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**APPRO**

ASSOCIATION OF  
POWER PRODUCERS  
OF ONTARIO

August 17, 2022

The Hon. Steven Guilbeault  
Minister of Environment and Climate Change  
200, boul. Sacré-Coeur, 2nd Floor  
Gatineau, Quebec K1A 0H3  
Canada

Dear Minister,

The Association of Power Producers of Ontario (**APPRO**) is pleased to submit comments on the Proposed Frame for the Clean Electricity Regulations (**Proposed CER**).

We wish to make a preliminary point at the outset. Respectfully, the three mid-summer weeks that the federal government provided for consultations on the Proposed CER does not constitute “meaningful consultation” and is simply not sufficient for matters of this complexity or importance to the Canadian economy and Canada’s climate change goals. The transition of Canada’s electricity sector to net zero is a complex matter involving federal and provincial responsibilities as well as supply adequacy, reliability, and electricity system operations and markets. It would not be an exaggeration to say that there is “a Rubik’s cube” of moving pieces that contribute to the reliable, affordable, and sustainable operation of the varying electricity systems across Canada.

It is highly likely that the decision by Environment and Climate Change Canada (**ECCC**) to limit the current consultation period to three mid-summer weeks will have a negative impact on the quality of the comments it receives, and therefore there is a risk that comments will not be properly representative of the range of stakeholder views and expertise.

APPRO notes that our analysis is not exhaustive and has been limited in scope based on the time and resources available. We believe further discussions that would elaborate on the themes we have begun to develop in this submission would be productive. Accordingly, we would be pleased to engage in further detailed discussions with you or your department as you continue your development of the Proposed CER.

## **About APPrO**

The Association of Power Producers of Ontario (**APPrO**) is a non-profit organization representing Ontario's power producers and related businesses. Its 20 generator members produce the majority of Ontario's electricity from clean and renewable resources including nuclear, hydro-electric, natural gas, wind, biomass, and solar energy.

APPrO members build and operate power plants in Ontario, across Canada, and elsewhere in the world. APPrO's membership also includes fuel suppliers and marketers, contractors, equipment suppliers, consultants, local distribution companies, legal services providers and financial organizations.

APPrO's mission is to achieve an economically and environmentally sustainable electricity sector in Ontario that supports the business interests of electricity generators, ratepayers and the provincial economy. APPrO is the preeminent voice for electrical generators in Ontario and a trusted, positive, non-partisan contributor to discussions about energy planning and delivery.

APPrO has been deeply and directly involved in provincial discussions and consultations related to climate change mitigation efforts since 2008, particularly as a direct participant in the development of the Western Climate Initiative. All of APPrO's policy contributions over the last decade have been governed by a principled and cooperative approach that recognizes the importance of a transition to a lower carbon economy, while facilitating the reliable, efficient, effective, fair, transparent and sustainable operation of a viable electricity sector in Ontario, including the integral role of natural gas-fired electricity assets as critical infrastructure to enable that transition.

## **Background**

Electricity is essential to Ontario's social and economic well-being, and APPrO members play an important part in supplying this vital commodity.

Ontario became the first jurisdiction in North America to stop burning coal to generate electricity when it shut down its last coal plant in 2014. This continues to be the largest single action to combat climate change in North America to date. As a result of this and other energy policy decisions in the province, Ontario's electricity sector is virtually decarbonized (approximately 94 percent carbon-free<sup>1</sup>) with an effective estimated emissions rate of 30 kg/MWh in 2019. The sector is expected to be increasingly clean following the refurbishment of the Darlington and Bruce nuclear facilities, with Ontario's clean and efficient natural gas assets providing the necessary bridge in its transition to that cleaner future.

Ontario has among the very lowest electricity sector emissions rates in the world. By contrast, US electricity imports into Ontario, can be up to 300% higher in emissions than Ontario's clean natural gas electricity generators, and 3000% higher than the average emissions intensity of Ontario's electricity sector.

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<sup>1</sup> Decarbonization and Ontario's Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx>.

As you will be aware, affordability of electricity has been a major focus of Ontario public concern over the past decade. Ontario has experienced among the fastest growing electricity costs in the country and in North America. This affects ratepayers, businesses, and hampers the competitiveness of the province's manufacturing sector – which includes electric vehicles, battery storage, and renewables.

