



2019 GREEN BOND IMPACT REPORT

**TAKING ON THE
WORLD **AND** TAKING
CARE OF IT**



A message from Ken Kember, SVP and CFO, Export Development Canada

Export Development Canada has a unique mandate at a unique time in history.

Our number one job is to help Canadian exporters expand their international footprint. We are a company of international risk experts devoted to helping Canadian exporters take on the world.

At the same time, a growing number of those companies are meeting the rising global demand for products and services that allow for a more efficient use of the planet's resources. Many have the expertise to be world leaders in the fields of clean technology, in the preservation, protection and remediation of air, water and soil, in the generation of renewable energy and the mitigation of climate change.

Those companies were a big part of the thinking behind EDC's Green Bond program.

In January of 2014, EDC became the first Canadian Institution to issue a Green Bond. This issue of USD 300 million was followed by two more, one in December 2015 of USD 300 million, and another in June 2017 of USD 500 million. Then, in September of 2017 EDC issued its first Green Bond in Canadian dollars.

The funds raised with these bond issues have financed nearly 30 transactions in a wide variety of industries and technologies, each meeting either one of two goals: cleaner and safer air, water or soil; or the mitigation of climate change.

It is anticipated that as much as 4,153,953 tonnes of CO₂ emissions will be avoided annually as a result of these investments.

In addition to these environmental outcomes, our Green Bonds also have strong symbolic value. They signal the shared commitment of EDC and the Federal Government of Canada to take meaningful steps to address climate change and other environmental issues confronting the planet today.

This report is intended to provide a snapshot of the achievements of our program, the development of the funded projects and their associated impact. I'm also excited to share that this impact is now being magnified. Since EDC launched its first bond, the market has evolved and Green Bonds are now being issued at the provincial and municipal level.

In the end, this is a win-win story. Five years after getting into the Green Bond business, EDC intends to stay, and continues to look for more opportunities to have a positive impact on our environment. The other win is that now there are more companies and governments getting on board.

Given the significant challenges to address climate change, these are the wins we all need to get behind — now more than ever.



GOLDLINQ BRINGS GOLD STANDARD TO AUSTRALIA PUBLIC TRANSIT

The city of Gold Coast, Australia, is changing the face of its public transit by building a sustainable light rail network. The project, which utilizes Canadian exports, is comprised of two stages of a light rail network spanning 13.0 kilometres and 7.3 kilometres. A key goal for the system is to sustain a zero-harm environment for the city's people, passengers and local communities.

EDC provided financing support for both stages to enable the construction, procurement and operation of the light rail transit system and the supporting infrastructure. This project reduces automobile traffic and vehicle emissions. As the Operator franchisee, GoldLinQ Pty Ltd was contracted by the Queensland Government for the design, construction, operation and maintenance of the Gold Coast light rail system.



NORDSEE ONE'S GREENER ENERGY RIDES THE WINDS OF CHANGE

The 332-megawatt Nordsee One offshore wind farm project, with 54 turbines, is located approximately 40 kilometres north of Juist Island in German territorial waters. During development, a comprehensive environmental monitoring program helped minimize impacts from the farm's construction and operations.

Nordsee One successfully achieved commercial operations in December 2017, with expectations to generate sufficient electricity to meet the needs of about 400,000 German households annually. The project is owned by Northland Power (a Canadian company) (85%), Innogy (13.5%) and Enova (1.5%).



LONDON ARRAY WIND FARM POWERS UP RESULTS

London Array is one of the world's largest offshore wind farms, located about 20 kilometres off the coasts of Kent and Essex in the United Kingdom. Covering an area of 90 square kilometres, London Array includes 175 turbines with a combined capacity of 630MW— enough to power nearly half a million U.K. homes per year and reduce CO₂ emissions by more than 925,000 tonnes annually.

The consortium behind London Array is Ørsted A/S with a 25% stake, Caisse de dépôt et placement du Québec (CDPQ) with a 25% stake, E.ON with a 30% stake and Masdar with a 20% stake. The project is partially funded by EDC.



MAPLECO: SMART METERS FOR SMART ENERGY EFFICIENCY

Smart meters give residents and businesses greater control of their electric and gas consumption, providing information that allows them to lower their energy bills and become more energy efficient. MapleCo is an independent meter asset provider, contributing to the UK's smart meter rollout program by purchasing and installing up to 2.7 million smart gas and electricity meters for SSE, a major UK energy supplier.

