
Clean Energy Credit Year End Report 2023 Program Year

Final Report

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1. Introduction and Summary

1.1 Introduction

In response to [government policy](#), the IESO launched a provincial Clean Energy Credit (CEC) Registry on March 29, 2023 to provide Ontario businesses with a tool to meet their voluntary environmental and sustainability goals.

CECs are electronic certificates used to demonstrate that clean energy from Ontario-based generation has been acquired by Ontario consumers, to meet voluntary environmental and sustainability targets. Each CEC represents 1 MWh of clean energy that has been generated and is intended to be exclusively purchased and claimed (or retired) by a load customer within Ontario.

The IESO has chosen to establish a Program within the Midwest Renewable Energy Tracking System (M-RETS) platform for its voluntary Clean Energy Credit Registry¹.

1.2 Summary

The purpose of this report is to publish data related to the Clean Energy Credit Registry in accordance with Section 25.24 of the [Electricity Act](#)². In each calendar year, the IESO is required to provide the Minister of Energy with the following information:

- The total volume of electricity generated in the year by all generators directly connected to the IESO-controlled grid or a distributor's distribution system, broken down by energy source
- The total number of CECs Transferred in the year in accordance with Section 25.16 of the Electricity Act, broken down by energy source
- Any other information specified by the regulations³

Per Section 25.25(2) of the Electricity Act, the IESO is also required to make the above information available on its public website. This report is the first annual report submitted to the Minister and published since the Clean Energy Credit Registry was launched, and captures the 2023 Program Year. The 2024 Program Year is now in-progress. It began on January 1, 2024 and ends on June 30, 2025.

¹ Capitalized terms used in this report shall have the meanings given to them in the Clean Energy Credit Registry Rules.

² Electricity Act, 1998, SO 1998, c 15, Sch A (the "Electricity Act")

³ Electricity Act, s. 25.24.

Within the 2023 Program Year, as of the end of June 2024, a total of 2,874,439 CECs were created⁴, 565,721 CECs were Transferred, and 565,721 CECs were retired⁵. Certain transfers of environmental attributes are exempted from participating in the Clean Energy Credit Registry pursuant to Section 2.0.0.1 of Ontario Regulation 160/99 (see note 3 below). Outside of the Clean Energy Credit Registry 567,381 credits were created, 567,381 credits were transferred, and 567,381 credits were retired.

Note 1: Section 2 of this report provides a detailed breakdown on each of the bulleted items listed above for CECs associated with clean energy generation in calendar year 2023.

Note 2: The Transfer and retirement of 2023 vintage CECs within the CEC Program was allowed up until June 30, 2024. After that time, no further Transfer of 2023 vintage CECs was allowed. This report is inclusive of all Transfers made in the 2023 Program Year.

Note 3: Data for all CECs within the Clean Energy Credit Registry are captured in Section 2.2. Per [Ontario Regulation 160/99](#), certain transfers of environmental attributes are exempted from participating in the Clean Energy Credit Registry. Data for exempted credits are presented in Section 2.3.

Note 4: Appendix A shows a list of definitions from the Clean Energy Credit Registry Rules that are used in this report⁶. The defined terms are capitalized throughout the report.

⁴ "Created" means that a CEC was created on the Clean Energy Credit Registry.

⁵ Retirement is when a CEC is moved to the Ontario Transferee's Clean Energy Credit Registry Retirement Account, by the Transfer and Retirement Deadline, against electricity consumed by the Ontario Transferee from the IESO-Controlled Grid or a Distributor's Distribution System within the same calendar year in which the Credit was generated per M-RETS operating procedures posted on the [M-RETS document website](#).

⁶ Full program rules are available [here](#).

2. Clean Energy Credits (CEC) Data

2.1 Summary of Generation in Ontario in 2023

Table 1 sets out the total volume of electricity generated in the year by all generators directly connected to the IESO-controlled grid or a distributor's distribution system, broken down by energy source.

Table 1 | The total volume of electricity generated in the year 2023 by all generators directly connected to the IESO-controlled grid or a distributor's distribution system, broken down by energy source⁷

Ontario's Electricity Mix (System-Wide Generation in terawatt-hour - TWh)			
Electricity Source	Tx-Connected (direct)	Dx-Connected (embedded)	Total
Nuclear	79.30	-	79.30
Water Power	37.40	0.78	38.18
Natural Gas*	19.10	0.43	19.53
Wind	12.20	1.35	13.55
Solar PV	0.70	2.83	3.53
Bioenergy	0.40	0.26	0.66
Other (non-emitting) **	0.00	1.29	1.29
Total	149.10	6.94	156.04
<p>* Includes Lennox, dual fuel (natural gas/bioenergy) and non-contracted emitting generation consistent with IESO.</p> <p>** Other represents a variety of non-contracted fuel types that the IESO is unable to categorize due to a lack of information from Local Distribution Companies (LDCs).</p> <p>Note:</p> <ol style="list-style-type: none"> 1. Components may not sum to the total due to rounding. 2. Figures do not account for the sale and retirement of Clean Energy Credits (CECs). 			

⁷ This table has been reproduced from the [OEB annual Ontario's System Wide Electricity Supply Mix report](#).

2.2 Summary of CECs within the Clean Energy Credit Registry in 2023

Table 2 sets out the total number of Clean Energy Credits created, Transferred, and retired within the Clean Energy Credit Registry, broken down by energy source. The 2023 Program Year began on January 1, 2023⁸ and ended June 30, 2024.