APPrO's view is that stacked and duplicative regulation can unintentionally result in an increase to the cost of clean electricity in Ontario with no additional (or sometimes reduced) environmental benefit. APPrO has recommended over a number of years that Ontario's clean electricity sector should not be further challenged with unnecessary regulation with no real environmental benefit, but rather clean and affordable Ontario electricity should be used to facilitate greater, beneficial reductions in the transportation and building sectors of the economy, where greenhouse gas (GHG) emissions are most significant, and rising.

While it is important for government to set a general policy framework with respect to the goals of transitioning to a sustainable economy including the eventual decarbonization of the electricity system, it is equally important for the federal government to respect the jurisdiction of provincial governments and the expertise of the private sector if economic prosperity is to be maintained and the transition to a net zero economy is to be realized .

## **Overview**

APPrO appreciates the opportunity to comment on the Proposed CER. The federal government has previously stated that Canada's Clean Electricity Regulations are being developed around three core "principles":

1. Maximize GHG reductions to achieve net-zero emissions from the electricity grid by 2035;
2. Ensure grid reliability to support a strong economy and ensure Canadians are safe by having energy to support their cooling needs in the summer and warmth in the winter; and
3. Maintain electricity affordability for homeowners and businesses.

APPrO endorses these principles, but for the reasons set out in the following pages it believes that many of the specific proposals set out in the proposed CER produce outcomes contrary to the federal government's stated objectives.

The three core principles are most likely to be supported if Canada pursues an approach that is governed by pragmatism, results, and affordability. Requirements that minimize the commercial realities of implementing zero-emissions technologies are likely to result in unnecessary spikes in electricity prices and a reduction in service reliability, both of which could jeopardize the adoption of low-emitting technologies in the broader economy, particularly in the building and transportation sectors.

Accordingly, APPrO advocates for an approach whereby the federal government commits to economy-wide goals and incentives for GHG emissions reductions, but leaves the commercial decisions relating to implementation of those goals to the actors and companies ultimately responsible and accountable for service delivery, subject to oversight from the provincial agencies and regulators constitutionally responsible for these matters.

The federal government's current approach risks precluding the implementation of efficient, market-based solutions that are already in development to further the overarching goal of net-zero. The collective impact of the federal government's Output Based Pricing System, Clean Fuel Regulations, Offset Regulation, Methane Regulations, and Proposed CER hinders local and regional action and risks leaving the federal government as a direct regulator of subjects where, without accountability and knowledge of the specific realities and stakeholders, unintended consequences can easily arise.

The commercial realities in Ontario of achieving an economy-wide **transition** to net-zero entail a requirement for pragmatic, viable solutions for affordable baseload generation and responsible and flexible load following and peaking electricity supply. The federal government should recognize that in Ontario, natural gas is an appropriate transitional fuel until capital stock reaches the end of a reasonable life span and sufficient cleaner load following and peaking electricity generation technology is commercially and readily available. This is the approach the federal government followed with much higher intensity coal-fired generation across the country, and it is reasonable to ensure that inter-sectoral inequities are not exacerbated by favouring coal-fired power generators over renewable and natural gas-fired electricity generators. This was evident in your approach to setting the differential OBPS for the different forms of fossil-fuel fired electricity generation.

A viable transition to a net-zero electricity system in Ontario should optimize new, existing, and efficient gas-fired generators and providing incentives for older gas fired generators to phase down earlier than the useful life of such older, higher emitting assets. In doing so, the Independent Electricity System Operator that is legislatively charged with electricity system planning should be satisfied that there will be sufficient flexible, responsive generation that can ramp quickly in order to facilitate the reliable integration of new cleaner energy suppliers including distributed energy resources and energy storage . Such an approach would promote electricity reliability and avoid the challenges currently experienced in jurisdictions that are being forced to re-energize mothballed fossil assets. Increased electrification and reliability are critically important in light of the increased demands that are predicted by climate-adjusted weather models. Such models predict less water, significantly hotter average temperatures, and more extreme weather events, each of which will present challenges for Ontario's "dual peaking" electricity system.

