



About Green Bonds

OVERVIEW

Green bonds are fixed income debt instruments like any other bond. They offer a stated return, and a promise to use the proceeds to finance or re-finance, in part or fully, new or existing sustainable projects. Generally, green bonds fund environmental, social and governance improvements or projects, and are issued by the public, private or multilateral entities to finance projects related to a more sustainable economy and that generate identifiable climate, environmental or other benefits. These projects may include renewable energy and energy efficiency projects, clean public transportation, pollution prevention and control, conservation, sustainable water and wastewater management, and green buildings that meet internationally recognized standards and certifications.

This document provides an overview of green bonds issued by municipal entities and discusses considerations for investors who may be considering investing in green bonds. It is important to note that when purchasing green bonds issued by municipal entities, the same Municipal Securities Rulemaking Board (MSRB) rules apply as when purchasing or selling traditional municipal bonds. In addition to the factors an investor should consider when contemplating an investment in bonds, generally, an investor contemplating an investment in green bonds also should consider additional factors—specific to green bonds—described herein.

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What are Green Bonds?

Green bonds are bonds issued by the municipal entities, private sector or multilateral institutions (e.g., the World Bank) to finance projects with an environmental or climate impact. For example, green bonds might be issued to finance renewable energy and energy efficiency projects, clean public transportation, pollution prevention and control, conservation, sustainable water and wastewater management, and green buildings. Green bond projects, generally, are intended to have material, positive net benefits for the climate or environment. Projects that are not primarily climate-focused typically contribute to conservation and/or sustainable and efficient management of natural resources; reduce waste or pollution; and otherwise enhance environmental quality and contribute to sustainable living. In addition, municipal bonds issued for most governmental purposes tend to contain and impact environmental, social and governance issues.

General Considerations for Green Bond Projects

Currently, there is no universally accepted market standard or definition on what makes a bond issuance “green.” This is due in part to the fact that the possible scope of environmental or social impact of green bonds is extensive. However, there are internationally recognized standards and certification frameworks that, if followed by an issuer, serve to provide a more uniform basis upon which an investor may evaluate the degree to which a bond can be identified as a green bond and whether it is aligned with their investment objectives.

An investor should be aware that there are two internationally recognized sets of standards for the issuance of green bonds or climate impact bonds,

Green bonds, generally, are intended to have material, positive net benefits for the climate or environment.

but in practice the use of proceeds is the same. The **Climate Bond Standard and Certification** framework is analogous to a fair-trade label¹ for bonds and applies specific criteria that are consistent with lowering greenhouse gas emissions established in the Paris Agreement.² The Climate Bond Standard and Certification is used globally by bond issuers, investors and other market participants to identify investments that contribute to addressing climate change, such as bus rapid transit systems, low carbon transportation and water infrastructure.

The **Green Bond Principles (GBP)** are voluntary best practice guidelines initially established in 2014 by a consortium of investment banks. The GBP are currently overseen by the International Capital Markets Association (ICMA).³ The ICMA annually updates and issues Voluntary Process Guidelines for green bonds. The GBP are intended to provide issuers with guidance on the key components involved in issuing a green bond, to aid investors by promoting availability of information necessary to evaluate the environmental impact of their green bond investments and to assist underwriters by encouraging a disclosure standard that would facilitate green bond issuances.

The GBP recommend a clear process and disclosure for issuers, which investors, underwriters, placement agents and others can use to understand the characteristics of any given green bond that supports transparency, accuracy and integrity of information. These voluntary guidelines promote transparency and

About the MSRB

The mission of the Municipal Securities Rulemaking Board (MSRB) is to protect investors, municipal entities, and the public interest by promoting a fair and efficient municipal securities market. As part of its mission to protect investors, the MSRB creates rules with specific obligations for municipal securities professionals which regulate their conduct with investors. The MSRB provides market transparency through its [Electronic Municipal Market Access \(EMMA®\) website](#), the official source for municipal securities data and documents. Also, the MSRB serves as an objective resource on the municipal market and conducts extensive education and outreach to market stakeholders.

Designated green bonds typically provide clear environmental benefits.

disclosure of the environmental impact of projects financed with a “green bond” designation and cover any type of bonds issued where proceeds are exclusively applied to finance or refinance new or existing eligible green projects that are aligned with four core components of the GBP.⁴ These are:

1. **Use of proceeds**, which is not defined specifically in the GBP but left to the issuer to determine, and generally means the proceeds are used for broad categories;
2. **Process for project evaluation and selection**, which is measured by the issuer’s clear communication to investors on a project’s environmental sustainability objectives;
3. **Management of proceeds**, which is tracked by the issuer and verified by an auditor or third party; and
4. **Reporting**, including up-to-date information on the use of proceeds on at least an annual basis and the framework for reporting on the environmental impact/benefits generated by the project.

