

# Green Bond Guidelines for the Real Estate Sector

Prepared by GRESB



**GRESB Green Bond Guidelines**



# Introduction

The 2015 Green Bond Principles (“2015 GBP”) codified the basis for capital market participants to originate Green Bonds; specifically, debt obligations tied to investment activities targeting new and existing projects with environmental benefits across all industry sectors.<sup>1</sup>

Given the rapid growth of the Green Bond market, sub-asset classes are emerging across multiple industry sectors. Market participants seek clarification, details and refinement in order to effectively apply these principles to specific industry sectors and asset classes, and the diversity of investment offerings within the broader fixed income investment universe.

These Green Bond Guidelines for the Real Estate Sector (“Guidelines”), prepared by GRESB, build upon the 2015 GBP by providing specific real estate and construction sector guidance for capital market participants when originating and/or investing in Green Bonds.

### Capital Market Applicability

The Guidelines specify characteristics that determine Eligible Green Projects in conformance with the 2015 GBP.<sup>2</sup> Eligible Green Projects are those that receive earmarked proceeds or serve to collateralize a Green Bond within the construction and real estate industry.

To establish Green Bond eligibility, these Guidelines provide guidance on the information disclosures and transparency necessary to appropriately identify and represent a bond offering as a Green Bond product in compliance with the U.S. Federal Trade Commission Guides for the Use of Environmental Claims, the EU Unfair Commercial Practices Directive Article 6(1)(a) and (b) and Annex I, and the International Chamber of Commerce Framework for Responsible Environmental Marketing Communications.<sup>3</sup>

The 2015 GBP and these Guidelines are voluntary disclosures not applicable to Regulation AB or other associated regulatory rules governing the offering process, disclosure and financial reporting for asset-backed securities, or any other regulation particular to any type of financial offering in any country.<sup>4</sup>

**GRESB** is an industry-driven organization committed to creating transparency in the sustainability performance of the global real estate sector. Its sustainability performance measurement and ratings include over 1,000 listed property companies and private equity real estate funds globally. GRESB aims to serve institutional investors in both real estate equity and debt, and has drawn on the expertise and recommendations voiced by a broad set of industry stakeholders for the development of the Guidelines, including institutional investors, listed property companies, green bond underwriters and the largest green building certification bodies.

### Real Estate Sector

Real estate is a complex asset class with many direct and indirect impacts across a wide range of environmental issues. These Guidelines recognize the span and scope of the industry’s environmental impacts, provide a framework for 1) identifying green project eligibility, 2) implementing and managing investment proceeds, and 3) communicating Green Property Bond outcomes.

The real estate industry has a multi-decade track record of addressing environmental impacts through the use of rating systems certified by independent third parties. Green building certification systems provide well-established frameworks that define fundamental terms and concepts, address multiple environmental impacts, and measure outcomes across all asset lifecycle phases. Certified buildings are widely recognized as “green” by real estate industry practitioners, within government policies, and among the general public. These third party green building certification systems provide practical frameworks to address the array of Eligible Green Project attributes identified in the 2015 GBP and communicate results to multiple stakeholders.

Issuers, underwriters and investors can use these Guidelines to specify Eligible Green Projects, identify appropriate metrics, and determine reporting constructs for Green Property Bonds in accordance with established real estate industry protocols. The Guidelines are applicable to each bond type outlined in the 2015 GBP.

<sup>1</sup> See 2015 Green Bond Principles source document from International Capital Market Association: <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles>

<sup>2</sup> The 2014 GBP specifically acknowledge a “diversity of opinion” on the definition of a green project, and assert the intent to not opine on “eligible Green Project categories”. The 2015 GBP “continue to reflect the diversity of opinion on the definition of Green Projects.”

<sup>3</sup> See Federal Register 77 FR 62121

<sup>4</sup> See Federal Register 77 FR 57183



## Guidelines

These Guidelines identify characteristics of Eligible Green Projects within the real estate sector, and provide the reporting and disclosure framework necessary to appropriately identify Green Bonds.

