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*Submitted electronically via ero.ontario.ca*

**RE: Consultation to support the important role for natural gas in Ontario's energy system and economy (ERO 019-9501)**

To Whom It May Concern:

Capital Power is pleased to have this opportunity to provide the following comments to the Ontario Ministry of Energy and Electrification's consultation related to the importance of natural gas on Ontario's energy system and economy (ERO 019-9501).

Capital Power is a growth-oriented North American power producer, publicly traded (TSX: CPX), and headquartered in Edmonton, Alberta. Driven by our commitment to *Powering Change by Changing Power*, we develop, acquire, and operate industry leading, utility scale generation facilities using a variety of energy sources. We own and operate approximately 10 gigawatts of power generation capacity across 30 facilities in Canada and the United States. Our Ontario portfolio includes five power plants including three natural gas and two wind facilities that contributes roughly 1,300 megawatts (MW) of generating capacity to Ontario's energy system. These facilities are the:

- 875 MW Goreway Power Station;
- 228 MW York Energy Centre;
- 84 MW East Windsor Cogeneration Centre;
- 105 MW Power Dover and Nanticoke Wind; and
- 40 MW Kingsbridge 1 Wind.

Capital Power has responded to Ontario's call for more power and was awarded five additional supply contracts as part of the Independent Electricity System Operator's (IESO's) Expedited Long-Term 1 and Same Technology competitive procurements. The development of these projects are well underway and include the:

- 81 MW East Windsor Cogeneration Centre Expansion;
- 40 MW Goreway Power Station Same Technology Upgrade;
- 38 MW York Energy Centre Same Technology Upgrade;
- 114 MW York Energy Centre Battery Energy Storage System (BESS); and
- 50 MW Goreway Power Station BESS.

As the Ministry knows, the world is in the midst of an energy expansion and in urgent need of balanced energy solutions. Capital Power agrees with the Minister of Energy and Electrification's message that it will take *"an all of above approach"* to meet the province's energy needs while maintaining reliable and affordable electricity. Coordinated development across energy infrastructure like pipelines, transmission, and electricity generation will be crucial in tackling Ontario's competing priorities of reliable, affordable, and

clean power while addressing the immediate, substantial increases to energy demand. It is as important as ever for effective integrated planning to facilitate decisive decision making and policy direction that will allow energy providers to develop at the speed required for Ontario to continue to grow their economy and satisfy their energy needs.

**Principles for planning and interconnections**

Consistent with our comments to the Electrification and Energy Transition Panel (EETP) and to the Ministry on both the IESO Pathways to Decarbonization Report and the Long Term Energy Planning Framework, Capital Power believes Ontario's energy planning activities should be: i) guided by the goals established by policymakers, ii) overseen by the Ontario Energy Board, and iii) facilitated by competitive procurement and system plans developed by the appropriate entities like the IESO and natural gas utilities. We further believe that the recommendations that we previously provided to the EETP remain relevant as guiding principles for the Ministry and OEB:

- Integrated energy planning should leverage existing energy infrastructure over the short- and medium-term to address affordability and reliability concerns;
- The Ministry of Energy and Electrification should establish the policy goals for long-term integrated energy planning;
- Integrated energy planning activities undertaken by the IESO, Local Distribution Companies, and utilities should support the government's policy goals while respecting the priorities of reliability, affordability, and the responsible pursuit of carbon emission reductions; and
- Competition and competitive pressures should be leveraged in integrated planning frameworks.

**Natural gas' role in supporting power system security and resiliency**

Natural gas-fired generation has been repeatably identified by the IESO as needed to support near-term reliability in Ontario. There is currently no like-for-like replacement for natural gas generation on the electricity system. Natural gas generators often act as a reliability backstop for other generation technologies as they remain available in all weather conditions and at all times of the year. They are contingency capacity for large baseload nuclear units in case they become unavailable due to refurbishments, turnarounds, or forced outages. They quickly respond to real-time changes in demand and provide frequency response and reactive power support. Natural gas generating assets also addresses localized reliability or congestion issues where other technologies or transmission lines cannot be effectively deployed. They remain an important part of any balanced energy solution and will remain so until new emerging technology can be commercially deployed at scale.

Unlike many other jurisdictions, Ontario has significant non-emitting baseload generation that makes their power system one of the cleanest in the world. Generally speaking, the province's natural gas-fired generation facilities only operate under specific conditions like in the upmost peak demand situations or to balance the system when intermittent renewables are not generating. By acting in this role, natural gas generation critically maintains a reliable and affordable electricity system and supports the integration of non-emitting sources such as renewables and emerging technologies like Small Nuclear Reactors (SMRs) that supports longer-term emission reductions of the electricity system.

**Natural gas' role in offsetting higher GHG-emitting fuel sources**

As stated within the government's *Ontario's Affordable Energy Future: The Pressing Case for More Power*, electrification has put the province on a path to reduce province-wide emissions even if it results in slightly higher emissions within the electricity sector. Capital Power agrees with this sentiment. As already acknowledged by the Ministry, electrification is often the most cost-effective alternative for other industries like steel and transportation to make meaningful carbon emission reductions within their own sectors. However, this will only be the case if electricity remains reliable and affordable – the primary role that natural gas generation plays in Ontario's energy system.

Considering Ontario's substantial need for power, natural gas generation development should not be limited. As already stated, it will continue to play a critical role in expanding the energy system to allow for further economic growth and electrification until a new, like-for-like technology becomes commercially available. The slightly higher carbon emissions from the electricity system are a result of an immediate and significant increase in power demand that is being driven by electrification, a growing population, and industrial growth. Any increase in the electricity system's emissions needs to be put into the context of broader provincial emission reductions, the Ontario government's policy goals, and the substantial reductions in emissions the electricity sector has already made through initiatives like the phase out of coal, adoption of technology, and energy efficiency programs.

**Challenges and opportunities for enhanced energy efficiency, adoption of clean fuels and emission reduction methods**

Capital Power has completed several feasibility studies on using various emission reduction technologies like carbon capture and storage (CCS) and hydrogen blending to reduce emissions of existing natural gas-fired generating facilities. CCS remains a technically feasible technology for natural gas power generation, but it is not economically feasible at this time. Our studies show that low level hydrogen blending can technically be achieved at existing natural gas generating facilities. However, such blending only results in minimal emission reductions and remains costly.

Capital Power continues to view Direct Air Capture (DAC) as a potential cost-effective technology that can be used to offset carbon emissions from natural gas generating assets – particularly natural gas generating facilities with low capacity factors. Programs or opportunities to further advance the development of DAC technology remains of interest to Capital Power.

**Closing Comments**

We appreciate the opportunity to provide comments on this important topic. Natural gas remains a critical part of Ontario's energy system and will remain crucial as the government continues to navigate the energy expansion and pursue broader province-wide emission reductions. We look forward to continuing our work with and alongside the Ministry and welcome the opportunity to answer any questions you may have. Please feel free to contact me directly at 780-392-5107 or ldeeg@capitalpower.com if you have any questions.

Sincerely,

Lukas Deeg
Senior Lead, Regulatory and Policy