Feedback Form

Clean Energy Credits – February 24, 2022

Feedback Provided by:

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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?	Bringing a voluntary CEC market to Ontario will enable Ontario businesses, municipalities, and other electricity consumers to meet their own targets and commitments for clean energy supply. From ESC's perspective, one key opportunity is to enable the green hydrogen sector. CECs could be used by hydrogen producers to confirm that the hydrogen produced was supplied by 100% clean energy. Going forward consumers who wish to claim that they are supplied by clean energy will need to obtain CECs. As CECs are bought and retired from the market, the remaining electricity will be "null energy" without any clean energy attribute. For this reason, it will be important to clearly communicate to Ontario consumers and keep a record demonstrating the cleanness of electricity supplied to non-participating customers. While the registry may enable bi-lateral trading and contracting trading of CECs, it is important to acknowledge the market and regulatory barriers preventing bi-lateral sales of electricity between generators and consumers (e.g., PPAs). Since the Global Adjustment is applied to all electricity drawn from the grid per regulation, consumers must pay for GA on top of PPA prices with generators. While there is an ability to hedge against HOEP, there is no ability to hedge GA through bi-lateral PPAs. This dynamic of the Ontario market should be factored into IESO's reporting and consideration for design of the CEC registry.

Design considerations

Topic	Feedback

Which design considerations outlined in this presentation are most important to you and why?	Design considerations related to the definition of CECs and tributes tracked are most important to energy storage proponents. In particular, the ability to time-stamp CECs and compatibility with energy storage. For example, renewable energy may be produced and consumed by energy storage, and then later re-injected to the electricity grid and ultimately consumed by another end-user. The registry will need to enable this scenario such that the end-use consumer is able to demonstrate that the CEC consumed may be "time-shifted" from its original time of generation. The ability to accurately reflect the timestamp of a CEC is imperative since many potential buyers are seeking to match their hourly consumption with the hourly production of clean energy. Given these nuances, ESC believes it is necessary for the IESO to establish protocols for "energy storage," including adding energy storage as a fuel-type in the CEC registry.

Topic	**Feedback**
What other design considerations should IESO be aware of?	In addition to age of facility, the registry should track if the CEC was ever purchased by the IESO per a contract or generated from rate-regulated facilities.

Engagement Process

Topic	**Feedback**
Which stakeholder groups and/or design topics are most important to include in the planned focus group discussions?	ESC acknowledges that electricity end-use consumers are the most important stakeholder for this engagement. In particular, the IESO should engage with corporate investors that have ESG mandates to ensure that the design of the CEC registry meets their investment needs.

Topic	Feedback
Are there any additional engagement opportunities the IESO should consider?	As mentioned above, ESC encourages the IESO to ensure alignment with business and policy objectives. For example, as the Ontario government moves forward with its hydrogen strategy, CECs may be a useful tool for hydrogen producers to prove hydrogen has been produced from "green" sources.

Topic	Feedback
Would you be willing to participate in a technical session? If so, on which topic(s)?	Yes, ESC is interested in attending a technical session. We believe it is important that dynamics of energy storage (i.e., "time-stamps" or "time-shifts") are incorporated into the design of the registry.

General Comments/Feedback

ESC strongly recommends that energy storage is considered explicitly in the development of the CEC registry. As demonstrated above, energy storage will be used to "firm" renewable supply and storage technologies (e.g., hydrogen) can be an integral purchaser of CECs. The CEC registry needs to ensure appropriate functionality to enable desired transactions by customers seeking to track hour-by-hour clean energy supply, which can be supported by energy storage.

ESC is grateful for this opportunity to provide feedback, and we look forward to next steps.