



Pancake Bay Provincial Park, Batchawana Bay, ON

# Ontario's Green Bonds

## LETTER FROM THE CEO

This year marks a significant milestone for Ontario's Green Bond program, celebrating its 10<sup>th</sup> year anniversary. The issuance of our seventeenth Green Bond has propelled us over \$20 billion in cumulative issuance. I take pride in Ontario's pioneering role in the development of a Canadian dollar Green Bond market, and we are committed to maintaining our leadership in this dynamic space.

In January 2024, we released the new *Ontario Sustainable Bond Framework*, replacing the *Green Bond Framework* from 2014. The new framework will allow for a broader range of potential bond offerings in the future, including emissions-free nuclear power.

Ontario's Green Bonds have successfully funded 29 projects across three key categories outlined in our *Sustainable Bond Framework*. These bonds continue to garner strong interest from major institutional investors in Canada and globally. Our most recent Green Bond, the Province's seventeenth, second of the current fiscal year, and Ontario's third Green Bond issued under the new *Ontario Sustainable Bond Framework*, was issued on October 2, 2024 for \$1 billion and provided funding for four major projects related to Clean Transportation. This bond was the first 30-year Green Bond by a Canadian Province.

Ontario remains steadfast in its commitment to the Canadian dollar Green Bond market. Green Bonds now account for a larger portion of the Province's annual borrowing programs. Since fiscal 2022–23 they have represented around seven per cent of total borrowing, a significant increase from the approximately four per cent of most prior years.

The *2024 Ontario Economic Outlook and Fiscal Review* outlined planned infrastructure investments totaling \$191.3 billion over the next decade. Approximately 45 per cent will be allocated towards transportation, 27 per cent towards health and 14 per cent towards all levels of education which opens the opportunity for more of these projects to be eligible for funds under Ontario's *Sustainable Bond Framework*.

In our pursuit of transparency and impactful reporting, Ontario strives to lead by example with the publication of our annual newsletter. We are committed to providing timely and tangible information on projects funded by Ontario's bonds issued under the *Sustainable Bond Framework*, and we are prepared to embrace any future impact reporting recommendations and changes put forth by the International Capital Market Association (ICMA).

Green Bonds stand as a vital tool for financing initiatives such as public transit projects, resilient infrastructure against extreme weather, as well as energy efficiency and conservation efforts in Ontario. I extend my sincere gratitude to investors for their unwavering support of our borrowing program.

Here's to another year of sustainable progress.



Gadi Mayman  
Chief Executive Officer, Ontario Financing Authority

# Ontario's Green Bond Features

## Ontario's Green Bonds

- Carry the full faith and credit of the Province of Ontario.
- Rank *pari passu* with Ontario's other bonds and are payable without any preference or priority.
- Payments of principal of and interest on the bonds will be a charge on and payable out of the Consolidated Revenue Fund of Ontario.
- An amount equal to the net proceeds of each Green Bond issue is recorded in a designated account in the Province of Ontario's financial records. These designated accounts are used to track the use and allocation of funds to eligible projects.

## Ontario's Sustainable Bond Framework

"Eligible Projects" means all projects funded by the Province of Ontario that promote environmentally beneficial outcomes across the Province and mitigate or adapt to the effects of climate change; and/ or projects that promote socially beneficial outcomes across the Province improving the lives of Ontarians; and/or projects that promote a combination of both environmentally and socially beneficial outcomes across the Province.

Without limitation, projects in the following Green categories have generally been considered eligible:

- Clean Transportation;
- Green Buildings;
- Energy Efficiency;
- Pollution Prevention and Control;
- Clean Energy;
- Environmentally Sustainable Management of Living Natural Resources and Land Use;
- Terrestrial and Aquatic Biodiversity;
- Climate Change Adaptation;
- Sustainable Water and Wastewater Management; *and*
- Circular Economy, Adapted Products, Production, Technologies and Processes

## Alignment with Green Bond Principles (GBP)

Ontario's Green Bond program aligns with the GBP. Since March 2016, Ontario has been a member of the GBP group, maintained by the ICMA. In 2021, Ontario became a member of the GBP Impact Reporting Working Group.

As recommended by the GBP, the Province of Ontario reports annually on the use of proceeds and impact statistics for the projects that received Green Bond funding until full allocation. Ontario uses widely recognized core indicators for its projects and expects to adopt any future impact reporting recommendations of the GBP.