MapleCo is owned by the Ontario Municipal Employees Retirement System, the Ontario Teachers' Pension Plan, and SSE plc. MapleCo has arranged financing with a club of lenders, including EDC. The funds are used to procure and install the smart meters from meter manufacturers with whom they have contracted. SSE pays MapleCo a rental fee for every meter they procure, and the funds are used to repay the loan and create a return on investment for the sponsors.

GREEN BOND 2

Issuer	EDC
Ratings	Aaa Stable (Moody's)/AAA Stable (S&P)
Format	SEC Registered
Size	US\$300 MM
Pricing date	8 December 2015
Maturity date	10 December 2018
Coupon	1.250% (semi-annual)

Greenhouse Gas (GHG) impact of Green Bond 2

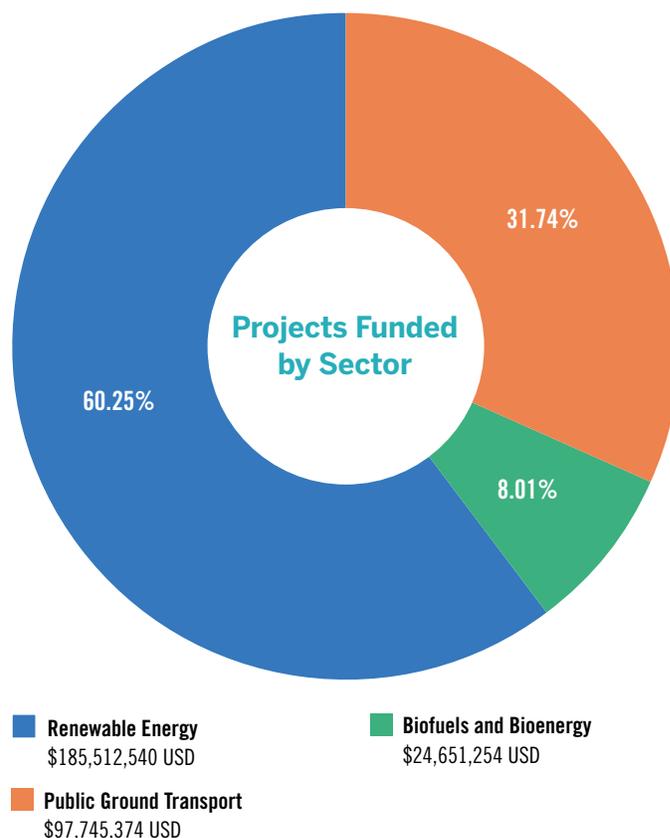
Our estimates take into account the future annual anticipated impacts of the assets, once operational. For this report, EDC has calculated the GHG emissions avoided, where applicable.

We have estimated the annual amount of GHGs avoided and/or reduced from our Green Bond 2 assets to be approximately 1.861 million metric tonnes of CO₂-equivalent.

The breakdown of the GHGs by sector is as follows:

- Renewable Energy assets: 1.848 million metric tonnes (99.3% of the total);
- Biofuels and Bioenergy: 0.013 million metric tonnes (0.7% of total).

This corresponds to taking approximately 395,125 passenger vehicles off the road, per year.



Green Loan Assets Supported by Green Bond 2†

COUNTERPARTY NAME	GREEN BOND SECTOR	SECTOR CLARIFICATION	USD EQUIVALENT AMOUNT	GHGS AVOIDED (IN TONNES CO ₂ /YEAR)
Buitengaats C.V. and others	Renewable Energy	Wind	69,424,800	1,200,000
Brookfield Asset Management (BRI Wind Farms 2)	Renewable Energy	Wind	40,022,423	72,777
Angel Trains Limited (multiple borrowers)	Public Ground Transport	Rail	59,691,574	N/A*
Pinnacle Renewable Energy Inc.	Biofuels and Bioenergy	Biomass Energy (fuel production)	24,651,254	N/A*
Nordsee One GmbH	Renewable Energy	Wind	73,945,525	574,834
GoldLinQ	Public Ground Transport	Light Rail	38,053,801	N/A*
Conifex Power Limited Partnership	Biofuels and Bioenergy	Biomass Energy (power)	2,119,792	13,427

† As At Q4 2018

* The Greenhouse gas emissions avoided for this asset were either not available or not applicable.