The GDP also recommend external verification by adopting second-party review and consultation, verification of the entire process or a part of it by third parties, or certification of green bonds by third parties such as specialized research providers or rating agencies.

Use of Proceeds

Green bond classification typically requires the issuer to provide specific information to investors prior to the bonds being issued. The GBP recognizes several green project categories and notes that a green

project may relate to more than one category. Green project use-of-proceeds categories include renewable energy, energy efficiency, pollution prevention and control, environmentally sustainable management of living natural resources and land use, terrestrial and aquatic biodiversity conservation, clean transportation, sustainable water and waste water management, climate change adaptation, eco-efficient and/or circular economy adapted products, production technologies and processes, green buildings which meet regional, national or internationally recognized standards or certifications.

Process for Project Evaluation and Selection

Disclosure information includes the categories of projects to which issuers intend to allocate the funds; the framework for deciding which projects should receive green bond funding; the criteria for assessing environmental benefits; and the environmental impacts issuers expect their projects to generate within the offering disclosure. Designated green projects typically provide clear environmental benefits that can be described, assessed and, when possible, quantified. Supporting environmental studies, projections of expected impacts, internal research and third-party assessments are often used to substantiate the environmental benefits.

Management of Proceeds

Disclosure information typically also includes the percentage of the bond proceeds that will be used for new project funding versus refinancing—especially related to projects that were already financed prior to the start of the issuer’s green bond program. Typically, within the offering disclosure, the issuer may include information about its process for tracking proceeds from the green bond offering to demonstrate how green bond proceeds will be applied or allocated to eligible projects within a reasonable period of time after the bonds are issued. Generally green bond issuers provide information about how proceeds will be tracked and communicated to investors, methods for verifying internal tracking and allocation of funds from proceeds in the offering disclosure.

Reporting on use of Proceeds and Project Impacts and Benefits

At least on an annual basis, reports are made available that provide updates on the use of the green bond proceeds as well as the estimated impact or benefits of projects that are supported by the green bond financing. This may include expected results based on estimates that were developed during the design of the project.

Independent Assurance

Several auditors as well as climate, environmental, social and governance institutions offer independent opinions on an issuer's green bond program. These assessments are to help ensure that the criteria for selecting green projects are in line with climate and environmental analyses and consistent with relevant standards for eligible projects; that projects fall within the categories of investments commonly recognized to address the targeted environmental problem, based on information available from academic institutions, international organizations or other entities with environmental and climate expertise; issuers have an appropriate governance structure with guidelines and systems in place to support the selection, monitoring and assessment of the projects; and issuers have the capacity to assess or measure, and report on the impact, or can agree to outsource the impact assessment and reporting processes to an appropriate third party. Note that third-party verifiers may include accounting firms, law firms, environmental consulting firms and research institutes, among others.

Moody's Investors Service (Moody's) and Standard and Poor's (S&P) have developed methodology for evaluating and scoring green bonds.⁵ Moody's methodology provides a Green Bond Assessment (GBA), which represents Moody's view as to how closely a bond issue ascribes to the GBPs and is based upon five broad-weighted factors including organization; use of proceeds; disclosure on use of proceeds; management of proceeds; and ongoing reporting and disclosure. The initial assessment of green bonds and the use of proceeds involves an examination of relevant governing documentation, regulatory filings, issuer reports and presentations, if any, and other publicly available information. Moody's five-point scale (GB1–GB5; GB1 being excellent and

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GB5 being poor) characterizes the strength of the issuer's approach to manage, administer, allocate proceeds to and report on environmental projects financed with proceeds derived from green bond offerings.

The S&P green bond evaluation is a point-in-time assessment of three factors—governance, transparency and environment, or resiliency impact on a scale of 0–100. It then combines these three elements to provide a final Green Evaluation score both on a scale from 0–100 and from E1–E4. S&P's green bonds score is based upon a scale ranging from E1–E4. (E1 projects reflect, in their view, the highest comparative environmental or resilience benefit, and E4 projects the lowest comparative environmental or resilience benefit.) The score reflects the overall environmental contribution, as well as its alignment with climate-change mitigation or adaptation goals.

Investors should be aware that green bond evaluations provided by Moody's and S&P are not credit ratings, but rather forward-looking opinions of the relative effectiveness of the issuer's approach to managing, administering, allocating proceeds and reporting on environmental projects financed by green bonds.