APPrO submits that these general positions are supported by consideration of the following facts:

- i. Ontario is a very low emission, reliable and affordable electricity jurisdiction and Ontario consumers have already invested very substantial rate and tax dollars to facilitate its near decarbonization;
- ii. Ontario faces a significant increase in energy demand in the coming years, which will place demands on all energy sources including gas generation;

- iii. The impending retirement of the Pickering Nuclear Generating Station (2026) will result in a significant baseload capacity shortfall (~3000MW) in Ontario for which there is no current replacement other than the existing fleet of hydro and natural gas-fired generation. Longer term solutions will require significant time and effort to come into play.
- iv. The transition to a net-zero electricity system calls for a pragmatic, electricity science- based approach grounded in the expertise of the electricity system operator (**IESO**), the Ontario Energy Board, and the reliable electricity market in order to support an economy-wide transition to net-zero;
- v. Provincial jurisdiction and expertise should be respected throughout the process of transition, and the federal government should take great care to avoid polarizing and penalizing low emitting electricity jurisdictions like Ontario and Quebec;
- vi. The Offsets Regulation and the OBPS system may be tailored to achieve the same electricity decarbonization goals in a manner that incents earlier capital stock turn over in a market-based manner, thereby avoiding unintended consequences for developing private sector activity;
- vii. Carbon capture and storage is of limited practical viability in Ontario;
- viii. Any discussion that involves increasing the cost of electricity in Canada should be carefully considered as potentially adverse to electrification efforts and should proceed only in tandem with pragmatic border carbon adjustments that have the effect of facilitating clean electricity exports and avoiding high-emission imports.

### **Ontario’s Electricity System Is Low-Emitting, Reliable and Affordable**

Approximately twenty years of progressive policy choices have produced an electricity grid in Ontario that is virtually decarbonized. As Ontario’s Independent Electricity Operator (**IESO**) recently noted:

*Less than a decade ago, Ontario’s electricity system made a seismic shift with the elimination of coal generation. Today it is 94 per cent emissions-free and contributes only three per cent to the province’s total greenhouse gas emissions – with nuclear power supplying the bulk of our energy needs and natural gas generation working to support wind and solar power.<sup>2</sup>*

The result is one of the cleanest systems in the world when it comes to GHG emissions per kilowatt-hour. Ontario’s grid is 93 and 92 per cent lower than the U.S. and German grids respectively, and 81 per cent lower than the rest of Canada.<sup>3</sup> As stated above, the sector is expected to be increasingly clean following the refurbishment of the Darlington and Bruce

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<sup>2</sup> Decarbonization and Ontario’s Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 1.

<sup>3</sup> Decarbonization and Ontario’s Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 3.

nuclear facilities, with Ontario's clean and efficient natural gas assets providing the necessary bridge in its transition to that cleaner future.

Ontario has been able to achieve this status as operating one of the cleanest electricity systems in the world alongside its continued, very limited use of natural gas generation as a source of peak power. The province is working to transition away from non-renewable natural gas in a responsible and practical way so as to approach net zero and further reduce the GHG emissions associated with electricity production. Ontario is evolving its strategic and responsible use of renewable and natural gas, including OEB orders pertaining to blending hydrogen and renewable natural gas content, which has the effect of limiting its impact on emissions.

The first reason why Ontario's gas plants have a limited emissions impact is because the plants are new and efficient. As of 2018, approximately 90% of the capacity was less than 10 years old. This generation constitutes 9,942MW (about 30% of total generation capacity) and supplied about 5.9 TWh (or about 4%) of Ontario's electricity in 2017. This was down from almost 12% in 2016.

The second reason for the limited emissions impact is Ontario's natural gas plants are primarily used for reserve purposes. The IESO describes the role of natural gas in Ontario's electricity grid as follows:

*While gas generation comprised roughly 28 per cent of the province's production capacity in 2020, it generated just seven per cent of energy used. As a readily available fuel source in Ontario, it provides energy consistently and confidently when it is needed most. As a result, it provides almost three quarters of the system's ability to match supply and demand under all conditions, a reliability service known as flexibility.<sup>4</sup>*

Ontario's natural gas-fired electricity generation facilities have the flexibility to be operated as base load, intermediate and peaking facilities as required by Ontario's IESO to ensure the reliable and efficient operation of the Ontario electricity system in response to the Province's daily and longer term needs, and a changing supply mix. Ontario's natural gas fleet has the ability to ramp up quickly, is easily dispatched and is essential for system reliability. It is integral to facilitating the achievement of the province's renewable energy goals by providing mid-load flexibility to support intermittent renewable generation resources such as wind and solar power or to backstop nuclear refurbishment plans and other risks and contingencies.

