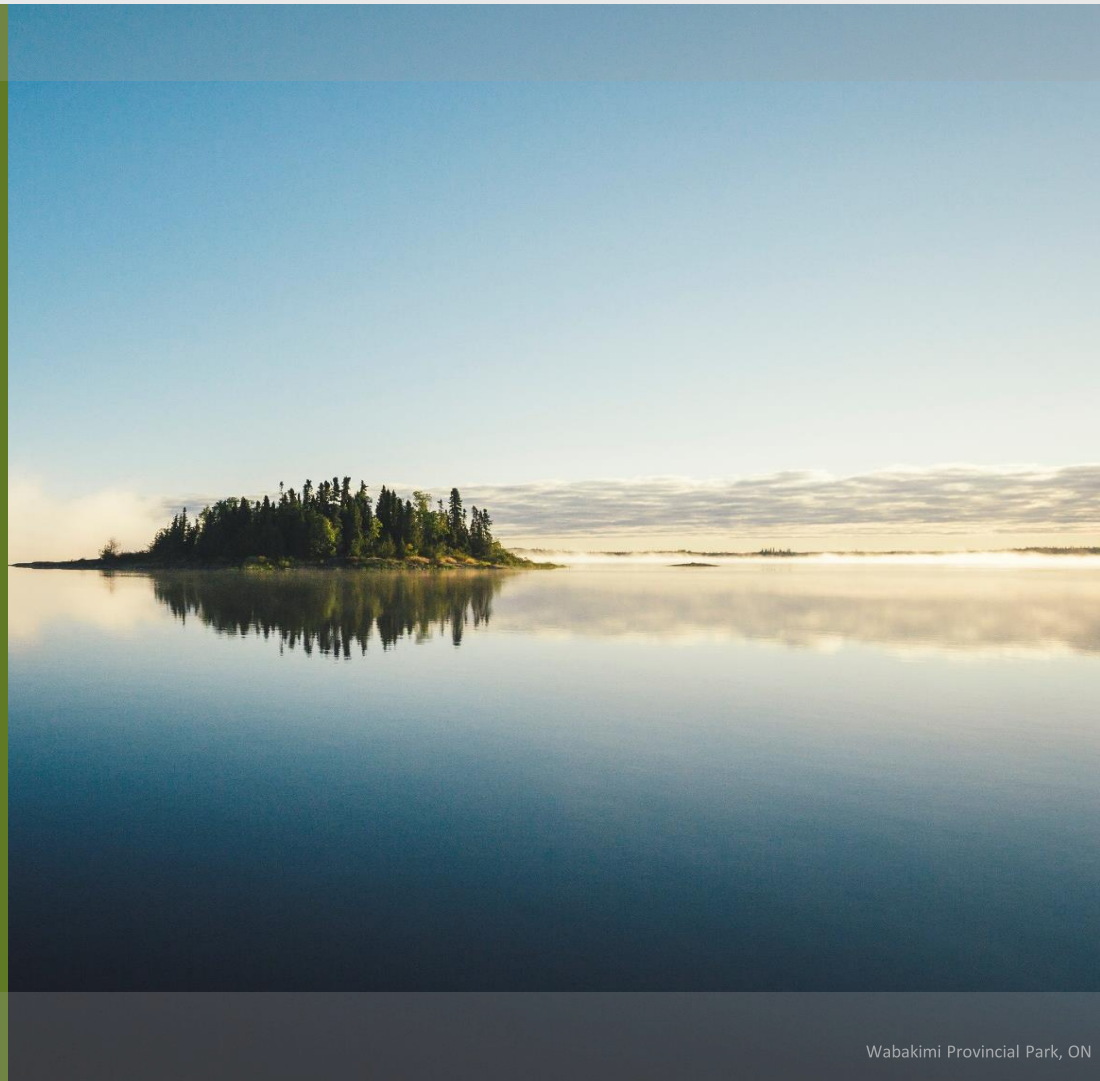


Province of  
Ontario

Green Bond  
Presentation

