



RBC Capital Markets

# RBC Capital Markets Green Bond Conference

*Post Event Summary*

SPRING 2016

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## INTRODUCTION

The Green Bond has emerged as a popular instrument for public sector and corporate issuers to unlock private capital for a variety of sustainable projects. Many believe that the increasing appeal of green bonds lies in the ability to support a broad range of sustainability projects while still maintaining the risk/reward characteristics of traditional fixed income products.

In April 2014, RBC Capital Markets was part of the second wave of international banks and the first Canadian bank to endorse the Green Bond Principles which strive to provide voluntary guidelines for the process and development of green bonds. To date, RBC Capital Markets has acted as Lead Manager on a number of green bond issues with notable global issuers including The World Bank, European Investment Bank and most recently the Province of Ontario.

On April 13, 2016, RBC Capital Markets hosted its 3rd annual Green Bond Conference in Toronto, attracting a number of high-profile issuers, fixed income investors, and industry experts in the green bond market. With more than 80 attendees participating, the conference was designed to highlight the emerging trends and development within debt capital markets as participants look to finance climate change solutions.

RBC Capital Markets was pleased to host the conference and thank all those that participated. It is important to us that we remain at the forefront of changes that shape the fast developing green market and the conference is an extension of RBC's broader sustainability and strategic focus.

This document offers a summary of the themes and highlights which took place during the conference.

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## RBC CAPITAL MARKETS GREEN BOND CONFERENCE AGENDA

10:30 – 11:00 AM	Registration	
11:00 – 11:30 AM	Opening Remarks & Green Bond Market Update <i>Presentation</i>	<ul style="list-style-type: none"> <li>▪ <b>Paul Belanger</b>, Managing Director, Government Finance, RBC Capital Markets</li> </ul>
11:30 – 11:45 AM	RBC Sustainability <i>Presentation</i>	<ul style="list-style-type: none"> <li>▪ <b>Sarah Thompson</b>, Senior Manager, Corporate Environmental Affairs, Royal Bank of Canada</li> </ul>
11:45 – 12:15 PM	Municipal Green Bonds – <i>Lessons from the U.S. Presentation and Q&amp;A</i>	<ul style="list-style-type: none"> <li>▪ <b>Kaumudi Atapattu</b>, Vice President, Municipal Finance, Public Power and Utilities Group, RBC Capital Markets</li> </ul>
12:15 – 1:30 PM (Lunch)	Green Bond Market – Global Growth & Local Opportunities <i>In Conversation</i>	<ul style="list-style-type: none"> <li>▪ <b>Sean Kidney</b>, CEO, The Climate Bonds Initiative</li> <li>▪ <b>Toby Heaps</b>, CEO, Corporate Knights</li> </ul>
1:45 – 2:30 PM	SSA Issuer Panel <i>Panel Discussion</i>	<ul style="list-style-type: none"> <li>▪ <b>Christine Davies</b>, Senior Financial Officer, Investor Relations, The World Bank</li> <li>▪ <b>Dominika Rosolowska</b>, Funding Officer – Americas, Asia and Pacific Capital Markets, European Investment Bank</li> <li>▪ <b>Rimal Gaund</b>, Portfolio Manager, Export Development Canada</li> </ul>
2:30 – 3:00 PM	Ontario Green Bond Update <i>Presentation and Q&amp;A</i>	<ul style="list-style-type: none"> <li>▪ <b>Mike Manning</b>, Executive Director, Ontario Financing Authority</li> </ul>
3:00 – 3:30 PM	Evolution of Second Party Review – Green Bonds & Beyond <i>Presentation and Q&amp;A</i>	<ul style="list-style-type: none"> <li>▪ <b>Vikram Puppala</b>, Associate Director, Advisory Services, Sustainalytics</li> </ul>
3:30 PM	Closing Remarks	

## RBC AND ENVIRONMENTAL SUSTAINABILITY

RBC's history of environmental stewardship and sustainability dates back to 1991, when we appointed our first environmental risk manager and introduced our first formal environmental policy. Our programs and policies have evolved significantly over the past two decades. In 2007, RBC published the first RBC Environmental Blueprint, which served as our multi-year plan for integrating environmental sustainability into RBC's business activities, operations and community initiatives.