The 2015 GBP details four components covered by these Guidelines:

- 1. Use of Proceeds**
- 2. Process of Project Evaluation and Selection**
- 3. Management of Proceeds**
- 4. Reporting**

Importantly, the Guidelines include key indicators and criteria necessary for underwriting and issuing a Green Property Bond along with metrics applicable to ongoing investor reporting and communication until bond maturity.

### 1. Use of Proceeds

The 2015 GBP identify impact categories that may comprise Eligible Green Projects; these categories are designed to encompass the environmental impacts across all industry sectors within a broad economic context.

Real estate professionals and investors have come to understand the property sector's environmental and social impacts throughout the entire economic value stream – land use, materials sourcing, supply chain scope and scale of supply chains, demands on transportation and civic infrastructure, energy and water pollution, biodiversity, occupant health and well-being, and community impact.

Each category identified by the 2015 GBP represents environmental impacts inherent to the real estate industry; the initial list of Eligible Green Project categories identified by the 2015 GBP include:

- Renewable Energy
- Energy Efficiency
- Sustainable Waste Management
- Sustainable Land Use
- Biodiversity Conservation
- Clean Transportation
- Sustainable Water Management
- Climate Change Adaptation<sup>5</sup>

Each of the eight (8) categories outlined above can be described through asset attributes and actions that provide environmental benefits and/or reduce environmental impacts. Each of these 2015 GBP categories is addressed within the frameworks of green building rating systems common in the real estate sector. Certain GBP 2015 categories are addressed by multiple credit criteria, which underlie these rating systems.

Eligible Green Projects can span a range of construction and real estate investment activities including new development projects, land preservation easements, the retrofit of underperforming buildings, and the refinancing of existing high performance buildings (among other applications).

Assets certifying to a rigorous green building rating system such as LEED, Green Star, BREEAM, CASBEE, DGNB (or similar) may serve as the basis for Eligible Green Projects. Rigorous green building rating systems require performance-based measurements along multiple impact categories as the basis for certification. Certification under a rigorous green building rating systems requires comprehensive documentation detailing performance-based environmental attributes against a baseline set of specific measures, which are then reviewed by third parties. Upon completion, the green building certification scorecard reveals key environmental attributes and performance achievements.

The following table outlines many of the most common Eligible Green Project Criteria in accordance with BREEAM, Green Star and LEED, the green building rating systems with the greatest number of worldwide certifications.

<sup>5</sup> Climate change adaptation was added as a Green Project category in the 2015 update to the 2014 GBP. All rigorous green building rating systems (BREEAM, Green Star, LEED, etc.) encompass climate change adaptation within their broader certification schemes; this is typically described as 'asset resiliency' in the real estate sector. Detailed information regarding asset resiliency can be found in the technical guidance documents for each building rating system, or in the Resources section at each rating system website.