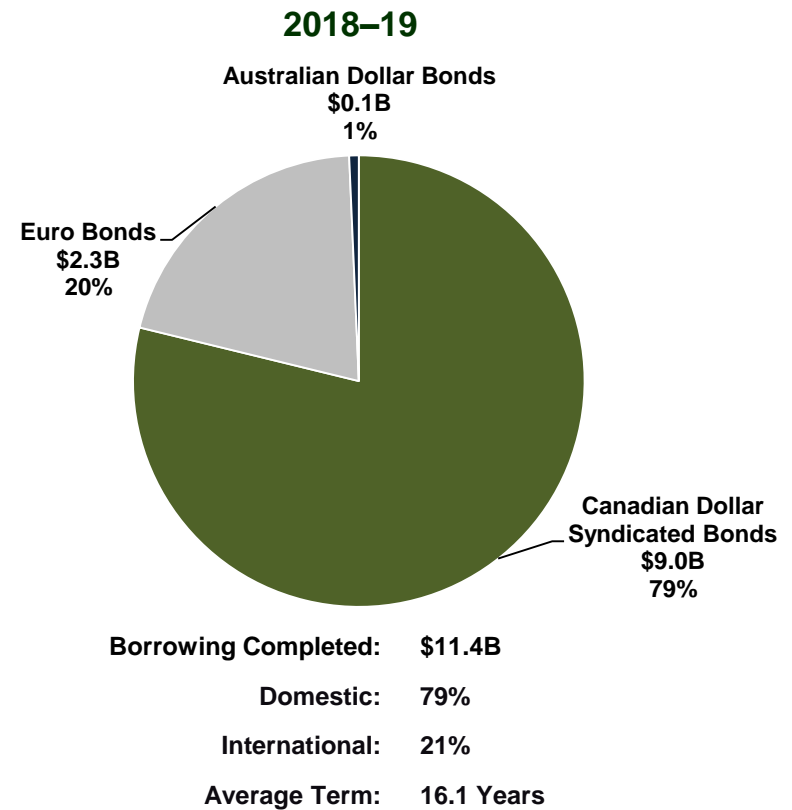
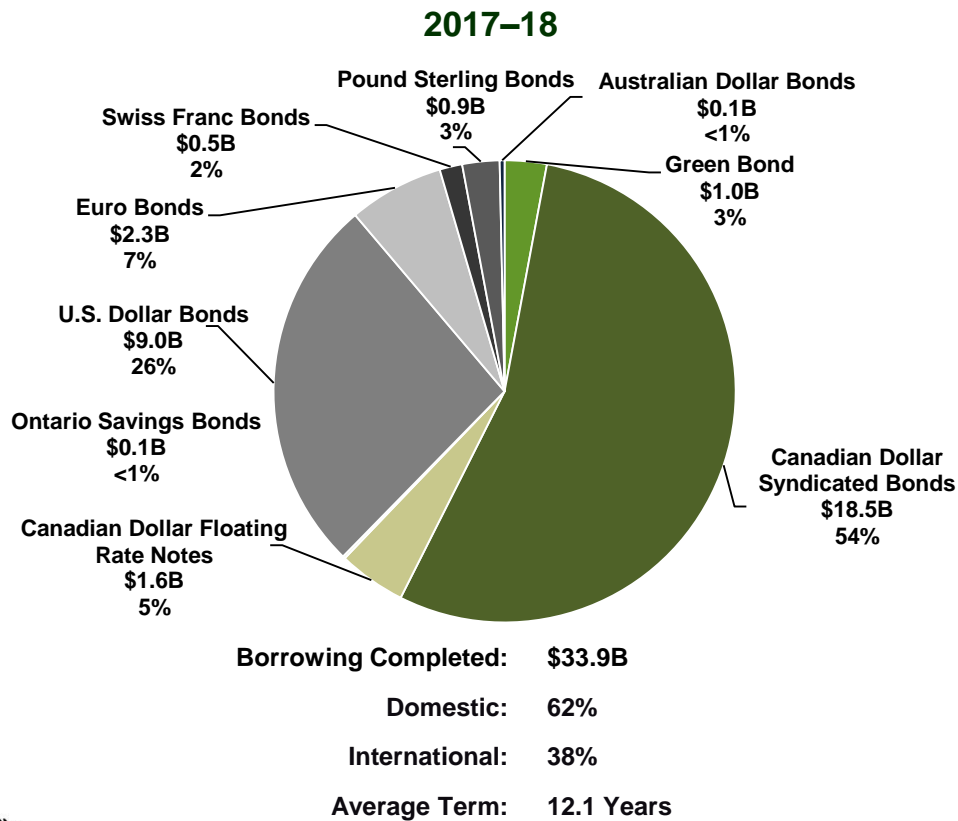
June 2018



