Canadian Renewable Energy Association | Association canadienne de l'énergie renouvelable

October 10, 2022

Ontario Ministry of the Environment, Conservation and Parks
Financial Instruments Branch - Policy Unit
40 St Clair Ave W, 8th Floor
Toronto, ON M4V 1M2

Thank you for the opportunity to provide comment on the proposed Emissions Performance Standards (EPS) program regulatory amendments for the 2023-2030 period. The Canadian Renewable Energy Association (CanREA).

Ontario has achieved great success in the decarbonization of its electricity grid over the last two decades, and in 2021, Ontario's electricity supply was 90% non-emitting. Looking forward, however, the IESO is projecting a five-fold increase in electricity sector emissions over the coming two decades under current policies, reaching nearly 12 million tonnes of CO2-equivalent emissions by 2030 and over 18 Mt by 2042 due to increased reliance on natural gas generation. This would undo all progress in electricity sector decarbonization achieved since 2010. In short, the province's clean electricity advantage over our peer jurisdictions is at risk, and the loss of Ontario's clean electricity advantage will adversely impact the province's ability to compete for jobs and investment from a global business community with increasingly stringent Net Zero commitments.

A sufficient supply of affordable and non-emitting electricity will also be vital for achieving the GHG emissions reduction target set out in the Made in Ontario Environment Plan of 30% below 2005 levels by 2030, a reduction to 143.3 Mt by 2030—17.6 Mt lower than the 2030 business-as-usual forecast of 160.9 Mt. This already challenging target will be made even more difficult to reach with 8.2 Mt of additional emissions from electricity generation in 2030 compared to current levels.

New performance standard

The performance standard for electricity generation in this proposed EPS Methodology would decrease by 16%, from 370 to 310 tCO2e/GWh from 2023 to 2030, and would continue to exclude electricity generation from the application of a stringency factor. The updated federal benchmark specifies that carbon pollution pricing systems must have a minimum carbon pollution price of $65 per tCO2e in 2023 rising by $15 per year to $170 per tCO2e in 2030.

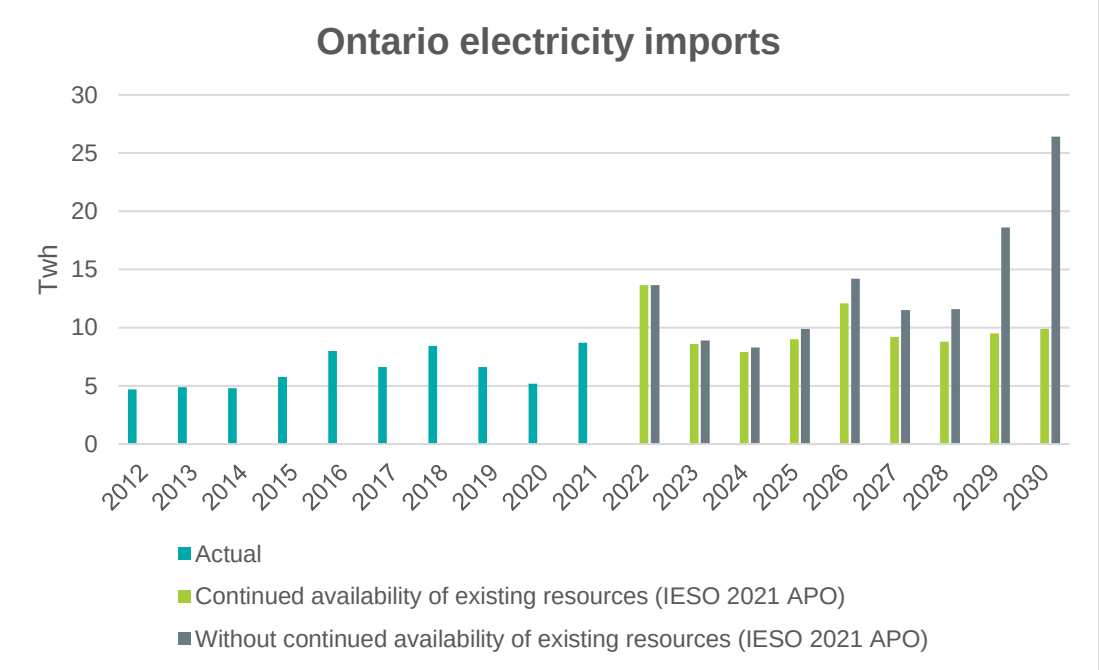
Assuming an average Ontario fleet-level average emissions intensity of approximately 520 tCO2e/GWh, the effective average cost per tonne of emissions from electricity generation under the EPS would be approximately $26 in 2023, increasing to approximately $69 by 2030. While modestly more stringent than the 2021 benchmark, the proposed new performance standard remains in CanREA's view excessively accommodative of GHG emissions from electricity generation.

400-240 rue Bank Street 613.234.8716
Ottawa, ON K2P 1X4 Canada 1.800.922.6932

The proposed EPS is not aligned with the Government of Canada Output-Based Pricing System (OBPS), which set a performance standard for gaseous fuels used in newly commissioned electricity generation of 370 t/GWh each year from 2019 to 2020 inclusive, declining linearly until reaching 0 t/GWh in 2030. A clear and decisive commitment to increasing the stringency of the Ontario EPS for electricity generation in line with the federal OBPS to reach 0 t/GWh in 2030 would seem to be the most reasonable and appropriate path forward in terms of achieving the province's emissions reduction objectives while providing certainty to industry.

