

March 14, 2022

Attn: Public Input Coordinator  
MNDMNR - RPDPB - Resources Development Section  
300 Water Street, 2<sup>nd</sup> Floor, South Tower  
Peterborough, ON K9J 3C7

**Submitted online via: Environmental Registry of Ontario**

To Whom it May Concern:

**Re: ERO # 019-4770: Geologic Carbon Storage in Ontario**

The Ministry of Northern Development, Mines, Natural Resources and Forestry (“NDMRF” or the “Ministry”) has issued a discussion paper – “Discussion Paper: Geologic Carbon Storage in Ontario” (the “Paper”) – exploring potential legislative changes that would remove barriers to the storage of carbon dioxide in Ontario and enable creation of a regulatory framework to govern this and other new technologies. The Ministry is seeking feedback on the paper which includes proposed amendments to the *Oil, Gas and Salt Resources Act* and *Mining Act*.

Capital Power supports the Ministry’s efforts to reduce regulatory barriers for carbon capture and storage (“CCS”) in Ontario and the broader objective of establishing a policy framework to enable and encourage deployment of CCS in Ontario. Capital Power’s comments on the importance of carbon capture utilization and storage (“CCUS”), the proposed legislative changes, and potential next steps are provided below.

**Company Overview**

Capital Power is a growth-oriented North American wholesale power producer with a strategic focus on sustainable energy, headquartered in Edmonton, Alberta. Capital Power currently owns approximately 6,600 megawatts (“MW”) of thermal and renewable power generation capacity at 26 facilities across North America. More than two thirds of this capacity is located in Canada at 18 facilities, including three natural gas-fired facilities and two wind-powered facilities in Ontario. We employ roughly 700 employees across Canada.

**Importance of CCUS**

Capital Power is encouraged that the Government of Ontario (“Ontario”) is taking steps to remove regulatory barriers to CCS development in Ontario. We are supportive of Ontario’s climate objectives and targets and believe that CCUS will play a critical role in helping achieve these targets as well as Federal objectives. In the power sector, CCUS offers an immense opportunity to decarbonize thermal generation while helping to preserve the reliability and affordability of electricity. The Ontario Independent Electricity System Operator (“IESO”) has recognized the important role of natural gas generation to ensuring the continued reliability of

Ontario's electricity system and its key role providing flexibility to respond to changing system needs.<sup>1</sup> The Minister of Energy has also acknowledged this<sup>2</sup> and included in his request to IESO to develop an achievable pathway to achieve zero emissions in the electricity sector that it consider "the possibility of maintaining the generating facilities but replacing natural gas with green fuels such as hydrogen and renewable natural gas, or the development of utility-scale carbon capture and storage."<sup>3</sup> CCUS and low-carbon hydrogen production are intractably linked given the role of CCS in enabling the production of "blue" hydrogen.

Capital Power has a demonstrated and longstanding commitment to exploring the potential for CCUS in power generation that goes back more than a decade. CCUS, carbon conversion, and direct air capture, as well as wind, solar, and battery storage are all key components of the technology pathway we have established to achieve our own goal of being net carbon neutral across our power generation portfolio by 2050. Decarbonizing our North American gas assets will help to ensure that these facilities continue to provide reliable and affordable power and necessary grid services.

In Ontario, Capital Power is assessing hydrogen blending, CCUS, and direct air capture options as potential decarbonization pathways for our gas assets. This work is leveraging insights and expertise that we are developing through ongoing CCUS initiatives in Alberta. One of those initiatives – Capital Power's Genesee CCS Project – involves deployment of CCS on two repowered natural gas combined cycle units at our Genesee Generating Station which are currently under construction and will be the most efficient combined cycle units in Canada once completed. This project would represent an investment of between \$1.8 – 2.0 billion and capture 3.0 MT/y of carbon potentially by mid-2027, effectively providing a reliable, fully dispatchable, and near-zero emissions source of power (1,340 MW) for Alberta's grid.

