

March 17, 2022

Independent Electricity System Operator
1600-120 Adelaide Street West
Toronto, ON
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Via email to engagement@ieso.ca

Re: Clean Energy Credits Registry

The Power Workers' Union ("PWU") represents a large portion of the employees working in Ontario's electricity industry. Attached please find a list of PWU employers. The PWU is a strong supporter and advocate for the prudent and rational reform of Ontario's electricity sector and recognizes the importance of low-cost, low-carbon energy to the competitiveness of Ontario's economic sectors.

The PWU appreciates the opportunity to provide input on the IESO's development of a clean energy credit registry as requested by the government. The PWU believes that a well-designed clean energy credit registry that is synergistic with the emissions performance standard in the province can help deliver low-carbon energy to reduce the provinces emissions at the lowest reasonable cost while stimulating job creation and growing the province's gross domestic product (GDP). We are respectfully submitting our detailed observations and recommendations.

We hope you will find the PWU's comments useful.

Yours very truly,

Jeff Parnell
President

Power Workers' Union Submission on the IESO's Clean Energy Credits Engagement

March 17, 2022

The Power Workers' Union (PWU) is pleased to submit comments and make recommendations to the Independent Electricity System Operator (IESO) regarding Ontario's proposed voluntary Clean Energy Credits (CECs) registry. The PWU remains a strong supporter and advocate for the prudent and rational reform of Ontario's electricity sector and recognizes the importance of planning for low-cost, low-carbon energy solutions to enhance the competitiveness of Ontario's economy.

The Ministry of Energy has asked the IESO to assess the options for establishing and managing a registry to support the creation and/or recognition, trading, and retirement of voluntary CECs.¹ On February 24th the IESO reviewed the project's objectives with stakeholders and requested high level feedback on the opportunities, challenges, design considerations, and supporting engagement process. The IESO stated that the government's objectives are three-fold: reduce Ontario's overall greenhouse gas (GHG), including the decarbonization of Ontario's electricity system; enable CEC proceeds to flow to ratepayers since they have borne the significant costs of previous efforts to decarbonize electricity system; and, to ensure that Ontario is a partner in helping businesses meet their environmental goals by leveraging the province's clean energy advantage to attract jobs and investment.

The PWU offers the following recommendations in support of Ontario's objectives for a voluntary CEC registry:

1. A registry for Compliance CECs should be created for which only new generation that reduces emissions should be eligible;
2. Compliance CECs should be aligned with the Emission Performance Standard (EPS) to provide industry with another compliance tool;
3. Compliance CECs should be defined in kilograms (kg) of CO_{2e} of gas-fired generation avoided to enable their use by EPS participants;
4. A separate Branding CEC registry should be created to help provide Ontario businesses with a "clean energy brand" competitive advantage;
5. Branding CECs could be defined in units of energy e.g., MWhs;
6. Both types of CECs should be registered and sold by the IESO to maximize rate payer benefits;
7. All clean energy supplies, as defined by the IESO's webinar materials which include nuclear, biomass and hydroelectric, should be eligible;
8. Ontario CECs should be unbundled from the electricity energy billing and consumption;
9. Historical credits should be ineligible; and,
10. The impacts of CEC trading on future procurements and other clean energy incentives should be clarified.

Recommendation #1 – A registry for Compliance CECs should be created for which only new generation that reduces emissions should be eligible.

Natural gas-fired generation will provide marginal supply for almost all hours of the year when the Pickering Nuclear Generating Station (PNGS) is retired in 2024. As a result, the IESO has forecasted that

¹ Ministry of Energy letter to the IESO, January 26, 2022

Ontario's electricity sector emissions will grow.² This increase in emissions is also due to growing demand in the province e.g., from population growth and electrification. The IESO's forecast assumes that Ontario's existing contracted energy resources will continue to operate. The continued operation of these resources will not contribute to the further reduction of Ontario's GHG emissions going forward and therefore should not be used to meet future reduction targets. Reducing the growth in Ontario's emissions requires new clean resources that displace the use of natural gas-fired generation required to meet the province's emerging capacity gap after PNGS retires. The emission reductions generated by new clean generation should be eligible as "compliance" CECs that can be used by EPS participants.

Recommendation #2 – Compliance CECs should be aligned with the Emission Performance Standard (EPS) to provide industry with another compliance tool.

The emission reduction requirements for large emitters are established by the Emissions Performance Standard (EPS) which provides a performance benchmark for the sector that tightens over time. Large emitters that exceed their threshold can purchase compliance credits from the province or from other sources.