Peaking natural gas facilities<sup>5</sup> provide an important system need, i.e., they respond quickly to electricity system demand, and balance the fluctuating power needs of the grid at lowest cost when called upon. By virtue of their purpose, peaking facilities operate at low-capacity factors and have minimal opportunities to run more efficiently to reduce GHG emissions.

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<sup>4</sup> Decarbonization and Ontario's Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 9.

<sup>5</sup> Peakers generally run only when there is a high demand for electricity and generally on short notice. Peakers supply power only occasionally, and typically set the market clearing price when they run. Typically, they are gas fired, but can also be other kinds of supply.

On October 7, 2021 Ontario's Minister of Energy wrote<sup>6</sup> to the IESO requesting that it evaluate a moratorium on the procurement of new natural gas generating stations in this decade (reliability, cost, environmental considerations) and develop an achievable pathway to phase out natural gas generation and achieve zero emissions in the electricity sector. This work is due to be finalized in Q4, 2022. APPrO's strong recommendation is that, considering the IESO's statutory authority role and acknowledged subject matter expertise, engaged in real-time, every day operation of a reliable and affordable electricity grid, the federal government should pay close attention to the conclusions of this study. The same is true for other provincial jurisdictions.

### **Increasing Need in the Coming Years**

In Ontario, it is expected that as a result of the shutdown of the Pickering nuclear power plant at the end of 2025, expiring contracts with existing facilities, and refurbishments at other facilities,<sup>7</sup> there will be a need to increase electricity output from other Ontario generating facilities. Other options such as wind/solar/battery combinations cannot provide the same functions at this time. Natural gas will be required to provide cost-effective capacity, system reliability and back up of intermittent renewables as we approach net zero by 2050. Natural gas power generation has a very small impact on provincial emissions; it will continue to be used primarily to meet peak demands at the lowest cost for Ontario.

An anticipated increase over the coming decade in the demand for energy in Ontario serves to amplify this need for increased electricity output from renewable and natural gas power generation. The IESO projects that increased electrification as well as economic growth will produce a relatively significant increase in peak energy demand in Ontario by end of the decade.<sup>8</sup>

### **The Necessity of a Pragmatic Transition**

Recent modeling from the IESO demonstrates that a decision to force a premature removal of natural gas from Ontario's supply mix would produce significant unintended consequences. Modeling a phase out by 2030, the IESO states that even in the best-case scenario emergency actions such as rotating blackouts would frequently be necessary to manage energy shortfalls. The expected incremental cost would be \$27 billion, resulting in an approximate 60% increase to residential utility bills.<sup>9</sup>

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<sup>6</sup> [www.ieso.ca/-/media/Files/IESO/Document-Library/corporate/ministerial-directives/Letter-from-Minister-Gas-Phase-Out-Impact-Assessment.ashx](https://www.ieso.ca/-/media/Files/IESO/Document-Library/corporate/ministerial-directives/Letter-from-Minister-Gas-Phase-Out-Impact-Assessment.ashx)

<sup>7</sup> Decarbonization and Ontario's Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 10.

<sup>8</sup> Decarbonization and Ontario's Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 10.

<sup>9</sup> Decarbonization and Ontario's Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 15.

An outcome where energy bills spike is not only contrary to the federal government’s stated priority to maintain electricity affordability for homeowners and businesses, it would also undermine Canada’s progress towards net-zero. Decarbonization technologies and pathways like electrification must be reliable and affordable for Canadians to engage in the transitions necessary to decarbonize our economy.

