

Bruce Peninsula, ON

Green Bond 2018 Newsletter



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.

"Eligible projects" means projects (mainly infrastructure) funded by the Province that have environmental benefits, exclusive of fossil fuel and nuclear energy projects. Eligible projects are located throughout Ontario communities.

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

- Clean Transportation;
- Energy Efficiency and Conservation;
- Clean Energy and Technology;
- Forestry, Agriculture and Land Management; and
- Climate Adaptation and Resilience.

Future Issuance Plans

- The Province plans to issue its next Green Bond by the end of the fiscal year, after realigning the program to support the new government's plan, *Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan*.

Alignment with Green Bond Principles

Ontario's Green Bond program aligns with the Green Bond Principles (GBP).

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.

Alignment with UN Sustainable Development Goals

Ontario's Green Bond proceeds fund project categories which support the United Nations Sustainable Development Goals.

Assurances

The Center for International Climate and Environmental Research — Oslo (CICERO) provided a second opinion on Ontario's Green Bond Framework ([available in the Green Bond section of the Ontario Financing Authority \(OFA\) website](#)).

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

Impact Reporting

Ontario uses core indicators that are widely recognized by the market for its projects and expects to adopt future impact reporting recommendations of the GBP.

Ontario's Green Bond Issues

- A total of 16 projects have received funding from Ontario's four Green Bond issues, with the majority of the funding allocated towards Clean Transportation projects.
- All bonds were issued in Global Canadian dollar format, and were listed on the Luxembourg Stock Exchange Euro MTF and Luxembourg Green Exchange.
- Issues were available through Ontario's current dealer group for placement with Canadian and international institutional investors. More than 70% of the investors have had Green Mandates or were UN PRI Signatories.
- All four Green Bond issues were made available to retail investors through Canadian financial institutions.
- Ontario's four Green Bond issues have met the standards to be included in the following Green Bond indices: Bloomberg Barclays MSCI Green Bond Index, ICE BofA Merrill Lynch Green Bond Index, S&P Green Bond Index and the Solactive Green Bond Index.









Lake Superior, ON

Project Evaluation and Selection

The selection of eligible green projects is done on behalf of the Province by OFA staff with advice from the Province's Green Bond Advisory Panel (GBAP). The GBAP, which includes staff from the OFA and the Ministry of Environment, Conservation and Parks, along with various ministries and agencies, evaluates and recommends projects for inclusion in Ontario's Green Bond program.

Since inception of Ontario's Green Bond program, the Province has worked on refining its project evaluation and selection process:

- 2016: An Environmental Considerations decision tree was developed, providing additional rigour to the overall project evaluation process
- 2017: An updated methodology was established for evaluating LEED rated buildings focusing on the category scores that lead to greater environmental performance
- 2018: Ontario Green Bond project reporting began referencing the International Capital Market Association (ICMA's) Mapping Table on the United Nations Sustainable Development Goals (SDGs), as well as Ontario's Green Bond Framework. Ontario funds eligible Green Bond projects within Framework categories which primarily support the following United Nations SDGs:

Ontario Framework Category	Project Examples	United Nations SDGs
Clean Transportation	Funding of public transit projects	 
Energy Efficiency and Conservation	Public sector building efficiency improvements	   

Use and Management of Proceeds Overview

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Green Bond Projects

Allocated Funding by Project Category

1st Green Bond (2014) – \$500 million:

✓ Fully Disbursed



\$499M Clean Transportation

2nd Green Bond (2016) – \$750 million:

✓ Fully Disbursed



\$662M Clean Transportation



\$85M Energy Efficiency and Conservation

3rd Green Bond (2017) – \$800 million:

✓ Fully Disbursed*



\$606M Clean Transportation



\$188M Energy Efficiency and Conservation

4th Green Bond (2018) – \$1 billion:

✓ Fully Disbursed*



\$501M Clean Transportation



\$495M Energy Efficiency and Conservation

Clean Transportation Projects	Green Bond Funding			
	1 st	2 nd	3 rd	4 th
Eglinton Crosstown Light Rail Transit (LRT)	✓	✓	✓	✓
GO Expansion (formerly Regional Express Rail)		✓	✓	
York Viva Bus Rapid Transit		✓	✓	✓
Hurontario LRT			✓	✓
Finch West LRT			✓	✓
Hamilton LRT			✓	
Energy Efficiency and Conservation Projects	1 st	2 nd	3 rd	4 th
Whitby Rail Maintenance Facility				✓
Joseph Brant Hospital – Redevelopment Project Phase 1				✓
ErinoakKids Centre for Treatment and Development			✓	
Seneca College King Campus Expansion				✓
St. Joseph's Healthcare Hamilton – West 5 th Campus		✓	✓	
St. Joseph's Healthcare London (Parkwood) and St. Thomas		✓	✓	
Waypoint Centre for Mental Health		✓	✓	
Woodstock General Hospital			✓	
Centre for Addiction and Mental Health		✓	✓	
Sheridan College Hazel McCallion Campus Expansion		✓		

* Includes funds disbursed from April 1 – November 30, 2018 which will be audited and included in the Auditor General of Ontario's assurance audit for 2018–19.

Funding Allocation and Disbursements

- Each fiscal year, an assurance audit by the Auditor General (AG) of Ontario verifies the amounts used for selected projects and the balance of proceeds remaining.
- From the inception of the Green Bond program to March 31, 2018, \$2,540.7 million had been disbursed. This includes \$0.9 million from the second Green Bond, \$589.4 million from the third Green Bond, and \$500.7 million from the fourth Green Bond, which were disbursed during fiscal 2017–18.
- From April 1 to November 30, 2018, \$495.4 million have been disbursed, bringing the total disbursements under the Ontario Green Bond program to \$3,036.1 million. These post-March 31st, 2018 amounts will be included in the AG's assurance audit on the use of Green Bond proceeds next fiscal year.

Allocated Funding from Green Bond Program (\$ millions)	Total Funds Disbursed since Inception of the Green Bond Program as of November 30, 2018 (\$ millions)*	=	Total Funds Disbursed since Inception of the Green Bond Program as of March 31, 2018 (\$ millions)	+	Funds Disbursed from April 1 – November 30, 2018 (\$ millions)*
3,036.1	3,036.1		2,540.7		495.4

* Funds disbursed from April 1 – November 30, 2018 will be audited and included in the AG's assurance audit next fiscal year.

Funding Allocation and Disbursements

During 2017–18, the Province disbursed Green Bond proceeds to 14 projects:

Clean Transportation *				Energy Efficiency and Conservation *			
Project Name	Total Project Cost (\$ millions)	Allocated Funding from Green Bond Program (\$ millions)	Funds Disbursed since Inception of the Green Bond Program as of March 31, 2018 (\$ millions)	Project Name	Total Project Cost (\$ millions)	Allocated Funding from Green Bond Program (\$ millions)	Funds Disbursed since Inception of the Green Bond Program as of March 31, 2018 (\$ millions)
Eglinton Crosstown LRT	5,300 (2010\$)	1,693.3	1,693.3	Whitby Rail Maintenance Facility	859.2	300.0	0.0
GO Expansion (formerly Regional Express Rail)	13,500 (2014\$)	301.8	301.8	Joseph Brant Hospital – Redevelopment Project Phase 1	353.6**	145.0	0.0
York Viva Bus Rapid Transit	1,400 (2010\$)	238.9	238.9	ErinoakKids Centre for Treatment and Development	163.3**	163.3	163.3
Hurontario LRT	1,000 (2014\$)	16.0	16.0	Seneca College King Campus Expansion	70.9**	50.4	0.0
Finch West LRT	1,000 (2010\$)	14.0	14.0	St. Joseph's Healthcare Hamilton – West 5 th Campus	581**	16.7	16.7
				St. Joseph's Healthcare London (Parkwood) and St. Thomas	830.5**	15.6	15.6
				Waypoint Centre for Mental Health Care	474.1**	6.3	6.3
				Woodstock General Hospital	268.7**	4.7	4.7
				Centre for Addiction and Mental Health	293**	3.4	3.4

* Funds for the Hamilton LRT, and the Sheridan College Hazel McCallion Campus Expansion projects were fully disbursed as at March 31, 2017, and amounted to \$3.0 million and \$63.7 million respectively.

