



Sustainalytics Corporate Solutions

Corporate Impact Report

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1. Executive Summary

Hydro One Limited (“Hydro One” or the “Company”), along with its wholly owned subsidiaries, including Hydro One Inc., is the largest electricity transmission and distribution provider in Ontario, Canada. The Company has approximately 9,300 employees serving approximately 1.5 million customers.¹ In 2023, Hydro One issued sustainable bonds and allocated the proceeds according to the Hydro One Limited Sustainable Financing Framework.² In 2023, Sustainalytics provided a Second-Party opinion on Hydro One’s Limited Sustainable Financing Framework evaluating it as credible, impactful and aligned with the four core components of Sustainability Bond Guidelines 2021, Green Bond Principles 2021, Social Bond Principles 2021, Green Loan Principles 2021 and Social Loan Principles 2021.³ Since issuance, CAD 1.045 billion have been allocated in the categories of Clean Energy, Clean Transportation, Energy Efficiency, Biodiversity and Socio-Economic Advancement of Indigenous People. This report focuses on the impact of the projects that Hydro One has allocated to by analyzing selected case studies.

Clean Energy: *Allocations in this category have financed the maintenance, construction and operation of electricity transmission and distribution (T&D) infrastructure and equipment that meets the following criteria: i) an average system grid emission factor of less than 100 gCO_{2e}/kWh over a rolling five-year period; or ii) more than 67% of newly connected generation assets comply with the 100 gCO_{2e}/kWh threshold over a rolling five-year period. Since the projects financed include maintenance, construction and operation of T&D infrastructure with an average system grid emission factor of less than 100 gCO_{2e}/kWh for a five-year period it results in a scenario where additional avoided emissions cannot be reliably calculated as there is no factual baseline scenario to compare to.⁴ However, these investments enable the transmission and distribution of clean energy and overall avoided emissions across the grid.*

Energy Efficiency: *Allocations in this category have financed systems or technologies that increase energy efficiency or reduce energy consumption, including smart grid technology, smart sensors and automation systems, such as advanced metering infrastructure.*

Clean Transportation: *Allocations in this category include the financing of investments in the procurement, operation and maintenance of zero-emission vehicles and light-duty hybrid vehicles with an emission intensity below 50 gCO_{2e}/pkm.⁵ The emissions avoided, in CO_{2e}, from the projects financed are reported.*

Biodiversity: *Allocations in this category include the financing of investments in projects to protect and restore terrestrial biodiversity and natural habitats. The hectares of land covered by biodiversity projects are reported.*

Socio-Economic Advancement of Indigenous Peoples: *Allocations in this category have financed procurements from small and medium enterprises (SMEs)⁶ that are majority-owned or -managed (at least 51%) by Indigenous Peoples⁷ or are defined as an Indigenous business by an Indigenous government. The number of Indigenous-owned SMEs supported with the sustainable issuance are reported.*

¹ Hydro One, “Enabling Ontario’s Clean Energy Future – 2022 Sustainability Report”, (2023), at: https://www.hydroone.com/Sustainability/Documents/CSR_2022/HydroOne_CSR_2022.pdf

² Hydro One, “Sustainable Financing Framework”, (2023), at: https://www.hydroone.com/investorrelations/Documents/Hydro_One_Sustainable_Financing_Framework_Jan2023.pdf

³ Hydro One, “Second-Party Opinion: Hydro One Limited Sustainable Financing Framework”, (2023), at: https://www.hydroone.com/investorrelations/Documents/Hydro_One_Sustainalytics_Second_Party_Opinion_Jan2023.pdf

⁴ Official Journal of the European Union, “Regulations – Commission Delegated Regulation (EU) 2021/2139”, (2021), at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R2139&fr>

⁵ Passenger-kilometre.

