



March 15, 2024

Environment and Climate Change Canada

Submitted via Email: Électricité / Electricity (ECCC) [ECD-DEC@ec.gc.ca](mailto:ECD-DEC@ec.gc.ca)

### **Re: APPrO Feedback to Draft Clean Electricity Regulations**

#### **Introductory remarks**

We thank the federal government for the opportunity to provide feedback to the changes being considered to address concerns expressed by various parties, including the Association of Power Producers of Ontario (**APPrO**), the Ontario Independent Electricity System Operator (**IESO**), the Ontario Ministry of Energy and others on the original draft regulations, published in August 2023 (“**Draft CERs**”) by the Ministry of Environment and Climate Change Canada (**ECCC**).

APPrO is proud to have established itself as a leader in the industry, representing various power producers across Ontario. Founded in 1986, our member companies build, own, and operate power projects across Canada, and produce most of Ontario's electricity from clean and renewable resources, including nuclear, hydroelectric, natural gas, biomass, wind and solar energy.

APPrO focuses 100% on the business issues of power producers in Ontario, including:

- electricity planning, market design, operations and power procurement;
- regulation of natural gas transmission and distribution;
- federal and provincial climate change rules and compliance mechanisms; and
- transmission development, and other energy issues.

APPrO's goal is the achievement of an economically and environmentally sustainable electricity sector in Ontario that supports the business interests of electricity suppliers, ratepayers, and the provincial

economy. We play a leadership role in the formation of energy policy and rules to facilitate investment in sustainable supply and efficient pricing of electricity in Ontario.

We believe that ambitious net-zero goals have the potential to transform Ontario’s economy, and the way families and businesses use electricity. The costs of meeting targets will be significant, if not historic, and so it is critical that investment and regulation be directed toward productive technologies and outcomes that support the energy transition without unnecessarily constraining economic growth and innovation, or system reliability.

APPrO has consistently noted that Ontario’s power system is already cleaner than jurisdictions like California, Germany, and the United Kingdom, with electricity representing approximately 2 percent of the province’s greenhouse gas (GHG) emissions, and further supports the decarbonisation of other sectors of the broader economy.

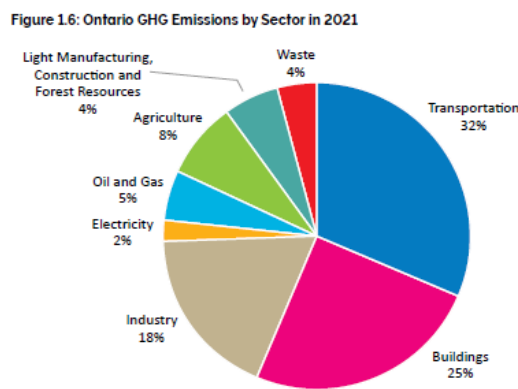


Figure 1 Government of Ontario: Powering Ontario’s Growth, 2023

This ‘Made-in-Ontario’ clean energy advantage is a powerful tool in the fight against climate change and means we have a grid that is net-zero ready to help drive economy-wide decarbonization and maximize the impact of climate-conscious choices Ontarians make every day. We must now leverage existing infrastructure to maintain system reliability, manage costs and preserve public support for Ontario’s net-zero journey.

In this regard, it is in the public interest to prioritize the benefits of achieving significant net economy-wide emissions reductions through electrification over modest increases in emissions from electricity generation caused by increased demand, as the Canada Electricity Advisory Council recently noted (and ECCC’s update recognizes): “...if the electricity system bears too great a cost burden or is unable to meet growing demand reliably, it will be hindered in its ability to support economy-wide net-zero emissions by 2050.”

We note that our submission is preliminary, given the latest Ontario IESO Annual Planning Outlook (APO) will not be released until March 18, 2024. We therefore may need to provide additional comments or otherwise modify this submission based on that planning document.