This is particularly true in the building and transportation sectors, which are currently experiencing an increase in GHG emissions. As the IESO has noted, high electricity costs may deter consumers from investing in carbon reduction, such as through electric vehicles or other low carbon equipment.<sup>10</sup>

Maintaining a reliable and affordable electricity system can therefore be the most significant contributor towards a global reduction in GHG emissions, rather than obtaining incremental reductions to an electricity system that is largely decarbonized already on timelines that are overly aggressive given the alternative technologies currently commercially available at scale, and the time needed to bring them online. The IESO has examined where the greatest net benefit for GHG reductions resides and strongly advocates in favour of affordability and reliability as follows:

*An increase in electricity sector emissions does not necessarily mean an increase in economy-wide emissions. For example, an electric vehicle (EV) charged up in Ontario, produces only three per cent of the emissions produced by a similar car that runs on gasoline. Even if that EV is charged on the hottest summer days when gas is used the most, it still would produce only 40 per cent of the emissions compared to its gas counterpart.<sup>11</sup>*

*[N]o matter how resources are secured, an increase in electricity sector emissions does not necessarily mean an increase in economy-wide emissions. Switching from high-carbon fuels to low-carbon electricity could increase electricity sector emissions while reducing overall province- wide emissions.*

*The carbon intensity of the electricity system remains far below that of other fuels, such as gasoline for automotive transportation or fuel oil for space heating. As electricity consumption increases, the rise in electricity sector emissions could be reduced by increased energy efficiency, or incorporating more clean forms of supply, but at the right pace to ensure reliability.<sup>12</sup>*

## **The Case for Respecting Ontario’s Provincial Jurisdiction**

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<sup>10</sup> Decarbonization and Ontario’s Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 2.

<sup>11</sup> Decarbonization and Ontario’s Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 3.

<sup>12</sup> Decarbonization and Ontario’s Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 11.



Any approach to the Proposed CER should be respectful of provincial jurisdiction and should not conflict with the objective of mitigating GHG emissions through electrification and access to clean and affordable electricity.

The federal government can avoid jurisdictional overlap, the risk of direct regulation, and the risk of regulatory burden that precludes market efficiencies by adopting an approach that is based on increasing affordability of electricity through incentives to decarbonize. Possible measures where the federal government could play an important incentivizing role include:

- Maintaining affordability by accepting financial responsibility and liabilities should the government's actions through the Proposed CER otherwise risk decreasing the reliability of electricity in the provinces;
- Subsidizing early retirement where reliability can be maintained, rather than penalizing generation;
- Providing specific financial support in the development of hydrogen thermal plants, as well as financial support for low carbon fuel supply chains.

The current proposal risks contributing to regulatory confusion and overlap, as well as making electricity far more expensive for Canadians who might otherwise electrify and contribute to an economy-wide transition to net-zero. The federal government should not overlook the cumulative effect that the multiple price adders from each and all of the Output Based Pricing System, the Clean Fuel Regulations, and the Clean Electricity Regulations produce.

Provincial governments and private enterprise should be allowed to take the lead in the implementation of electricity policy in Canada as well as the ultimate delivery of services in accordance with the constitutional division of power. Not only does expertise generally reside with the provinces and private sector actors who have built extensive experience in the complexities of the system, these are also the entities who are ultimately accountable for the success or failure of the electricity system. The federal government should generally refrain from attempting to exercise electricity jurisdiction without accountability in areas that may disrupt the electricity grid homeostasis, which is finely tuned and regulated by each and all of provincial governments, provincial energy regulators, electricity system operators, and North American standards.

This division of powers is also consistent with the Supreme Court in the recent *References re Greenhouse Gas Pollution Pricing Act*,<sup>13</sup> (**Carbon Pricing Reference**), where the Court limited the federal jurisdiction to carbon pricing stringency and cautioned that it should not be used to encroach upon areas of provincial jurisdiction.

The Court specifically cautioned that the federal government should not encroach on s.92A(1)(c) (citing the precise jurisdiction over electricity generation facilities). It found that:

- Para 71: The legal effects of the GGPPA are thus centrally aimed at pricing GHG emissions nationally. The GGPPA does not represent an attempt to occupy other areas

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<sup>13</sup> 2021 SCC 11.

of the field of GHG emissions reduction that were discussed in the Pan-Canadian Framework, such as tightening energy efficiency standards and codes, ***taking sector-specific action with respect to electricity***, buildings, transportation, industry, forestry, agriculture, waste and the public sector, and promoting clean technology innovation.

- Para 175: GHG pricing does not amount to the regulation of GHG emissions generally. It is also different in kind from regulatory mechanisms that do not involve pricing, ***such as sector-specific initiatives concerning electricity***, buildings, transportation, industry, forestry, agriculture and waste.