## Alignment with United Nations Sustainable Development Goals

Ontario's Green Bond proceeds fund project categories which support many of the United Nations Sustainable Development Goals (UNSDGs).

## Assurances

Sustainalytics provided a second opinion on [Ontario's Sustainable Bond Framework](#).

Each fiscal year, the office of the Auditor General of Ontario provides an [assurance audit](#) on the use of Green Bond proceeds.



Georgian Bay, ON

# Ontario's Green Bond Issues



**\$500M**

2014–15

First Green Bond issue



**\$750M**

2015–16

Introduced basket of projects



**\$800M**

2016–17

First Green Bond Reopening

**\$1,000M**

2017–18

Environmental Finance Winner – Green Bond of the Year (Local/Municipality)



**\$950M**

2018–19

Plans for multiple issues a year starting next fiscal

**\$1,250M**

2019–20

First project selected in Climate Adaptation & Resilience category

**\$2,750M**

2020–21

Two domestic medium term reopenings over \$1 billion each



Ontario is the largest and most frequent issuer of Canadian dollar Green Bonds

**17**

Green Bond Issues

### FORMAT

Domestic Medium Term Note



Global Canadian Dollar



### LISTINGS

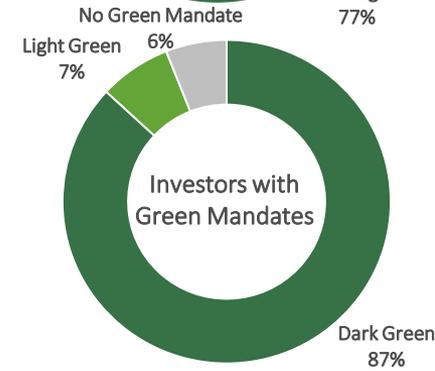
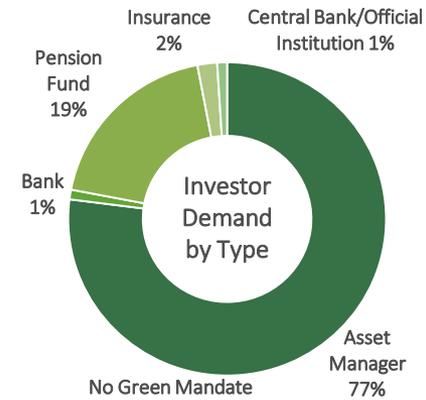
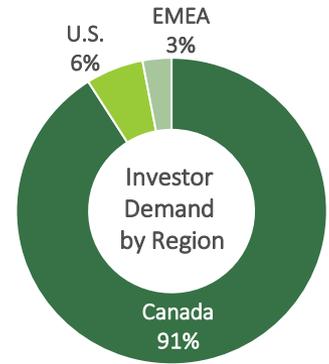
Luxembourg Stock Exchange

Euro MTF

Luxembourg Green Exchange

# Ontario's Green Bond Issues

				
<b>\$4,500M</b> 2021–22	<b>\$2,500M</b> 2022–23	<b>\$3,000M</b> 2023–24	<b>\$2,250M</b> 2024–25	
Largest issue of \$2.75 billion & largest total Green Bond issuance	Longest maturity of nine years introduced	<i>Sustainable Bond Framework</i> issued in January 2024	First ever 30-year Green Bond by a Canadian province	<b>\$20.25B</b> Total Issuance (\$Billions)
				



Inclusion in Green Bond Indices	
Bloomberg MSCI Global Green Bond Index	ICE BofA Green Bond Index
S&P Green Bond Index	Solactive Green Bond USD CAD DM hedged Index

All Green Bond issues were available through Ontario's current dealer group for placement with Canadian and international institutional investors.

All issues were also made available to retail investors through Canadian financial institutions.

