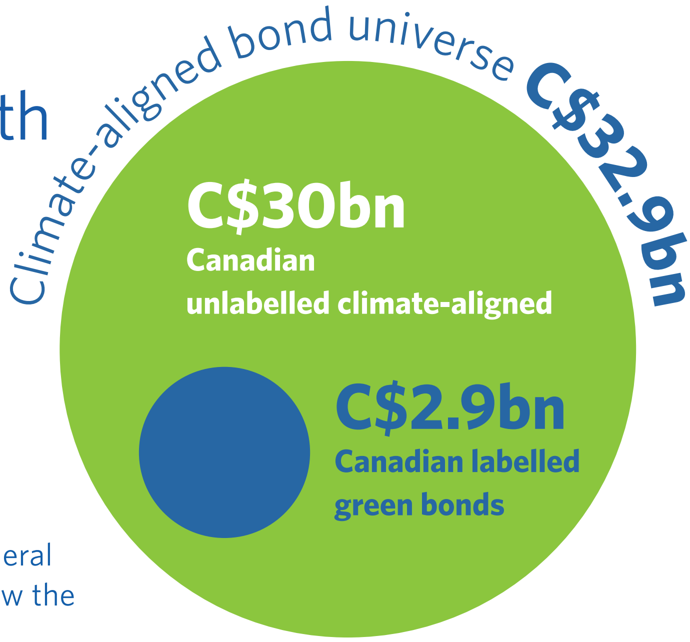
BONDS AND CLIMATE CHANGE
THE STATE OF THE MARKET
CANADA EDITION

2016

Can Canada capitalize in 2016?
Strong policies and new issuance can lead to growth



- Canada's climate-aligned bond market has grown to C$ 32.9bn – making Canada's market the 5th largest in the world.
- Both the full climate-aligned universe and the C$ 2.9bn labelled green segment of the Canadian market have grown over the past year, though less quickly than had been expected.
- 2016 remains an important opportunity for the federal and provincial governments to take action and show the leadership necessary to accelerate market growth.

2016 marks the 5th edition of the Climate Bonds Initiative's State of the Market report, as well as the 5th edition of the Bonds and Climate Change Canada Report, produced in collaboration with The Smart Prosperity Institute (formerly Sustainable Prosperity). This year, we report on the Canadian market activity up to May 30 2016.

In the five years since our first reports, global and Canadian green bonds markets have grown, reflecting increased international and domestic focus on climate financing.

Globally, the green bonds market has grown from a small US$2bn niche market to a US$ 120bn market and a key talking point at the G20.[1] Our global report estimates that there is a universe of over US$694bn of bonds financing clean projects of which US$118bn are labelled as green and the remaining US$576bn are not labelled. Together, the labelled and unlabelled bonds comprise our 'climate-aligned' bond universe.

Canada makes up 3.9% of this universe, with C$32.9bn in total, of which C$2.9bn are labelled green bonds.[2] This represents an increase in both the labelled and unlabelled universe from our 2015 Canadian Report.

In Canada, 2014 saw early leadership by TD Bank, Export Development Canada (EDC) and the Province of Ontario. Market growth slowed in 2015; however early signs are showing that 2016 could be an important year, albeit in a more understated way. Since our last report, over C$1bn in labelled green bonds have been issued by Canadian entities, of which approximately half was issued in the first half of 2016 – a promising start.

With second issuances from EDC and Ontario, and strong signals from the new federal government, 2016 may prove to be the year in which the Canadian policy and financial communities realize the potential of green bonds.

We identify two categories of bonds that finance low carbon and climate resilient assets:

Labelled green bonds are those for which 100% of the proceeds of the bond sale are earmarked for projects or assets that fit within the Climate Bonds Taxonomy. These bonds are, by virtue of labelling, easier to locate. Climate Bonds Initiative tracks labelled green bonds in a list available at climatebonds.net.

Climate-aligned bonds support projects that are aligned with climate mitigation or adaptation objectives, but are not necessarily labelled as such by the issuer. Over 400 issuers with bonds outstanding are fully aligned (i.e. over 95% of their revenue comes from climate-aligned assets).

