

Green City Bonds – North America

July 28 2015

Dial-in +1 631 267 4890
Meeting number 846 764 366
Password: cities



Green
City
Bonds

You must be logged into webex to ask questions

Building a green bond market that will finance the development of
low carbon and climate resilient cities in North America



AS YOU SOW



Agenda

- Welcome
- Introduction to the Green City Bonds coalition
- City speakers list / presentations
- Brief Q & A with Coalition members
- Q & A with all participants

Dial-in +1 631 267 4890

Meeting number 846 764 366

Password: cities

You must be logged into webex to ask questions



AS YOU SOW



Green bonds rapid growth

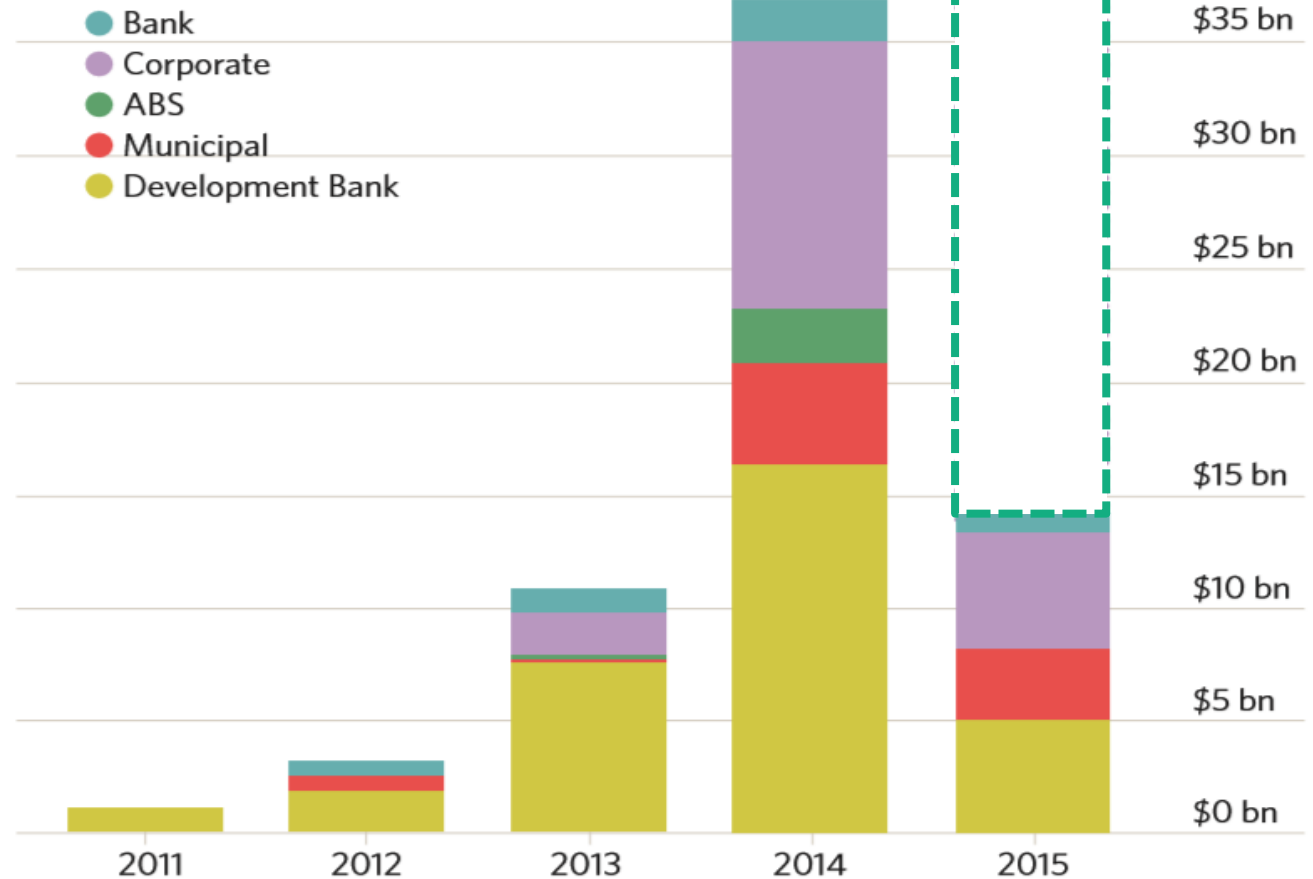
Corporate and municipal green bonds have become a key part of the market