## Eligible Green Project Criteria

2015 GBP Categories	Asset Attributes / Actions	Building Rating System Credit Categories	Environmental Impacts
<b>Renewable Energy</b>	<b>Onsite renewable energy generation powering the building and/or distributed to the grid</b> <ul style="list-style-type: none"> <li>- Solar / Wind / Geothermal / Fuel Cell / Other</li> </ul> <b>Offsite renewable energy purchase</b>	<b>BREEAM</b> Energy, Pollution <b>Green Star</b> Energy, Innovation <b>LEED</b> Energy & Atmosphere	Carbon emissions Ozone depletion Mineral extraction Infrastructure needs
<b>Energy Efficiency</b>	<b>Buildings that demonstrate energy efficiency metrics at above market performance</b> <ul style="list-style-type: none"> <li>- Building Energy Ratings               <ul style="list-style-type: none"> <li>• Energy Performance Certificate [EU]</li> <li>• ENERGY STAR [United States]</li> <li>• NABERS [Australia / New Zealand]</li> </ul> </li> <li>- Net Zero Energy buildings</li> </ul> <b>Peak load demand reduction</b> <ul style="list-style-type: none"> <li>- Thermal energy storage</li> <li>- Demand response systems</li> </ul> <b>Building energy retrofits</b> <ul style="list-style-type: none"> <li>- Equipment upgrades – lighting / HVAC</li> <li>- Deep retrofits – systems / envelope</li> </ul>	<b>BREEAM</b> Energy, Pollution <b>Green Star</b> Energy, Management <b>LEED</b> Energy & Atmosphere, Innovation	Carbon emissions Ozone depletion Mineral extraction Air quality Human health Infrastructure needs
<b>Sustainable Waste Management</b>	<b>Buildings that demonstrate waste management metrics above prevailing building codes and/or standard market practices</b> <ul style="list-style-type: none"> <li>- Waste recycling rates               <ul style="list-style-type: none"> <li>• Construction / demolition</li> <li>• Building operations</li> </ul> </li> <li>- Ozone depletion</li> <li>- Construction activity</li> <li>- Stormwater quantity / quality</li> </ul>	<b>BREEAM</b> Waste <b>Green Star</b> Management, Materials <b>LEED</b> Sustainable Sites, Materials & Resources, Energy & Atmosphere	Resource depletion Soil contaminants Chemical hazards Pollution prevention
<b>Sustainable Land Use</b>	<b>Real estate investments that demonstrate sustainable land use attributes regarded as conservation and/or preservation</b> <ul style="list-style-type: none"> <li>- Smart growth development</li> <li>- Wetlands preservation</li> <li>- Historic rehabilitation</li> <li>- Certified forests</li> <li>- Organic farmlands</li> </ul>	<b>BREEAM</b> Land Use & Ecology <b>Green Star</b> Land Use & Ecology <b>LEED</b> Sustainable Sites, Materials & Resources	Floodplains Wetlands Prime farmland Forest resources Natural resources Historic sites
<b>Biodiversity Conservation</b>	<b>Real estate investments that demonstrate attributes regarded as preserving habitat biodiversity and/or cultural resources</b> <ul style="list-style-type: none"> <li>- Conservation easements</li> <li>- Land banks</li> <li>- Carbon sequestration</li> <li>- Ecosystem services</li> <li>- Ecological connectivity</li> </ul>	<b>BREEAM</b> Land Use & Ecology <b>Green Star</b> Land Use & Ecology <b>LEED</b> Sustainable Sites	Species habitat Migratory paths Land conservation Cultural resources
<b>Clean Transportation</b>	<b>Support multiple types of transit modes</b> <ul style="list-style-type: none"> <li>- Siting near multiple mass transit options</li> <li>- Carpool programs/dedicated bike facilities</li> </ul> <b>Incorporate clean transportation infrastructure</b> <ul style="list-style-type: none"> <li>- Electric vehicle charging stations</li> <li>- Fuel cell vehicle charging stations</li> <li>- Liquid / gas / battery facilities</li> </ul>	<b>BREEAM</b> Transport <b>Green Star</b> Transport <b>LEED</b> Sustainable Sites	Carbon emissions Ozone depletion Mineral extraction Air quality Infrastructure needs
<b>Sustainable Water Management</b>	<b>Minimize potable water consumption / disposal</b> <ul style="list-style-type: none"> <li>- Capture / recycle stormwater</li> <li>- Implement vegetated / green roofing</li> <li>- No potable water in landscaping</li> <li>- Water metering / monitoring systems</li> <li>- Sustainable Drainage Systems (SUDS)</li> </ul>	<b>BREEAM</b> Water <b>Green Star</b> Water, Emissions <b>LEED</b> Sustainable Sites, Water Efficiency	Water conservation Water quality Species habitat Human health Infrastructure needs
<b>Climate Change Adaptation</b>	<b>Asset Resiliency</b>	<b>All Building Rating Systems</b>	Infrastructure needs Human health



### Specific Guidance

Through information transparency and disclosure, fixed income investors in the real estate sector can better understand investment risks, identify industry best practices, and communicate positive impacts across multiple 2015 GBP categories.

Each Green Bond offering document should define the Eligible Green Project Criteria in the Use of Proceeds section. These criteria typically include identification of an applicable green building certification system, and optionally, may also include descriptions of environmental impacts and metrics appropriate to investment objectives.