In short, there are several important factors that support a federal approach that is supportive of incentives for electricity decarbonization and not direct regulation of electricity generation facilities in the provinces. The Supreme Court has effectively confirmed that the strong expertise of the provinces in the electricity sector, the fact that it is provincial entities that are ultimately accountable for the relevant outcomes, and the advantages of avoiding undue regulatory complexity and burden. APPrO submits that the federal government may better achieve the country's transition to a net-zero electricity system through an approach focused on incentivizing action rather than directly regulating specific approaches for the electricity sector.

### **Offsets as an Example of Risking Unintended Consequences through Government Intervention in the Market**

The risk of unintended consequences is especially acute in the area of offsets. By mandating zero emissions among electricity generating units by 2035, unintended effects in the offset market are likely to result. The net zero carbon initiatives that otherwise currently pay a premium for clean energy as part of scope 2 emissions will no longer need to access offsets to meet their obligations.

This change in itself is not inherently positive or negative. Instead, it underscores that government intervention in the market will almost certainly have effects beyond the intended focus of government action. How the relevant developing private markets react to unexpected government intervention is impossible to predict. The range of unintended consequences is similarly challenging to foresee.

### **Carbon Capture and Storage Is of Limited Viability in Ontario**

Although there is significant potential for large-scale carbon capture and storage (CCS) in the long-term, this technology is currently not feasibly deployed in Ontario and depends greatly on the availability of suitable geography in the province. It is also costly, with relatively high capital and operating costs.<sup>14</sup> This is especially the case for CCS with natural gas fired electricity generation in Ontario.

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<sup>14</sup> Decarbonization and Ontario's Electricity System, Independent Electricity System Operator: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx> at page 23

Recent studies have revealed that Ontario generally lacks suitable geography for CCS, meaning that it is likely to remain more costly for the foreseeable future with relatively high capital and operating costs.<sup>15</sup>

Ontario has identified areas in Southern Ontario underlain by sandstones that act as saline aquifers as being the most suitable geology for large-scale CCS projects in Ontario.<sup>16</sup> Ontario's Ministry of Northern Development, Mines, Natural Resources and Forestry (the **Ministry**) is currently consulting on proposed amendments to the *Oil, Gas and Salt Resources Act*, to provide clarity and the removal certain of prohibitions on granting authorization for the use of Crown lands for carbon capture and storage. In its discussion paper on geological carbon storage in Ontario, the Ministry noted that historical and ongoing drilling for oil and gas in Ontario has affected the suitability of many of Ontario's current and former hydrocarbon reservoirs for CCS projects, many of which are located in Southern Ontario.<sup>17</sup>

Further, potentially suitable sedimentary rock formations identified in Ontario's far north and the Ottawa/St. Lawrence Valley are for various reasons including shallow depths, thin rock layers, remoteness, distance from emissions sources, and logistical challenges unlikely to be suitable for CCS projects.

### **The Clean Electricity Regulations Cannot Proceed without Attention to Border Carbon Adjustments**

It is essential that any discussion concerning the transition to net-zero in Canada's electricity sector include a discussion of border carbon adjustments.

As APPrO wrote in a recent submission to the federal government,<sup>18</sup> Border Carbon Adjustments (**BCA**) are a mechanism designed to help mitigate inefficient outcomes associated with pricing the carbon emissions from carbon emitting electricity production.

APPrO is supportive of a BCA structure that aims to level the playing field with respect to efficient and effective electricity trade with Ontario's neighbours. We strongly submit that it makes little very sense to increase the cost and decrease the export of low-emitting natural-gas fired electricity production from Ontario, while encouraging cheaper, higher emission electricity from the United States to be imported without a commensurate carbon price.

Emissions intensive electricity imports should be required to purchase emission allowances to cover the deemed emissions associated with the imported electricity. This will balance the

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<sup>15</sup> IESO, Decarbonization and Ontario's Electricity System, Independent Electricity System Operator (7 October 2021), p. 23, available: <<https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Decarbonization-and-Ontarios-Electricity-System.ashx>>.

<sup>16</sup> Geological Sequestration of Carbon Dioxide: A Technology Review and Analysis of Opportunities in Ontario, Ontario Ministry of Natural Resources (2007).