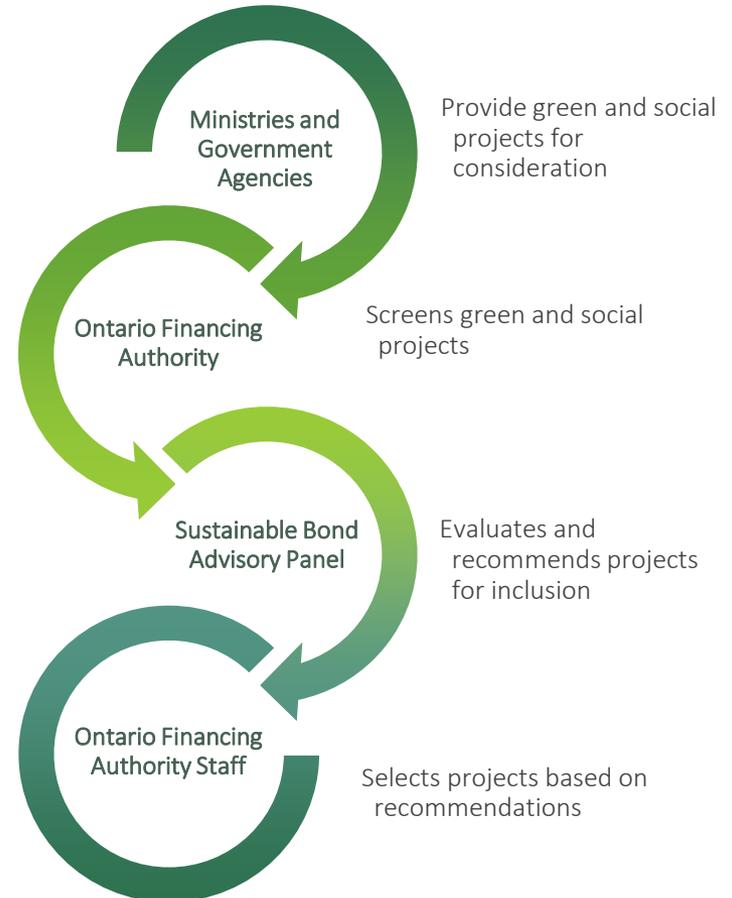
**Future Issuance Plans**

Ontario remains committed to the Green Bond market. Subject to market conditions, Ontario plans to continue to issue multiple Green Bonds each fiscal year.

# Project Evaluation and Selection

The selection of eligible green projects is done on behalf of the Province by Ontario Financing Authority (OFA) staff with advice from the Province’s Sustainable Bond Advisory Panel (SBAP), which supersedes the Green Bond Advisory Panel (GBAP) established in 2014. The SBAP, which includes staff from various ministries and agencies, including the Ministry of the Environment, Conservation and Parks, the OFA, and the OFA Board, evaluates and recommends projects for inclusion in Ontario’s Sustainable Bond program.

Since inception of Ontario’s Green Bond program, the Province has worked on refining its project evaluation and selection process. Ontario released its new *Sustainable Bond Framework* in early 2024. This update involved aligning the Framework with the four core components of the ICMA GBP, ICMA Sustainable Bond Principles (SBP) and the ICMA Sustainability Bond Guidelines.



Ontario Framework Category Examples	Project Examples
Clean Transportation	Funding of public transit projects
Energy Efficiency	Public sector building efficiency improvements
Climate Adaptation	Flood protection and storm water management

## United Nations Sustainable Development Goals

Ontario funds eligible Green Bond projects within Framework Categories which primarily support the following UNSDGs:



## EU Taxonomy

Ontario funds Green Bond projects that contribute to environmental objectives set out in the EU Taxonomy, primarily in Climate Change Mitigation and Climate Change Adaptation.

# Ontario's Sustainable Bond Framework

	Green Bond Framework (2014) CICERO 2 <sup>ND</sup> Opinion	Sustainable Bond Framework (2024) Sustainalytics 2 <sup>ND</sup> Opinion
Green Categories	Clean Transportation	Clean Transportation
	Energy Efficiency and Conservation	Green Buildings Energy Efficiency Pollution Prevention and Control
	Clean Energy and Technology	Clean Energy
	Forestry, Agriculture and Land Management	Environmentally Sustainable Management of Living Natural Resources and Land Use Terrestrial and Aquatic Biodiversity
	Climate Adaptation and Resilience	Climate Change Adaptation Sustainable Water and Wastewater Management Circular Economy, Adapted Products, Production, Technologies and Processes
Social Categories	—	Affordable Basic Infrastructure Access to Essential Services: Healthcare Access to Essential Services: Education and Childcare Affordable* Housing Employment Generation
UNSDGs (United Nations Sustainable Development Goals)		
Exclusions	Fossil fuel and nuclear energy projects	None

\* Definitions to be provided as part of project descriptions at time of issuance