During underwriting, issuers should 1) identify specific criteria for Eligible Green Projects, and 2) seek to establish objectives including both direct and indirect impacts that may serve to guide management and implementation.

Issuers and underwriters can categorize environmental objectives and related impacts using the Eligible Green Projects Criteria specified in these Guidelines. As individual projects are identified, impact categories should correspond to specific assets targeted for investment.

## 2. Project Evaluation and Selection

Green Bond issuers can evaluate construction and real estate projects through the framework outlined in the Eligible Green Project Criteria. By gathering specific project information at time of investment, issuers describe Eligible Green Projects, manage investment objectives, achieve certification under a recognized building rating system or environmental rating criteria, and track impacts and outcomes across multiple 2015 GBP categories.

### Green Building Certifications

Buildings third-party certified under one or more rigorous green building rating system satisfy the Eligible Green Project Criteria by specifically addressing multiple environmental impacts.

Certified buildings are widely recognized as “green” among real estate industry practitioners, within government rules and policies, and by the general public. Some building rating systems are recognized globally while others are specific to a particular country. Rigorous rating systems

include BREEAM (EU), CASBEE (Japan), DGNB (Germany), Green Star (Australia), and LEED, among others. Green Bond issuers may choose to further utilize building rating systems to determine impact categories and investment objectives.

Green building rating systems are characterized by their specificity, transparency, disclosure mechanisms, governance structures, and third-party validation processes. Most rating systems maintain tiered achievement levels that signal higher levels of environmental and social achievements.

### Energy Ratings

Energy ratings specifically focus on the energy efficiency performance of building operations, and may serve as indicators for Green Bond investments directed to energy efficiency and/or carbon reduction objectives. Building energy rating and labeling programs include ENERGY STAR (United States), the European Union Energy Performance Certificate, NABERS (Australia), and similar programs. Energy rating programs can describe energy efficiency investment objectives and may be used to qualify Eligible Green Projects.

Existing high performing, energy-efficient buildings recognized via one or more energy ratings satisfy Eligible Green Project Criteria, and may attain additional recognition within the Green Bond framework through inclusion in specific, targeted impact schemes within the broader Green Bond universe (e.g. “Climate Bonds”, “Energy Efficiency Bonds”).

### Non-Building Certifications (Environmental Rating Systems)

For cases where a Green Property Bond encompasses real estate holdings that are not buildings such as timber (forestry management), agriculture (organic farming), mining and minerals (sustainable land management) and other real estate related activities, environmental certification frameworks specific to the land use objective are required to determine eligibility for a Green Bond. These environmental rating systems can satisfy the Eligible Green Project Criteria by specifically addressing one or more environmental impacts identified by the 2015 GBP and can serve to describe a “Preservation Bond”<sup>6</sup> or a “Social Impact Bond”<sup>7</sup> within the broader Green Bond universe.



### Corporate ESG Ratings

In addition to asset-level information, issuers may consider relying upon corporate-level environmental, social and governance (ESG) policies and supplemental disclosure frameworks to provide broader investor guidance and investment context.

Issuers may seek to communicate their overall engagement history with ESG issues through corporate-level frameworks; examples include the Global Real Estate Sustainability Benchmark (GRESB) or the Global Reporting Initiative (GRI). Specific carbon emission tracking and reporting frameworks may include the Carbon Disclosure Project (CDP). Issuers may find utility by selecting corporate level rating systems that provide specific context for the issuer's ESG performance history within the real estate sector. Issuers may choose to disclose these results on a periodic basis at their discretion.

### 3. Management of Proceeds

Upon Green Bond origination, issuers should earmark proceeds by directing capital to Eligible Green Projects until the bond proceeds are fully allocated. Issuers should take specific measures as part of the annual financial audit process to track investment in Eligible Green Projects and disclose audit results to investors in the Green Bond.

Affirming proceeds are allocated to Eligible Green Projects is a mandatory component of investor reporting throughout the life of the Green Bond.

### 4. Reporting

Upon origination and until the Green Bond is retired, issuers are advised to provide ongoing investor disclosures. Data accuracy and integrity is essential to maintaining market credibility with the objective(s) of any Green Bond.