⁶ Hydro One defines SMEs as businesses with up to 500 employees, in accordance with the definition set by the Government of Canada. Government of Canada, “SME Research and Statistics”, at: <https://www.ic.gc.ca/eic/site/061.nsf/eng/home>

⁷ Hydro One has shared the following definitions for Indigenous peoples and Indigenous businesses with Sustainalytics: Indigenous peoples is a collective name for the original peoples of North America and their descendants. The Constitution Act (1982) recognizes three groups of Indigenous peoples: First Nations, Métis and Inuit. Indigenous business is a business which is at least 51% owned and controlled by Indigenous peoples. In cases of a partnership or joint venture, the structure must be at least 51% owned and controlled by an Indigenous business or peoples.

2. Impact Summary

Sustainalytics has calculated the estimated impact achieved by the selected case studies financed with the proceeds of the sustainable bonds issued by Hydro One Inc. in January 2023. Since issuance, CAD 1.045 billion have been allocated in the categories of Clean Energy, Energy Efficiency, Clean Transportation, Biodiversity, and Socio-Economic Advancement of Indigenous Peoples. The projects are located in Ontario, Canada.

Evaluation Date January 24th, 2024

Issuer Location Ontario, Canada



C\$1.05B

Allocated Funds



30k

Total Hydro One Transmission Lines, Km



94

Indigenous-owned Businesses Supported



16

Plug-in Hybrid Electric Vehicles (PHEVs)



125k

Total Hydro One Distribution Lines, Km



95%

Of Electricity Delivered to Ontario Customers Reduce GHG Emissions with Reliable Smart Meters



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3. Impact of Hydro One's Operations

The following section details context on the impact of Hydro One's operations and the projects that were financed by the sustainable instruments, highlighting projects where the impact is specifically relevant in the local context.

Background

As a signatory of the Paris Agreement, the Canadian government has pledged to achieve net zero emissions by 2050.⁸ In 2022, the government established a target to attain a net zero grid by 2035.⁹ To support this objective, the government invested over CAD 960 million in 2021, focusing on the development of renewable energy and grid modernization projects, with the aim to enhance access to clean and affordable electricity across communities nationwide.¹⁰ The ongoing adoption of new technology and increased investments in modernizing Canada's electricity grid are playing a crucial role in transforming the traditional grid. This evolution enables a reduction in greenhouse gas emissions, upgrades to infrastructure, capacity to meet rising electricity demand, and a decrease in operating costs.¹¹

The Electricity Sector's Role to Net-Zero in Ontario

The electricity sector plays a critical role on Canada's pathway to net zero. Electrification is one of the most important components in attaining emissions reductions to meet the net zero emissions by 2050 scenario.¹² Currently, about 82% of Canada's electricity is generated from non-emitting sources such as hydro, nuclear, wind and solar power.¹³ The greenhouse gas (GHG) emissions intensity of Canada's electricity generation has decreased from 220 grams of CO₂e per kilowatt-hour (kWh) in 2005 to 120 gCO₂e/kWh in 2019, a total reduction of 45%.¹⁴ In 2019, Ontario produced 153 terawatt-hours (TWh) of electricity, representing 24% of Canada's total electricity generation.¹⁵ Consequently, Ontario is the second-largest electricity producer in Canada, with an estimated generation capacity of 40,200 megawatts (MW).¹⁶ Over 90% of Ontario's electricity was produced from zero carbon sources in 2021.¹⁷ In the same year, 58% of electricity was produced from nuclear, 24% from hydroelectricity, 8% from wind and around 1% from solar.¹⁸ In line with that, the greenhouse gas intensity of Ontario's electricity

⁸ Government of Canada, "Net-Zero Emissions by 2050", (2022), at:

<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050.html>

⁹ Government of Canada, "Canada launches consultations on a Clean Electricity Standard to achieve a net-zero emissions grid by 2035", (2022), at: <https://www.canada.ca/en/environment-climate-change/news/2022/03/canada-launches-consultations-on-a-clean-electricity-standard-to-achieve-a-net-zero-emissions-grid-by-2035.html>

¹⁰ Natural Resources Canada, "Canada Invests Over \$960-Million in Renewable Energy and Grid Modernization Projects", (2021), at: <https://www.newswire.ca/news-releases/canada-invests-over-960-million-in-renewable-energy-and-grid-modernization-projects-880196618.html>

¹¹ Wadhera, A. et al. (2018), "Smart Grid in Canada", Natural Resources Canada, at:

<https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/canmetenergy/pdf/Smart%20Grid%20in%20Canada%20Report%20Web%20FINAL%20EN.pdf>

¹² International Energy Agency "Overview of Electrification", (2023), at: <https://www.iea.org/energy-system/electricity/electrification>

¹³ Canada Energy Regulator, "Towards Net-Zero: Electricity Scenarios", (2023), at: <https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2021/towards-net-zero.html>

¹⁴ Ibid.