Types of Green Bonds

Generally, there are several types of green bonds:

1. **Standard Green Use of Proceeds Bond:** a debt obligation that is aligned with the GBP.
2. **Green Revenue Bond:** a debt obligation that is aligned with the GBP. The credit exposure associated with the bond impacted by the pledged cash flows of the revenue streams,

fees and taxes, among others. The proceeds from these debt obligations go to related or unrelated green project(s).

3. **Green Project Bond:** a project-specific debt obligation used for a single project or multiple green projects and is aligned with the GBP. The investor has direct exposure to the risk of the project(s) with or without potential liability to the issuer.
4. **Green Securitized Bond:** a debt obligation collateralized by one or more specific green project(s), including but not limited to, covered bonds, asset-backed securities, mortgage-backed securities and other structured investment tools, and is aligned with the GBP. The first source of repayment for these types of bonds generally comes from the cash flows of the assets.
5. **Environmental Impact Bond (EIB):** a bond that pays a return to the investor based upon how successful the project is toward meeting its goals. EIBs are often issued to finance experimental or unproven technologies and are a way for issuers and investors to share the risks and rewards of undertaking a project, as well as testing whether it will be effective at solving the environmental problem. EIBs are typically smaller in amount and privately placed.

Of note, there are also bonds issued by a state or local governmental entity that are mainly or entirely involved in environmentally sustainable activities but do not follow the core components of the GBP or the Climate Bond Standard and Certification framework. These can include bonds issued by a state or local governmental agency that has been established for the oversight and management of water and wastewater, public transportation and the like.

Investors should ask their financial professional for guidance on investing in green bonds.

Investor Considerations

“Greenwashing risk” is the risk that the proceeds of the sale of a bond that is marketed as a green bond will not be applied to appropriate projects. This is a significant potential reputational risk to the underwriters and the green bond issuers if the issuance does not achieve the desired outcome. Given the lack of a universally accepted definition of what constitutes a green bond, an issuance is always subject to the risk of being labeled as not being sufficiently “green.” The application of the bond proceeds toward green projects is generally not a contractual obligation, and therefore investors are limited in their options if the issuance is not achieving its declared investment objective. A full and exhaustive disclosure regarding the green project, in addition to external reviews described above may assist in mitigating the “greenwashing risk” of a green bond.

Investors should ask their financial professional, who has certain obligations to clients under the MSRB rules when purchasing or selling municipal securities, for guidance on investing in green bonds.⁶ The following are suggested questions to ask your financial professional when considering green bonds:

1. Why and how are these particular bonds defined as green?
2. Has the issuer of the green bonds completed the Climate Bond Standard and Certification Process? Does the green bond ascribe to GBPs, and has it received an evaluation score or has otherwise obtained independent verification?
3. How does the issuer intend to measure and report the impact of the financing on the stated green purpose of the bonds?
4. If the issuer has issued green bonds in the past, how diligent and effective was the issuer in measuring, reporting and meeting the stated green objectives?

Endnotes

- ¹ <https://www.climatebonds.net/standard/about>
- ² <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>
- ³ <https://www.icmagroup.org/>
- ⁴ <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/GBP-2016-Final-16-June-2016.pdf>
- ⁵ "Green Bonds Assessment (GBA) Approach and Methodology," Moody's Investors Service, March 30, 2016.
"Green Evaluation Analytical Approach," Standard and Poor's, April 26, 2017.
- ⁶ MSRB Rule G-19: Suitability of Recommendations and Transactions requires a broker, dealer or municipal securities dealer to have a reasonable basis to believe that a recommended investment involving a municipal bond is suitable for the investor, based upon information obtained through reasonable diligence of the financial professional to ascertain the investor's investment profile. A customer's investment profile includes, but is not limited to, the customer's age, other investments the customer may hold, financial situation and needs, tax status, investment objectives, investment experience, investment time horizon, liquidity needs, risk tolerance and any other relevant information the customer may disclose in connection with a recommendation.

MSRB Rule G-47: Time-of-Trade Disclosure requires each broker, dealer or municipal securities dealer to disclose all material information known about a municipal bond orally or in writing, at or prior to the time of a trade when conducting a sale to a customer or purchase from a customer of a municipal bond, whether unsolicited or recommended, and whether in a primary offering or secondary market transaction and reasonably accessible to the market. Information is considered to be material if there is a substantial likelihood that the information would be considered important or significant by a reasonable investor in making an investment decision.