** Represents contract value (the payment(s) to be made by the Sponsor for an Alternative Financing and Procurement project, as defined in the Project Agreement and prior to taking into account inflation).

Impact Reporting – Clean Transportation*

Project Name	Expected Completion Date	Project Description	Other Environmental Benefits
Eglinton Crosstown LRT	2021	A CAD 5.3 billion (2010\$) capital commitment to expand transit in Toronto through the building of a 19-kilometre LRT line across Eglinton Avenue, with a 10-kilometre central underground portion, and 25 stations and stops. The Eglinton Crosstown will link to 54 bus routes, three subway stations, UP Express and three GO Transit lines.	<ul style="list-style-type: none"> Improving access to public transit and new mobility options such as the Eglinton Crosstown will contribute to decreasing Greenhouse Gas (GHG) emissions and Criteria Air Contaminants (CACs), manage traffic congestion, and encourage mode shift from auto trips to transit trips. The transition from diesel buses to electric light rail vehicles (LRVs) will also contribute to decreasing GHG emissions. All 25 stations and stops are aiming to achieve the Toronto Green Standard Tier 1. Eglinton Crosstown maintenance and storage facility is aiming to achieve LEED Silver certification.
GO Expansion (formerly Regional Express Rail)	2025	A CAD 13.5 billion (2014\$) capital commitment to provide faster and more frequent service on the GO rail network, with electrified service on core segments, including the UP Express.	<ul style="list-style-type: none"> The GO Expansion will shift GO from a largely commuter system to a comprehensive regional rapid transit option, thereby contributing to mode shift and decreasing GHG emissions and CACs. New GO stations and facilities are aiming to achieve LEED Gold certification. Expanding and electrifying the rail network will provide a more environmentally friendly alternative to the existing diesel trains.
York Viva Bus Rapid Transit (BRT)	2020	A CAD 1.4 billion (2010\$) capital commitment to expand transit in York Region through the construction of dedicated rapidways along the existing Highway 7, Yonge Street and Davis Drive VIVA corridors.	<ul style="list-style-type: none"> Improving access to public transit and new mobility options such as the York Viva BRT will contribute to decreasing GHG emissions and CACs, manage traffic congestion, and encourage mode shift from auto trips to transit trips.
Hurontario LRT	2022	A CAD 1.4 billion (2014\$) capital commitment to build a new 20-kilometre LRT line in Mississauga and southern Brampton, connecting to two GO Transit lines, as well as local and express bus services in both municipalities.	<ul style="list-style-type: none"> Improving access to public transit and new mobility options such as the Hurontario LRT and Finch West LRT will contribute to decreasing GHG emissions and CACs, manage traffic congestion, and encourage mode shift from auto trips to transit trips. The transition from diesel buses to electric LRVs will also contribute to decreasing GHG emissions.
Finch West LRT	2023	A CAD 1.0 billion (2010\$) capital commitment to expand transit in Toronto through the building of an 11-kilometre LRT line along the Finch West Corridor.	<ul style="list-style-type: none"> Rapid transit will also support intensification, the efficient use of land and mixed-use land development, which reduces the Province's carbon footprint, promotes active transportation choices, and protects natural resources. New stations and facilities are aiming to achieve LEED Silver certification.
TOTAL IMPACT	Estimated Aggregate GHG Reductions across all Clean Transportation Projects (CO₂ [or equivalent] tonnes / year)		590,000 (starting in 2031)**
	Equivalent Passenger Vehicles Off the Road across all Clean Transportation Projects (vehicles / year)		137,000 (starting in 2031)**

* Funds for the Hamilton LRT project were fully disbursed as at March 31, 2017. For impact reporting on this project please refer to the [2017 Green Bond Newsletter](#).