GREEN BOND 3

Issuer	EDC
Ratings	Aaa Stable (Moody's)/AAA Stable (S&P)
Format	SEC Registered
Size	US\$500 MM
Pricing date	1 June 2017
Maturity date	1 June 2020
Coupon	1.630% (semi-annual)

Greenhouse Gas (GHG) impact of Green Bond 3

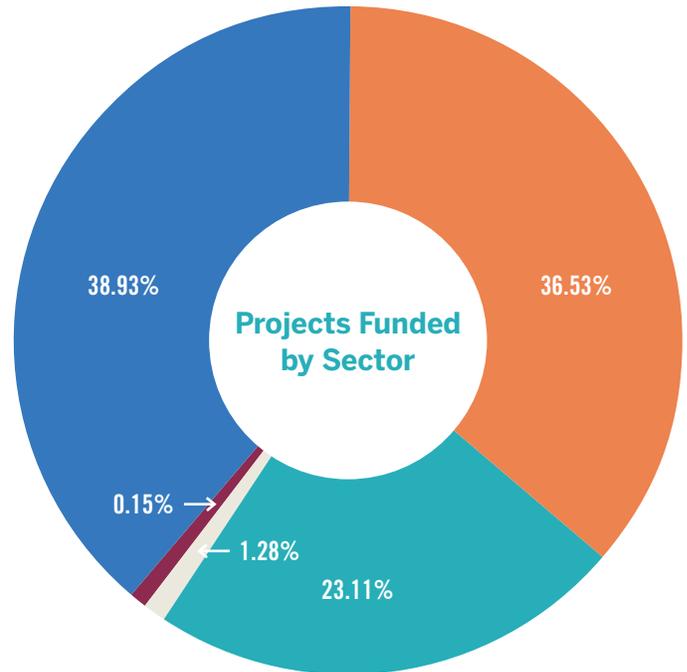
Our estimates take into account the future annual anticipated impacts of the assets, once operational. For this report, EDC has calculated the GHG emissions avoided, where applicable.

We have estimated the annual amount of GHGs avoided and/or reduced from our Green Bond 3 assets to be approximately 0.266 million metric tonnes of CO₂-equivalent.

The breakdown of the GHGs by sector is as follows:

- Renewable Energy assets: 0.264 million metric tonnes (99.3% of the total);
- Public Ground Transport: 0.002 million metric tonnes (0.7% of total).

This corresponds to taking approximately 56,466 passenger vehicles off the road, per year.



■ Renewable Energy	\$197,285,939 USD	■ Fuel Cell Technology	\$6,500,000 USD
■ Public Ground Transport	\$185,116,623 USD	■ Waste Management	\$745,764 USD
■ Water Management	\$117,091,943 USD		

Green Loan Assets Supported by Green Bond 3†

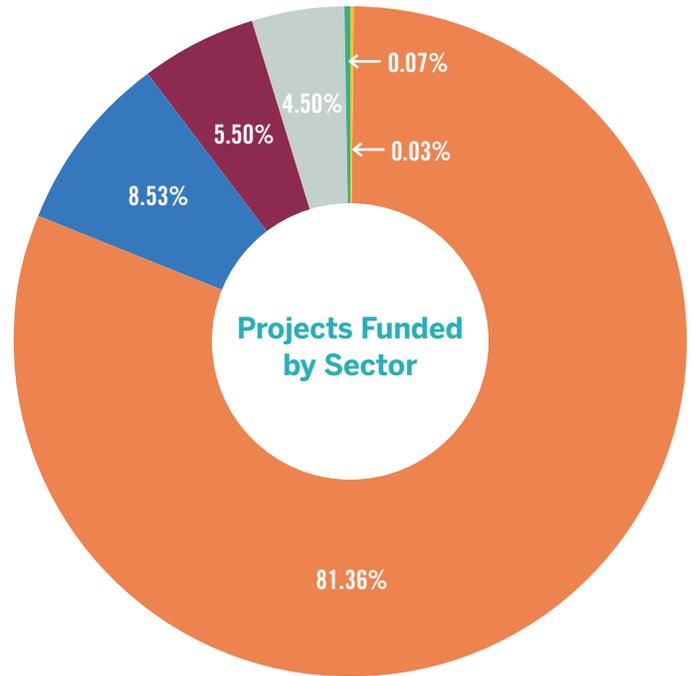
COUNTERPARTY NAME	GREEN BOND SECTOR	SECTOR CLARIFICATION	USD EQUIVALENT AMOUNT	GHGS AVOIDED (IN TONNES CO ₂ /YEAR)
(Caisse de Dépôt et Placement du Québec) London Array	Renewable Energy	Wind	75,819,414	125,951
Brookfield Renewable Partners L.P.	Renewable Energy	Wind	28,484,049	20,567
Chemchamp North America Corporation	Water Management	Chemical Recycling, Treatment	1,416,667	N/A*
Cubico Holdings (UK) 2 Limited	Renewable Energy	Wind, Solar	45,160,522	79,880
Bri Wind Farms 4 Limited	Renewable Energy	Wind	47,821,953	37,679
Terragon Environmental Technologies Inc	Waste Management	Waste-to-Energy, Water Treatment	279,097	N/A*
Titan Environmental Containment Ltd	Waste Management, Water Management	Geosynthetics	466,666	N/A*
SDP FinCo Pty Ltd.	Water Management	Desalination	115,675,276	N/A*
Transport for London (partial – 37% allocated)	Public Ground Transport	Rail	185,116,623	1,878
Hydrogenics Corporation	Fuel Cell Technology	Fuel Cell	6,500,000	N/A*