¹⁵ Canada Energy Regulator, "Provincial and Territorial Energy Profiles – Ontario", (2023), at: <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/provincial-territorial-energy-profiles/provincial-territorial-energy-profiles-ontario.html>

¹⁶ IESO, "Pathways to Decarbonization", (2022), at: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Pathways-to-Decarbonization.ashx>

¹⁷ Ibid.

¹⁸ IESO, "Year-End Data 2021", (2024), at: <https://www.ieso.ca/en/Corporate-IESO/Media/Year-End-Data/2021>

grid in 2021 was 28 gCO₂e/kWh, representing a decline from 230 gCO₂e/kWh in 2005.^{19,20} Overall, the province of Ontario ranked eleventh for per capita electricity consumption in Canada, consuming 36% less than the national average. Ontario's per capita annual electricity consumption was approximately 9,600 kWh in 2019.²¹

Hydro One's Role in Ontario's Energy Transition

Hydro One is the primary owner and operator of nearly all of Ontario's transmission capacity, managing a network of approximately 30,000 kilometres of high-voltage transmission lines and approximately 125,000 kilometres of primary low-voltage distribution lines, making it the largest electricity distributor in the province.²² By owning and operating 95% of Ontario's transmission system when based on the total Ontario Energy Board (OEB) approved revenue requirement, Hydro One plays a key role in Ontario's energy transition, in line with the province's strategy to enhance electrification and leverage low-carbon energy sources.²³

Under the Clean Energy category, Hydro One financed the maintenance, construction and operation of electricity transmission and distribution (T&D) infrastructure and equipment which meets the following criteria: i) an average system grid emission factor of less than 100 gCO₂e/kWh over a rolling five-year period; or ii) more than 67% of newly connected generation assets comply with the 100 gCO₂e/kWh threshold over a rolling five-year period. Between 2017 and 2021, the five-year average for Ontario's system grid emissions was 24.6 gCO₂e/kWh, below the 100 gCO₂e/kWh threshold for clean energy.²⁴

Transmission and Distribution Investments Enable the Greening of the Overall Grid

Investments in new grid connections for renewable energy sources directly contribute to reduced GHG emissions by increasing the amount of electricity from renewable sources available on the grid. In this case, emissions avoided are calculated by comparing the new grid GHG emissions to a baseline scenario prior to adding the electricity from renewable sources. Whereas the impact of investments in the broader grid infrastructure, including transmission and distribution lines, enable the transmission of clean energy and may result in some efficiency improvements due to upgrades, they are not directly tied to emissions avoidance but are a necessary enabler. Despite the positive effects on emissions in the overall grid, calculating additional avoided emissions from these investments increases the risk of double counting those from renewable generation.

In the case of investments in grid infrastructure improvements made by Hydro One, reporting on avoided emissions on the whole grid is not applicable due to the lack of an available and meaningful baseline, as the existing grid is maintained and no factual baseline exists. In order to achieve electrification associated with net zero, electricity generation not only needs to shift to low-carbon sources but grid infrastructure will also need to expand capacity and flexibility to meet the increasing

¹⁹ Canada Energy Regulator, "Provincial and Territorial Energy Profiles – Ontario", (2023), at: <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/provincial-territorial-energy-profiles/provincial-territorial-energy-profiles-ontario.html#s3>

²⁰ Environment and Climate Change Canada, "National Inventory Report 1990-2023: Greenhouse Gas Sources and Sinks in Canada", (2023), at: https://publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-3-eng.pdf

²¹ Canada Energy Regulator, "Provincial and Territorial Energy Profiles – Ontario", (2023), at: <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/provincial-territorial-energy-profiles/provincial-territorial-energy-profiles-ontario.html#s3>