** Source: *Metrolinx Business Case Analyses*. Forecast is based on currently available information and subject to change. Metrolinx is examining methods to better quantify GHG benefits and impacts associated with transit projects, including emissions reductions resulting from reduced auto usage (modal shift) and transit vehicle electrification. An updated methodology was used to calculate the number of cars off the road based on National Resources Canada database calculations, which are consistent with the calculations made by Energy Efficiency Standards at the Ministry of Northern Development and Mines based on the 2016 National Inventory submission to the UN Framework Convention on Climate Change (UNFCCC).

Impact Reporting – Energy Efficiency and Conservation*

Project Name	Expected Completion Date	Project Description	Estimated Energy Savings (kWh / year)	Estimated GHG Reductions (CO ₂ [or equivalent] tonnes / year)	Equivalent Passenger Vehicles Off the Road (vehicles / year)**	Estimated Water Savings (litres / year)	Equivalent Water Usage per Household (Ontario households / year)	Other Environmental Benefits
Whitby Rail Maintenance Facility	2018	A new 500,000 square feet facility supports planned service expansions, as well as providing maintenance, repair, and additional storage for GO trains.	At this time, impact reporting data for Whitby Rail Maintenance Facility is unavailable.					Targeting LEED Gold certification
Joseph Brant Hospital (JBH) – Redevelopment Project Phase 1	2018	The project includes construction of a new South Tower on the existing site of JBH; renovations to existing departments impacted by the expansion; a new power plant; and a new parking garage.	2,126,684	4,357	1,013	–	–	Targeting LEED Silver certification
ErinoakKids (EOK) Centre for Treatment and Development	2018	EOK's 10 existing sites will be replaced by three new purpose built accessible sites in Oakville, Mississauga and Brampton, while more than doubling the existing treatment therapy space.	3,091,355	1,352	314	2,147,612	11	Targeting LEED Silver certification
Seneca College King Campus Expansion	2018	A new 200,000 square feet expansion in Seneca's King City campus to accommodate an additional 1,500 students.	4,609,000	569	132	4,429,796	23	Targeting LEED Gold certification
St. Joseph's Healthcare Hamilton – West 5 th Campus	2013	An 850,000 square feet facility that provides specialized mental health services.	15,000,000	3,568	829	7,100,000	37	LEED Gold Certified
St. Joseph's Healthcare London (Parkwood) and St. Thomas	2014	The project included two brownfield facilities — one at the London (Parkwood) site for longer-term mental health and one at the St. Thomas site for forensics.	6,600,000	3,269	760	8,700,000	45	LEED Gold Certified
Waypoint Centre for Mental Health Care	2014	The centre in Penetanguishene replaced the 160-bed Oak Ridge building and the 20-bed Brebeuf building to offer a larger, more modern hospital space.	540,000	27	6	2,800,000	14	LEED Gold Certified
Woodstock General Hospital	2011	A 350,000 square feet hospital, more than double the size of the previous facility.	3,134,600	2,203	518	–	–	LEED Silver Certified
Centre for Addiction and Mental Health (CAMH)	2012	The project involves redevelopment at the CAMH Queen Street site in Toronto.	20,000,000	1,000	232	4,300,000	22	LEED Gold Certified

* Funds for the Sheridan College Hazel McCallion Campus Expansion were fully disbursed as at March 31, 2017. For impact reporting on this project please refer to the [2017 Green Bond Newsletter](#).

** An updated methodology was used to calculate the number of cars off the road based on National Resources Canada database calculations which are consistent with the calculations made by Energy Efficiency Standards at the Ministry of Energy, Northern Development and Mines based on the 2016 National Inventory submission to the UNFCCC.



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

Contact Us

Investor Relations
One Dundas Street West, Suite 1400
Toronto, Ontario M7A 1Y7
Canada

Ontario Financing Authority
www.ofina.on.ca
investor@ofina.on.ca

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