

Clean Air Council Meeting, 25th January, 2019

Marco Iacampo and Betsy Young, City of Toronto’s Green Bond and Carbon Financing Next Steps

Presentation Notes

City of Toronto: Green Debenture Program [link](https://cleanairpartnership.org/cac/wp-content/uploads/2019/01/19.1.24-MIedits-CAP-Presentation-version-2.pdf) to the presentation.

**Background**

Marco and Betsy formed a unique collaboration between Energy + Finance Departments in the city of Toronto in order to work on innovative finance – inter-government funding opportunity to support GHG reduction.

TRansform TO – Toronto Climate Action Strategy targets are GHG reduction of 80% less than 1990 baseline by 2050 (as for 2016, 33% are achieved).

The Strategy has 23 Low Carbon short term actions in regards to policy, programs, home energy retrofits, waste and others.

Investment opportunity by 2050 – 60 billion.

**2/3 positive net present value. Which means that future energy cost savings are greater than the capital investment.**

**Low carbon actions are not just environmental beneficial but also they make strong economically sound business cases.**

Q: Is the Building Sector most likely to be with net positive value and more difficult NPV to be achieved for the Transportation sector?

A: Not really. There is no generalization. There are better results on the electricity side with electricity reduction. But Ontario has fairly green grit – so electricity conservation does not get the GHG reduction impact.

Q: Does the modeling they did only looked the benefits to the municipality or bigger benefits, such as health and clean air benefits? If we look the entire package there is a positive NPV (3-4%) but if we model more comprehensively the benefits, other than for the municipalities, the results may be different.

A: The model is limiting the ability to quantify the **co-benefits**. So another piece of work we are working on in Toronto is looking **at internalizing all the external benefits of low carbon actions** (i.e. improved local air-quality, health) and reflecting that in the business cases. **We do that through social price of carbon, also called shadow price on carbon in order to boost the business cases to more accurately reflect the societal impact.**

**Green Bond**

The Market

More investors continue to shift towards socially responsible investing. Not only there are more green and sustainable funded bonds but also more and more regular funds are incorporating the sustainable/green factors in it.

The high demand is because of high quality of investors. Globally there are more Green Bonds issuance in the last 3 years. And in Canada, we have 13 deals in $8.3bln (2018). Big jump in the last year.

Globally the large issuance are still Europeans and there is an increase in China, Australia, and Canada.

Green Bond Program started in 2018. It is the second municipality to start it in Canada (after Ottawa).

**The Green Bond Program acts like a General obligation bond but funds are used for supporting City’s environmental sustainability strategies. There is established eligibility criteria such as annual reporting and complain assurance and requirement of framework. The standard of requirement should keep going up – increasing standards (example Clean Water is not enough, next step is to be enhanced the efficiency, or some kind of improvement).**

**The real cost drivers upfront are getting council to approve a framework and the need of second party opinion (the price of the latter being negotiable).**

In 2018, City issued a $300 million in 2018 with over 36 investors with **premium issuance**. Premium **means cheaper to Toronto but more expensive to the investors.**

Q: How does Green Bond works?

A: When having a capital project (depending on the municipalities) there are different ways of funding (mutual, federal, taxes…) The Green Bond is similar; it uses a tax bases meaning; it is not secured by any specific assets.

So the green bond just requires to have a criteria for what projects are eligible for those funds.  **Infrastructure of capital projects are most of the time paid trough bonds market and it paid back through property taxes. The difference here is that the projects has to be related with GHG reduction, or energy efficiency or somehow related with enhancing sustainable and environmental goals. (14 min)**

The program framework can be found [here](https://www.toronto.ca/city-government/budget-finances/city-finance/investor-relations/green-debenture-program/green-debenture-framework/).

It has received a positive external opinion from Sustainalytics, a leading Green Bond second-party opinion provider. The opinion can be found [here.](https://www.toronto.ca/wp-content/uploads/2018/03/8fb2-City-TO-Green-Debenture-Framework_SPO_FINAL-03192018.pdf)

**Green Bond Program Framework**

Has 4 pillars:

1. Use of Proceeds – Project Eligibility Criteria
2. Project Evaluation and Selection Process
3. Management of Proceeds
4. Reporting

For example, the eligible projects in Toronto are:

Eligible Criteria:

* Renewable energy
* Energy efficiency
* Pollution prevention & control and utilizing waste as a resource
* Sustainable clean transportation
* Sustainable water and waste water management
* Climate change adaptation and resilience
* Eco-efficient and/or circular economy principles integration
* Green buildings

Selection Process of Eligible Projects:

Working with other divisions such as EDD, TTC to select qualifying projects, where the difficult part is as a financial team may not be able to understand what the project means – that is why there **is a need for collaboration with other divisions**. Also, collaboration with external legal firm to ensure the projects are approved by council.

* Corporate Finance Division (CFD) responsible for selection of eligible projects in consultation with internal and external expert stakeholders
* CFD to verify suitability and eligibility in collaboration with the Environment & Energy Division
* Eligible projects must be included in the council-approved capital budgets and authority verified by external legal firm

Management of Proceeds:

* Majority of capital projects funded by bond proceeds have been completed or are substantially complete
* Bond proceeds applied directly to project to repay temporary funding for the project
* Bond by-law includes schedule listing capital projects to be financed by the debenture
* In the rare cases, where substantial completion is yet to meet, funds will be held in a City account and tracked to ensure future allocation to the designated projects in compliance to the debenture by-law.