²² Hydro One, "Annual Information Form from Hydro One Inc. For the Year Ended December 31, 2022", (2023), at: https://www.hydroone.com/investorrelations/Reports/2022_HOI_AIF.PDF

²³ Hydro One, "Enabling Ontario's Clean Energy Future – 2022 Sustainability Report", (2023), at: https://www.hydroone.com/Sustainability/Documents/CSR_2022/HydroOne_CSR_2022.pdf

²⁴ Five-year rolling average calculated from: Environment and Climate Change Canada, "National Inventory Report 1990-2023: Greenhouse Gas Sources and Sinks in Canada", (2023), at: https://publications.gc.ca/collections/collection_2023/eccc/En81-4-2021-3-eng.pdf

demand for electricity.²⁵ As such, we recognize that these investments sustain the greening of the overall grid by enabling access to and distribution of low-carbon electricity.

Indigenous Procurement for the Socio-Economic Advancement of Indigenous People

As of 2021, Canada is home to 1.8 million Indigenous peoples, comprising 5% of the nation's total population.²⁶ As of 2020, 1.1% of small and medium-sized enterprises (SMEs) in Canada were majority-owned by Indigenous people.²⁷ In addition, Indigenous people contribute over CAD 31 billion (USD 22.55 billion) annually to Canada's Gross Domestic Product (GDP).²⁸ However, Indigenous businesses continue to face various challenges, including limited internet access, difficulties in obtaining financing, infrastructure needs, and a lack of business networks.²⁹ To address these challenges, the Canadian government has identified a potential solution: facilitating increased Indigenous participation in the procurement of products and services.³⁰ This approach aims to create more opportunities for Indigenous communities and entrepreneurs, and foster economic growth and resilience within Indigenous businesses to support procurement from Indigenous-owned SMEs and it is in line with the objective to support the socio-economic advancement of Indigenous communities in Canada.³¹

²⁵ International Energy Agency, "Overview of Electrification", (2023), at: <https://www.iea.org/energy-system/electricity/electrification>

²⁶ Statistics Canada, "Indigenous population continues to grow and is much younger than the non-Indigenous population, although the pace of growth has slowed", (2021), at: <https://www150.statcan.gc.ca/n1/daily-quotidien/220921/dq220921a-eng.htm>

²⁷ Government of Canada, "SME Profile: Ownership demographics statistics 2022", (2022), at: https://www.ic.gc.ca/eic/site/061.nsf/eng/h_03166.html

²⁸ Canadian Council for Aboriginal Business, "Digital Directions: Towards skills development and inclusion of Indigenous Peoples in the new economy", (2019), at: https://www.ccab.com/wp-content/uploads/2019/02/Digital-Directions-TCS-Report-Digital-Full-Report_AA-FINAL.pdf

²⁹ Government of Canada, "Indigenous-Owned Exporting Small and Medium Enterprises in Canada", (2019), at: https://www.international.gc.ca/trade-commerce/inclusive_trade-commerce_inclusif/indigenous-autochtone/indigenous_sme-pme_autochtones.aspx?lang=eng

³⁰ Government of Canada, "Modernization of Indigenous participation in procurement: discussion paper", (2019), at: <https://www.sac-isc.gc.ca/eng/1554219055004/1612130030035>

³¹ Further details regarding Hydro One's sustainability priorities, commitments, oversight, policies and Sustainability Report are available on the company's website at www.HydroOne.com/Sustainability.

Scope of Work and Limitations

Hydro One has engaged Sustainalytics to calculate the environmental impacts of the projects financed with proceeds from the sustainable bonds. For this work, Sustainalytics relied on the data provided by Hydro One on the amount allocated and the technical data on the projects financed.

Sustainalytics' impact reporting is aligned with the International Capital Market Association's (ICMA's) June 2023 Harmonised Framework for Impact Reporting handbook.³² The methodology and assumptions made for the impact calculations are outlined in the methodology chapter.