Use of Proceeds

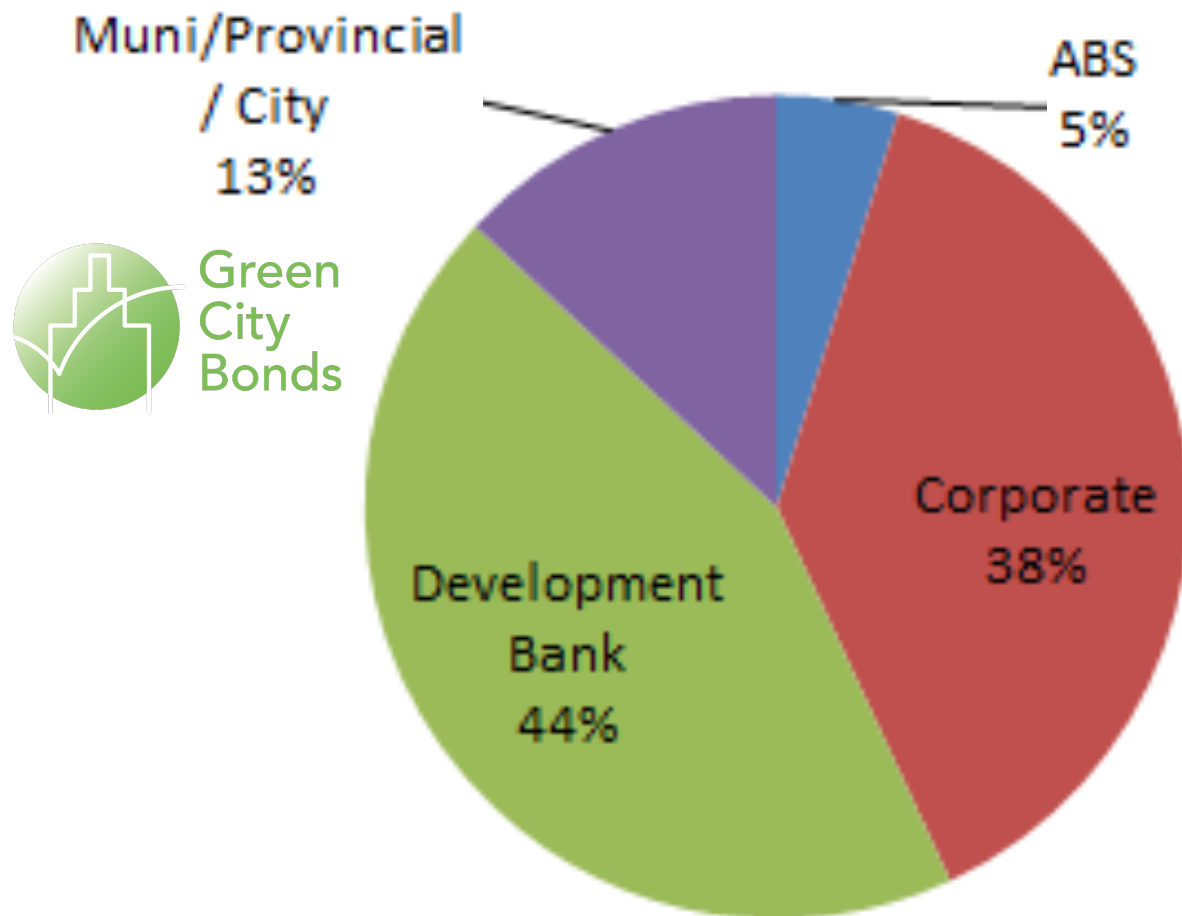
Transparency & reporting

Vanilla

Refinance as well as projects



Issuer types 2014



Benefits

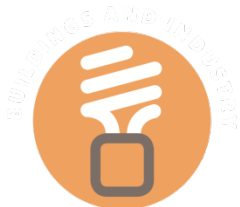
- Investor diversification
- Stickiness
- Longer tenors
- Multi-asset for scale



Mitigation & adaptation sectors



Renewable energy
Nuclear, bioenergy
Geothermal



Low-carbon buildings
Greening industry



DFIs, munis,
banks, financing mixed
projects



Low emission vehicles
Electric Vehicles
Rail, BRTs



Sustainable water mngmt
Water infrastructure
Storm adaptation



Waste & pollution mngmt
Methane reduction
Recycling



Agriculture
Food supply chain
Forestry, wood, paper

Science-based definitions:
www.ClimateBonds.net/Taxonomy

US Cities face an infrastructure and climate crisis

- \$3.6 trillion by 2020 in basic infrastructure needed
- \$188 billion in city weather damages in metro areas
- Most carbon emissions emanate from cities
- Reduction in productivity
- Opportunity for increased productivity and quality of life
- But standards are needed to elevate the right projects



AS YOU SOW



What's the state of the US muni market?

- \$3.7 trillion of muni debt held by investors
- 70% individuals (direct and indirect)
- Only \$600 billion are taxable
- Some federal subsidies available to attract tax exempts
- Green muni bonds = trusted market + additional benefits
- Benefits: diversification, yield(?)... better cities