In June 2014, we launched the new RBC Environmental Blueprint, a roadmap that outlines how we will approach environmental sustainability globally from now until 2018. Every roadmap needs a destination, so this document not only sets out the corporate environmental policy, objectives and priorities, but also includes aggressive targets in three areas of focus: climate change, water and sustainable communities.

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### 2015 Environmental Sustainability Highlights include:

#### Reducing Our Environmental Footprint

Occupied over 3.9MM sq. feet of LEED (Leadership in Energy and Environment Design) certified green office space

Purchased 20,000 MWh of EcoLogo-certified green electricity, enough to power 1,700 Canadian homes

Reduced our greenhouse gas emissions from energy use by 48% since 2009

Purchased 94% of our paper from suppliers certified by the Forest Stewardship Council (FSC) or the equivalent, indicating the paper was harvested from sustainably managed forests

Reduced office paper use per employee by 29% - since 2009

#### Managing Environmental and Social Risk

1st Canadian bank to adopt the Equator Principles environmental and social guidelines for project finance in 2003

Conducted over 1,200 detailed environmental and social credit risk assessments on financial transactions worth C\$8.2B

#### Offering financially sound green products, services and advice

C\$3.4B in loans and trading line exposures to renewable energy companies

Managed C\$4.3B in socially responsible investments on behalf of our clients

Committed C\$657,000 to early-stage for-profit companies addressing social or environmental issues, bringing the total commitment to date to C\$4.2MM

Underwrote C\$2.8B worth of green bonds

Traded over C\$165MM tonnes of carbon credits through the RBC Capital Markets Carbon Emissions Trading Desk

#### Promoting Environmental Sustainability

Donated C\$5.9MM to environmental charities globally

Conducted an internal employee engagement campaign where 10,200 RBC employees completed over 1.2MM acts of wellness, environmental protection and kindness

RBC is proud to be named to the Dow Jones Sustainability North American Index for 16 consecutive years.



# GLOBAL GREEN BOND MARKET UPDATE

After welcoming remarks, the day began with an update on the global green bond market. Highlights from the market update include:

Globally, the green bond market continues to gain significant momentum.

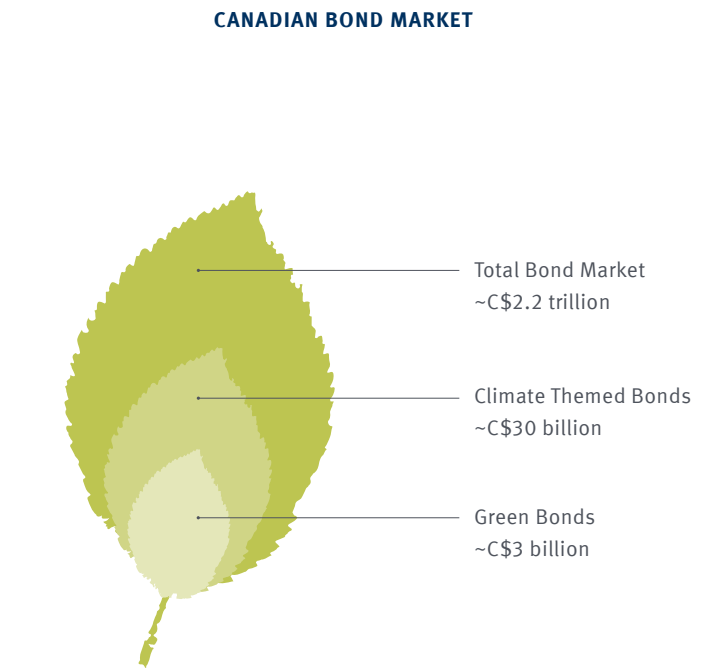
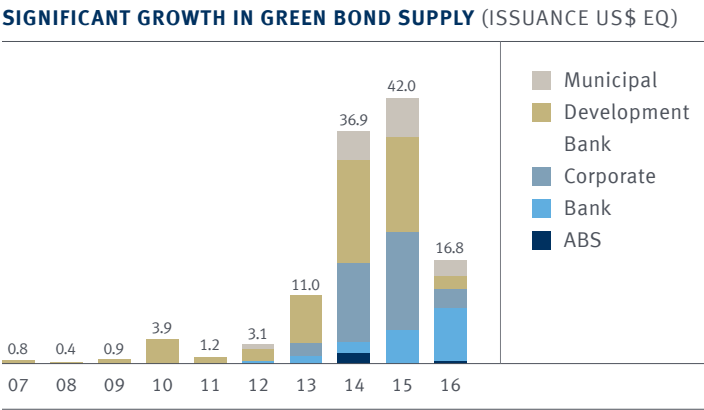
As of early April 2016, there was ~\$70B in green bonds outstanding which represents a small part of the total climate themed bond market. The market in Canada is growing with ~C\$3B outstanding within a ~C\$30B climate themed bond market. The unlabelled climate bond universe remains fairly large and is expected to drive potential refinancing opportunity. While Canada represents about 2% of global bond markets, climate themed and labeled green bonds in C\$ represent about 4% and 3% respectively.

