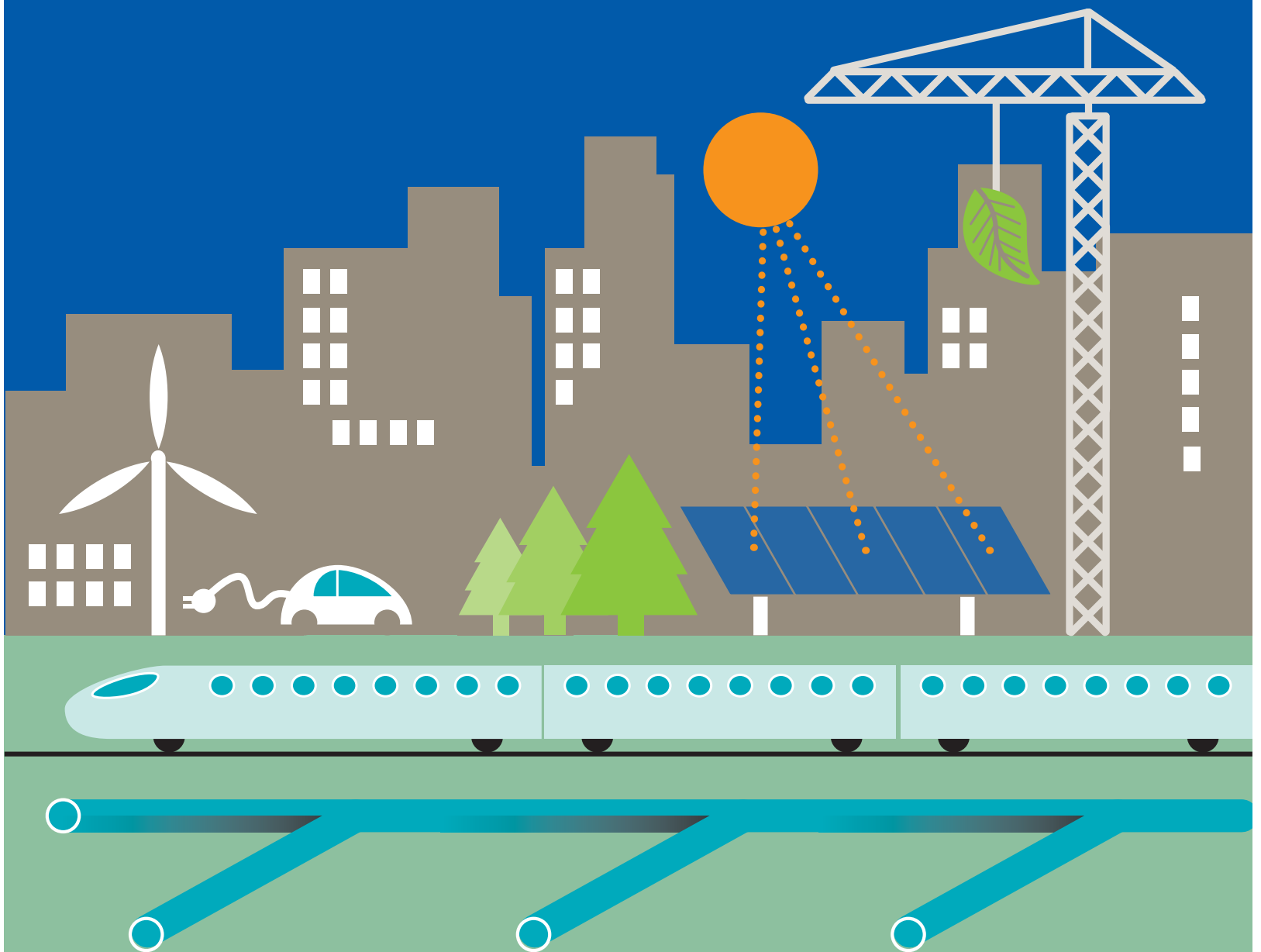




Green
City
Bonds

HOW TO ISSUE A GREEN CITY BOND

THE GREEN CITY BONDS OVERVIEW



SETTING THE SCENE: GREEN BOND MARKETS OFFER AN OPPORTUNITY TO MEET GLOBAL GREEN INFRASTRUCTURE INVESTMENT NEEDS

It is estimated that US\$4.3 trillion is required annually for mitigation alone in the urban environment globally.

Substantial adaptation investment will also be needed to protect the world's cities from sea level rises, storm surges and other extreme weather events, whose frequency and intensity will increase with climate change.