### **Views on Proposed Legislative Amendments**

Capital Power supports the Ministry's consideration of changes to the *Oil, Gas and Salt Resources Act* and *Mining Act* frameworks that would narrow prohibitions on the injection of CO<sub>2</sub>, allow the Ministry to grant authorizations to use Crown land for carbon storage activities, and add the ability for the Ministry to enter into agreements with companies to use wells to explore, test, pilot or demonstrate carbon storage, and we look forward to an opportunity to review draft amendments should one be provided. Allowing pilot and demonstration projects will be critical to helping build Ontario-based experience with CCS and furthering development and refinement of the regulatory regime. Potential amendments relating to enhancing provisions for corporate accountability and existing public protections are of particular interest given that they may have implications on project risk profiles.

### **Considerations for Next Steps**

The proposed legislative amendments outlined by the Discussion Paper are a helpful step forward in terms of removing identified regulatory barriers to CCS development in Ontario. To further enable and attract CCS investment in Ontario, Capital Power believes consideration should be given to development of a provincial CCUS strategy. Such a document could help bring together perspectives from stakeholders across the CCUS value chain (i.e., capture, transportation, and sequestration) with respect to potential CCUS deployment opportunities in Ontario and what is needed to attract and enable such investments. It could also help link into

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<sup>1</sup> Independent Electricity System Operator (IESO), "Decarbonization and Ontario's Electricity Sector: Assessing the impacts of phasing out natural gas generation by 2030," October 7, 2021.

<sup>2</sup> Hon. Todd Smith, Minister of Energy to Lesley Gallinger, President & CEO, IESO, October 7, 2021.

<sup>3</sup> Ibid.

and leverage the ongoing work of the Federal government with respect to advancing and enabling CCUS. The following is a non-exhaustive list of outstanding policy issues that could be mapped out and addressed in a provincial CCUS strategy or, in the alternative, treated as priority areas for future consultation:

- Regulatory Framework: To help enable CCUS investment in Ontario, further work is necessary to understand how current regulatory permitting and approval processes apply to CCS projects across the value chain – i.e., capture, transportation, and sequestration – and identify any potential gaps or roadblocks. A clear and effective permitting regime will help to streamline project development. For electricity projects, Ontario will also need to ensure that the IESO's processes for resource procurement and re-contracting recognize and allow for consideration of CCUS and other decarbonization options and configurations.
- Transportation and Sequestration: Certainty with respect to transportation and sequestration hubs – including timing, location, and access – will be critical for developers considering large-scale CCS investment. Additional work is required to develop a framework for land rights acquisition related to pore space in Ontario.
- Financial Incentives: Another area of work relates to ensuring appropriate financial incentives for CCS. Capital Power expects that the CCUS Investment Tax Credit proposed by the Federal Government will address an existing financial challenge faced by CCUS projects across all sectors. Amendments to Ontario's Emission Performance Standard ("EPS") could also help address financing considerations and inform the business case for CCUS investment. Capital Power recommends that the EPS be amended to address situations in which captured carbon is stored on site and shipped to another facility to be geologically stored or stored off-site for Enhanced Oil Recovery. Off-site storage should be treated as an offset project. Development of quantification protocols for CCS as well as a legal liability system to address accidental or intentional release or removal of injected carbon are also necessary.
- De-risking Carbon Policy: The economics of CCUS investments, and particularly future revenue streams from offsets, are highly dependent on carbon policy assumptions that are vulnerable to material disruptions from future policy changes. This unique degree of policy risk cannot be effectively mitigated by investors and results in a heightened degree of investment risk. Commercial mechanisms and approaches between governments and proponents to mitigate adverse impacts in the event of carbon policy-related changes are required.

Capital Power appreciates the opportunity to submit comments on this important initiative and looks forward to continuing to work with Ontario on enabling and advancing CCUS. Should you have any questions related to this submission or wish to discuss, please contact me directly at 780-691-0064 or [gberry@capitalpower.com](mailto:gberry@capitalpower.com).

Regards,



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cc: D. Jurijew, Vice President, Government Relations, Regulatory and Environmental Policy