Wabakimi Provincial Park, ON

# Ontario's Borrowing Program

- The Ontario Financing Authority (OFA) is an agency of the Province of Ontario that manages the Province's debt and borrowing program.
- The Province completed its annual borrowing program of \$33.9 billion in 2017–18, including \$11.5 billion pre-borrowed for 2018–19. In the *2018 Budget*, the 2018–19 long-term borrowing requirement was forecast at \$31.7 billion.
- Ontario has a mature Green Bond program and expects Green Bonds to continue having an important role in the Province's annual borrowing.



# Ontario's Green Bond Program

- In 2014, the Province of Ontario successfully launched a Green Bond Program to help finance transit and other environmentally friendly infrastructure projects across the province.
- Ontario is currently the largest issuer of Canadian dollar Green Bonds, with four outstanding green issues totalling \$3.05 billion.
  - All Green Bonds have been issued in Canadian dollar Global format, and have been listed on the Luxembourg Stock Exchange Euro MTF and the Luxembourg Green Exchange.
  - All 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 Solactive Green Bond Index.
- Ontario is a member of the Green Bond Principles (GBP) group, maintained by the International Capital Markets Association.
- Ontario's Green Bond program is supported by a dedicated tab on our website which can be accessed by visiting [www.ofina.on.ca/greenbonds/greenbonds.htm](http://www.ofina.on.ca/greenbonds/greenbonds.htm) or by visiting our main page and clicking:



# Use and Management of Proceeds

- Green Bond proceeds are paid into the Consolidated Revenue Fund of Ontario.
- The proceeds are invested short-term in Government of Canada treasury bills.
- 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.
- Green Bond projects are expected to be funded within one year from the date of issue.

## Assurance Audit

- An assurance audit is performed by the Auditor General of Ontario verifying amounts allocated to selected projects and tracking the amount of Green Bond proceeds.
- This assurance audit is expected within a year after the issue date. The most recent Assurance Audit was completed on December 15, 2017.

## External Review

- Ontario's Green Bond Framework was developed in consultation with the Center for International Climate and Environmental Research — Oslo (CICERO) and is consistent with the Green Bond Principles.

# Ontario's Green Bond Framework

Ontario's Green Bond Framework sets out the types of projects that may be eligible for proceeds from Green Bonds and excludes fossil fuel and nuclear energy projects. Eligible project categories include, without limitation:



## Clean Transportation

- e.g. Funding of public transit projects



## Energy Efficiency and Conservation

- e.g. Public sector building efficiency improvements



## Clean Energy and Technology

- e.g. Smart grid infrastructure and energy storage



## Forestry, Agriculture and Land Management

- e.g. Sustainable forest management



## Climate Adaptation and Resilience

- e.g. Flood protection and storm water management

## Developments

Compared to Ontario's inaugural Green Bond, subsequent Green Bond issues:

- Utilized a larger number of framework categories, which included Energy Efficiency and Conservation in addition to Clean Transportation.
- Increased the number and geographical diversification of projects.
- Introduced a basket approach for eligible projects to enhance funding flexibility.