Investors in Green Bonds require asset and corporate disclosures to make informed investment decisions upon bond origination, and to monitor the investment throughout the holding period. Once one or more Eligible Green Projects are identified, issuers are advised to begin providing investors with information pertaining to these assets.

#### Annual Reporting

Investor disclosures regarding Green Bond investments and impacts should include the following elements:

1. Asset level information confirming full allocation to Eligible Green Projects by the amount of proceeds invested per project.
2. One or more GBP 2015 categories associated with each project.
3. Asset level green building certification and energy rating data [see next table - Primary Indicators].
4. [optional] Impact assessment reporting using [asset level disclosures](#) and [corporate level ESG disclosures](#).

<sup>6</sup> A Preservation Bond is defined here as private financing of a public sector project through a bond issuance, whose proceeds go toward the protection or preservation of land (e.g., wetlands, wildlife habitat, timber land, agricultural land, historic or culturally significant properties).

<sup>7</sup> A Social Impact Bond is defined here as private financing of a public sector project through a bond issuance, whose proceeds go toward a specified, improved social outcome (related to real estate or property expenditure), and whose repayment is tied to achievement of that outcome (e.g., reducing the homeless population by providing low cost housing).



## Primary Indicators

Scope	Type	Metrics
Asset	Green Building Certifications	<b>Rating system</b> <ul style="list-style-type: none"> <li>• Specific rating system version</li> <li>• Certification date</li> <li>• Score and certification level</li> <li>• Specific scorecard - credits and metrics achieved</li> </ul>
Asset	Energy Ratings	<b>Rating system</b> <ul style="list-style-type: none"> <li>• Annual score</li> <li>• Certification date</li> </ul>
Asset	Non-Building Certifications (as applicable)	<b>Rating system</b> <ul style="list-style-type: none"> <li>• Asset-specific applicability</li> <li>• Certification date</li> <li>• Score and certification level</li> <li>• Specific scorecard - credits and metrics achieved</li> </ul>

Green Bonds for the real estate sector should include Primary Indicators within all stakeholder communications. Green building rating systems and energy labels are characterized by scorecard-based mechanisms detailing project-level attributes; results provide the basis for the building rating. These scorecard results can inform multiple 2015 GBP categories and are ideally situated to communicate project impacts and outcomes.

Non-building certification systems also typically utilize scorecards or other transparent criteria that serves to validate the applicable rating.

Issuers should disclose these results to investors through a combination of tiers, scores and credits specific scorecards. Investors can use green building ratings, scores and scorecard results as a basis to inform initial investment decisions, monitor progress, and analyze the impacts and outcomes achieved by investments in Green Bonds.

Given the regional differences and applicability of various green building and energy rating systems, additional guidance outlining specific regional and country standards may be required.

### Impact Assessment (optional)

Green Bond issuers can provide underwriters and investors with a greater level of transparency by reporting asset level disclosures that assess targeted impacts.

During Green Bond origination, issuers may determine one or more metrics applicable to the intent and purpose of the bond and prepare

procedures to gather this information for internal management purposes and external stakeholder communications. Metrics selected should comply with the *GRI Indicator Protocols Set: Environment* or similar widely recognized industry metrics and/ or protocols.<sup>8</sup> Investors can utilize metric-based information to prioritize capital allocations, define impact goals, and direct investment capital to targeted issues and specific interests.

In addition to asset-level disclosures, corporate level frameworks exist that assess companies on their ESG practices, or measure specific environmental attributes including carbon emissions. Assessments based on these frameworks go beyond asset-level certifications and impact disclosures, and may lend greater credibility to a Green Bond issuer while providing further context useful to Green Bond investors.

Green Bond Issuers may find utility by selecting corporate level ESG rating systems that provide specific context into the issuer's ESG performance history within the real estate sector. Issuers may choose to disclose these results in conjunction with a Green Bond issuance, or to bond investors on a periodic basis during the life of the bond.

Optional disclosures at the corporate level include ESG reporting frameworks such as the Global Real Estate Sustainability Benchmark (GRESB) or the Global Reporting Initiative (GRI). Specific carbon emission tracking and reporting frameworks include the Carbon Disclosure Project (CDP).