Carbon leakage: Application of the EPS to electricity imports

Last year, Ontario imported 8.7 TWh of electricity from Quebec, Manitoba, Minnesota, Michigan and New York. Over the 2022-2030 EPS compliance period, the province's average annual imports are projected to increase to between 9.9 – 13.7 TWh depending on the extent to which existing resources remain available post-contract[1]. This substantial increase in imports, including from jurisdictions with far more emissions-intensive electricity systems, could increase the risk of carbon leakage in the absence of some form of carbon border adjustment mechanism. Under the province's former Cap and Trade system, a Default Emission Factor (DEF) value was applied to peak vs. off-peak electricity generation from each interconnected jurisdiction and a carbon price was applied to imports accordingly.



[1] IESO 2021 Annual Planning Outlook (December 2021) – Available from: https://www.ieso.ca/-/media/Files/IESO/Document-Library/planning-forecasts/apo/Dec2021/2021-Annual-Planning-Outlook.ashx

Reinvestment and return of carbon pricing proceeds

CanREA strongly recommends aligning the EPS with the Federal OBPS in terms of reinvestment of proceeds from industrial emitters being returned via a merit-based program focused on reducing emissions from industrial facilities, and avoiding any form of returning of carbon pricing proceeds that has the effect of offsetting the carbon price through reductions in other charges, taxes or fees that change with the amount of carbon price paid.

In designing a program or mechanism to return EPS proceeds to Ontario businesses by reducing emissions from industrial facilities, we would urge the Ministry to consider the example of Alberta's 2021 Energy Savings for Business (ESB) program, which CanREA would regard as the gold standard for a program of this kind in terms of its simplicity, eligibility criteria, and effectiveness. We append to this submission a briefing note comparing Alberta's ESB program to the Environment and Climate Change Canada's comparatively challenging and inadequate "Climate Action Incentive Fund".

- **Eligible recipients**: All regulated entities and voluntary participants in the Ontario EPS framework should automatically qualify for reinvestment of carbon proceeds, regardless of company size, industry or any other criteria
- **Eligible rebate amount**: Defining rebate amounts on the basis of specific retrofit measures rather than evaluating applications on an individual project-by-project basis ensures far greater certainty and confidence on the part of proponents and makes the program vastly easier to administer.
- **Funding cap**: The funding cap per recipient ought to be sufficient to incentivize deep and ambitious emissions-reduction projects while at the same time ensuring that as many industrial emitters are able to participate. $500,000 per recipient is likely an appropriate maximum

We would strongly recommend that the Ministry ensure that solar PV is an eligible measure for any energy efficiency retrofit funding. Every additional megawatt (MW) of net-metered rooftop solar PV installed in Ontario will generate approximately $2 million in direct private-sector investment[2]; Dozens of full time-equivalent job-years of employment for Ontario workers (including in manufacturing, system design/engineering, installation, and maintenance)[3]; and reduced GHG emissions through avoided dispatching of costly and polluting natural gas peaking capacity during summer periods of high demand[4]. Moreover, these benefits would come at no cost to taxpayers, and with potentially significant long-term cost savings for ratepayers.

[2] IEA PV Power Systems: "National Survey Report of PV Power Applications in Canada 2019" – Natural Resources Canada and the Canadian Renewable Energy Association – Available from: https://iea-pvps.org/wp-content/uploads/2021/03/NSR_Canada_2019.pdf

[3] "Nova Scotia Residential Solar Market Outlook and Labour Force Study – Final Report April 2019" – Dunsky Energy Consulting – Available from: https://www.cansia.ca/uploads/7/2/5/1/72513707/cansia_nova_scotia_residential_solar_market_outlook_and_labor_force_study_-_final_report__2019-04-09_.pdf

[4] "Impact of Behind-the-Meter Solar in Ontario" – Power Advisory LLC, August 10 2021 – Available from: https://renewablesassociation.ca/wp-content/uploads/2021/08/CanREA-study-Impact-of-BTM-Solar-in-Ontario-2021.pdf

CanREA recently commissioned analysis of the whole-system impact of additional Behind-the-Meter solar in Ontario[5]. This research found that an additional 3,000 MW of net metered solar PV in Ontario would reduce whole energy system costs by an estimated $244 million annually by 2030 assuming full exposure for electricity generation to a $170 per tonne carbon price. These savings would be based on the capacity value of solar PV in terms of meeting peak demand in the province and thus reducing the need to procure additional resources through the Capacity Auction, as well as both fuel and carbon price savings from the avoidance of dispatching gas generation. BTM solar can also mitigate the need for transmission infrastructure in response to the 15% load growth anticipated by the end of the decade[6], along with the forthcoming retirement of the Pickering Nuclear Generating Station. These findings regarding the capacity value of distributed solar PV were reinforced by the IESO's recent DER Potential Study results.[7]

At a pivotal time for Ontario's energy system when the province urgently needs new generation capacity to meet growing peak demand, providing an incentive through reinvestment of carbon pricing proceeds to encourage private sector investment in solar net metering would yield significant benefits both in terms of reducing costs for ratepayers and helping to achieve the objectives of the EPS and the overarching goals of the Made in Ontario Environment Plan.

Contact:

Nicholas Gall
Ontario Director,
Canadian Renewable Energy Association (CanREA)

[5] Ibid

[6] IESO 2021 Annual Planning Outlook (December 2021) – Available from: https://www.ieso.ca/-/media/Files/IESO/Document-Library/planning-forecasts/apo/Dec2021/2021-Annual-Planning-Outlook.ashx

[7] DER Potential Study, Prepared by Dunsky Energy + Climate Advisors with support from Power Advisory (Sept. 30, 2022) – Available from: https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/derps/derps-20220930-final-report-volume-1.ashx