Notes for **Table 2**:

- “CECs created” shows the total number of CECs created in the Clean Energy Credit Registry.
- “CECs Transferred” shows the number of CECs Transferred from Ontario Transferors to Ontario Transferees in the Clean Energy Credit Registry. Of the total number of CECs Transferred, 0 CECs were not retired.
- “CECs retired” shows the number of CECs retired by Ontario Transferees within the Clean Energy Credit Registry, or “used”.

⁸ Despite the fact that the Clean Energy Credit Registry was launched in March 2023, generation data as early as January 1, 2023 could have been uploaded so long as the generation data meets the uploading time restriction requirement per M-RETS Operating Procedure.

Table 2 | The total number of CECs created, Transferred, and retired in the Clean Energy Credit Registry, broken down by energy source⁹

	Biomass	Biogas	Biofuel	Nuclear	Wind	Hydro	Solar	Total
CECs created	0	0	0	598,968	1,842,979	4,282	428,210	2,874,439
CECs Transferred	0	0	0	561,439	0	4,282	0	565,721
CECs retired	0	0	0	561,439	0	4,282 ¹⁰	0	565,721

⁹ The M-RETS public reports showing [public certificate statistics](#) are organized by the year a transaction was completed as opposed to vintage year. As such, M-RETS' public reports cannot be used to reconcile with **Table 2** in this report.

¹⁰ These CECs were not retired before the Transfer and Retirement Deadline for the 2023 Program Year. Notwithstanding this, the IESO exercised its discretion under Section 1.10 of the Ontario Clean Energy Credit Registry Rules to make adjustments to the number of Credits and Account balances to rectify the impact of this non-compliance based on confirmed inadvertent error in delayed retirement and confirmed intent that such credits were to be accounted for as retired by the applicable Ontario Transferee for the 2023 Program Year.

2.3 Summary of Transfers Outside of the Clean Energy Credit Registry in 2023

[Ontario Regulation 160/99](#) provides that Sections 25.14 to 25.17 of the *Electricity Act* do not apply with respect to the transfer by a transferor of environmental attributes that are generated before January 1, 2027, if their transfer is the subject of a contract entered into before January 1, 2023.

Table 3 sets out the total number of credits created, transferred, and retired outside the Clean Energy Credit Registry by Ontario “transferors”¹¹, broken down by energy source for electricity generated in 2023. Outside of the Clean Energy Credit Registry, transfers may occur multiple times. It may not be possible to confirm if the credits were retired, who retired the credits, and where the credits were retired.

Notes for **Table 3**:

- “credits created” shows the total number of credits created under the exemption.
- “credits transferred” shows the number of credits transferred from the exempted “transferor”.
- “credits transferred and expected to be retired with unknown whereabouts” shows the number of credits transferred from a “transferor” to an unknown-location transferee who is expected to retire the credits.

¹¹ Please refer to the definition of “transferor” under the [Electricity Act, 1998](#).

Table 3 | The total number of credits created, transferred, and retired outside of the Clean Energy Credit Registry, broken down by energy source

	Biomass	Biogas	Biofuel	Nuclear	Wind	Hydro	Solar	Total
credits created	0	0	0	0	0	567,381	0	567,381
credits transferred	0	0	0	0	0	567,381	0	567,381
credits transferred and expected to be retired with unknown whereabouts	0	0	0	0	0	567,381	0	567,381

2.4 A List of Registered Ontario Transferors and Ontario Transferees within the Clean Energy Credit Registry in 2023

Table 4 lists the organizations that registered to participate as Ontario Transferors and Ontario Transferees within the Clean Energy Credit Registry in 2023¹².

Table 4 | A List of Registered Ontario Transferors and Ontario Transferees within the Clean Energy Credit Registry in 2023

Organization Name	Type
Bruce Power	Transferor
Evolugen Trading and Marketing LP	Transferor
IESO	Transferor
Ontario Power Generation	Transferor
Bruce Power Inc	Transferee
Cameco Corporation	Transferee
Honda of Canada Mfg	Transferee
Jefferson Elora Corporation	Transferee
K-Line Insulators Ltd.	Transferee
Litens Automotive	Transferee
Loblaws	Transferee
Nexus Energy Inc.	Transferee
Ozery Pita Break Inc.	Transferee
TG Minto	Transferee

¹² The table above represents those organizations that have met the Ontario-specific registration requirements.

Appendix A: Ontario Program Rule Definitions

Definitions used in this report come from the Clean Energy Credit Registry Rules posted on the [M-RETS document website](#). Only definitions directly relevant to this report are captured here.

Clean Energy Credit: Ontario Environmental Attributes associated with the generation of one megawatt-hour of electricity that are recognized in the Clean Energy Credit Registry as a clean energy credit, following the submission of information to the Clean Energy Credit Registry, and on the M-RETS may take the form of any of the following: (i) Certificates; (ii) M-RETS Certificates; (iii) Whole Certificates; (iv) Renewable Energy Certificates or (v) Alternative Energy Certificates, as applicable.

Ontario Transferee: A person or entity who intends to purchase or acquire a Clean Energy Credit. For clarity, the definition of Transferee provided in in the M-RETS Operating Procedure Section 4.6.3 is applicable to an Ontario Transferee.

Ontario Transferor: A person or entity that makes Ontario Environmental Attributes from a Generator Asset available for transfer. For clarity, the definitions of Transferor provided in the M-RETS Operating Procedure Sections 4.3.12, 4.6.1 & 4.6.3 are applicable to Ontario Transferors.

Transfer: Includes a transfer of ownership, with or without consideration.



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