<sup>8</sup> See: <https://www.globalreporting.org/resource/library/G3.1-Environment-Indicator-Protocols.pdf>



### Asset Level Disclosures [optional]

GBP Category	Measurement	Metric	Assurance Type
<b>Renewable Energy Generation</b>	<b>Renewable energy generated during life of bond</b> <ul style="list-style-type: none"> <li>On-site and/or off-site               <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul> </li> </ul>	<b>Absolute kWh</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul>	<ul style="list-style-type: none"> <li>Third party certified</li> <li>Audited claim</li> </ul>
<b>GHG Emissions</b>	<b>GHG emissions generated during life of bond</b> <ul style="list-style-type: none"> <li>Scope 1 and Scope 2               <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul> </li> </ul>	<b>GHG metric tonnes</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul> <b>Energy Intensity</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul>	<ul style="list-style-type: none"> <li>Third party certified</li> <li>Audited claim</li> </ul>
<b>Water Consumption</b>	<b>Water consumption during life of bond</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul> <b>Percentage and total volume of water recycled / reused</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul>	<b>Cubic meters of water consumed</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul> <b>Total volume and % of water recycled / reused</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul>	<ul style="list-style-type: none"> <li>Third party certified</li> <li>Audited claim</li> </ul>
<b>Waste Management</b>	<b>Waste created by asset operations during life of bond</b> <ul style="list-style-type: none"> <li>Hazardous waste</li> <li>Non-hazardous waste</li> </ul> <b>Disposal route</b> <ul style="list-style-type: none"> <li>Landfill</li> <li>Incinerated</li> <li>Other</li> </ul> <b>Diverted waste</b> <ul style="list-style-type: none"> <li>Recycled</li> <li>Composted</li> <li>Energy recovery</li> <li>Reuse</li> </ul>	<b>Metric tonnes of waste generated</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul> <b>Total volume and % of waste recycled / reused</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul>	<ul style="list-style-type: none"> <li>Third party certified</li> <li>Audited claim</li> </ul>
<b>Stakeholder Engagement</b>	<b>Asset-level policies and practices</b> <ul style="list-style-type: none"> <li>Supply chain management</li> <li>Green leasing</li> <li>Tenant engagement</li> <li>Health and safety measures</li> <li>Community impact</li> </ul>	<b>Policy type and level of monitoring / engagement</b> <ul style="list-style-type: none"> <li>Per asset</li> <li>Per year</li> </ul>	<ul style="list-style-type: none"> <li>Third party certified</li> <li>Audited claim</li> <li>Self claim</li> </ul>

### Corporate Level Disclosures [optional]

Scope	Type	Metrics
Corporate	ESG Rating	<b>Reporting Framework</b> <ul style="list-style-type: none"> <li>Level of claim [3<sup>rd</sup> party verified vs. self-claim]</li> <li>Certification years</li> <li>Score by year</li> </ul>
Corporate	Carbon Emissions Profile	<b>Reporting Framework</b> <ul style="list-style-type: none"> <li>Level of claim [3<sup>rd</sup> party verified vs. self-claim]</li> <li>Reporting years</li> <li>Metrics</li> </ul>





## Assurance

The greater transparency afforded by Green Bonds allows investors opportunity to refine investment objectives and achieve measures that reflect business imperatives, risk mitigation strategies, organizational mission alignment and/or social values. To support these objectives, investors require assurances that Green Bond capital investments will be earmarked and targeted to specific objectives.

The capital markets have well-established protocols for utilizing third-party reports and assurance procedures in efforts to maintain investment soundness, market integrity and investor confidence. The real estate industry has a long-standing track record of using third-party green building rating and certification systems to recognize asset attributes contributing to environmental outcomes.

Green Bonds utilizing one or more Primary Indicators satisfy the Eligible Green Project Criteria and require no additional assurance.

Minimally, issuers must combine third-party asset-level green building certifications with the results of a financial audit report demonstrating how the Green Bond proceeds are specifically allocated to Eligible Green Projects.