2015 was a record-breaking year for green bond issuance with \$42B of issuance highlighting tremendous growth since 2012 which had only \$3B in new green bond issuance.

2015 issuance marked a 14% jump from the \$37B issued in 2014, and brought aggregate issuance to \$100B since the first issue in 2007. With \$17B in new green bond issuance as of early April this year, the Climate Bond Initiative (CBI) estimates that green bond issuance in 2016 could surpass \$100B.

The issuer base is diversifying.

Green bonds have been issued predominantly as AAA-rated securities by supranationals, but the market is expanding in terms of issuer diversity. There has been a notable increase in AA issuance, driven primarily by financials. To date, 43% of total issuance has been from development banks, but the proportion declined noticeably in 2015 (36%, \$15B) as issuance from private corporations rose to ~37% of 2015 issuance (\$16B) from 19% in 2013.



### Steady growth in the number of issuers with 125+ issuers accessing the market in 2015.

Similar to 2014, the entry of more corporates, municipalities and banks into the green bond market bolstered diversity and growth of the issuer base in 2015. There was a diverse range of issuers that financed a wider range of green assets. Significant opportunities exist for further broadening of the issuer base given the preponderance of green-friendly projects and applicability of the green label to a variety of sectors.

#### Key market themes include:

<b>Use of Proceeds</b>	Renewable Energy and Energy Efficiency continue to dominate green bond proceeds, representing almost two-thirds of aggregate supply
<b>Issuer Type</b>	Issuance remains diversified across issuer type with increasing representation from banks, corporates and municipalities
<b>Currency</b>	Majority of issuance has been in \$ and € although green bonds are becoming increasingly popular across global markets with noticeable growth in China in 2015
<b>Term</b>	Green bond issuance has historically focused on short to medium term maturities (over 80% in terms 3-10 years)
<b>Ratings</b>	More than half of green bond issuance since 2007 has been AAA-rated and 95% of the green bond market remains investment grade

### US municipal issuance accounts for over 10% of the 2015 green bond volume.

2015 saw \$4.3B of volume from the US Municipal Market, up 55% from the volume (\$2.8B) issued in 2014 and \$100 million issued in 2013. Since the inaugural US municipal green bond issuance in 2013, the market has grown with 45 other municipal issuers coming to market with green bonds for a variety of projects and refinancings. Use of proceeds remains broadly diversified with significant representation from water & sewer facilities, mass transportation, multi-family housing, higher education and public improvement. Although the global green bond market

has seen active participation by investors with an Environmental Sustainable Governance (ESG) investment thesis, no tax-exempt funds with a mandate to invest in these projects currently exist.

### 2015 has seen significant growth in new green bond issuing countries.

Although US and supranational issuance dominated 2015 green bond volumes, representing 41% of issuance, the market has attracted several new entrants with issuance from 7 new countries including Brazil, Denmark, Estonia, Hong Kong, India, Latvia, and Mexico. Green bonds allow emerging economies to facilitate climate investment and simultaneously promote the growth of a robust debt capital market. The CBI predicts that a significant portion of this year's issuance could be driven by China.