Access to capital at scale is critical for cities to realize low carbon and climate resilience transitions. This is especially important for cities in developing countries and emerging markets as they will see the most growth in the coming decades. They will need to shift from building business-as-usual to green infrastructure. As green infrastructure often has higher levels of upfront capital expenditure, access to low-cost capital is essential.

Bond markets can be a source of low-cost capital for cities and municipalities, and city affiliated entities including utilities, corporates and development bank issuers.

Green bonds are bonds where proceeds are earmarked for green projects. They have emerged as an ideal financing tool to raise capital for climate mitigation and adaptation.

Green City Bonds, which fund green projects in cities, can be issued to meet the investment requirements for climate-friendly urban infrastructure, such as low-carbon buildings, metro rail systems, wastewater treatment plants and renewable energy (see next page).

There is strong investor demand for green bonds, which are consistently oversubscribed. This rapidly growing market (see below) has the potential to help cities attract new investors and competitively priced capital for low-carbon and climate-resilient infrastructure investments.

The global Green City Bonds Coalition (GCB) helps municipalities tap into the green bond opportunity

The global GCB (Climate Bonds Initiative, C40, CDP, ICLEI and ICMIF) is working to accelerate mitigation and resilience efforts by helping cities tap into the green bond opportunity.

For more information please contact info@climatebonds.net.

Pioneer issuers of Green City Bonds have been:

Europe

France: Île-de-France, City of Paris

Sweden: City of Stockholm and Stockholm Lans Landsting, City of Gothenburg, Orebro Kommun

UK: Transport for London

Emerging Economies

South Africa: City of Johannesburg

USA

San Francisco Public Utilities Corporation, City of Los Angeles Washington DC Water City of Asheville, City of Puget Sound, City of St Paul Chicago Board of Education, City of Tacoma, City of Venice, Florida City of Hartford, USA

Green City Bonds can be issued by any bond issuing entity:

Including municipalities; utilities; public-private partnerships; and private companies building green infrastructure, including low-carbon buildings.

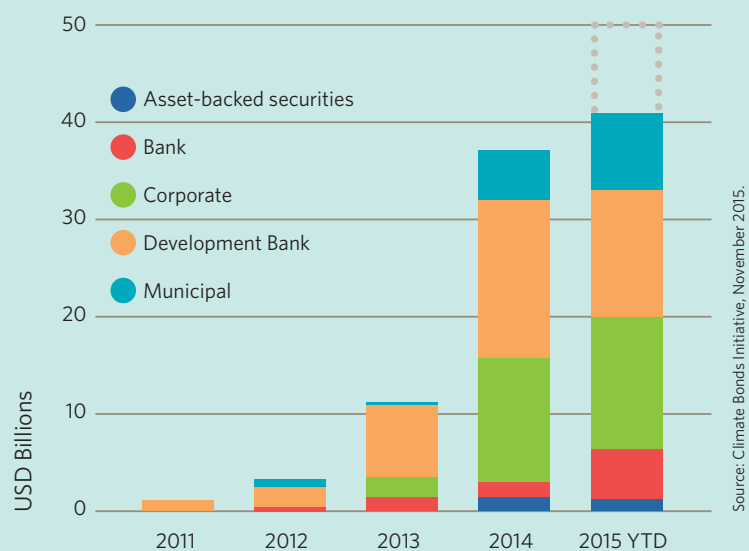
The projects and assets that green bonds can be issued against must just be relevant to making cities low-carbon and climate resilient.

RAPID GROWTH OF GREEN BOND MARKET

The first green bond, called a Climate Awareness Bond, was issued by the European Investment Bank in 2007. During the initial years, the green bond market was small and comprised only bonds from multinational development banks. In early 2013 the International Finance Corporation (IFC) issued its first \$1 billion benchmark green bond - it sold out in one hour and was several times oversubscribed. That gained the market's attention.

In 2014 markets grew rapidly. Driven by interest from insurance and pension funds seeking to address their concerns about climate change, US\$36.8 billion were issued, tripling 2013 levels. Over US\$39 billion has been issued in 2015 by the start of COP21 in Paris. 2015 also saw the first green bonds from India, China, Brazil and Mexico demonstrating major advancements in emerging economies.