† As At Q4 2018

* The Greenhouse gas emissions avoided for this asset were either not available or not applicable.

GREEN BOND 4

Issuer	EDC
Ratings	Aaa Stable (Moody's)/AAA Stable (S&P)
Format	SEC Registered
Size	CAD\$500 MM
Pricing date	5 September 2017
Maturity date	1 September 2022
Coupon	1.800% (semi-annual)



Greenhouse Gas (GHG) impact of Green Bond 4

Our estimates take into account the future annual anticipated impacts of the assets, once operational. For this report, EDC has calculated the GHG emissions avoided, where applicable.

We have estimated the annual amount of GHGs avoided and/or reduced from our Green Bond 4 assets to be approximately 2.027 million metric tonnes of CO₂-equivalent.

The breakdown of the GHGs by sector is as follows:

- Public Ground Transport assets: 0.0032 million metric tonnes (0.16% of the total);
- Renewable Energy: 0.021 million metric tonnes (1.0% of total).
- Smart Grid Energy Infrastructure: 2.000 million metric tonnes (98.7% of the total).
- Emissions Abatement: 0.0028 million metric tonnes (0.03% of total).

■ Public Ground Transport	\$367,883,293 USD	■ Smart Grid Energy Infrastructure	\$20,333,337 USD
■ Renewable Energy	\$38,587,818 USD	■ Biofuels and Bioenergy	\$325,303 USD
■ Waste Management	\$24,866,071 USD	■ Emissions Abatement	\$155,298 USD

This corresponds to taking approximately 430,352 passenger vehicles off the road, per year.

Green Loan Assets Supported by Green Bond 4†

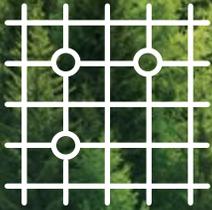
COUNTERPARTY NAME	GREEN BOND SECTOR	SECTOR CLARIFICATION	USD EQUIVALENT AMOUNT	GHGS AVOIDED (IN TONNES CO ₂ /YEAR)
Transport for London (Partial – 63% allocated)	Public Ground Transport	Rail	317,560,707	3,197
NGR Finance Pty Ltd	Public Ground Transport	Rail	50,322,586	N/A*
RM2J inc.	Emissions Abatement	Fuel Efficiency Technology	155,298	2,883
Greenpac Mill LLC	Waste Management	Recycling	24,866,071	N/A*
MapleCo Ltd	Smart Grid Energy Infrastructure	Smart Meters	20,333,337	2,000,000
Quadrogen Power Systems, Inc.	Biofuels and Bioenergy	Bio-gas (technology)	325,303	N/A*
Polesine S.A.	Renewable Energy	Wind	38,587,818	20,880

† As At Q4 2018

* The Greenhouse gas emissions avoided for this asset were either not available or not applicable.

Calculation of the GHGs avoided or reduced is conducted in accordance with internationally-recognized emissions models and protocols. Our estimates take into account the future annual anticipated impacts of the assets, once operational. Where possible, the estimates have been prorated to capture the percentage of EDC support in relation to overall project cost. EDC will continue to refine our approach as GHG accounting methodologies evolve.

GHG EMISSIONS AVOIDED BY SECTORS



SMART GRID ENERGY INFRASTRUCTURE

2,000,000 tCO₂/yr

48.1% GHG
Emissions avoided



RENEWABLE ENERGY

2,132,568 tCO₂/yr

51.3% GHG
Emissions avoided



OTHER SECTORS

21,385 tCO₂/yr

0.5% GHG
Emissions avoided



Canada

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