Natural gas-fired generation is largely unaffected by the EPS and carbon pricing given the EPS emission threshold of 370 kgCO_{2e}/MWh, the functioning of the electricity market, and the lack of trade exposure. As gas-fired generation is forecast to be the largest source of emissions growth in the province, alternatives to the EPS are needed to incent reductions from the electricity sector.

Currently, large emitters that face challenges meeting their respective targets can purchase credits from other emitters that are exceeding their reduction targets. Since the EPS does not apply to the electricity sector as a whole, CECs offer a cost-efficient, strategic option for these large emitters to acquire credits from emissions reductions in the electricity sector to help them meet their compliance obligations under the EPS.

This kind of CEC compliance credit approach complements and increases synergistic opportunities with the EPS to help reduce electricity system emissions. Only the output from new clean generation capacity that is required to meet new incremental demand and that offsets the need for additional incremental gas-fired generation should be eligible for CEC creation.

The IESO has the hourly market data to ensure that these conditions are met. The IESO's Annual Planning Outlook (APO) defines the incremental demand growth over time, incremental gas-fired generation emissions that exceed current levels and that will result with the closure of PNGS, and a procurement process that could secure the required eligible assets. These benchmark setting assumptions should be the IESO's point of reference for the quantification of the CECs required for compliance. This would enable the CECs to represent actual emission reductions that contribute to provincial level decarbonization targets.

² IESO 2021 Annual Planning Outlook (APO)

Recommendation #3 – Compliance CECs should be defined in kg of CO_{2e} of gas-fired generation avoided to enable their use by EPS participants.

Defining the CECs in kg of CO_{2e} of gas-fired generation capacity avoided simplifies the accounting requirements and prevents double counting.

Compliance CECs should only apply to the MWhs that are actually utilized within Ontario and must reflect the carbon intensity of the marginal gas supply at the time the electricity is generated (the ceiling would be the EPS threshold of 375 kg/MWh EPS). This would mean that compliance CECs should also be defined on an hourly basis (e.g. requires a time stamp) enabling the verification of the emission reductions from Ontario's electricity sector and trading with EPS carbon credits. This latter alignment with the EPS also creates a market driven weight to the value of the CECs resulting from a carbon price and the trading of credits enabled by the EPS.

Recommendation #4 – A separate Branding CEC registry should be created to help provide Ontario businesses with a “clean energy brand” competitive advantage;

Ontario is widely recognized for its existing clean electricity grid which could also represents a significant leveraging opportunity to create a competitive edge for Ontario businesses. These “advantage” opportunities are recognized by Ontario's business leaders.³

The notion of “branding” CECs based on Ontario's existing low-carbon/clean energy resources represents a marketing opportunity to capture these attributes. These “branding” CECs could be created for two types:

- Low-carbon energy consumed in Ontario; and,
- Clean energy exported to neighbouring jurisdictions.

It is important to note that the branding CECs will have no bearing on reducing future emissions in Ontario to help with targets and hence should be separately registered and managed. Yet, the owners of the CECs would be able to legitimately claim that their businesses are powered by the clean energy. This approach is employed by companies such as Bullfrog Power to market its products across Canada. Its business customers benefit from marketing their use of clean energy in support of their products. In turn, Bullfrog Power charges a premium for its branded product - “powered by Bullfrog”.

Recommendation #5 –Branding CECs could be defined in units of energy e.g., MWhs.

Branding CECs could be defined in units of energy, such as MWhs and should only be associated with MWhs actually used by the electricity system. Any MWhs curtailed by the IESO or that cause curtailment of baseload non-emitting supplies (e.g. nuclear or hydro) should not qualify for CECs. The IESO's dispatch algorithms already set an order of precedence for the identification of curtailment priorities.

These branding CECs should be distinguished by the type of supply (e.g. nuclear vs biomass) providing buyers with greater flexibility in their marketing application. Companies can differentiate themselves in

³ Green Ribbon Panel, Clean Air, Climate Change, and Practical Innovative Solutions, 2020

the marketplace as they “are powered by 100% clean energy (or renewables, or nuclear, or hydro or biomass, etc.)”.

Framing the CECs in this manner will disaggregate the value of these branding CECs from the carbon price and from the cost of the compliance CECs, reducing concerns about oversupply in the market impacting on the EPS program. Given the significant volume of available clean MWhs and the anticipated small volume of buyers of branding CECs, it will be challenging to enable a market driven viable price curve. Instead, the benefits of branding CECs may best be achieved by simply setting a floor price for Ontario.