Green Bond issuers can pursue additional opportunities to report impacts, outcomes, and metrics across multiple categories to further increase investor confidence and market credibility. In addition to reporting building certifications and ratings, Green Bond issuers may find utility in reporting impact metrics that relate to specific environmental and social concerns. Corporate level rating systems designed to measure ESG practices, and/or specific portfolio metrics such as carbon emissions, provide relevant context when communicating the overall investment profile of each individual Green Bond.

## Applicability

These Guidelines are applicable to the four bond types identified in the 2015 GBP, specifically:

### **Green Use of Proceeds Bond**

A standard recourse, general-purpose bond whereby the principal borrowings are earmarked and allocated to specific Eligible Green Projects as identified in the Use of Proceeds within the offering documents. Examples applicable to the real estate sector include public or private company borrowings targeted to defined Eligible Green Projects.

### **Green Use of Proceeds Revenue Bond**

A non-recourse bond where credit exposure is based on cash flows generated by Eligible Green Projects collateralizing the Green Bond [e.g. fees, taxes, legal contracts, etc.]. Examples applicable to the real estate sector include the securitization of future revenue streams from outstanding PACE loans or ESCO contracts.

### **Green Project Bond**

A project-based bond collateralized by one or more Eligible Green Projects with direct investor exposure to project-based risk; borrower recourse may or may not be present. Examples applicable to the real estate sector include deep asset retrofit loans, land conservation easements, smart growth master-planned developments, and/or municipal infrastructure projects meeting Eligible Green Projects.

### **Green Securitized Bond**

A multi-tranche asset backed security, covered bond, or other pooled-asset structure collateralized by Eligible Green Projects. Examples applicable to the real estate sector include mortgage-backed securities comprised of Eligible Green Projects, asset-based securities collateralized by renewable energy installations, and/or master limited partnerships comprised of Eligible Green Projects.



## Appendix

2015 Green Bond Principles - International Capital Market Association [ICMA]

<http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles/>

Building Research Establishment Environmental Assessment Methodology [BREEAM]

<http://www.breeam.org/about.jsp?id=66>

Carbon Disclosure Project [CDP]

<https://www.cdp.net/en-US/Pages/About-Us.aspx>

Comprehensive Assessment System for Building Environmental Efficiency [CASBEE]

<http://www.ibec.or.jp/CASBEE/english/>

Council on Environmental Quality

<http://www.whitehouse.gov/administration/eop/ceq/about>

German Sustainable Building Council [DGNB]

<http://www.dgnb.de/en/>

GRESB

<https://www.gresb.com/survey>

Global Reporting Initiative [GRI]

<https://www.globalreporting.org/information/about-gri/Pages/default.aspx>

GRI Indicator Protocols Set: Environment

<https://www.globalreporting.org/resource/library/G3.1-Environment-Indicator-Protocols.pdf>

Green Building Council of Australia [GBCA]

<https://www.gbca.org.au/green-star/green-star-overview/>

National Environmental Policy Act

<https://ceq.doe.gov/>

U.S. Department of Energy: Environmental Impact Statement Checklist

<http://energy.gov/nepa/downloads/environmental-impact-statement-checklist>

U.S. Federal Trade Commission: Guides for the Use of Environmental Marketing Claims [Final Rule]

<http://www.gpo.gov/fdsys/pkg/FR-2012-10-11/pdf/2012-24713.pdf>

U.S. General Services Administration: National Environmental Policy Act Implementation

<http://www.gsa.gov/portal/category/21006>

U.S. Green Building Council [USGBC]

<http://www.usgbc.org/leed>

UNEP Sustainable Buildings and Climate Initiative: Common Carbon Metric - Building Operations

<http://www.unep.org/sbci/pdfs/UNEPSBCICarbonMetric.pdf>

United States Federal Register 79 FR 57183

<http://www.gpo.gov/fdsys/pkg/FR-2014-09-24/pdf/2014-21375.pdf>

United States National Environmental Policy Act of 1969, as Amended

[http://energy.gov/sites/prod/files/nepapub/nepa\\_documents/RedDont/Req-NEPA.pdf](http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-NEPA.pdf)