2015 was a steady year for the Canadian green bond market, with C\$725MM of aggregate issuance by TELUS 500 Georgia Office Partnership<sup>1</sup> (C\$225MM) and European Investment Bank (C\$500MM) and one transaction so far in 2016 from the Province of Ontario (C\$750MM). Canada has seen modestly slower growth compared to the US and EU markets. However, the current trend towards more socially conscious investing and solid demand for C\$ green bonds indicate there is decent appetite among Canadian investors to finance green project opportunities.

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1 Joint venture of TELUS and Westbank building TELUS Garden

## EVOLUTION OF TODAY’S GREEN BOND MARKET

During the course of the day, RBC hosted a panel of global SSA issuers to hear their experience, discuss best practices and share perspectives on the evolution of the global green bond market. A brief summary of the discussion items include:

**Demonstrated issuance by Government agencies have helped develop a sustainable and liquid green bond market that is expected to exceed \$100B in issuance this year.**

Although supranationals were the pioneers in issuing green bonds, corporate and government issuance has grown quickly. Issuers have created more choice in the green bond market by addressing climate change through projects that range across the spectrum comprising renewable energy, energy efficiency, transportation, agriculture, water, etc. To encourage diversity of issuance, Vikram Puppala, *Associate Director, Advisory Services at Sustainalytics* urged the audience to consider issuance from traditionally “non-green” sectors. Market appetite exists for green issuance from these sectors if the true purpose of proceeds is to invest in projects that address climate change risks and support the transition to a low-carbon economy.

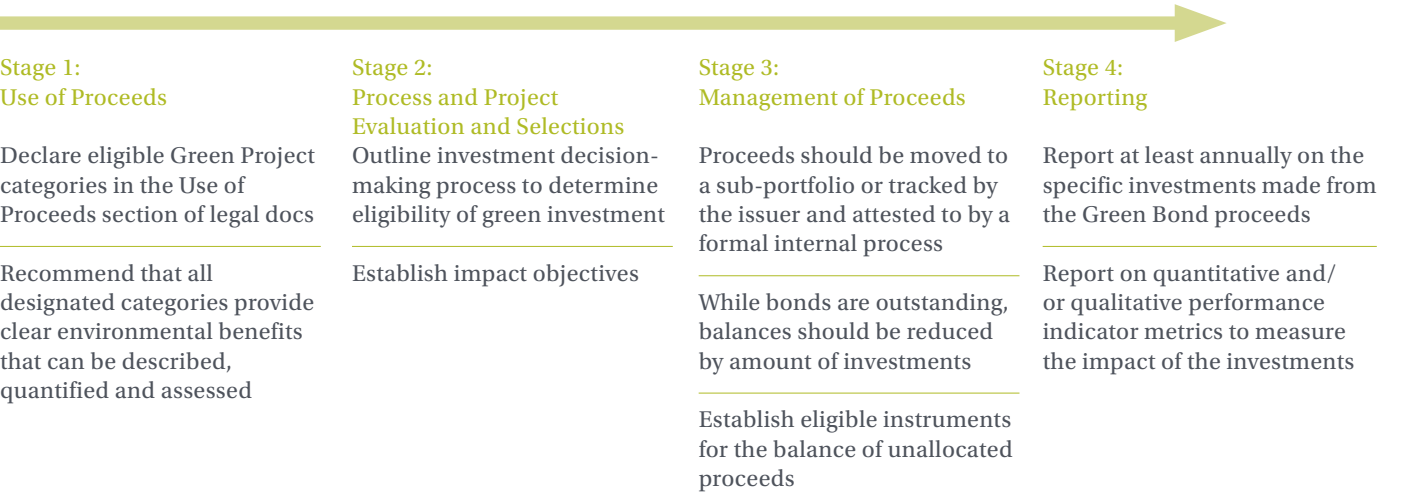
**A common factor driving investor demand for green bonds is socially responsible investing (SRI) and/or impact investing mandates.**

SRI investors incorporate factors related to environmental sustainability, social responsibility and corporate governance with traditional financial analysis, to choose investments that are consistent with both their financial goals and personal values. Impact investing is investment in businesses that tackle social and environmental challenges, while generating a financial return.

