Capital Power
1200-10423 101 Street NW
Edmonton, AB T5H 0E9

January 18, 2021

Michael Bishop, Policy Advisor
Climate Change Program Development
Environment, Conservation and Parks
6th Flr, 135 St Clair Ave W
Toronto, ON M4V 1P5

Dear Mr. Bishop,

Re: ERO # 019-2709: Ontario Low-Carbon Hydrogen Strategy - Discussion Paper

The Ministry of Environment, Conservation and Parks ("the Ministry") has requested feedback on its Ontario Low-Carbon Hydrogen Strategy Discussion Paper by January 18, 2021. Capital Power provides the following comments.

Company Overview

Capital Power is a growth-oriented North American power producer, publicly traded (TSX: CPX), and headquartered in Edmonton, Alberta. We create dependable, cost-effective and innovative electricity solutions to power a sustainable future for generations to come. As a group of experts and innovators in our field, we work to deliver responsible power for communities across Canada and the United States. We develop, acquire, own, and operate power generation facilities using a variety of energy sources. Currently, we own approximately 6,500 megawatts (MW) of power generation capacity at 28 facilities across North America.

Ontario Assets

Capital Power owns five power generation facilities in Ontario, three natural gas-fired and two wind facilities representing roughly 1300 MW of capacity:

- 875 MW Goreway Power Station
- 200 MW York Energy Centre
- 84 MW East Windsor Cogeneration Centre
- 105 MW Port Dover & Nanticoke Wind
- 40 MW Kingsbridge 1 Wind

We have invested $1.5 billion over the last two years to acquire more than 1100 MW of efficient gas-fired generation. These facilities are located close to the GTA load centre with fast-ramping capabilities to supply reliability and security. We believe that Ontario will need existing gas assets to meet reliability due to the nuclear retirements and refurbishments and recovering demand growth. Carbon capture utilization and storage ("CCUS") and hydrogen blending can help support the continued longevity of these assets and we are investigating these options. Additionally, our renewable assets offer opportunities to explore green hydrogen production.

Powering a Sustainable Future

At Capital Power, we are committed to doing our part in the transition to a low-carbon energy future. In addition to being a leading renewable developer in Canada, we recently announced our goal to be net carbon neutral ("net-zero") before 2050. We have set ambitious targets to reduce environmental impacts across our fleet and have laid out a pathway to achieve this goal, including deployment of CCUS and hydrogen blending across our existing gas fleet. These efforts will support the longevity of our natural gas assets that provide critical grid services and support renewable integration in Ontario and across North America.

Also, as part of our net-zero efforts, Capital Power is transitioning off coal in 2023, six years ahead of government mandate. We are in the process of repowering and converting our existing Alberta coal fleet to utilize natural gas. Once repowering of our Genesee Unit 1 & 2 facilities is completed, they will become the most efficient natural gas combined cycle units in Canada. The units will also be 30% hydrogen ready at the start of commercial operations, with the capability of achieving 95% hydrogen capability and/or CCUS. This work will position Capital Power as a leader in the pursuit of carbon reductions through hydrogen blending in power generation.

Additionally, we are proud to be supporting the advancement and deployment of carbon conversion technology. We are investing in carbon conversion technology and proceeding with plans to build the world's largest commercial scale production facility of carbon nanotubes at our Genesee site. The project will use C2CNT technology to transform emissions from Genesee into highly valuable carbon nanotubes. Assuming successful testing and marketing, we plan to begin commercial production in 2021.

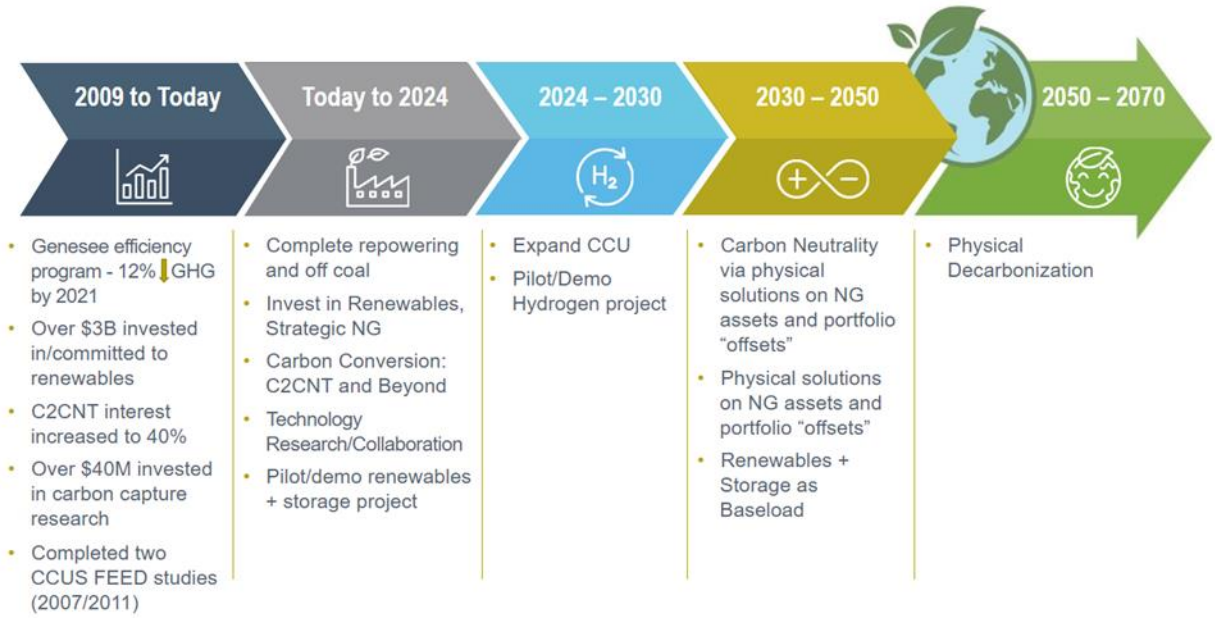
Views on Hydrogen

Capital Power believes that a holistic transformation of our energy system requires an "all-of-the-above" solution from our industry — one that expands our use of renewable energy, employs storage technologies to optimize those renewable sources and transitions to lower- and zero-carbon thermal generation through improved efficiency, CCUS and low-carbon fuels, including hydrogen.

Ontario is well-positioned to be a leader in development of the hydrogen economy. Ensuring an ambitious and accommodative framework for the advancement of hydrogen will not only support efforts to reduce emissions, but will also contribute to economic recovery and job growth.

CCUS and low-carbon fuels like hydrogen will be required to reduce emissions from industrial processes and to enable removal of carbon from the atmosphere. We expect that deployment of CCUS and low-carbon fuels will continue with efforts by industries and governments to accelerate adoption. Carbon conversion and utilization into valuable products can improve economics and advance the pace of development.

In the power sector, we expect that hydrogen blending will be increasingly adopted to decarbonize natural gas generation to ensure facilities continue to provide necessary grid services, ensure reliability and support renewable integration. As illustrated below, our corporate path to decarbonization includes consideration of hydrogen in the near to mid term.



Closing Comments

Capital Power looks forward to working with the Ministry to develop a resilient hydrogen strategy and we welcome the opportunity to meet with the Ministry to share our initial views in this regard. Please contact me at (780) 691-0064 or gberry@capitalpower.com to schedule some time, or should you have any questions regarding this submission. We appreciate the opportunity to provide comments on this important initiative and look forward to participating in all future consultation.

Sincerely,

Grant Berry
Director, Government Relations
Capital Power

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