As part of this engagement, Sustainalytics exchanged information with Hydro One's management team to understand the sustainability impact of its projects. Through these exchanges, Hydro One's representatives have confirmed that:

- (1) They understand it is the sole responsibility of Hydro One to ensure that the information provided is complete, accurate and up to date;
- (2) They have provided Sustainalytics with all relevant information;
- (3) Any provided material information has been duly disclosed in a timely manner.

Sustainalytics also reviewed relevant public documents and non-public information.

³² ICMA, "Handbook - Harmonised Framework for Impact Reporting", (2023), at: <https://www.icmagroup.org/assets/documents/Sustainable-finance/2023-updates/Handbook-Harmonised-framework-for-impact-reporting-June-2023-220623.pdf>

4. Impact Findings – Hydro One Case Studies

For reporting, Sustainalytics follows the ICMA Harmonised Framework for Impact Reporting, which synthesizes market expectations and outlines recommendations for impact reporting to create a standardized reporting structure and to enhance the understanding of the impact to all stakeholders including investors.³³ Case studies provide project-level Key Performance Indicators (KPIs) such as avoided emissions, hectares of land and number of Indigenous SME procurement. The allocations to the Clean Energy and Clean Transportation categories will be analyzed by quantifying avoided emissions.

Clean Energy

As discussed in the *Transmission and Distribution Investments Enable the Greening of the Overall Grid* section of this report, some investments in transmission line infrastructure can result in efficiency improvements due to upgrades. Making improvements to the grid means energy savings and a reduction in emissions. The calculation in Table 1 is based on the comparison between the emission prior to the improvement of the project compared to emissions of the electricity produced after the improvement project. An example of these efficiency improvements is provided in this case study, which covers upgrades of existing transmission lines that have reached their end-of-life to secure a safe and reliable electricity supply. This project undertook the refurbishment of approximately 180 km in total, or 90 km per circuit, of 115 kV transmission lines between Ansonville Transformer Station (TS) and Kirkland Lake TS, reaching substantial completion in 2023.³⁴ The project was completed based on the recommendation from the Independent Electricity System Operator (IESO) to refurbish the transmission circuits in the area to meet the load requirements and maintain reliability as the previous circuits were deemed inadequate for long term operation.³⁵ Table 1 shows Hydro One's allocated expenditure between February 2021 and January 2023, the energy consumption, savings and enabled emissions avoided are shown for an annual basis.

³³ ICMA, "Handbook - Harmonised Framework for Impact Reporting", (2023), at: <https://www.icmagroup.org/assets/documents/Sustainable-finance/2023-updates/Handbook-Harmonised-framework-for-impact-reporting-June-2023-220623.pdf>

³⁴ Further details regarding Hydro One's transmission line refurbishment are available at: <https://www.hydroone.com/about/corporate-information/major-projects/a8ka9k-circuits>

³⁵ Hydro One, "EB-2021-0107 – Hydro One Networks Inc. Leave to Construct Application – Ansonville TS and Kirkland Lake TS A8K/A9K Refurbishment Project – Application and Evidence", (2021), at: https://www.hydroone.com/abouthydroone/RegulatoryInformation/oebapplications/Documents/HONI_APPL_s92_A8K_A9K_20210825.pdf

Table 1: Impact of Clean Energy Project

Project Name	Technology	Allocated Amount	Share of Total Project Financing	Energy Consumption ³⁶	Energy Saved ³⁷	Project GHG Enabled Emissions Avoided	Financed GHG Enabled Emissions Avoided	Financed GHG Enabled Emissions Avoided / CAD M
		CAD Million	%	MWh/year	MWh/year	tCO ₂ e/year	tCO ₂ e/year	tCO ₂ e/year/CAD M
Ansonville TS and Kirkland Lake TS Refurbishment Project	Improved Transmission Lines	47.6 ³⁸	68 ³⁹	1,539	1,362 ⁴⁰	52 ⁴¹	35	0.74