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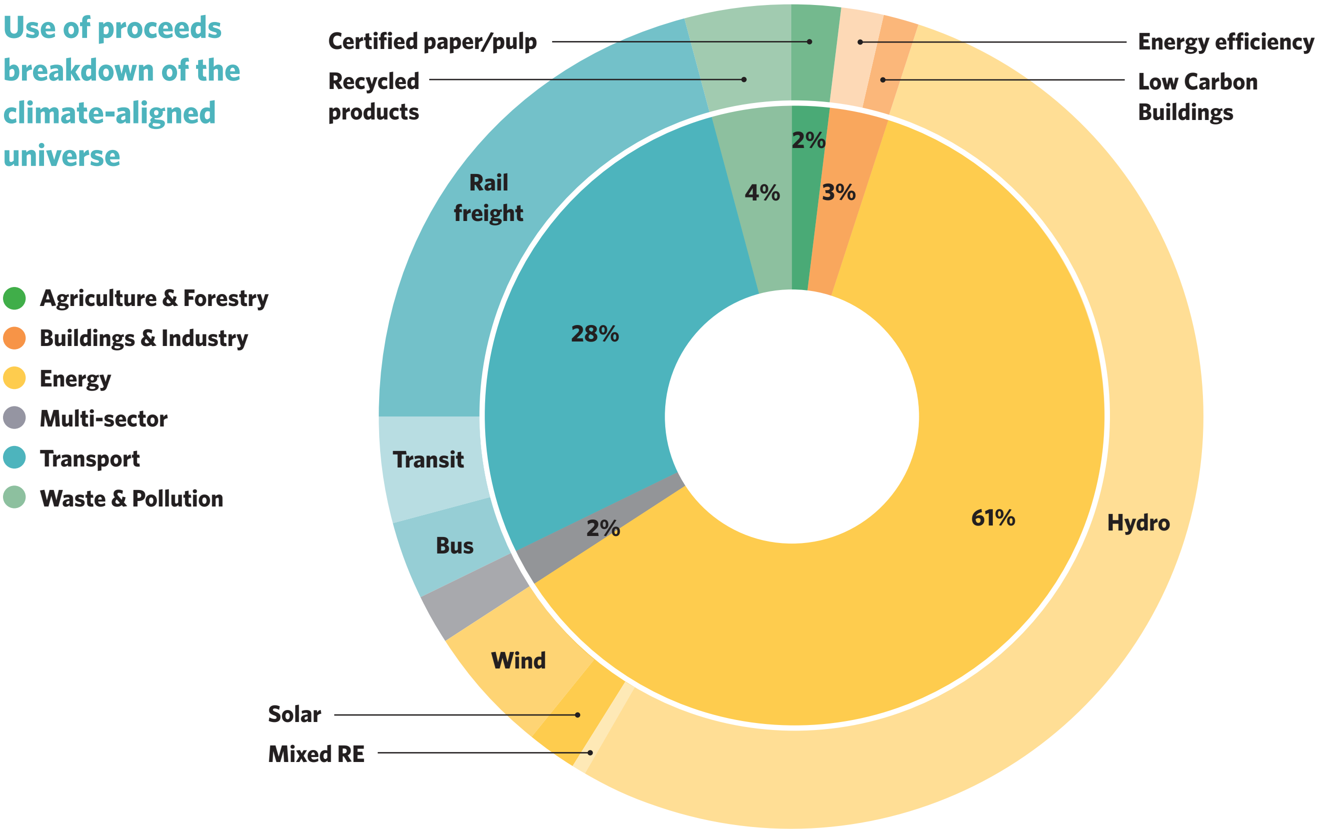
Use of proceeds breakdown of the climate-aligned universe



The Canadian climate-aligned universe

Canada makes up 3.9% of the climate-aligned bond universe, making it the 5th largest country of issuance.[3]

Of all the thematic areas where proceeds are invested, Energy is the largest single theme accounting for 61% of bonds outstanding. This is made up primarily of hydro through bonds issued by Hydro Quebec, which is the largest issuer in the Energy theme in the global report.

Transport is the second largest theme, making up 28% of the amount outstanding. This has increased as a proportion since last year, partially due to labelled green bonds from the Province of Ontario which support public transit projects.