APPrO's original November 2024 submission<sup>1</sup> noted a number of key issues, which are worth repeating:

1. the 20-year post-commissioning end of prescribed life (**EoPL**) definition does not provide adequate time for the development of grid-scale replacement by other near-zero or zero-emitting technologies in Ontario;
2. the proposed 450 hours and 150 kilotonnes (kt) threshold is insufficient to meet Ontario's electricity system reliability needs;
3. the Draft CERs will result in insufficient flexible generation supply if a 95% carbon capture rate is not achieved in Ontario;
4. the 'emergency circumstances' exemption should be broadened to respect the IESO's statutory authority under the Ontario *Electricity Act* to dispatch resources as it deems appropriate to ensure system reliability and to maintain compliance with governing NERC electricity reliability standards and NPCC criteria; and
5. a periodic review of the CERs should be undertaken to check and adjust the regulation based on effectiveness in light of an evolving electricity sector.

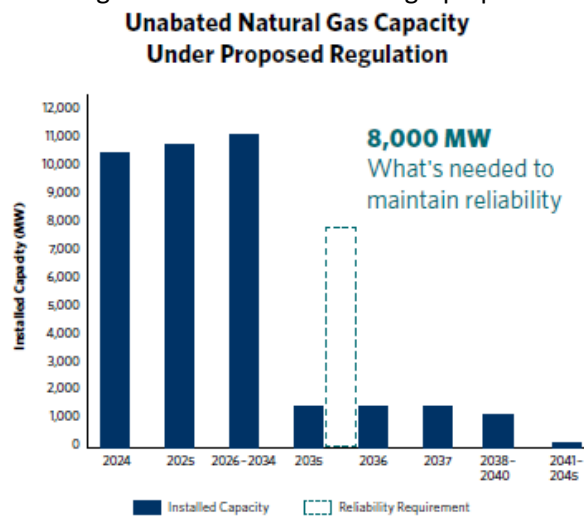
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<sup>1</sup> [APPrO submissions on the Draft CER 2Nov Final](#)

## Key observations and recommendations

On behalf of APPrO members, we offer the following key observations and recommendations on the current changes being considered by ECCC, bearing in mind that many do not provide much detail, and that further modelling and stakeholder engagement will be necessary before they are finalized.

- Achieving net zero requires an unprecedented amount of new and refurbished clean energy infrastructure, including utilizing existing and new technologies such as nuclear, hydroelectric, renewables, storage, hydrogen, while also advancing the deployment of zero-emission load-following resources (ZELFRs). It is unclear how much flexibility ECCC's changes will provide for system operators, asset owners and investors who will be required to deploy billions of dollars in new investment across the Ontario electricity grid.
- The scope and size of the challenge is reflected well in this graph produced by the IESO:



• *Figure 2 IESO: Phasing Out Natural Gas Generation in Ontario, Nov. 2023*

- The changes the federal government is proposing, while trending toward more operational flexibility for system operations, provide limited details about design elements on the federal proposal.
- In particular:
  - The proposed emissions limit approach lacks clarity, and the overall workability of the framework remains unclear until more details are released. This workability will depend on the chosen Emission Performance Standard (EPS) and End of Prescribed Life (EoPL). Overly stringent parameters would result in a disorderly energy transition.
    - APPrO recommends extending the EoPL to 30 years. This aligns more closely with what we understand to be the long-lead time planning, construction and in-service dates needed for the significant electricity capacity additions for 2035 - 2040. A 30-year EoPL will also provide a reasonable planning horizon to use as a basis for the final CER, and ensure Ontario avoids the capacity “cliff”, shown above, in 2035.
  - The CER must have an appropriate EPS that allows plants to operate economically, represents an emission level that can reasonably be achieved by facilities retrofitted with CCS, and provides enough flexibility for system operators to meet overall system reliability needs including generating capacity requirements for locally congested areas.