**A number of standards have developed to promote integrity and sustainability.**

One such set of standards is the Green Bonds Principles (GBP) which was developed by the ICMA<sup>2</sup> and first released in January 2014. In March 2015, the ICMA released an updated version of the GBP with another update expected this year. GBP are voluntary guidelines that provide issuers and investors a framework for evaluating and issuing green bonds. The new version included more emphasis on reporting and assurance and expanded the

While issuers converge on the GBP framework, compliance with each stage tends to vary across issuers.



Standardization benefits issuers by enhancing market credibility, reducing transaction costs and time to market. Dominika Rosolowska, *Funding Officer at European Investment Bank (EIB)* notes “GBP has provided issuers with a set of minimum requirements and market consensus of what a Green Bond is.”

2 International Capital Markets Association



broad categories of eligible projects to include: sustainable water management, renewable energy, sustainable waste management, sustainable land use, biodiversity conservation, clean transportation and climate change adaptation.

**The green bond market has embraced several second opinion and certification providers to date, all attempting to establish green credentials as the ecosystem continues to grow.**

The CBI has been active in efforts to develop a certification scheme for issuance of bonds that support a low carbon and climate resilient economy. Similarly Sustainalytics utilizes a framework aligned with the Green bond principles to ensure bond proceeds are allocated, managed and reported in a transparent manner. Vikram from Sustainalytics elaborated on how second opinions aid in mitigating reputational risk and can act as a “communication” document regarding the bond, the program and the use of proceeds that can otherwise be misinterpreted. Similarly, CICERO<sup>3</sup> attempts to extend beyond the GBP by evaluating the emissions impact of projects while factoring in governance and transparency. Additionally, a number of other accounting, engineering and consulting firms have entered the Green Bond assurance market.

Although green bond certifications and second opinions can provide comfort to investors that the green bond is credible, not all investors see this as a requirement. However, there are investors who undertake a review of the environmental, social and governance (ESG) performance of the issuer to ensure they have the credentials and expertise required, in addition to screening the green bonds and the supported projects. While bigger investors can undertake the diligence to evaluate green proceeds, some investors lack the scale to conduct additional diligence and find comfort in established safeguards provided by issuers. Christine Davies, *Senior Financial Officer, Investor Relations at the World Bank* points out that the World Bank has capitalized on its scale and available resources to provide investors with opportunities to invest in green projects without undertaking the effort to individually pick and identify projects.

**Issuers face varying disclosure requirements based on jurisdictional requirements and investor considerations.**

Ongoing reporting varies with some committing only to reporting through the use of proceeds while others committing longer-

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term reporting. Dominika from EIB points out, “Reporting and Disclosure continue to be an evolving space as we try to come up with a framework of reporting that is consistent for investors. When the program spans a broad spectrum of sectors, there may not be one single metric that can be consistently calculated.” Dominika has advanced EIB’s reporting from monetary reports based on funds allocated to developing impact reporting and this year, has started to report on projects to assess completion time and accuracy of initial assumptions. Standardization in tracking the impact of projects following their conclusions will only bolster credibility of the market.

**Green bonds are attracting new investors that may not typically participate in an issuer’s regular bonds.**

Given the explosive growth of this market, issuers are now observing traditional investors and even central banks starting to participate in green bond transactions. Dominika from EIB noted that, “We see investors coming into the book that we would normally not see in our regular issues.” Although green bonds are attracting a wide variety of investors with explicit SRI mandates, it remains challenging to determine a “green” investor. Christine from the World Bank states, “The World Bank strives to allocate green bonds to genuinely green investors and given limited supply, has developed a targeted approach built around the lead order.” Rimal Gaiind, *Portfolio Manager at Export Development Canada* adds, “Issuers need to conduct their own due diligence to identify the “green” accounts with part of the onus lying on the investors

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3 Centre for International Climate and Environmental Research – Oslo

to engage the issuer and identify their green aspirations.” Part of the momentum behind the growth of green bonds internationally is driven by the fossil fuel divestment movement and investors looking to reduce the carbon intensity or “de-carbonize” their investment portfolio.