Energy Efficiency

Hydro One has allocated CAD 15.4 million to projects involving the maintenance of existing smart meters as well as projects focusing on the management of new and existing smart meter applications. The financed projects focus on maintenance of the infrastructure which consequently enables GHG emissions avoided through an average energy saving of 2%.⁴² Hydro One reports that 95% of the electrical energy delivered to its customers is delivered by an active smart meter.⁴³ Besides societal benefits from consumers decreasing energy consumption and the associated electricity costs, smart meters provide environmental benefits through the reduction of peak demands.⁴⁴ During peak periods, when energy demand is at its highest, conventional power grids often rely on fossil fuel sources to meet the surge in electricity requirements, whereas during off-peak periods of lower demand, low carbon energy sources can meet the demand. By shifting energy usage from peak periods into off-peak periods, customers can decrease the residential amount of GHG emissions produced.⁴⁵

Table 2: Impact of Energy Efficiency Project

Project Name	Allocated Amount	Share of Total Project Financing	Energy Saved from Smart Meters ⁴⁶	Smart Grid Technology Coverage
	CAD Million	%	%	%
Smart Meters	15.4	100 ⁴⁷	2	95

³⁶ Energy consumption post project execution.

³⁷ Energy saved by project.

³⁸ Exact amount 47,584,010 CAD.

³⁹ The proportion of total project costs that are financed by bond proceeds. The total project cost is estimated to be 69,686,000 CAD. Project costs are still being incurred at the time of the drafting of the report and therefore the Capital Cost Estimate as filed with the Ontario Energy Board is used. For further information, please refer to:

[hydroone.com/abouthydroone/RegulatoryInformation/oebapplications/Documents/HONI_APPL_s92_A8K_A9K_20210825.pdf](https://www.hydroone.com/abouthydroone/RegulatoryInformation/oebapplications/Documents/HONI_APPL_s92_A8K_A9K_20210825.pdf)

⁴⁰ Hydro One, "EB-2021-0107 – Hydro One Networks Inc. Leave to Construct Application – Ansonville TS and Kirkland Lake TS A8K/A9K Refurbishment Project – Application and Evidence", (2021), at: EB-2021-0107 – Hydro One Networks Inc. Leave to Construct Application – Ansonville TS and Kirkland Lake TS A8K/A9K Refurbishment Project – Application and Evidence

⁴¹ There is no assurance that the information and data presented in this report based on Sustainalytics' methodologies, data sources and assumptions will align with the issuer's own assessment of the Eligible Project's emissions avoided based on the issuer's own methodologies, data sources and assumptions.

⁴² "A Decade On, How Has the Visibility of Energy Changed? Energy Feedback Perceptions from UK Focus Groups", Fredericks et al 2020, at: <https://www.mdpi.com/1996-1073/13/10/2566>

⁴³ Hydro One, "Enabling Ontario's Clean Energy Future: 2022 Sustainability Report", (2022), at: https://www.hydroone.com/Sustainability/Documents/CSR_2022/HydroOne_CSR_2022.pdf

⁴⁴ Government of Canada, "The Ontario Smart Metering Initiative: What does it mean for Ontario's residential consumers?" (2009), <https://ised-isde.canada.ca/site/search-research-database/en/node/12660>

⁴⁵ Independent Electric System Operator, "Ontario's Full Scale Roll-out of TOU Rates – Final Study", (2016), at: https://www.brattle.com/wp-content/uploads/2017/10/7289_analysis_of_ontarios_full_scale_roll-out_of_tou_rates_-_final_study-3.pdf

⁴⁶ Fredericks et al, "A Decade On, How Has the Visibility of Energy Changed? Energy Feedback Perceptions from UK Focus Groups", (2020), at: <https://www.mdpi.com/1996-1073/13/10/2566>

⁴⁷ This is an ongoing project with costs still being incurred annually. The bond proceeds financed 100% of project costs between February 2021 and January 2023.

Clean Transportation

The Clean Transportation case study covers the number of PHEVs⁴⁸ purchased and allocated to the 2023 Sustainable Bond Issue between December 2021 and July 2022, the emissions avoided are shown for an annual basis.