**Gaby: The city providers the financing upfront then they go issue the bond. After, the city gets payed back with initial financing and then the bond is advancing that project moving forward, if there are any expenses the revenue is paying it back.**

Betsy: Some cases there is pre-funding (example subway and TTC) where we keep track of it.

Q: What happens if you get secured funding that happens to get canceled?

A: We (in Toronto) have provincial funding of 30% , so if we issue 70 % and afterwards the 30% are not coming in. In order to leave, the council has to approve to replace it either with working capital or tax, or debt.

Reporting:

The City will publish an annual newsletter on its website to address both funding allocation and sustainability impact reporting including:

 • Bond by-laws outlining the specific projects and amounts funded by green debentures;

 • Summary of the City’s green bond program developments including existing and future projects;

• Updates with respect to distribution of unspent bond proceeds;

• Project updates and status reports for Eligible Projects, when possible

• Key performance indicators on projected environmental benefits

Q: Do you do similar reporting to council?

A: No, the requirement is to report on annual bases and provide updates. For reference, a regular bond does not require a reporting.

First Issuance: Eligible Projects

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| --- | --- |
| Project  | Eligibility Criteria |
| TTC -Leslie Barns LRT Maintenance and Storage Facility - Purchase of Subway Cars - Scarborough Subway Extension - Renewal of Core and Supporting Infrastructure of Electric Rail | Sustainable Clean Transportation |
| Union Station Revitalization | Energy Efficiency  |

**Green Bond only use infrastructure projects that are city ‘owned, not private sector.**

Q: Can municipality issue Green Bond and set up a Green Bank - with that money loan it to householders and private sector company to retrofits, use the energy savings and pay back that bond? **(Can it be used to finance community initiatives?)**

A: We believe you can but needs to be checked. (Can be set as a research question)

Q: Energy efficiency and GHG reduction projects have a positive NPV which pays for the project, but how about other sector projects that do not pay itself?

A: It is in discussion! It is tax supported! We use recoverable debt.

The TTC project is recoverable debt that they will pay back thought the tax base, but the savings from use of renewable is also part of paying back.

**Key Message when talking with financial team is:**

* Green Bonds are not different than General Bonds

The difference:

* There is a need of third party opinion (based on the developed framework) and ongoing reporting

Q: Risk mitigation consideration where you are enhancing the resilience of the city and therefore the exposure to the side effects of extreme weather events … How do you qualify in dollars terms the law suits that you did not get?

A: There is a need of enterprise level reporting and exposure disclosure exercise.

**4 EcoFiscal Toolbox**

There are 4 ecofiscal tools that the city has in play today:

EcoFiscal meaning – Dedicated revenue streams or incentive offering linked to trying to insight actions on a part of residents and business to do low carbon action to support the cities in their sustainability and environmental goals.

1. Recoverable Debt Financing - eligible to corporate building facilities (agencies) and non-profit sector. It is an internal loan to a city division who may be building new recreational center and it wants and need to be energy efficiency with sustainability features of that building. So to be eligible to access this funding and get to repay it over a time:
* Project must demonstrate a positive business case and payback within 20 years. – it has to have future savings or revenue stream as greater as the capital cost.
* Virtually ‘no limit’ to capital City’s capital program.

**Shadow pricing carbon is part of the business case for these projects which boosts the business case for natural gas primarily, which is low cost but has a high GHG reduction potential and benefits projects that fuel switch.**

1. Local Improvement Charge Financing
* 2013 the province made regulatory changes that allows all municipalities to effectively to provide funding to private property owners to undertake environmental work – energy efficiency, GHG reduction and etc.
* It works as a loan – where the municipality provides the funding and it is repaid over time through tax bill. But it is not a debt obligation because it is attached to the property and it is treated differently.
* Homeowners benefit from low-borrowing rates and longer payment terms.

The added benefit is should the property sell at any point during the payment term the obligation transfers to the next property owner.

Q: How many properties have sold while you are working on it?

A: Hard to track. It is a research question.

The goal is to retrofit all buildings by 2050. Applying LICF to any private building that access capital from the city for deep retrofits.

1. Development Charge Refund
* Toronto Green Standard has a Development Charge Refund which incentivises developers to build buildings with high energy performing and additional sustainability features.
* Typical refund for a condominium tower is about $500,000
* Cost-benefit analysis shows $1.2 billion in avoided costs over 25 years related to infrastructure expansion
1. Carbon Offset Credits

Supply offsets which are quantified emission reductions and be able to commercialize and realize new revenues by establishing markets for them.

So the banks and other private sector that have the carbon neutral commitments as organizations where they can reduce their emissions by 80% but they will turn to an offset market to buy the balance of those reductions in order to make a claim that they are carbon neutral. So the city saw an opportunity to be a supplier for those reductions to other organizations.

Q: What will be the kind of opportunity on municipality finance network that exists and this story to be shared there?

A: Yes, we can present. The Green Bond market is unique in regards to size so different municipalities will need different strategies to build the market**. But investments fund, insurance companies, retirement plans are potential investors that can buy bonds.**