

# How to issue a Green Bond in China

A STEP-BY-STEP GUIDE



## PREPARATION

### 1. Identify qualifying green projects and assets

The key feature of a Green Bond is that the proceeds are for green projects or assets. The “greenness” of a company does not matter - it’s about the physical assets or projects.

Guidance about what assets or projects qualify as green can be found at the *China Banking Regulatory Commission* or the *International Climate Bond Standards Scheme*.

### 2. Arrange independent review

Credible independent review and verification protects your reputation. Verifiers can also help identify green assets.

Verifiers include Clean Development Mechanism (CDM) or Emission Trading Schemes (ETS)-qualified organisations. International issuers can use *Climate Bonds approved verifiers* to confirm their green credentials.

### 3. Set up tracking and reporting

The value of the assets or projects must stay equal to, or greater than, the amount of the bond. The issuer needs to track this and be able to show how they are doing it — transparency is essential.

## ISSUANCE

### 4. Issue your Green Bond

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

- Seek required issuance approval from regulators
- Structure the bond working with an investment bank or advisor; get credit rating.
- Market and price the Green Bond.

### 5. Monitor use of proceeds and report annually

Confirm at least each year, through a public report, 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 company.

That’s it!

See next page for more detailed information.

This report is part of broader projects on *Greening China’s Financial Markets*, involving the International Institute for Sustainable Development working in partnership with the Development Research Centre of the State Council and the People’s Bank of China’s Chief Economist.

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# It's easy to issue a Green Bond

## Any type of bond can be a Green Bond if assets qualify.

What matters is that the proceeds go to green assets or projects.

If you're able to issue a bond, then in principle you can issue a Green Bond if you have qualifying green assets or projects.

## You have to disclose what those assets and projects are

And report at least annually on their green credentials.

## The usual bond issuance requirements apply

You will need approval from the relevant regulator:

Local government bonds: Ministry of Finance.

Enterprise bonds: Approval by National Development and Reform Commission (NDRC).

Corporate bonds: China Securities Regulatory Commission (CSRC).

Medium-term notes and commercial paper: registration with the National Association of Financial Markets Institutional Investors (NAFMII).

SME private placement bonds: registration with securities exchanges.

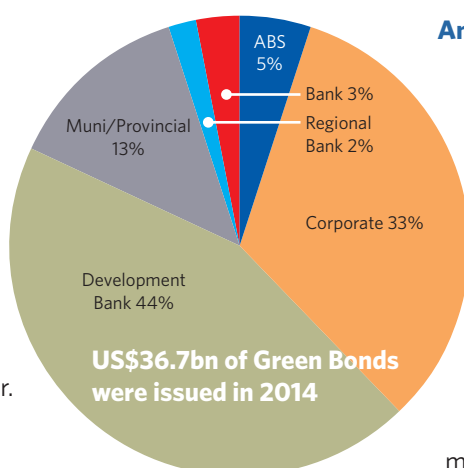
The bond will need to be structured, working with an investment bank or advisor.

You may need a credit rating.

## Benefits of issuing a Green Bond

- Be a leader in what will become a big market.
- Demonstrate your green credentials: to investors, to government, to citizens. Meet your CSR objectives.
- Investor diversification: attract new investors interested in supporting green projects.
- Larger sized bonds are attractive to big investors. A Green Bond allows issuers to combine different environmental assets, such as solar, water and pollution clean-up investments into a larger bond.

For governments in China green bonds provide a technology-neutral tool to encourage the flow of capital to green projects by providing support through regulation, tax benefits and credit enhancements.



## Anyone creditworthy can issue a green bond

Internationally, development banks, major commercial banks, large companies and municipalities are all issuing green bonds.

As with any new bond market, the green bonds market was kick-started with high-grade issuance, in this case from development banks. The European Investment Bank issued the first green bond in 2007, followed by the World Bank in 2008. Corporates and municipalities entered the market in 2013.

