

Feedback Form

Clean Energy Credits – February 24, 2022

Feedback Provided by:

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Title: **IESO Clean Energy Credit Consultation Process**

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Following the February 24, 2022 engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the items discussed during the webinar. The webinar presentation and recording can be accessed from the [engagement web page](#).

Please submit feedback to engagement@ieso.ca by March 17, 2022. If you wish to provide confidential feedback, please submit as a separate document, marked "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

Opportunities & Challenges

Topic	Feedback
What are the key opportunities and challenges the IESO should be aware of in developing a voluntary clean energy market?	<p>(1) Smaller resources, such as residential and small business clean energy resources, should be eligible to generate CECs.</p> <p>The proposed CEC program design is geared towards compensating large generators for the clean energy they generate. However, many Ontarians have been adopting a variety of clean energy resources in front and behind the meter such as rooftop solar, at the local distribution level. Based on forecast comparatives, this presents a large untapped opportunity to compensate the clean energy these resources are providing to society. (It is important to note that many of these sources are behind the meter for most residential customers and that both should be included for consideration of the program).</p> <p>(2) LDCs should be eligible to administer the buying and selling of CECs.</p> <p>There are voluntary credit programs offered by other entities, such as Enbridge's "Opt Up", a voluntary renewable natural gas program, or Bullfrog Power's green energy credits, that allow end customers to purchase clean energy sources bundled or unbundled with their energy usage. The EDA suggests that LDCs should be able to offer bundled clean energy credits to end customers given that LDCs already bill end customers for energy usage. If smaller clean resources are eligible to participate in this program, LDCs could act as a buyer and seller of CECs whereby LDCs could buy CECs from local customers in their service territories and sell those CECs to interested buyers (either to LDCs' own end-customers as a bundled service offering or to buyers from elsewhere).</p> <p>(3) LDCs should be eligible to sell CECs from clean resources they own</p> <p>LDCs may own behind-the-meter and front-of-the-meter clean energy resources. Therefore, LDCs should be eligible to sell CECs from energy assets they own or operate to interested buyers.</p>

Design considerations

Topic	Feedback
<p>Which design considerations outlined in this presentation are most important to you and why?</p>	<p>CEC Attributes Customers purchasing CECs may not want to purchase a CEC from a large generator, such as a nuclear power plant. We see customers wanting more choices with regards to the type of CECs offered. For example, some customers may prefer to purchase a CEC solar credit to support local clean energy production. The EDA suggests that attributes such as fuel/energy type and origination of where the CEC was generated, will be important to customers purchasing CECs. This may give different values associated with different types of CECs.</p>
Topic	Feedback
<p>What other design considerations should IESO be aware of?</p>	<p>Transparent, Peer-Reviewed Emissions factors: To accurately assess the net greenhouse gas emissions impact of activities in the electricity sector in Ontario, it is critical to select the appropriate type of emission factors that captures fuel consumption, electricity generation and consumption on an hourly, daily, and seasonal basis. Marginal Emission Factors (MEFs) are well suited for this purpose as they take into consideration the marginal source of generation being avoided when determining the value of a CEC in terms of GHG reductions. The current avoided emissions published as part of the IESO’s annual planning outlook require more work, with clear, transparent assumptions and showing methodologies, with an ongoing, open process for refining these emission factors for broad and consistent use.</p>

Engagement Process

Topic	Feedback
Which stakeholder groups and/or design topics are most important to include in the planned focus group discussions?	LDCs are very important in the successful execution of CEC programs and should be included in the planned focus group discussions for operational and administrative considerations.
Topic	Feedback

Are there any additional engagement opportunities the IESO should consider?

The EDA would like the IESO to be aware of a member's internally developed program which could be used as an example of a program administered at the LDC level for CEC.

Please see below for details provided by the member on this program.

- (1) GridExchange can be a tool used to administer the provincial CEC program. Alectra has developed an internal clean energy credit trading pilot platform, called GridExchange. GridExchange is a blockchain-based software platform developed in-house that enables customers with distributed energy resources, such as solar panels, battery storage and electric vehicles, to trade energy with their electric utility in exchange for monetary compensation and rewards. The rewards aspect within GridExchange acts like a clean energy credit generation, tracking and trading system with the help of blockchain technology:

Traceability:

blockchain offers the ability to track where and when the data supporting a clean energy credit is originated, verified, amended, transferred and/or sold. This is possible because data supporting clean energy credits is collected and combined into blocks, rather than being entered individually. This results in a constantly growing chain of data blocks that is easily traceable.

Security:

each block of data has a unique identifier that is impossible to modify due to cryptographic techniques that guarantee that once a transaction block of data has been added to the ledger it cannot be changed.

Transparency and Trust:

blockchain allows for many key players in the transaction system to view the same information due to the distributed nature of the data, removing the need for everyone to maintain their own databases or ledgers as everyone has visibility. This also creates trust as not one party is controlling the data flows of

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	<p>the network, which is important in a clean credit marketplace where individual actors do not know each other.</p> <p>Smart Contracts: blockchain supports smart contracts to build in the terms and conditions associated with a transaction directly into the software logic. This facilitates customer contracting while ensuring consistent interpretation. There is no flexible way to do this right now with traditional paper-based customer contracting processes, such as RFPs or bilateral agreements.</p> <p>Alectra believes the GridExchange platform would help facilitate the auditing, reporting, data management aspects of clean energy credits registry all in one system, as well as provides a platform to enable the financial side of CEC trading.</p> <p>Alectra views the GridExchange platform as a foundational platform to enable the voluntary CEC market in Ontario and is interested in having discussions with the IESO on this topic.</p>

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<p>Would you be willing to participate in a technical session? If so, on which topic(s)?</p>	<p>Yes, we would have interest in participating and contributing to the technical session. The nature of the interest in participating will depend on the topics the IESO proposes. We look forward to receiving additional information.</p>

General Comments/Feedback

The EDA is supportive of establishing a voluntary CEC program within Ontario given many customers are looking to procure clean energy to meet net-zero targets and other carbon reduction mandates. Local distribution companies (LDCs) can play a large role in administering and participating in CEC programs, but the current CEC design could be improved to facilitate LDC participation. The EDA would like to assist the IESO to ensure the CEC program is beneficial for LDC participation.