits to a single, regulated hub developer, which could have the adverse impact of discouraging emissions sequestration and worse, industry losing confidence and leaving Ontario, resulting in job losses.

9. As the MNRF knows, besides its Lake Erie gas production interests, LCO is an onshore producer of oil and gas through multiple wells, which could also serve as observation wells to monitor plume containment and observe stray carbon dioxide in the unlikely event of containment issues. No other party in Ontario has this existing network of geologic-Formation production wells. LCO's observation of stray carbon dioxide may well demonstrate that carbon dioxide is no longer being contained, or is at risk of ceasing to be contained, within the area of the storage repository identified in the permit holder's licence, which would constitute grounds for the Minister to order the CS operator to cease injection.

10. The Ministry's standard gas production and gas storage leases provide "[t]he Lessee shall not unduly interfere with other oil and natural gas production, storage operations or other mining operations in the [leased area or Premises], or in any manner cause undue public or private damage, inconvenience or nuisance." Assuming that permits issued under the *CGSA* contain a similar provision, a CS operator will likely be in contravention thereof where its operations interfere with LCO's natural gas production, which is another ground for the Minister to order the CS operator to cease injection.

11. LCO observes that sections 32 and 33 provide a mechanism for 'Disposition of review, licences' and 'Disposition of appeal, permits' in respect of proposals and suspensions. It is noted that either the Minister's decision or the Tribunal's decision (binding the Minister) is the final decision, effectively a privative clause. LCO respectfully submits that given the substantial levels of capital investment expected in these types of projects over decades, notwithstanding the restrictive privative clauses written into the draft *GCSA*, there should be normal judicial review recourse to the courts if there is an appealable decision on allowable administrative law grounds, rather than an abrupt end to the process if the project proponent believes that either the Tribunal of Ministerial decision is in error.

Summary

Overall, LCO believes that the Ontario Government and the *GCSA* sponsor Ministry, the MNRF, are on the right path to develop CS repositories through the draft *GCSA* and the pending regulations.

LCO believes that there should be clearly defined buffer areas built into the regulations which do not permit intrusion of other CS development entities into already existing Crown-leased spaces, especially where the risks of pressure and plume migration are likely, are impossible to mitigate, and legal issues can be foreseen and avoided.

There is a need for expanding existing broad powers of temporary and permanent easement expropriation for water, sewer, power and natural gas to be available as a critical development tool for CS, where connecting CS pipelines are needed to traverse private lands to connect to a CS compression station for injection, such as at a CS hub.

When it comes to a hub-type CS development at least on Crown lands, there appears to be a need for some type of light-handed economic regulatory framework to ensure that monopoly and monopsony powers do not thwart the provincial, public interest policy goals underlying the *GCSA*. An experienced regulator, possibly the OEB, acting in the public interest, can offer its expertise to assist the Province with fostering a watchful economic utility-type environment for viable competitive CS hub developments to the benefit of all Ontario emitters, which wish to store their emissions as a part of their future business operations.

It should also be recognized that a hub project may start out with one customer or emitter, and others joining at a later date when capture technology and transportation infrastructure for the CO2 are in place and operational. This relates to Part II, Section 9(3). There should be regulatory recognition and reasonable compensation provision for later CS customer additions to the CS system to pay to join and cover some of the initial costs of the CS facilities.

Finally, Lagasco observes there may be other points for the MNRF to consider:

1. To ensure that the CS framework and mechanisms are entirely workable commercially and otherwise, LCO would recommend that the MNRF make reference to the *1999 Ontario Electricity Market Design Committee*,

appointed by the then-government to restructure the electricity industry, which worked through a granular model of exactly how that detailed market innovation and transition would work. CS really requires a tight working group relationship with the MNRF and Government over a condensed period of time. This condensed activity could be undertaken at minimal cost, and would include a working group to draft a Gantt chart of activities and resolve all reasonable industry and regulatory issues that must be addressed in advance of the CS regime being implemented pre-Royal Proclamation.

2. How would a bidding process work outside of a pre-leased or investigative boundary area? For example, if a party applies for and is granted an investigative permit for a particular area, why should the area be put up for bid? This needs to be clearly outlined.
3. What is the status of needed amendments to the *Mining Act* to allow carbon storage on Crown lands? Have those been considered, as they do not appear to have been included in this Bill 228? That will have to be done before Crown land projects can be commenced.
4. Special project vs. investigation permit/license – what is the difference or relationship between the two? Are both able to be rolled into a storage permit if conditions are met?
5. LCO suggests that, where possible, there should be a one-stop regulatory/approval counter for these application filings and processing venues, similar to the Ontario Pipeline Coordinating Committee at the OEB.
6. When and in what legislation will expropriation rights for CS (and CAES and hydrogen) pipelines be introduced?

Thank you for the opportunity to comment.

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