## ANY TYPE OF BOND CAN BE A GREEN BOND, IF ASSETS COMPLY - AND IN ANY CURRENCY

Type	Proceeds raised by bond sale	Debt recourse	Example
Green use of proceeds Bond	Earmarked for green projects.	Standard/full recourse to the issuer; therefore same credit rating applies as to the issuer's other bonds.	European Investment Bank has issued more than EUR7bn (RMB60bn) in "Climate Awareness Bonds" in various currencies since 2007. Proceeds are earmarked for renewable energy and energy efficiency projects (see example 1).
Green use of proceeds Revenue Bond	Earmarked for green projects.	Revenue streams from the issuer such as fees are the source of repayment for the bond.	New York State Environmental Facilities Corp issued a US\$213m (RMB1.33bn) green water bond in June 2014. Proceeds are earmarked for drinking water and wastewater infrastructure projects.
Green Project Bond	Ring-fenced for the specific underlying green project.	Recourse is only to the project's assets and balance sheet.	Big60million Ltd issued a Climate Bonds Standard certified GBP4.6m bond (RMB43m) specifically for the Willersey Solar Farm project in September 2014.
Green Securitised Bond	Either earmarked for green project or go directly into the underlying green projects.	Recourse is to a group of loans or assets that have been grouped as collateral (e.g. solar loans).	Hannon Armstrong, US listed sustainable infrastructure investor, issued a US\$100m (RMB626m) asset-backed securitisation of cash flows from wind, solar and energy efficiency installations in December 2013.

To review details of all Green Bonds issued see [www.climatebonds.net](http://www.climatebonds.net)

# The 5 Steps for issuing a Green Bond

## 1. Identify qualifying green projects and assets

### Green earmarking is the key feature.

That means that the proceeds are for green projects or assets.

The “greenness” of a company does not qualify - it’s about the physical assets or projects.

### Existing assets or new capital expenditure can be used.

Similar to the process of re-financing, proceeds of a Green Bond can be applied to existing assets, such as a solar energy plant already operating. For example, a solar energy company can issue a Green Bond to re-finance their existing assets, and then use the funds to develop new solar plants.

Proceeds can also be allocated to upcoming capital investment, as long as funds are fully deployed within a maximum of two years.

### Loan books can be used as well as physical assets

For financial institutions - development banks, commercial banks and others - books of green loans that have provided funding to these categories of investment would qualify for green bond issuance.

#### Example: European Investment Bank ‘Climate Awareness Bond’

The European Investment Bank (EIB) was an early mover in the green bond space and has been issuing its “Climate Awareness Bonds” since 2007. The bonds are being issued to finance EIB’s lending to projects in the fields of renewable energy and energy efficiency. The list below shows a selection of the climate awareness bonds it has issued since:

- May 2010: EUR300m (RMB 2bn) but denominated in AUD & ZAR
- November 2012: SEK750m (RMB 540m) 11 year tenor
- July 2013: EUR650m (RMB 4.3bn) 6 year tenor
- September 2013: taps November 2019 bond for EUR250m (RMB 1.6bn)
- January 2014: CHF350m (RMB 2.2bn) 11 year tenor
- January 2014: taps November 2019 bond again for EUR350m (RMB 2.3 bn)
- October 2014: US\$1bn (RMB 6.3 bn) 10 year tenor
- February 2015: EUR400m (RMB 2.6 bn) 5 year tenor

As can be seen from these examples, EIB’s bonds have been issued in various currencies and with a range of tenors. On a number of occasions EIB has also tapped already existing bonds.

**Guidelines available online** - See the next page for guidance about what assets or projects qualify as Green. Greater detail can be found in the China Banking Regulatory Commission’s *Notice on Filing and Reporting in Green Credit Statistics Forms (2013)* or the *International Climate Bond Standards Scheme*. Find links to both at <http://climatebonds.net/China>

### Treasury and environmental departments within the issuing organisation need to work together

The identification of qualifying assets and projects will require cooperation between finance and environmental departments; establishing cooperation between them at an early stage saves time throughout the process.

Standard documentation under current MTN programs can be used.

### Re-labelling opportunity

US\$164bn of outstanding bonds have been identified in China where proceeds of the bonds are for green assets. These bonds could be re-labelled as green bonds if verification and reporting procedures are established.

The vast majority of bonds outstanding are funding rail assets, with renewable energy being the second largest category. Most bonds for clean energy in China have been issued for solar power projects, such as China Datang Renewable Power Corporation’s US\$995m (RMB 6.2bn) of bonds outstanding for solar per June 2014. This is followed by Yalong River Hydropower Development Co. with US\$973m (RMB 6bn) of bonds outstanding for hydro projects, and Guodian Technology and Environment Group Corporation with US\$628m (RMB 3.9bn) outstanding for a mixture of renewable energy projects

## 2. Arrange independent review

Both policymakers and climate-friendly investors want assurance that green investments are genuinely green.

Internationally, the majority of Green Bond issuers use independent review to increase investor confidence in the credentials of projects funded by Green Bonds. The first Green Bond with an independent verification was the World Bank’s inaugural issue in 2008.