**Markets have accepted that new issue yields on green bonds are typically in line with an issuer’s existing regular bond curve.**

Christine from the World Bank highlighted that “Pushing price differential might end up strangling the market as investors are reluctant to take a lower yield.” Markets have come to accept flat pricing as the norm in this nascent stage of market development. Christine also notes that although the World Bank prices its green bonds flat to the regular curve, it has provided broad access to investors who would have not bought World Bank bonds previously, allowing for lot more dialogue with investors regarding project impact and reporting.

**Issuers have learned to manage internal as well as external stakeholders through the green bond issuance process.**

Rimal from Export Development Canada highlighted that, “In parallel to educating accounts on what is green, I’ve had to work with project stakeholders to educate them on the impacts of certain green projects for Canadian exporters.” First-time issuers are advised to anticipate that the issuance process takes more time and planning than a regular bond issue. As part of the issuance process, it becomes critical to align communication between reporting structures, particularly between Treasury and project execution teams.

**Bond indices further support the notion that this is a market coming into its own.**

There are now many green bond indices such as Barclays/MSCI, BofA Merrill Lynch, S&P and Solactive. Index criteria differ but revolves around use of proceeds, the process for selecting green projects, management of proceeds and reporting. In our view, having

benchmark indices is another mark of progress for the green bond market, by giving investors the ability to benchmark performance as well as enhance the liquidity of issues within the index.

**Recent COP21<sup>4</sup> and Paris Climate Agreement generated notable traction that is expected to drive green bond issuance.**

Strong momentum followed COP21 with the formal signing of the Paris Agreement on Climate Change completed on April 22. Numerous COP21 climate finance commitments are expected to translate into further growth of the green bond market.

**Rating agencies have entered the fray.**

Moody’s recently finalized its Green Bonds Assessment (GBA) Methodology. The GBA is not a credit rating, but offers to provide forward-looking opinions of the relative effectiveness of the issuer’s approach for managing, administering, allocating proceeds to and reporting on environmental projects financed by green bonds. Five key factors that are essential to determining the GBA include Organization (15%), Use of Proceeds (40%), Disclosure on Use of Proceeds (10%), Management of Proceeds (15%), and Other Reporting & Disclosure (20%).

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4 Conference of Parties (COP) 21, also known as the 2015 Paris Climate Conference, took place December 7-8

## PROJECT SPOTLIGHT

Our discussion with SSA issuers revealed a number of interesting global projects that were financed through the use of green bond proceeds. A brief summary of the highlighted projects include:



### Nordsee One Wind Farm in the German North Sea

- EDC participated in the syndicated financing for the development and operation of a 332 MW wind farm consisting of 54 wind turbine generators located in the German North Sea
- Notable accomplishment was determining a common participation metric for EDC that highlights the green aspects of the project while remaining consistent with other issuers reporting on the project
- Nordsee One will be able to provide for the power consumption of approximately 400,000 average households and will save over one million tons of CO2 compared to a conventional coal fired plant



### Jordan Wind Project – Tafila Wind Farm, Jordan’s first big wind farm project

- As the project’s lead financier, EIB believed Tafila’s 94-metre-high turbine towers could be the sentinels of a new industry that will transform the country’s economy
- Jordan Wind Project leased the land for the wind farm from locals and hired 85% of its workers from among them. Many of the vehicles and plant used on the project were leased from local people
- Tafila’s 38 turbines will produce 400 GWh per year which is enough to power more than 83,000 of Jordan’s 1.2 million households



### Integrated Solid Waste Management and Carbon Finance Project in Brazil

- Improved the treatment and disposal of municipal solid waste by closing open dumps and implementing environmentally safe landfills thereby reducing methane gas emissions
- Project has exceeded targets for volume of waste disposed in environmentally sustainable sanitary landfills and number of municipalities with investments targeting recycling and composting activities
- Significant reduction of green house gas emissions by ~800,000 tons, equivalent to keeping ~160,000 cars off the road

CASE STUDY: PROVINCE OF ONTARIO

Mike Manning, *Executive Director of the Ontario Financing Authority* provided a comprehensive update on the Province of Ontario’s green bond issuance.