# Process for Project Evaluation and Selection

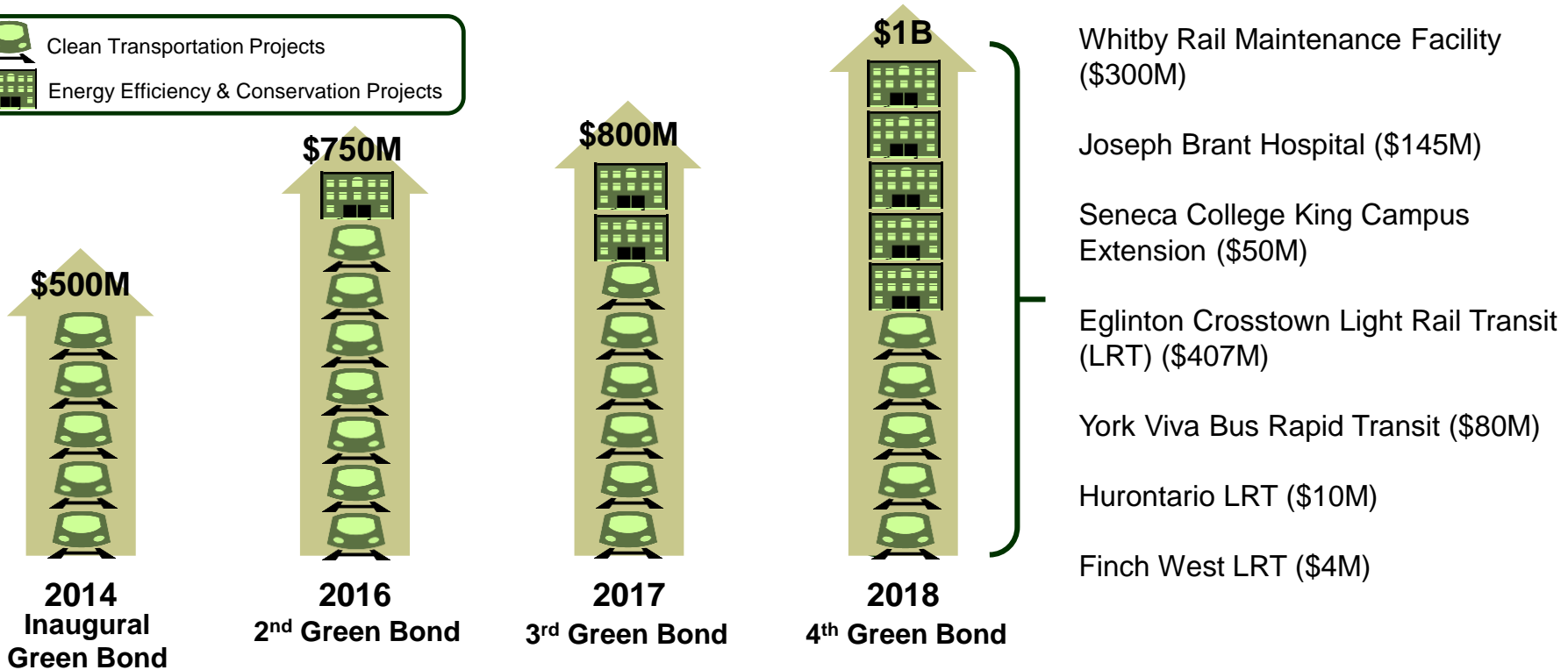
- The selection of eligible green projects is done on behalf of the Province by OFA staff with advice from the Province's Green Bond Advisory Panel (GBAP).
- The GBAP, which includes staff from various ministries and agencies, including the Ministry of the Environment and Climate Change and the OFA, evaluates and recommends projects for inclusion in Ontario's Green Bond program based on selection criteria including:
  - Environmental project assessment considerations, including measurable results or other performance indicators clearly outlining the environmental benefits and features of each project;
  - Funding requirements that occur within a period of six months prior to and 12 months following the issue of the Green Bond; and
  - An ability to track the progress and funding of the selected projects.
- The process can be summarized as:



# Ontario's Green Bond Projects

- On January 25, 2018, the Province successfully launched its fourth Green Bond issue of \$1.0 billion. This is the largest Green Bond offering from the Province of Ontario.
- To-date, a total of 16 different projects have received or will receive funding from Ontario's four Green Bond issues.

 Clean Transportation Projects  
 Energy Efficiency & Conservation Projects



*Notes:* Numbers may not add due to rounding. Seven projects have been selected as eligible and are expected to receive funding from Ontario's fourth Green Bond. This basket approach allows a level of funding flexibility, should some of the chosen projects experience different spending patterns than those currently forecast.