# Use and Management of Proceeds Overview

Clean Transportation Projects	Green Bond Allocation																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Eglinton Crosstown Light Rail Transit (LRT)	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓						
GO Expansion (formerly Regional Express Rail)		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
York Viva Bus Rapid Transit		✓	✓	✓													
Finch West LRT			✓	✓			✓	✓	✓	✓	✓	✓					
Hazel McCallion LRT			✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓
Ontario Line Subway									✓	✓	✓	✓	✓	✓	✓	✓	✓
Scarborough Subway Extension											✓	✓	✓	✓	✓	✓	✓
Hamilton LRT <sup>1</sup>			✓														
Electric Vehicle (EV) ChargeON																✓	
Energy Efficiency and Conservation Projects	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Macdonald Block Reconstruction									✓	✓			✓	✓			
Michael Garron Hospital									✓								
West Park Healthcare Centre									✓		✓						
Centre for Addiction and Mental Health — Phase 1C Redevelopment					✓		✓										
Cortellucci Vaughan Hospital (formerly Mackenzie Vaughan Hospital)					✓		✓	✓									
New Toronto Courthouse							✓			✓							
Brockville General Hospital							✓										
Groves Memorial Community Hospital							✓										
William Osler Health System — Etobicoke General Hospital Phase 1 Patient Tower Project					✓												
Whitby Rail Maintenance Facility				✓													
Seneca College King Campus Expansion				✓													
Joseph Brant Hospital — Redevelopment Project Phase 1				✓													
St. Joseph’s Healthcare Hamilton — West 5 <sup>th</sup> Campus		✓	✓														
St. Joseph’s Healthcare London (Parkwood) and St. Thomas		✓	✓														
Waypoint Centre for Mental Health		✓	✓														
Centre for Addiction and Mental Health — Phase 1B		✓	✓														
ErinoakKids Centre for Treatment and Development			✓														
Woodstock General Hospital			✓														
Sheridan College Hazel McCallion Campus Expansion		✓															
Climate Adaptation and Resilience Project	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Port Lands Flood Protection							✓	✓	✓	✓	✓						

1: Province announced the cancellation of the procurement for the Hamilton LRT project as of December 16, 2019.

# Funding Allocation and Disbursements

Each fiscal year, an assurance audit by the Office of Auditor General (AG) of Ontario verifies the amounts allocated for selected projects and the balance of proceeds remaining.

Post-March 31, 2024 amounts will be included in the AG's assurance audit of the use of Green Bond proceeds next fiscal year.