Table 3: Impact of Clean Transportation Project

Project Name	Project Type	Allocated Amount	Share of Total Project Financing	Number of PHEV	PHEVs Emissions Factor	Financed GHG Emissions Avoided	Financed GHG Emissions Avoided/ CAD M
		CAD Million	%	#	gCO ₂ e/km	tCO ₂ e/year	tCO ₂ e/ year/CAD M
Plug-in Hybrid Electric Vehicles (PHEVs)	New PHEVs Fleet	0.6 ⁴⁹	100	16	49	33.59 ⁵⁰	57.19

Biodiversity Conservation

Hydro One Network Inc.'s (HONI) Pollinator Program was established as an initiative in 2015, created with the aim to support Ontario provincial policy to protect bees and other pollinators.⁵¹ The project's objective is to enhance biodiversity by establishing pollinator sites comprised of pollinator-friendly species such as flowering plants on Hydro One's corridor lands.⁵² Under this initiative, Hydro One installed 12 hectares of pollinator meadows in the province in 2022.⁵³

Table 4: Impact of Biodiversity Conservation Project

Project Name	Project Type	Allocated Amount	Share of Total Project Financing	Financed Pollinator Meadows
		CAD Million	%	Hectares
HONI Pollinator Program	Pollinator Program Aimed to Protect Bees and Other Pollinators	0.06	100 ⁵⁴	12

⁴⁸ Plug-in Hybrid Electric Vehicle.

⁴⁹ Exact amount 587,338 CAD.

⁵⁰ There is no assurance that the information and data presented in this report based on Sustainalytics' methodologies, data sources and assumptions will align with the issuer's own assessment of the Eligible Project's emissions avoided based on the issuer's own methodologies, data sources and assumptions

⁵¹ Ontario, "Ontario Launches Action Plan to Protect Pollinators", (2016), at: <https://news.ontario.ca/en/bulletin/43131/ontario-launches-action-plan-to-protect-pollinators>

⁵² Hydro One, "What's the Buzz around our Pollinator Habitat Program?", (2022), at: <https://www.hydroone.com/about/energizing-ontario/blog/pollinator-habitat-program>

⁵³ Hydro One, "Enabling Ontario's Clean Energy Future – 2022 Sustainability Report", (2023), at: https://www.hydroone.com/Sustainability/Documents/CSR_2022/HydroOne_CSR_2022.pdf

⁵⁴ This is an ongoing project with costs being incurred annually. The bond proceeds financed 100% of the 12 hectares of pollinator meadows established in 2022.

Socio-Economic Advancement of Indigenous People

With the bond proceeds, Hydro One aims to increase the amount of goods and services purchased from Indigenous businesses.⁵⁵

Similarly, the Sustainable bonds proceeds have supported 94 Indigenous businesses between February 2021 and September 2023.

Table 5: Impact of Socio-Economic Advancement of Indigenous People by Project Type

Project Type	Year	Allocated Amount	Share of Total Project Financing	Number of Indigenous Businesses Supported
		CAD Million	%	#
Supplier Contracts with Indigenous-Owned Businesses	February 2021 – September 2023	99.5 ⁵⁶	100 ⁵⁷	94

⁵⁵ *ibid.*

⁵⁶ Exact amount 99,519,794 CAD.

⁵⁷ This is an ongoing project with costs being incurred annually. The bond proceeds financed 100% of the 94 Indigenous-owned businesses supported between February 2021 and September 2023.

5. Methodology

Sustainalytics developed its own methodologies for quantifying GHG avoidance and other metrics, including leveraging publicly available best-in-class methodologies, protocols and frameworks that are currently industry best practice. Our estimation practices and general principles rely on the GHG Protocol.⁵⁸ Our methodologies are based on guidance provided by the International Financial Institutions on calculation methodology and global emissions. In addition, we rely on the Partnership for Carbon Accounting Financials' Global Accounting Standard for guidance on estimation where data is not readily available and assumptions must be made.^{59,60} Finally, the UN's Clean Development Mechanism provides guidance and information, serving as the foundation for these and other methodologies, including those implemented in this report.⁶¹

Clean Energy

Making improvements to the grid means energy savings and a reduction in emissions. The calculation is based on the comparison between:

- a) The project emissions, which means the emissions of the electricity produced after the improvement project
- b) The baseline emissions, which is the emissions occurring prior the improvement project
- c) Avoided emissions are calculated as the difference between the project emissions and the baseline emissions