Municipal green bonds have become a key part of the broader green bond market



PROJECTS ELIGIBLE FOR GREEN BOND PROCEEDS



GREEN BUILDINGS, GREEN INFRASTRUCTURE

- Low-carbon buildings
- Energy efficiency projects
- LED lighting installation
- Public housing built to high energy efficiency standards



CLEAN WATER AND UTILITIES STORM ADAPTATION

- Clean water and drinking water
- Stormwater drain adaptation measures
- River revitalization and preservation
- Habitat restoration, flood mitigation
- Ports infrastructure to address increased storm surge risk



CLEAN TRANSPORTATION

- Mass transit: subways, light rail
- Rolling stock for railways
- Rail track capital expenditure
- Rail line electrification
- Bus Rapid Transit Systems (minimum ITDP bronze rated)
- Electric vehicles, related infrastructure
- Hybrid bus fleets



CLEAN ENERGY/ENERGY STORAGE

- Solar and wind energy generation
- Grid connections to renewable energy generation
- Hydro-electricity generation (run of river or existing dams)
- Biomass energy generation
- Energy storage
- Rehabilitation of transmission facilities to reduce greenhouse gas emissions
- District heating systems



INDUSTRIAL EFFICIENCY

- Cement production: emissions reductions processes
- Waste heat recovery systems
- Energy efficient motors



WASTE MANAGEMENT METHANE REDUCTION

- Wastewater and sewage treatment plants with methane gas capture
- Low-emission garbage trucks and related infrastructure
- Recycling plants
- Qualifying waste-to-energy generation



AGRICULTURE, BIOENERGY FORESTRY

- Sustainable agriculture, forestry, and land use
- Agriculture produce supply chain improvements to reduce waste



Climate Bond Certified

The Climate Bonds Initiative is developing international standards for the green bond market

The Climate Bonds Standard is an investor-led certification scheme for green and climate bonds. It has a Board made up of representatives of US\$34 trillion of assets under management, and some 120 international organizations—scientists, industry experts and investors—involved in expert committees.

The Climate Bonds Standard incorporates the transparency and reporting requirements of the voluntary Green Bond Principles as well as providing clear definitions of what qualifies as “green”.

Independent review of green credentials is the norm. Certification provides a low cost way of getting a review.

HOW TO GET CERTIFIED

The Climate Bonds Standard provides a simple certification and verification process for potential issuers.

Achieving certification is straightforward:

1. Locate qualifying green assets or projects. These can be existing assets or projects to be completed. Details at <http://www.climatebonds.net/standards>
2. Obtain independent verification of compliance. Use approved verifiers like Ernst & Young, KPMG, Bureau Veritas, Trucost, Sustainalytics or DNV-GL. See <https://www.climatebonds.net/standards/assurance>
3. To finalize certification send in a verification report to the Climate Bond Standards Board for review. Board members will undertake a comprehensive review to decide on the application.

HOW TO ISSUE A GREEN CITY BOND

A STEP-BY-STEP GUIDE



1. Identify qualifying green projects and assets

The key feature of a Green City Bond is that the proceeds go toward green projects or assets. The “greenness” of the issuing entity does not matter—it’s about the physical assets or projects.

If you can issue a municipal bond, in principle, you can also issue a Green City Bond if you have qualifying green assets or projects. You have to disclose your assets and projects.

Green City Bonds can be issued by:

- City governments
- Utilities: water, transport, energy, etc
- Corporations developing, building or managing green assets for issuers
- States or development banks

Guidance about qualifying assets or projects can be obtained from the Climate Bond Standards Scheme (<http://www.climatebonds.net/standards>).



2. Arrange independent review

Credible independent review and certification protects your reputation and provides confidence to investors about the quality of green investments being made. Verifiers can also help identify green assets.

Cities can see many benefits from the issuance of Green City Bonds:

- Access to low-cost debt capital markets
- Investor diversification
- Marketing of climate change plans
- Increased collaboration between financial and environmental departments
- Connecting with citizens’ environmental concerns



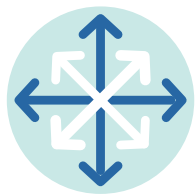
3. Set up tracking and reporting

The issuer establishes procedures for tracking and reporting on the use of proceeds.

To ensure all proceeds are applied to green projects, the sum of the cash on hand and amounts invested in assets or projects must not be less than the amount of the bond.

The Green City Bonds Coalition enables cities to achieve these benefits by offering:

- Webinars and seminars
- Facilitation of knowledge exchange
- Access to Green City Bonds Guides on issuance and toolkits
- Access to the global Green Infrastructure Investment Coalition as a platform for engagement with investors and development banks.



4. Issue your green city bond

The usual steps apply here, as for any other conventional bond:

- Structure the bond, working with an investment bank or advisor
- Obtain a credit rating



5. Monitor use of proceeds and report annually

At least annually, issue a public report to confirm that the funds are still properly allocated to green projects.

This can be done by an auditor or in a letter signed by an authorised officer of the municipality.

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

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