AS YOU SOW



Types of Green Muni Bonds

TYPE	PROCEEDS RAISED BY BOND SALE	DEBT RECOURSE	EXAMPLE
General Obligation Bond	Earmarked for green projects	Full recourse to the issuer; therefore, same credit rating applies as to the issuer's other bonds.	State of California issued \$300 million in Aa3/A green bonds with final maturities in 2037. The September 2014 issuance was backed by the State's General Fund, 90 percent of which is derived from personal income tax, sales and use tax, and corporation tax). Proceeds went to fund a variety of projects across several categories, including air pollution, clean water and drinking water, and flood prevention.
Revenue Bond	Earmarked for green projects	Revenue streams from the issuer, such as taxes or fees, provide repayment for the bond.	Iowa Finance Authority issued \$321.5 million of green bonds in February 2015, with 1- to 2-year tenors, 1 to 5 percent coupon, rated AAA. The green bonds were revenue bonds, backed by the revenues of the Finance Authority rather than its full balance sheet. Proceeds were earmarked for water and wastewater projects.
Project Bond	Ring-fenced for the specific underlying green project(s)	Recourse is only to the project's assets and revenue.	No issuance seen in the market yet
Securitized Bond	Either (1) earmarked for green project or (2) go directly into the underlying green projects.	Recourse is to a group of financial assets that have been grouped together as collateral.	Hawaii State Government issued \$150 million, AAA-rated of green asset-backed securities in November 2014. The securities were issued in two tranches: \$50 million, 8-year, 1.467 percent coupon and \$100 million, 17-year, 3.242 percent coupon. The bonds were backed by a Green Infrastructure Fee applied to the bills of the State Utility's electricity customers. Proceeds went to loans to install distributed solar panels, connectors, and storage.



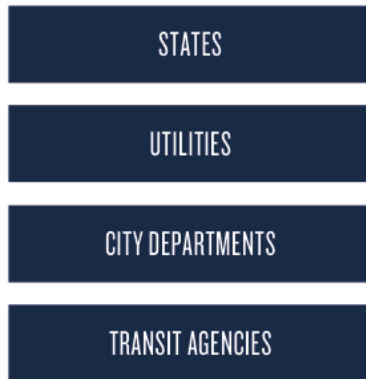
AS YOU SOW



How to issue a Green Muni Bond?

PROJECT IDENTIFICATION AND PREPARATION

Public sector decision-makers identify potential capital projects.



CAPITAL PROGRAM

Identify and prioritize projects using green criteria.



In this phase, the green projects (i.e., those eligible for green bonds) are isolated for additional analysis.

GREEN BOND-FUNDED PROJECTS

PROCEEDS FROM GREEN BOND ISSUANCE



Approved projects screened using asset class green standards.



AS YOU SOW



What's the Green City Bond Coalition's mission?



ADVANCE THE DISCUSSION

Provide information on investor requirements, green asset class standards and a practical “how to” guide to issuance



INCREASE LIQUIDITY

Work with cities, underwriters and other market participants and stakeholders to grow the market of low-carbon, resilient and sustainable infrastructure, growing the asset class



BUILD ISSUER NETWORK

Expand the international learning network and community of practice to the US and encourage common disclosure formats and platforms measuring global impacts

Today's city speakers

- Barbara Whitehorn, Chief Financial Officer, City of Asheville
- Mark Kim, Chief Financial Officer, DC Water
- Jackie Dingfelder, Senior Policy Director and Jonas Biery, Debt Manager, City of Portland
- Mike Brown, Capital Finance Analyst, San Francisco Public Utilities Commission



AS YOU SOW



City of Asheville

Barbara Whitehorn, Chief Financial Officer

Water System Refunding Bonds Refunding 2005 and 2007 Revenue Bonds

\$50,625,000 par value

Defined as **Green** for underlying projects

- Water loss reduction; transmission and delivery improvements

First Green Bond issue in North Carolina



Washington, D.C.

Mark Kim, Chief Financial Officer, DC Water



City of Portland

Jackie Dingfelder, Senior Policy Director

Jonas Biery, Debt Manager, City of Portland



City of San Francisco

Mike Brown, Capital Finance Analyst,
San Francisco Public Utilities Commission



Q & A with Green City Bonds Coalition

- Doug Sims, NRDC dsims@nrdc.org
- James Alexander, C40 jalexander@c40.org
- Amelia Timbers, As You Sow atimbers@asyousow.org
- Katie Walsh, CDP katie.walsh@cdp.net
- Peter Ellsworth, Ceres ellsworth@ceres.org
- Sean Kidney, CBI sean@climatebonds.net



AS YOU SOW



General Q & A

1. To ask a question, you must be logged into the webex.
2. You will need to “raise your hand” next to your name and we will call on you in the order we saw your name.
3. Once called upon, unmute yourself ask your question and then mute yourself again

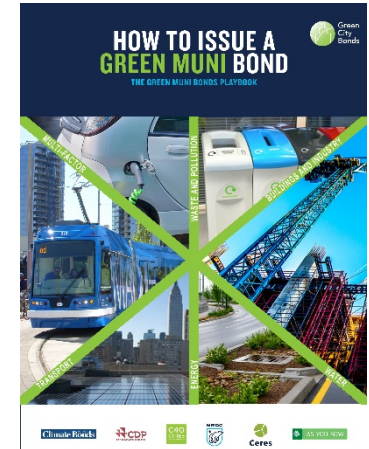


AS YOU SOW



Next Steps

- Green City Bonds Webpage
- Resources e.g. Playbook
- Ongoing coalition support e.g. technical issues
- Cities data
- Events (previous city roundtables, upcoming Charlotte workshop)
- Cities activities



AS YOU SOW