## 29

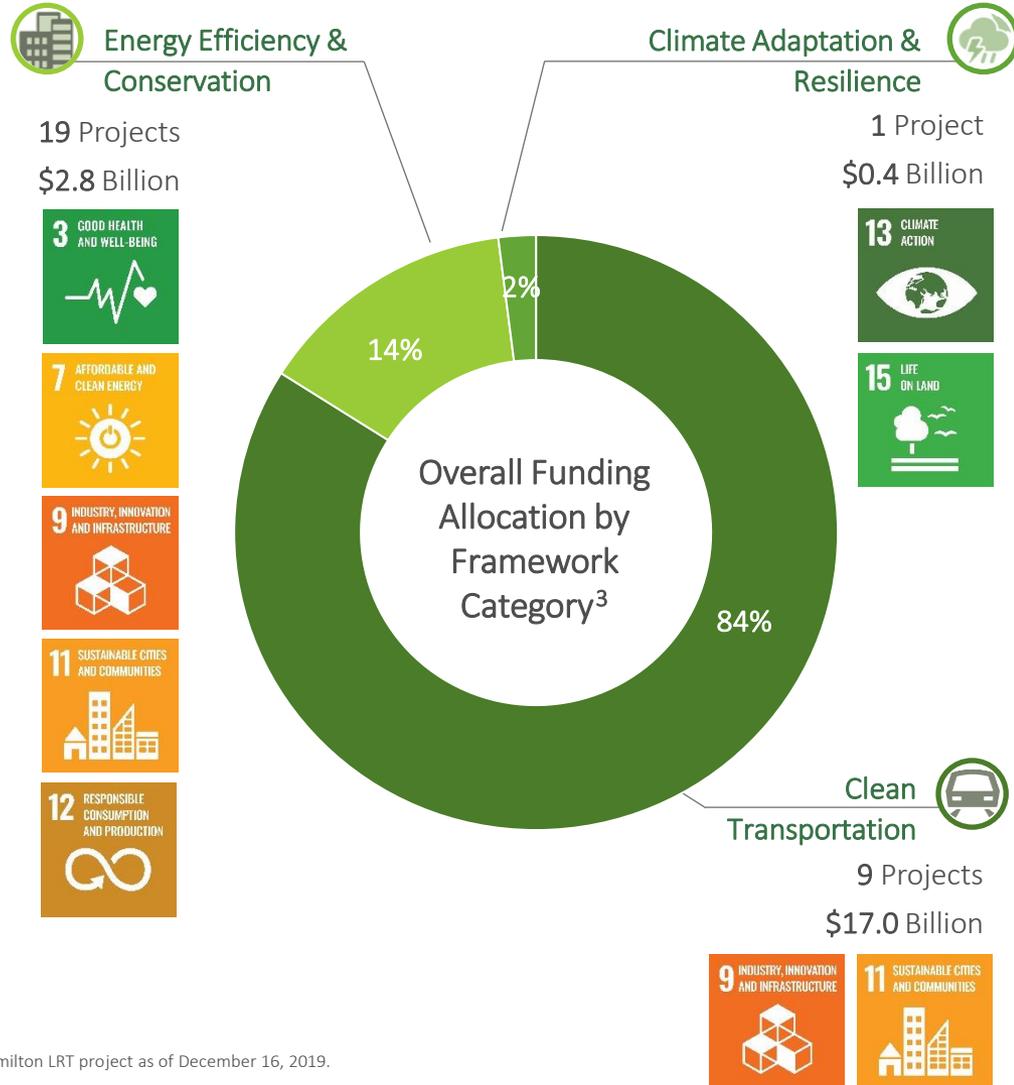
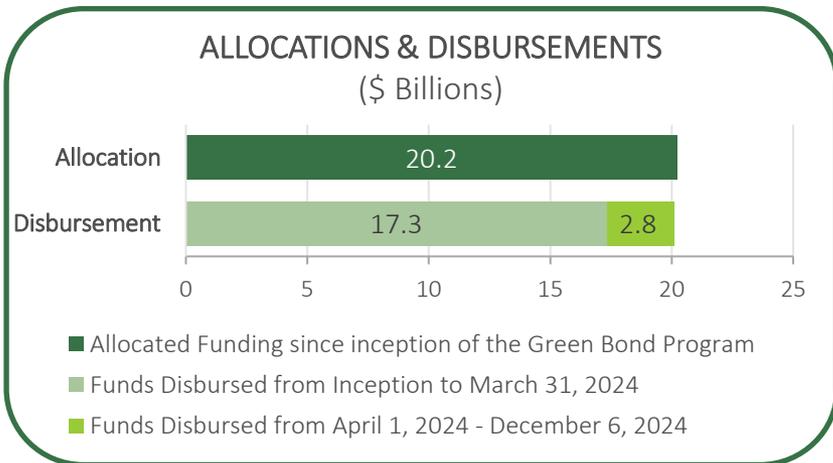
Projects  
across three  
project categories<sup>1</sup>

## 20.1

Total Funds  
Disbursed<sup>2</sup>  
(\$ Billions)

## 99.6

Total Funds  
Disbursed<sup>2</sup>  
(Per Cent)



1: Figures include the Hamilton LRT project. The Province announced the cancellation of the procurement for the Hamilton LRT project as of December 16, 2019.

2: As of December 6, 2024.

3: Numbers may not add due to rounding.

# Funding Allocation and Disbursements

During fiscal 2024–25, the Province allocated and disbursed Green Bond proceeds to 7 projects:

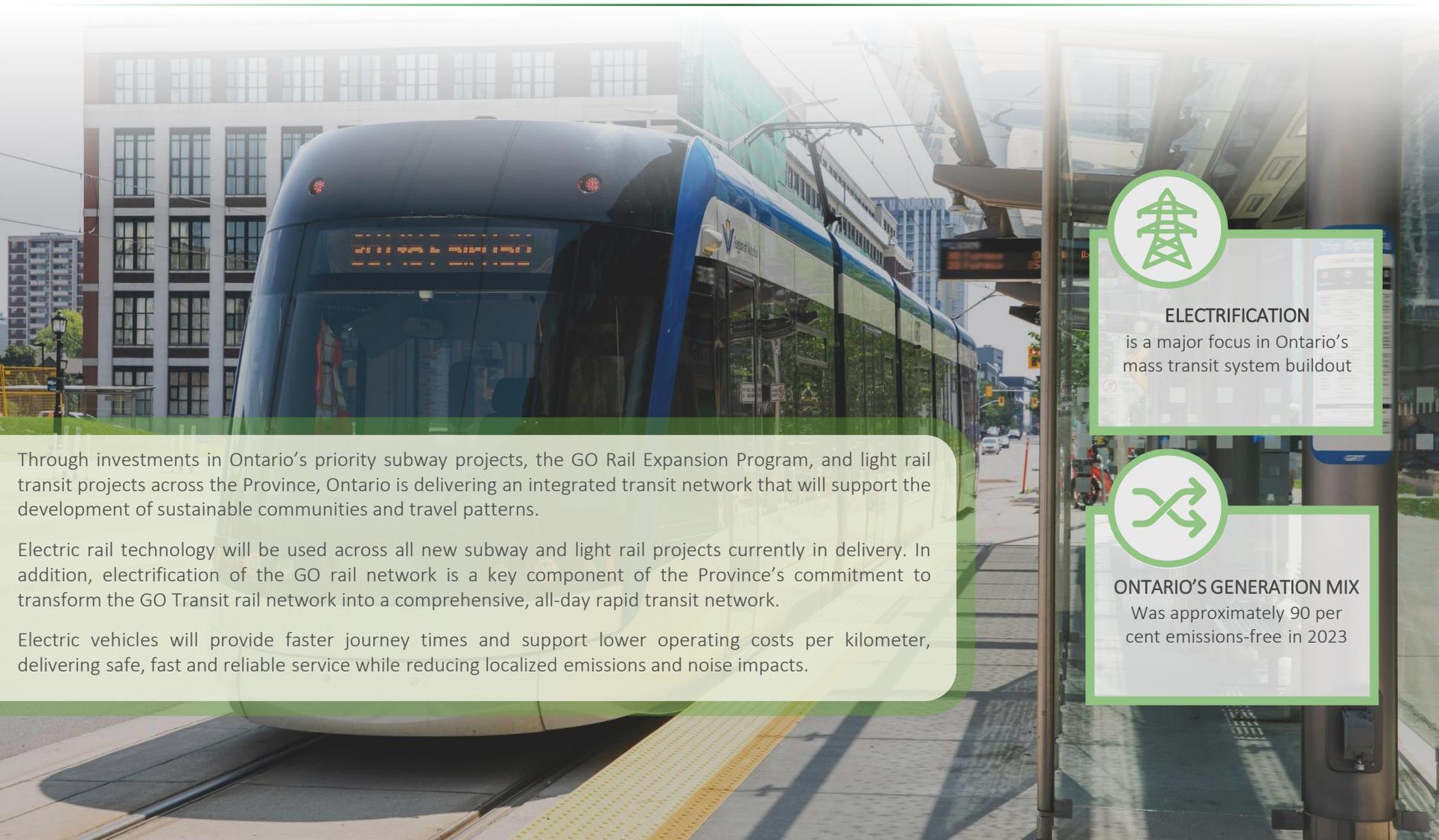
Project Name	Total Project Cost <sup>1</sup> (\$ millions)	Allocated Funding from Green Bond Program (\$ millions)	Funds Disbursed since Inception of the Green Bond Program as of March 31, 2024 (\$ millions)
<b>Clean Transportation</b>			
GO Expansion	13,500 (2014\$)	6,265.1	4,930.7
Hazel McCallion LRT	2,966 (2019\$)	1,651.0	1,357.8
Ontario Line Subway	10,900 (2020\$)	3,478.0	2,459.2
Scarborough Subway Extension	5,500 (2020\$)	780.3	562.3
EV ChargeON <sup>2</sup>	91.0	0.4	0.01
<b>Energy Efficiency and Conservation</b>			
Macdonald Block Reconstruction	1,536.0	670.0	649.1
<b>Climate Adaptation and Resilience</b>			
Port Lands Flood Protection	1,419.0	400.4	400.4

*Note:* As recommended by the GBP, the Province of Ontario reports annually on the use of proceeds and impact reporting statistics, for the projects that received Green Bond funding until full allocation.

1: For Clean Transportation projects, this is referring to the base capital construction costs. For Energy Efficiency & Conservation projects, the "Total Project Cost" represents contract value (the payment(s) to be made by the Sponsor for a P3 project, as defined in the Project Agreement and prior to taking into account inflation).