- Modelling and engineering work suggests that this will require an EPS of at least 125t/GWh. This emission level will allow most natural gas facilities in the province to operate economically, minimize stranded capital risks, and remain achievable for natural gas units retrofitted with CCS technology. The 125t/GWh EPS, in combination with the proposed pooling mechanism, will also provide the needed flexibility for system operators and market participants to address the reliability needs of the system and locally constrained areas.
  - We note that both the United Kingdom and the U.S. EPA have relaxed some of the emission standards that they have been considering. The EPA is opting to exclude existing generation from their Greenhouse Gas Standards and Guidelines for Fossil Fuel Fired Plants, and the UK released a report to have 100 t/GWh limit for new and refurbished units that qualify for their capacity markets. We recommend that ECCC consider these recent developments.
  - Clearly more modelling is required on this issue.
- Compared to neighbouring Great Lakes States, Ontario's system emits far less greenhouse gas per unit of electricity produced – seven times less than New York, 17 times less than Michigan and 26 times less than Indiana. Given the likelihood of asymmetry between Canada and the USA on emissions standards as applied to electricity generation, we recommend that emissions intensive electricity imports should be subject to a Border Carbon Adjustment (BCA) to ensure fairness to Ontario's electricity and other EITE sectors.
- The concept of a pooling mechanism is a valuable addition. Emission pooling could be fully enabled by allowing for trading among electricity operators within the same electricity jurisdiction.
- The use of removal offsets could enable technologies like DAC, which may be the most viable abatement option for peaking units that needs to remain on the system to support reliability or localized congestion. Avoidance offsets and Internationally Transferred Mitigation Outcomes (ITMOS) should also be considered in the initial years of CER and then decline over time. Such an approach would further incentivize new technology deployment as they become commercially available.
- Electricity is an essential service. Interruptions to supply are a public safety issue. The CER must consider this and allow for emitting supply to run when needed for reliability.
  - As the IESO notes, emergency conditions can materialize in real-time without warning. To maintain the reliability of the bulk system, a system operator must have sufficient authority to take action in real-time without a need to seek outside approval. It cannot wait for approval from the federal government, nor is that warranted either ex ante or ex post the event. Only the provincial authority has the competence to judge the necessity and appropriateness of emergency actions. Making such decisions potentially subject to criminal charges under CEPA seems perverse, to say the least.
  - Ontario does not exist in an isolated electrical world. It is part of a very large interconnected North American bulk power system through the Northeast Power

Coordinating Council (NPCC) and the North American Electric Reliability Corporation (NERC).

- Ontario is required under its interconnection and other operating agreements with neighbouring jurisdictions to supply electricity during tight system conditions and unexpected shortfalls. The NPCC geographic region includes Ontario, Quebec, New Brunswick and Nova Scotia, as well as the State of New York and the six New England. Overall, NPCC covers an area of nearly 1.2 million square miles, populated by more than 55 million people. In total, from a net energy for load perspective, NPCC is approximately 46% U.S. and 54% Canadian. With regard to Canada, approximately 70% of Canadian net energy for load is within the NPCC Region.
- The simple solution is to adopt already existing NERC regulations.
  - ECCC could consider (if it has not already done so) involving the Canada-United States (U.S.) Regulatory Cooperation Council (RCC) which provides regulators from Canada and the U.S. the opportunity to work together to reduce unnecessary regulatory burden on stakeholders, while continuing to protect the health and safety of citizens and the environment.
- A mechanism for periodic reviews of the CER should be included in the Regulations to ensure that the net zero direction for the electricity sector is supportive of Canada's broader 2050 net zero goal. This mechanism also provides an opportunity to strengthen targets if progress is faster than planned.
- APPRO recommends that ECCC provide another draft incorporating the comments received from this round before advancing to Gazette 2.

Thank you again for the opportunity to provide this feedback on behalf of APPRO members. We look forward to continuing to work with ECCC toward the issuance of the final CERs in a form that is truly achievable in Ontario.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Butters', with a long horizontal stroke extending to the right.

David Butters  
President & CEO