Recommendation #6 – Both types of CECs should be registered and sold by the IESO to maximize rate payer benefits.

The Minister’s direction to the IESO requested that the proceeds from CECs should flow to ratepayers as they have borne the significant costs of previous efforts to decarbonize Ontario’s electricity system.

The IESO, as the custodian of the registry and the best positioned entity for validating and tracking these CECs, should collect the resulting funds. This approach would lend itself to administrative simplicity by enabling the IESO to allocate the proceeds to offset the costs of the global adjustment.

Recommendation #7 – All clean energy supplies, as defined by the IESOs webinar materials which include nuclear, biomass and hydroelectric, should be eligible.

Any low carbon resource that reduces emissions from that of an unabated natural gas-fired generator (e.g. those not equipped with carbon capture and storage) should be eligible for branding CECs.

The definition of new clean energy resource eligible for use as compliance CECs should include: updates to existing facilities, such as Bruce Power’s forecast 500 MW capacity increase resulting from its refurbishment and major component replacement program; and, any resources not reflected in the IESO’s assumed APO 2021 baseline, such as the possible extension of operations at the Atikokan biomass generating station. Similar to the existing capacity of Bruce Power’s facilities, existing solar and wind capacity should NOT be eligible, even if their contracts are renewed, as the output of these facilities are already assumed in the IESO’s emission forecast for Ontario’s electricity system.

Recommendation #8 – Ontario CECs should be unbundled from electricity energy billing and consumption.

The IESO asked whether CECs should be bundled with energy purchases or unbundled from energy purchases. The physical dispatch of resources is managed by the IESO and the delivery of electricity to customers is a function of the dynamics of the grid. All aspects of Ontario’s electricity market are managed by the IESO via the HOEP that is set by the energy market and IESO’s dispatch algorithm. Unlike the models from the U.S. discussed in the IESO’s webinar materials, Ontario does not have a “utility” for consumers to buy bundled CECs and energy products from. Similarly, the green pricing programs mentioned by the IESO have no bearing in Ontario as utilities (e.g. the LDCs) do not have obligations for emission content and green energy.

This makes CECs attractive only as a financial instrument. The unbundled financial instrument approach could reduce the complexity of managing compliance CECs, avoid the need to track them by generation type, and allow them to be more easily integrated with the EPS.

Recommendation #9 – Historical credits should be ineligible.

Historical clean energy output should not be eligible for creating branding CECs or compliance CECs. Branding CECs will be about current assumption so historical attributes have no meaning. For compliance CECs, the program should be designed on a forward-looking basis only. However, new low carbon generation that is deployed after this program commences should allow any purchased credits to be carried forward as per the practices defined for the EPS.

Recommendation #10 – The impacts of CEC trading on future procurements and other clean energy incentives should be clarified.

The Ministry's direction requested that the IESO consider how the CEC registry design could offer flexibility and potential for expansion to other products or markets and consider how the registry can incentivize future investments in new clean generation.

The implementation of the CEC registry, in particular the initial purchase of credits, may or may not generate an additional revenue stream for clean energy generators. The IESO should clarify how it intends to address the sale of CECs upon their registration, given the objective of the proceeds being used to benefit ratepayers. As previously discussed, these proceeds could be applied to reduce Ontario's global adjustment. It is not evident how this revenue could be employed to incent investments in new generation. Resulting revenues should not be used to subsidize, i.e. favour, one clean energy technology over another. Including a carbon price value in the IESO's procurement rating criteria would provide an effective alternative mechanism to distinguish supplies for procurement purposes. To create an environment for additional revenue streams to clean energy providers that would be related to CECs may add additional complexity to the implementation of a CEC registry and trading system operations that could reduce its intended and anticipated benefits.

Closing

The PWU has a successful track record working with others in collaborative partnerships. We look forward to continuing to work with the IESO and other energy stakeholders to strengthen and modernize Ontario's electricity system. The PWU is committed to the following principles: Create opportunities for sustainable, high-pay, high-skill jobs; ensure reliable, affordable, environmentally responsible electricity; build economic growth for Ontario's communities; and, promote intelligent reform of Ontario's energy policy.

We believe these recommendations are consistent with, and supportive of Ontario's objectives to supply low-cost and reliable electricity for all Ontarians. The PWU looks forward to discussing these comments in greater detail with the IESO and participating in the ongoing stakeholder engagements.