2: Green Bond funding is typically fully disbursed to projects within a period of 6 months prior to and 12 months following the issue of the Green Bond. Green Bond funding was allocated to the EV ChargeON Program from Ontario's fifteenth Green Bond issued in February 2024, for which the funding window ends on February 28, 2025. Due to ongoing delays in program launch, funding has been re-allocated to the GO Expansion to allow proceeds from the fifteenth Green Bond to be disbursed within the defined funding window.

# Clean Transportation – Electrification



**ELECTRIFICATION**  
is a major focus in Ontario's mass transit system buildup



**ONTARIO'S GENERATION MIX**  
Was approximately 90 per cent emissions-free in 2023

Through investments in Ontario's priority subway projects, the GO Rail Expansion Program, and light rail transit projects across the Province, Ontario is delivering an integrated transit network that will support the development of sustainable communities and travel patterns.

Electric rail technology will be used across all new subway and light rail projects currently in delivery. In addition, electrification of the GO rail network is a key component of the Province's commitment to transform the GO Transit rail network into a comprehensive, all-day rapid transit network.

Electric vehicles will provide faster journey times and support lower operating costs per kilometer, delivering safe, fast and reliable service while reducing localized emissions and noise impacts.

# Impact Reporting – Clean Transportation

## Go Expansion

will transform the existing GO Rail network into a comprehensive, rapid transit network by providing two-way, all-day service every 15 minutes over core segments of the GO Transit rail network. Effort is already underway across the network to help support the delivery of GO Rail Expansion and to prepare the network for future works. The Province is moving forward with critical procurements to support the delivery of enhanced GO rail services, including the On-Corridor Works project (currently in-market). Among other components, the scope of the On-Corridor Works project includes works, such as electrification infrastructure, signaling and new fleet. GO Expansion will provide several benefits, including providing new transportation choices that can accommodate significant population growth, as well as reducing congestion, GHG emissions, CACs and other pollutants that impact human health and contribute to climate change.



Expected Completion	Estimated Greenhouse Gas (GHG) Reductions (CO2 [or equivalent] tonnes / yr)	Equivalent Passenger Vehicles Off the Road (vehicles / yr)	Other Environmental Benefits
Enhancements incrementally introduced over the life of the program	480,000 (starting 2030)	111,628 (starting 2030)	<ul style="list-style-type: none"> <li>GO Expansion will shift the GO Rail network from a largely commuter system to a comprehensive regional rapid transit option, thereby contributing to mode shift and decreasing GHG emissions and CACs.</li> <li>New facilities will be minimum LEED Silver and are targeting LEED Gold certification where possible.</li> </ul>

Note: Estimated timelines for completion and GHG projections will be confirmed following the conclusion of the procurement process.

# Impact Reporting – Clean Transportation

Project	Expected Completion	Project Description	Estimated Greenhouse Gas (GHG) Reductions (CO <sub>2</sub> [or equivalent] tonnes / yr)	Equivalent Passenger Vehicles Off the Road (vehicles / yr)	Other Environmental Benefits
Ontario Line Subway	2030	A new 15.6-kilometre rapid transit line in Toronto that will connect Exhibition/Ontario Place through downtown Toronto to the Ontario Science Centre. The project will include 15 stations.	14,000 (starting 2030)	3,256 (starting 2030)	<ul style="list-style-type: none"> <li>Reductions in auto usage and the switch from diesel buses to electric rail vehicles contributes to decreasing greenhouse gas (GHG) emissions and Criteria Air Contaminants (CACs), manages traffic congestion, and encourages mode shift from auto trips to transit trips.</li> </ul>
Hazel McCallion LRT	2024	The Hazel McCallion LRT (formerly Hurontario LRT) will be a new 18-kilometre LRT line with 19 stops, connecting the cities of Mississauga and southern Brampton.	4,000 (starting 2030)	930 (starting 2030)	<ul style="list-style-type: none"> <li>Reductions in auto usage and the switch from diesel buses to electric LRVs contributes to decreasing GHG emissions and CACs, manages traffic congestion, and encourages mode shift from auto trips to transit trips.</li> <li>Maintenance and storage facility will aim to meet LEED Silver certification.</li> </ul>
Scarborough Subway Extension <sup>1</sup>	2029	The Scarborough Subway Extension will bring the TTC's Line 2 subway service 7.8-kilometres farther into Scarborough, extending from Kennedy Station to Sheppard Avenue and McCowan Road. The project includes three new stations, and up to six transit connections.	10,000 (starting 2030)	2,326 (starting 2030)	<ul style="list-style-type: none"> <li>Reductions in auto usage and the switch from diesel buses to electric rail vehicles contributes to decreasing GHG emissions and CACs, manages traffic congestion, and encourages mode shift from auto trips to transit trips.</li> </ul>

1: Estimated timelines for completion and GHG projections will be confirmed following the conclusion of the procurement process.