Data Sources and Assumptions

- For the projects included in this report, the ex-ante estimates of annual energy transmission (measured in MWh), before and after the improvement was provided by Hydro One.
- For both the project and baseline emissions, the emission factor for the Ontario grid was used
- The emission factor was sourced from the Canada Energy Regulator.⁶² To account for emissions from upstream activities, Sustainalytics applies an additional, indirect emissions factor.⁶³

Clean Transportation

Clean Transportation is assumed to displace a mix of existing and future transportation along the same travel distance. The carbon avoidance is calculated using:

- a) For the sustainable transport projects, the vehicle type of the projects financed were provided by Hydro One. To the extent available, calculations are based on available vehicle type emissions data, fuel consumption or passenger-kilometre data. In the absence of

⁵⁸ Greenhouse Gas Protocol, About Us, at: <https://ghgprotocol.org/>

⁵⁹ International Financial Institutions, "Members of the International Financial Institutions on Greenhouse Gas Accounting", at: [https://unfccc.int/sites/default/files/resource/IFIs membership for UNFCCC %27white pages%27_0.pdf](https://unfccc.int/sites/default/files/resource/IFIs%20membership%20for%20UNFCCC%20white%20pages%27_0.pdf)

⁶⁰ Partnership for Carbon Accounting Financials, About, at: <https://carbonaccountingfinancials.com/>

⁶¹ UNFCCC, CDM Methodology Booklet, (2021), at: <https://cdm.unfccc.int/methodologies/documentation/index.html>

⁶² Provincial and Territorial Energy Profiles – Ontario, available at: <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/provincial-territorial-energy-profiles/provincial-territorial-energy-profiles-ontario.html>

⁶³ Government of the UK, Department for Business, Energy & Industrial strategy, "Government conversion factors for company reporting of greenhouse gas emissions", at: <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

such information, estimates are made based on mode of transportation, fuel type and average passengers per vehicle.

- b) The baseline emissions, which are the emissions associated with a basket of vehicles or modes of transport being replaced currently and in the future lifetime of the project.
- c) Financed project avoided emissions are calculated by using the share of project financing of the total project emissions avoided from above calculations.

Data Sources and Assumptions

- For the projects included in this report, data on the vehicle type was provided by Hydro One and emission factor was sourced from Natural Resources Canada.⁶⁴
- It is assumed that the financed vehicles displace vehicles in the same car classification category consuming the average fuel type used in Canada.
- Project level emissions associated with electricity consumption were calculated using a national grid emission factor sourced from IFI.⁶⁵
- To account for emissions from upstream activities, such as electricity transmission losses and the extraction and refining of primary fuels, Sustainalytics applies an additional, indirect emissions factor to the emissions directly emitted by the project and baseline vehicles.⁶⁶

⁶⁴ Natural Resources Canada, "2022 Fuel Consumption Guide", (2022), https://natural-resources.canada.ca/sites/nrcan/files/oeef/pdf/transportation/fuel-efficient-technologies/2022_Fuel_Consumption_Guide.pdf

⁶⁵ UNFCCC, "Harmonized IFI Default Grid Factors 2021 v3.2", available at: <https://unfccc.int/climate-action/sectoral-engagement/ifis-harmonization-of-standards-for-ghg-accounting/ifi-twg-list-of-methodologies>

⁶⁶ Government of the UK, Department for Business, Energy & Industrial strategy, "Government conversion factors for company reporting of greenhouse gas emissions", at: <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

Appendix

As of January 27th, 2023, Hydro One had a total of CAD 1,050 million of Sustainable Bonds outstanding.

Table 5: Bond Issuances

Settlement Date	Issuance Currency	Amount Issued ⁶⁷	Maturity Date	Bond Tenor	ISIN
January 27 th , 2023	CAD	300 million	November 30 th , 2029	6.8 years	CA 44810ZCK45
January 27 th , 2023	CAD	450 million	January 27 th , 2033	10 years	CA 44810ZCL28
January 27 th , 2023	CAD	300 million	January 27 th , 2053	30 years	CA 44810ZCM01

⁶⁷ Aggregate principal amount issued.

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