Key Wins from Ontario’s 2nd Green Bond

- ✓ **Larger deal size** on the second transaction was supported by increased green project capacity and Ontario’s focus on liquidity for its offerings
- ✓ **Longer tenor** provided Ontario with the opportunity to re-open the issue in the future and afforded investors with tenor diversification - it also provided a better match to the duration of underlying green projects
- ✓ **Basket of eight eligible projects** on the second green bond allowed more funding flexibility in the event different projects experienced different spending patterns – the majority of green bond funding was allocated to Metrolinx for clean transportation projects

Reporting and Assurance

- Ontario’s green bond program aligns with the Green Bond Principles and in March 2016, the Province of Ontario signed on as a member
- Ontario’s first Green Bond Newsletter was released in December 2015 and provided an outline of the use of proceeds, an overview of the process for project evaluation, a project update, and the expected environmental benefits

Looking Ahead

- Ontario is making public infrastructure investments of more than C\$137B over the next 10 years, or about C\$160B over 12 years, starting in 2014–15
- About C\$31.5B over the next 10 years will go towards the Province’s Moving Ontario Forward plan for public transit, transportation and other priority infrastructure projects
- Assuming adequate demand, Ontario’s green project pipeline should easily support an ongoing green bond program for many years to come
- Ontario remains committed to the green bond market and expects to be a regular issuer going forward

Ontario’s Low-Carbon Economy

- In 2015, the Province released its Climate Change Strategy, setting out Ontario’s vision for combating climate change and achieving its greenhouse gas emissions reduction target of 80% below 1990 levels by 2050
- In 2014, Ontario developed a green bond framework that aligns with its environmental policies and climate objectives. To date, Ontario has issued two Canadian dollar green bonds:

	Inaugural Green Bond (1.75%, October 2018)	Second Green Bond (1.95%, January 2023)
Size:	C\$500MM	C\$750MM
Pricing Date:	October 2, 2014	January 22, 2016
Term:	4 years	7 years
Re-Offer Spread	+38 bps	+103 bps
Coupon:	1.75%	1.95%
Maturity:	October 9, 2018	January 27, 2023
Project Categories:	Clean Transportation (1 project)	Clean Transportation (3 projects), Energy Efficiency & Conservation (5 projects)

## LOOKING AHEAD: THE NEXT WAVE OF GREEN BOND ISSUANCE

A panel discussion with Sean Kidney, *CEO, Climate Bond Initiative* and Toby Heaps, *CEO, Corporate Knights* offered perspective into the evolution of the green bond market globally and path forward for Canadian green bond issuance. Key takeaways include:

### The green bond market globally has seen tremendous growth since 2012 with a sufficiently developed ecosystem to support issuance.

Demonstrated issuance by governments has provided investors with access to sustainable investments while building an ecosystem of second-party agencies that help facilitate the issuance process. Sean from the Climate Bond Initiative argues that while sufficient progress has been achieved on a broader scale, working with individual countries will propel issuance from C\$50-\$100B a year to \$300B a year in 3 – 5 years. Part of the near-term market development involves targeting portfolios of sustainable projects that could switch into the green bond market for refinancing opportunities while gaining reputational marketing benefits.

### Additional convergence required between issuers and investors in order to encourage further issuance and simultaneously drive growth in investor mandates.

Investors remain less likely to develop Green Funds until supply grows while issuers remain reluctant to issue until they can recognize “tangible” benefits. Availability of consistent supply will allow investors to carve out specific funds with a mandate to invest in qualifying bonds. Meanwhile, issuers have expressed hesitation to issue green bonds due to limited pricing benefit, increasing disclosure requirements and potential for increased issuance costs. Once this dynamic has run its course, market participants agree that significantly untapped potential for market expansion exists.

### Green bond market activity has spurred government interest in green initiatives with several Canadian leaders looking for ways to access this market.

Governments have a role in the development of a green bond market by issuing green bonds themselves to create critical mass. Industry experts such as Toby from Corporate Knights are in active dialogue with various levels of governments to promote the benefits of green financing and build on the work issuers like Ontario have achieved. According to Toby, “Green bonds were not a focus of the government a few years back and today we have a new federal government commitment to support renewable energy projects. Of note, in the Prime Minister’s recent mandate

letter to the Minister of Environment and Climate Change, Trudeau highlighted many “green” objectives around combating climate change and making significant investment in green infrastructure, underpinning the impact this market has had on government priorities.” Governments could go one step further and share with issuers the responsibility of setting up a consistent reporting methodology and educating the public on benefits of different projects.