# United Nations Sustainable Development Goals

- The project categories Ontario funds with the green proceeds supports the United Nations Sustainable Development Goals (SDGs), primarily in the following:

Ontario Framework Category	United Nations SDGs	United Nations SDG Targets
Clean Transportation	 	<ul style="list-style-type: none"> <li><b>9.1</b> Develop quality, reliable, sustainable and resilient infrastructure</li> <li><b>11.2</b> Provide access to safe, affordable, accessible and sustainable transport systems</li> </ul>
Energy Efficiency and Conservation	   	<ul style="list-style-type: none"> <li><b>7.3</b> Double the global rate of improvement in energy efficiency</li> <li><b>9.4</b> Upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency</li> <li><b>11.B</b> Substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards resource efficiency</li> <li><b>12.2</b> Achieve the sustainable management and efficient use of natural resources</li> </ul>



# Impact Reporting

- Ontario strives to be a leader in its transparency and impact reporting efforts with the publication of its annual newsletter.
- Since 2015, Ontario has published an annual Green Bond Newsletter with its most recent released on December 21, 2017. The newsletter provides:
  - An overview of the process for project evaluation and selection
  - The total funds allocated to projects and amounts
  - Updates on selected projects and their status
  - A link to the assurance audit performed by the Auditor General of Ontario
  - Projected environmental benefits
- Ontario uses core indicators that are widely recognized by the market for its impact reporting. In the most recent newsletter, the aggregate GHG reductions across all Green Bond funded Clean Transportation projects are estimated to be 600,000 tonnes of CO<sub>2</sub> per year, starting in 2031. This is equivalent to taking 128,000 passenger vehicles off the road per year.
- Ontario aims to adopt any future Green Bond Principles impact reporting recommendations.

# Ongoing Green Bond Development

- Ontario is a member of the Green Bond Principles, which focuses on four core components of a Green Bond Program: Use of proceeds, Process for project evaluation and selection, Management of proceeds, and Reporting.
- Over the past four years, the OFA has worked on refining our project evaluation and selection as well as our impact reporting in an on going effort to keep pace with market developments.
- To aid Green Bond project evaluation and selection, the Ministry of the Environment and Climate Change (MOECC) developed an Environmental Considerations decision tree, providing rigor to the overall process. More recently, they have established a methodology for evaluating LEED rated buildings focusing on the category scores that lead to greater environmental performance.
- In developing our annual Green Bond Newsletter (impact report), the OFA works alongside other Ontario ministries and government agencies, with support from the MOECC providing expertise in the analysis of projected environmental benefits.
- Keeping current with best practices in the Green Bond market should allow Ontario to explore future Green Bond opportunities in markets outside of Canada.

# Appendix

# Ontario's Green Bond Issues Summary

	<b>Inaugural Green Bond</b> (1.75%, October 9, 2018)	<b>Second Green Bond</b> (1.95%, January 27, 2023)	<b>Third Green Bond</b> (1.95%, January 27, 2023)	<b>Fourth Green Bond</b> (2.65%, February 5, 2025)
<b>Format:</b>	Global Canadian dollar			
<b>Size:</b>	CAD 500 Million	CAD 750 Million	CAD 800 Million	CAD 1,000 Million
<b>Pricing Date:</b>	October 2, 2014	January 22, 2016	January 26, 2017	January 25, 2018
<b>Re-offer spread:</b>	+38 bps over CAN 1.25% September 1, 2018	+103 bps over CAN 2.75% June 1, 2022	+74.5 bps over CAN 2.75% June 1, 2022	+53.3 bps over CAN 2.50% June 1, 2024
<b>Listing:</b>	Luxembourg Stock Exchange Euro MTF Luxembourg Green Exchange			
<b>Investors:</b>	81	52	55	71
<b>Green Mandates/ UN PRI Signatories:</b>	85%	70%	78%	85%
<b>Project Categories:</b>	Clean Transportation (1)	Clean Transportation (3); Energy Efficiency & Conservation (5)	Clean Transportation (6); Energy Efficiency & Conservation (6)	Clean Transportation (4); Energy Efficiency & Conservation (3)
<b>Joint Bookrunners:</b>	BofAML, CIBC, HSBC, RBC	BofAML, BMO, HSBC, RBC, TD	BofAML, HSBC, RBC, TD	BofAML, BMO, HSBC, RBC, TD
<b>Green Bond Indices:</b>	Bloomberg Barclays MSCI Green Bond Index ICE BofA Merrill Lynch Green Bond Index S&P Green Bond Index Solactive Green Bond Index			

# Ontario's Green Bond Projects

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

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