The remaining themes – Agriculture & Forestry, Buildings & Industry and Multi-Sector make up the remaining 9% of the Canadian universe. As in 2015, we have yet to see any Canadian water bonds issued. This is in marked contrast with the United States, where green bonds used to finance municipal water projects have become commonplace.

Ratings: 84% of the Canadian universe is investment grade. 'A' is the largest band, representing 72% of the total amount issued. **Issuer types:** 88% of issuances were from corporate; 4% from provincial entities; 4% from project bonds; 2% from banks and 2% from development banks.

Labelled green bonds

The past year has seen four labelled green bonds from Canadian issuers amounting to C$1bn. The first, from 500 Georgia Office Partnership, was used to finance the TELUS Garden development in the heart of downtown Vancouver. Following that, there were repeat issuances from Export Development Canada (Dec 2015) and the Province of Ontario (Jan 2016). Additionally, although not a Canadian issuer, the European Investment Bank issued two C$500m green bonds attracting domestic investors (Nov 2015 and Sept 2016).

Finally, in February 2016, Canada's first green retail bond was issued by CoPower for C$300,000. CoPower is using funds raised from green bonds to finance community-scale clean energy projects across North America. Whilst retail bonds like CoPower's make up a small proportion of the global totals, they punch above their weight in the awareness that they raise amongst communities and individuals that might not otherwise have exposure to green investing.

6 examples of recent Canadian climate-aligned bonds

DATE	ISSUER	SIZE	THEME	LABEL
October 2015	Dufferin Wind Power	C$200m	Energy	Unlabelled project bond
December 2015	EDC	US$300m	Multi-sector	Green Bond
January 2016	Ontario	C$750m	Multi-sector	Green Bond
February 2016	CoPower	C$300,000	Energy	Green Bond
February 2016	Canadian National Railway	US$500m	Transport	Unlabelled corporate bond
March 2016	Hydro Quebec	C$16.9m	Energy	Unlabelled corporate bond

Canadian Policy Context

Canada has committed to reduce GHG emissions by 30% below 2005 levels in 2030 as a step towards deep decarbonisation. Through Budget 2016, the federal government has set aside funding to invest in renewed infrastructure, climate mitigation efforts and to support clean innovation, jobs and growth, positioning Canada for environmental and economic success. The new Liberal federal government has committed to green bond issuances. The Prime Minister's mandate letter to the Minister of Infrastructure and Communities directed him to work with the Minister of Finance to prepare for "the launch of a new Canadian Green Bond."[4]

At the same time, a number of provincial governments have also indicated commitments to low-carbon investments.

Recognizing that even greater action is needed, in March 2016 First Ministers signed the Vancouver Declaration on Clean Growth and Climate Change, creating five working groups dedicated to finding collaborative ways to accelerate climate action and clean growth. While their policy recommendations have yet to be released, green bonds could play an important role in providing financing for Canadian projects.

Barriers to green bond issuance

Since the inaugural Canadian labelled green bonds were issued in 2014, issuance has come in fits and starts, with no definable trend. While there has been no lack of demand for Canadian green bonds (issuances to date have been fully subscribed), there remain barriers in the way of market growth:

1. Lack of familiarity among bond issuers of the benefits and costs of green issuances;
2. Slightly higher transaction costs for issuers, particularly for first-timer issuers;
3. Generally low federal and provincial government leadership, and no municipal green bond activity;
4. Lack of standards and certifications

The first barrier may be the main factor holding back Canadian market growth.

Government issuances and government policy actions could help to overcome these barriers.

Outlook

Canadian market activity has proven hard to predict, though has largely mirrored government issuances. With that in mind, we look ahead to expected government action.

While federal issuances have to date only been issued via EDC, the recent mandate letter commitment to a Canadian Green Bond may be realized soon.

Ontario's strong leadership is expected to continue, with a long pipeline of infrastructure projects ideally suited for green bond financing.

The possibility of municipal green bonds is strong, but uncertain. With new funding dedicated to water infrastructure in federal Budget 2016, green bonds could be a potential financing tool in Canada in the future, but would require all levels of government working together.