Independent reviews are typically provided by organisations with a strong environmental knowledge base — for example, CDM or ETS verifier organisations in China. They will look at:

- The green credibility of the proposed Green Bond investment categories.
- The processes established for tracking funds and for reporting.

Reviewers can also help identify green assets.

The Climate Bond Standards Board has a simple certification and verification process in place for potential issuers.

Using accepted standards when preparing a Green Bond for issuance reduces the cost of independent review of the green credentials and improves tradeability of Green Bonds.

For green RMB issuance in the international markets, Climate Bonds approved verifiers can be used. These include Bureau Veritas, DNV GL, EY and KPMG. For more information see <http://climatebonds.net/China>

# Guidance: qualifying green assets

Within these broad categories there are further details needed to qualify as green.

International green bond issuers can use the Climate Bonds Standard and Certification Scheme to have their green credential confirmed. The Scheme is an international industry Standards project, involving over 80 organisations. The Climate Bond Standards Board is made up of groups representing US\$34 trillion (RMB 213tn) of assets under management.

 <p><b>Renewable energy</b> <b>Energy storage</b></p>	<p>Renewable energy generation projects, including construction, operation and maintenance of wind and solar power projects. Other renewable energy projects include geothermal and tidal. Rehabilitation of power plants and transmission facilities to reduce GHG emissions; this includes smart grid projects. Manufacturing of energy efficient and renewable energy products.</p>
 <p><b>Green buildings</b> <b>Green infrastructure</b></p>	<p>Greening of existing buildings, including projects making significant improvements to the building envelope, energy and water facilities and energy metering. Greening of new buildings includes the construction, operation and maintenance of high star rated green buildings. Energy efficiency and conservation projects in buildings.</p>
 <p><b>Industrial Efficiency</b></p>	<p>Industrial energy and water conservation projects for upgrading technology and process, equipment and facilities to reduce energy use, water use and pollutants. This can include cogeneration projects. Circular economy projects that improves resource reuse, remanufacture and recycling.</p>
 <p><b>Clean transport</b></p>	<p>Rail transport projects, including construction, equipment purchasing and technology upgrading. Urban motor and electric public transport projects, including charging stations for electric vehicles. Urban rail transit projects, including light rail, metro, monorail, tram networks etc Projects to improve energy efficiency of transportation systems can also qualify.</p>
 <p><b>Clean water and utilities</b> <b>Storm adaptation</b></p>	<p>Clean water and drinking water projects, including projects for safe rural drinking water. Small-scale irrigation and water conservation construction projects to build highly efficient water-saving irrigation systems. Urban water-saving projects to reduce water loss from pipe leakages in the distribution system. River revitalisation and preservation, habitat restoration. Marine ecosystem conservation. Prevention, control and adaptation to droughts and flood.</p>
 <p><b>Waste management</b> <b>Methane reduction</b></p>	<p>Waste management: waste-to-energy generation. Wastewater treatment and methane capture.</p>
 <p><b>Agriculture, bioenergy</b> <b>Forestry</b> <b>Food supply chain</b></p>	<p>Green agriculture development projects includes organic agriculture production that adopts sustainable agriculture techniques and ecological principles. Agriculture supply chain projects can also qualify. Green forestry development projects includes afforestation projects. Construction, operations and maintenance of biomass power generation projects. Nature protection, ecological restoration and disaster prevention projects includes ecosystem restoration, soil erosion prevention.</p>

# The 5 Steps for issuing a Green Bond

## 3. Set up tracking and reporting

Full disclosure on the allocation of proceeds (to provide transparency to the investor) is necessary for a Green Bond.

Key rules:

- The proceeds from green bonds must be used only for specified projects, so there must be systems in place to segregate green bond proceeds and keep track of their use. Issuers that have done this in the past have used separate coding for the green bond proceeds and have created special green bond allocation codes to help ensure funds are used properly.
- Monitoring procedures must be set up to make sure proceeds are never knowingly placed in non-green investments (such as greenhouse gas intensive projects) throughout the life of the green bond.
- The nominal value of the pool of assets or projects must stay equal or greater than the amount of the bond. An issuer needs to track this and be able to show how they're tracking; transparency is essential.

The Green Bond Principles recommend that this is included in the use of proceeds section of the legal documentation for the bond issuance.

### Transparency in China's municipal bond market

Disclosing use of proceeds is already done by Guangdong province, the first to issue a bond under the pilot scheme for municipal bond issuance. The issuance, in June 2014, was stated to go to low-income housing and highway construction projects.