# Impact Reporting – Clean Transportation

## EV ChargeON

Through the EV ChargeON program, the Ontario government is providing \$91 million in funding to build new EV charging stations outside of large urban centres. The program consists of two streams: the Community Sites Stream (\$63 million), a competitive grant subsidy program for eligible private and public sector entities, and the Government Sites Stream (\$28 million), which will build EV chargers on government-owned land.

In November 2024, the Ontario government announced it is building over 1,300 new public EV charging ports as part of the Community Sites Stream. The chargers will be located at 270 sites in small and medium-sized communities across the province, such as arenas, hospitals, parks and recreation centres. This includes 190 charging ports in northern Ontario, providing drivers across the north with more options when travelling.\*

To support the implementation of the Government Sites Stream, the Ontario government issued a Request for Bids from June 25 – September 25, 2024, and is currently reviewing the bids with the first EV chargers expected to be ready for use in 2025.

Each new EV charging site will include Level 2 charging stations, Level 3 charging stations, or a combination of the two.

## Electric Vehicles

As of October 2024, there were more than 201,000 EVs registered in Ontario, including both battery-electric vehicles and plug-in hybrid electric vehicles. By 2030, over one million EVs are expected on Ontario's roads.



\*Approved projects must be completed within twelve (12) months from the date of the approval letter, with recipients having the ability to request an extension of up to 12 months or up to November 2026.

# Impact Reporting – Macdonald Block Reconstruction



## Macdonald Block Reconstruction

is the administrative hub of Ontario government operations and has a total gross building area of approximately 1.7 million sq.ft, including four office towers, podium, and underground parking. The reconstruction will lower operating costs in the complex, allow for significantly more workers to be accommodated, improve accessibility, and reduce the need for approximately 586,000 square feet of expensive third-party leased space while updating all core building systems, including electrical, water, cooling and heating.

Expected Completion	Estimated Energy Savings (kWh / yr)	Estimated GHG Reductions (CO2 [or equivalent] tonnes / yr)	Equivalent Passenger Vehicles Off the Road (vehicles / yr)	Estimated Water Savings (litres / yr)	Equivalent Water Usage per Household (Ontario households / yr)	Other Environmental Benefits
2024*	25,067,940	5,464	1,271	28,534,719	150	Targeting LEED Silver Certification

\*Subject to change.

# Impact Reporting – Port Lands Flood Protection



## Port Lands Flood Protection

is the first project to receive Green Bond funding in the Climate Adaptation & Resilience category.

It is an approximate \$1.4 billion project for flood protecting southeastern portions of downtown Toronto that are at risk of flooding under a provincially defined Regulatory Storm event. There are four major components to the project: parks, roads and municipal infrastructure, bridges, and earthworks/flood protection.

The project involves excavating a new river valley that has the capacity to handle large volumes of flood water and creating a naturalized mouth for the Don River in the Port Lands. The project also includes structures to control water flow and manage sediment and debris, transit infrastructure to support future development, new parks, and aquatic habitat.

Expected Completion	Climate Adaptation and Resilience Benefits	Other Environmental Benefits	Economic Impacts
2025	<ul style="list-style-type: none"> <li>• 290 hectares of land protected from flooding</li> <li>• 14 hectares of new coastal wetland</li> <li>• 3 hectares of terrestrial habitat to strengthen biodiversity and help clean water</li> </ul>	<ul style="list-style-type: none"> <li>• 30 hectares of naturalized greenspace</li> <li>• 11 hectares of parkland</li> <li>• More than 1,000 metres of a new river channel</li> <li>• 1,000,000 plants installed</li> </ul>	<ul style="list-style-type: none"> <li>• \$5.1 billion in value to the Canadian economy</li> <li>• 51,900 full-time years of employment</li> <li>• \$1.9 billion in government revenues</li> </ul>



## 2024 Ontario Green Bond Newsletter

The Ontario Financing Authority is an agency of the Province of Ontario and is responsible for provincial borrowing and debt management activities.

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