<sup>17</sup> Ontario, Discussion Paper: Geological Carbon Storage in Ontario (January 2022), p. 3, available: <[https://prod-environmental-registry.s3.amazonaws.com/2022-01/Geologic%20Carbon%20Storage%20Discussion%20Paper%20-%20FinalENG%20-%202022-01-04\\_0.pdf](https://prod-environmental-registry.s3.amazonaws.com/2022-01/Geologic%20Carbon%20Storage%20Discussion%20Paper%20-%20FinalENG%20-%202022-01-04_0.pdf)>.

<sup>18</sup> Please see our submission in response to the discussion paper "Exploring Border Carbon Adjustments for Canada".

playing field for all generators and ensure the success any BCA as well as ensure fairness to Ontario's electricity and other EITE sectors.

The Ontario electricity context is unique and must be both well understood and accommodated in the design and implementation of any applicable BCA. This involves both federal and provincial responsibilities as well as electricity system operations, resource adequacy, reliability, and electricity markets. An electricity BCA must be consistent with Ontario's constitutional jurisdiction over electricity and ensure that Ontario is not treated in a discriminatory manner as a result of inconsistencies in: (i) carbon pricing; (ii) implementation; and (iii) the benchmark carbon reference price.

## **Conclusion**

Ontario's electricity sector will play an integral role in decarbonizing not only the Ontario but also the Canadian economy. The province's "Made-in-Ontario Environment Plan" indicates that Ontario will rely on increased electrification of buildings, electric vehicle transportation, industry performance standards, clean fuels, natural gas conservation, and innovations to drive decarbonization and help Ontario achieve its climate targets of reducing emissions by 30 per cent below 2005 levels by 2030.

The reliable production and dispatch of Ontario's supply of clean electricity sources is supplemented and backed up primarily by highly efficient combined cycle natural gas-fired electricity facilities. Ontario's existing and future clean electricity assets will play a vital role in helping Ontario and Canada transition to a decarbonized economy. Ontario must be able to preserve the value of its investments made on behalf of ratepayers. This includes ensuring its strategic long-term investments in gas fired generation avoid being prematurely underutilized or stranded as a result of policy actions designed to reduce economy-wide emissions.

Canada is a large and diverse country; energy is produced and consumed differently across its distinct regions. The provinces and territories differ in terms of energy resource availability, infrastructure, industries, energy and environmental policies and regulations, energy market structures, consumer preferences, and weather conditions. These differences greatly influence current and projected energy trends.

The current proposal risks contributing to regulatory confusion and overlap, as well as making electricity far more expensive for Canadians who might otherwise electrify and contribute to an economy-wide transition to net-zero. The federal government should not overlook the cumulative effect that the multiple price adders from each and all of the Output Based Pricing System, the Clean Fuel Regulations, and the Clean Electricity Regulations produce.

Provincial governments and private enterprise should be allowed to take the lead in the implementation of electricity policy in Canada as well as the ultimate delivery of services in accordance with the constitutional division of power. Not only does expertise generally reside with the provinces and private sector actors who have built extensive experience in the complexities of the system, these are also the entities who are ultimately accountable for the success or failure of the electricity system. The federal government should generally refrain from attempting to exercise electricity jurisdiction without accountability in areas that may disrupt the electricity grid homeostasis, which is finely tuned and regulated by each and all of

provincial governments, provincial energy regulators, electricity system operators, and North American standards.

This division of powers is also consistent with the Supreme Court in the recent *References re Greenhouse Gas Pollution Pricing Act*,<sup>19</sup> (**Carbon Pricing Reference**), where the Court limited the federal jurisdiction to carbon pricing stringency and cautioned that it should not be used to encroach upon areas of provincial jurisdiction.

The Ontario electricity context is unique and must be both well understood and accommodated in the design and implementation of any CES. This involves both federal and provincial responsibilities as well as electricity system operations, resource adequacy, reliability, and electricity markets. The CES should take into consideration, the unique challenges and opportunities that each jurisdiction faces, with the ultimate goals of affordability, reliability and GHG reductions, and be consistent with Ontario's constitutional jurisdiction over electricity to ensure that Ontario is not treated in a discriminatory manner as a result of inconsistencies.

Sincerely,

A handwritten signature in black ink, consisting of a large, stylized loop followed by a horizontal line and a small flourish.

David Butters  
President & CEO

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<sup>19</sup> 2021 SCC 11.