The law for municipal bond issuance passed in August 2014 requires municipalities to release prospectuses on their outstanding debts and on use of proceeds.

## 4. Issue your Green Bond

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

- Seek required issuance approval from regulators. See page 2 for a list of regulators.
- Structure the bond, working with an investment bank or advisor. As noted on page 2, any sort of structure, from corporate private placement to asset-backed securities, can be used.
- Market and price the Green Bond.

Creditworthiness is judged the same as other bonds. Issuers should expect to get credit rated in the usual manner.

### Example of municipal Green Bond: Gothenburg, Sweden, municipal Green Bond

In September 2013 the Nordic city of Gothenburg in Sweden issued a municipal Green Bond. The city specified that the proceeds would be linked to green assets funding public transport, water management, energy and waste management projects.

Gothenburg committed to post-issuance reporting via an annual investor letter and a list of projects financed, which are publicly available on its website. It also made its Green Bond framework public so that its decision making process for eligible projects is transparent.

Gothenburg arranged independent verification of its Green Bond framework from CICERO and made the resulting report publicly available.

The proceeds of the bond are earmarked for environmental projects, but returns and risks are guaranteed by Gothenburg's full balance sheet. The bond received ratings of AA+ and AAA from S&P and Moody's respectively.

The bond was issued for SEK500m (RMB 363m) with a 6 year tenor as part of a potential SEK2bn (RMB 1.45 bn) Green Bond programme. The bond was several times oversubscribed and was followed by a second green bond in May 2014. This time for SEK1.8bn (RMB 1.36bn), again with a 6 year tenor.

Gothenburg is now a member of the global Green City Bonds coalition.

### Example of corporate Green Bond: Electricité de France EUR1.4bn Green Bond

Electricité de France (EDF) issued a EUR1.4bn (RMB 9.3bn) 7.5 year green bond in November 2013. It linked the bond to wind, solar and hydro energy assets. This bond earned a rating of A+, Aa3 and A+ from S&P, Moody's and Fitch.

In 2012, EDF dedicated almost EUR2bn (RMB 13.3bn) to renewable energies, so this green bond issuance was in an area EDF was already active. It chose to use the Green Bond label to attract new investors.

The bond was a great success among institutional investors and was two times oversubscribed. This strong demand came from investors wanting to integrate environmental, social and governance (ESG) criteria into their portfolios.

EDF agreed with the need for independent review and arranged for ESG ratings company Vigeo to draw up eligibility criteria that funded projects must comply with. EDF will disclose the use of funds annually and audit firm Deloitte will verify this disclosure.

# The 5 Steps for issuing a Green Bond

## 5. Report regularly

To maintain the status of a Green Bond an issuer needs to provide confirmation to investors at least each year that the funds are still properly allocated to green projects.

Confirmation involves:

- A letter from the company auditor or a letter signed by an authorised officer of the company.
- A report that sets out the environmental impact of the Green Bond, highlighting the main features of the Green Bond to investors, shareholders, and other stakeholders.

For corporates and other issuers with annual reporting, there is potential to integrate reporting on Green Bonds with quarterly or annual financial reports.

Reports should also be publicly available, such as on the issuer's web site.

Where possible, reports should also include a report on the environmental impact of specific investments, such as the amount of pollutants prevented from entering the air or water, or the total energy saved.

### Subsequent green bond issuances are even simpler

For subsequent Green Bond issuances, the process is even simpler.

Repeat Green Bond issuers can use same framework for identifying green projects and assets, the same independent reviewer and the same processes for management of proceeds and reporting. If they need to replenish the pool of assets linked to the bond they can look to other qualifying green assets.

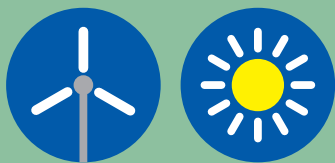
Repeat issuers of Green Bonds say it is like a normal bond issuance process the second time around.

## In Summary

### Identify green assets and projects

For example, renewable energy, clean water, public transport.

Guidance about what qualifies as Green can be found at the *China Banking Regulatory Commission* or the *International Climate Bond Standards Scheme*.



### Arrange independent review

Credible independent review and verification provides reputation insurance. Verifiers can also help identify green assets.

More details at <http://www.climatebonds.net/China>



### Set up tracking and reporting

The nominal value of the pool of assets or projects must stay equal or greater than the amount of the bond. An issuer needs to track this and be able to show how they're tracking; transparency is essential.



**Issue the Bond!**

### Report regularly

Confirm each year 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 company.