The Canadian Opportunity

The global green bond market will continue to see growth. Numerous Paris Accord climate finance commitments will spur international green bond market growth. International actions, in concert with growing investor interest in reducing the carbon intensity of investment portfolios, are expected to translate into growth of the green bond market globally.

Canada has the opportunity to harness this private capital investment that is critical to achieving Canada's economic and environmental goals as public funding alone will be insufficient. We identify five policy actions that could help realize the Canadian opportunity.

Five Action Points for Canada:

1. Strategic issuance from public entities
Demonstration issuances from EDC and Ontario have paved the way but further federal and provincial government green bonds will support the corporate green bond market.

2. Supporting market standards
Common, consistent standards can strengthen transparency around green projects and facilitate better decision making on future infrastructure investment.

3. Improve green bond risk-return profiles
Canada can follow the example of the US muni market & the EU in providing targeted credit enhancement to green project bonds.

4. Tax incentives
Canada can provide tax incentives for investors in domestic Canadian green bonds. Additionally, regional governments can use tax incentives to encourage more local retail bonds, adapting the US model where tax incentives are provided for investors in the municipal bond market.

5. Strong market signals from Central banks
Canada could follow the lead of the Bank of England which has made statements about the mainstreaming of green finance and green bonds. The BoE has recommended green bonds as a climate investment opportunity for asset managers and insurance firms.

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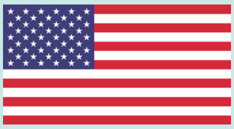
Global progress on the green bonds agenda



USA

Tax programmes such as the Clean Renewable Energy Bonds (CREBs) and Qualified Energy Conservation Bonds (QECBs) have proved a successful mechanism for municipalities and counties to raise finance for renewable energy and energy efficiency projects.

INDIA

Green bond requirements were published by the Securities and Exchange Board of India in 2016. The first Green Infrastructure Investment Forum was held in London with a further GIIC in Mumbai in October. In 2016, there has been over US$1bn green bonds issued by energy companies including Hero Future Energies and the giant NTPC.

AUSTRALIA

Three of the four major banks have now issued Climate Bond Certified green bonds for a mix of clean energy and low carbon building assets and a green ABS has also come on the market. The State of Victoria through its Treasury Corporation has issued the first multi-sector government backed green bond and foreshadows further issuance. Five of the six Australian green bonds issued to this date are Climate Bond Certified.

MEXICO

The national development bank NAFIN has just announced its second certified green bond issuance. A national green bond development committee is being formed to develop local green bond markets and boost low carbon infrastructure investment.

UK

The London Stock Exchange (LSE) has launched a range of green bond segments as part of its move to centre London in green finance markets. Issuers are required to provide a relevant 'second opinion' that certifies bond environmental credentials. LSE now trades a range of green bonds denominated in GBP, CNY, INR and other currencies.

CHINA

The People's Bank of China released a set of guidelines on green bonds in late 2015. Since then we have seen over US$15bn of issuance from Chinese issuers. On the eve of the 2016 G20, the PBoC and six other central authorities released major new guidelines for establishing a green financial system that includes expanding green bond investment.

Why issue a green bond?

Green bonds are not complicated financial instruments – they are almost identical to regular bonds. They are usually backed by the balance sheet of the issuer, offer returns in line with the issuer's regular bond curve, and are simple to trade. They are also associated with a number of benefits over a regular bond, including:

1. Supporting environmental outcomes while also providing returns to investors;
2. Widening the pool of investors by acting as a discovery tool for both new and existing investors who are explicitly seeking green bond opportunities (e.g. development banks and investors with strong responsible investment goals); and
3. Providing recognition of the environmental reputation of the issuer (and buyer).

The Climate Bonds Initiative is an investor-focused not-for-profit, mobilizing debt capital markets for a rapid transition to a low-carbon economy.

All source data derived from Bloomberg.
All figures are rounded.

1. http://www.bloomberg.com/news/articles/2016-07-24/g-20-finance-ministers-central-bankers-communique-full-text
2. Note: all bonds issued in CAD C$ were kept in C$CAD, all other currencies used the exchange rate on 1 Aug 2016
3. This excludes Supra-national issuers
4. http://pm.gc.ca/eng/minister-infrastructure-and-communities-mandate-letter

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