### Time is not on our side.

According to Sean from the Climate Bond Initiative, “The *climate bomb* is ticking and if we don’t turn emissions down by 2020, we risk running into feedback loops that weaken our ability to manage climate change, thereby resulting in the world becoming several degrees warmer which will pose a significant threat to our existence.” Climate science is compelling and has presented a case which states that urgent measures are required to address climate change from both a mitigation and adaptation perspective. Countries which are serious about this cause are trying to accelerate the timeline of bringing green projects to ground.

### The next wave of market growth requires going beyond the traditional green projects.

Sean from the Climate Bond Initiative said, “We need to turbo-charge the assets that can be green financed in order to get to \$1T a year in issuance globally. *Infrastructure* and *Green* need to be merged into one vision with green principles applied to all infrastructure investments.” In an effort to accelerate market development, a Green Infrastructure Investment Coalition was formed at COP21 with the intention of inviting governments, who are serious about their green mandates, to participate in a roadshow for green infrastructure investments which will be attended by domestic and international investors to flush out opportunities and construct investible propositions tailored to accommodate investor risk/reward targets. The goal is to have investments born out of this roadshow completed by 2020.

### To bring product to market and accelerate the development of green projects requires higher capital expenditures.

From an issuer perspective, a higher capex model to fund green projects will require access to larger pools of capital. As part of the next wave of development, governments need to accelerate and compress capex investments within the next 5 – 10 years to take advantage of low underlying rates. Sean states that by 2018, the world needs to see significant changes in infrastructure planning.



### Market growth requires a partnership between governments and private investors.

Partnership between public and private sector to seek out green investments is required. Similar to the infrastructure sector, both parties need to work in cohesion. The focus needs to orient development banks away from private lending and instead crowd in private capital in order to optimize the risk/return profile and make it profitable for the private sector. Echoing Christine from the World Bank's comments, governments have to invest resources to conduct the necessary diligence and create the framework that draws investor participation. While fixed income remains the biggest slice of infrastructure investments globally, there needs to be a working pact between holders of capital and the public sector - a way to pay our "pensions" while doing it the green way.

### The growth agenda is focused on scale and liquidity.

Sean from the Climate Bond Initiative and Toby from Corporate Knights both agree that changing the pricing equation (flat to regular bonds) is not the near-term agenda and will instead reverse any positive impact and hinder primary issuance. The green bond market has evolved to a point where it provides investors with an equal switching opportunity while supporting the cause for a greener world. According to Sean, "The big issue

globally is not cost of capital but access to capital and scale of allocation so offering issuers with the ability to refinance is paramount."

### A positive backdrop for the Canadian green bond market.

The political climate in Canada has never been more supportive for the growth of the green bond market. In addition to Ontario's intent to issue more green bonds, other Canadian provinces are showing interest in accessing this market. The new Federal government proposal to issue green bonds and growing interest from the municipal sector point to a very active green bond market in Canada in the coming years.

### To drive the next phase of growth, investors need to actively seek out opportunities.

As global issuers continue to provide the market with diverse product and liquidity, investors need to actively reach out and engage with issuers alongside dealers to demand sustainable investments thereby creating yield opportunities for investors. The future for green requires engaged investors that can feed a reverse-inquiry model.

## CLOSING

By the end of the conference, there was strong agreement that the green bond market has seen tremendous growth and effectively developed an ecosystem to support further issuance. The market is building momentum globally and in Canada as both the public and private sectors look to unlock capital flows into projects that address environmental and social issues.

Globally, market growth is well supported – investments in green infrastructure will be increasingly necessary from both the public and private sectors as environmental sustainability becomes a more important consideration for both social and corporate responsibility.

There were varying opinions on how and what is needed to ensure the market builds scale and liquidity quickly, but solid consensus from both issuers and investors that transparency and investor proactivity is key to market growth. Conference participants appreciated the opportunity to engage in an interactive forum with key stake holders in the green bond market and look forward to the next annual RBC Capital Markets Green Bond Conference.

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