Issue Brief: **Green Bonds**

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CALIFORNIA DEBT AND INVESTMENT ADVISORY COMMISSION

The California Debt and Investment Advisory Commission (CDIAC) provides information, education, and technical assistance on debt issuance and public fund investments to local public agencies and other public finance professionals. CDIAC was created to serve as the state's clearinghouse for public debt issuance information and to assist state and local agencies with the monitoring, issuance, and management of public debt.

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INTRODUCTION

Green Bonds are generally understood to be bonds that specifically finance climate change resilient projects or other environmentally beneficial projects. Issuance and investment in this vehicle is expected by some to more than double in 2014 to over $40 billion. In 2008, the International Bank for Reconstruction and Development (IBRD), a World Bank group member, issued its first Green Bond—a fixed income taxable debt security which exclusively financed climate change mitigation projects. Since then, World Bank group members have issued over $6 billion in Green Bonds – with approximately $1.1 billion purchased by the Pooled Money Investment Account in the California State Treasurer's Office. In 2013, the first U.S. municipality, the State of Massachusetts, issued a tax-exempt Green Bond - a general obligation (GO) bond that funded projects traditionally financed with bonds including water, energy efficiency, open space and preservation/habitat restoration projects – this "green" series of GO bonds generated substantial investor interest. More recently, the State of California issued its first Green Bond in September 2014 as part of a $2.37 billion general obligation (GO) bond sale. During the sale, due to strong demand from both retail and institutional investors, the amount of Green Bonds was increased from $200 million to $300 million. While the majority of Green Bonds have been issued as taxable securities, municipalities have begun to enter this emerging market issuing both taxable and tax-exempt Green Bonds.

Public agency planning, debt management, and investment policies may contain some form of environmental or socially responsible goals or targets. These may offer additional support to decision makers who seek opportunities to meet the project and investment goals of their community but also promote the greater social good. California local agencies seeking to address or meet environmental and socially responsible goals for their community may consider issuing or investing in tax-exempt or taxable Green Bonds.

Green Bonds in the market today conform to one of four commonly used debt security structures: General Obligation bonds, Enterprise Revenue bonds, Project Revenue bonds, and Asset-backed or Securitized bonds. Public agencies can issue tax-exempt or taxable Green Bonds pursuant to existing federal, state, and local laws. Although the process for issuing Green Bonds is generally the same as issuing other municipal bonds, there are a few additional steps that market participants recommend local agencies follow to attract "green" investors. This brief provides a short summary of Green Bonds, specifically: what they are; how they are structured; how they differ from traditional bond offerings, and whether they are viable debt structures or investment instruments for local governments in California.

ELIGIBLE GREEN PROJECTS

Until recently, issuers and investors have relied upon project descriptions in the prospective bond documents as well as independent third party analysis (or verification) to identify a "green" project since no formal criteria or definition of eligible "green" projects has been accepted. In January 2014, a consortium of banks released voluntary issuance guidelines called the *Green Bond Principles (Principles)*[1]. Drafted with input from issuers, investors and environmental groups, the *Principles* describe commonly agreed-upon project categories for green projects:

- Renewable energy and energy efficiency projects;
- Sustainable waste management projects;
- Sustainable land use and biodiversity conservation projects;

[1] A coalition of banks, including Bank of America, JPMorgan Chase & Co., Credit Agricole SA (ACA) and others created a common set of criteria for green bonds in January 2014 to act as a catalyst for the development of the market.

- Clean transportation projects; and,
- Clean water and drinking water projects.

The *Principles* are intended to provide issuers voluntary guidance on the key components involved in launching a credible Green Bond, provide the information necessary to allow investors to evaluate the environmental impact of their Green Bond investments and move the market towards standard disclosures which will facilitate underwriting and distribution of the bonds.

Two prominent Green Bond issuers – the IBRD and the European Investment Bank (EIB) – developed their own definitions, metrics, and selection criteria. Eligible projects selected by World Bank environment specialists meet specific criteria for low-carbon development and include the following eligible mitigation and adaptation projects:

- Solar and wind installations;
- New technologies that reduce greenhouse gas (GHG) emissions;
- Rehabilitation of power plants and transmission facilities to reduce GHG emissions;
- Greater efficiency in transportation, including fuel switching and mass transport;
- Waste management (methane emissions) and construction of energy-efficient buildings;
- Sustainable forest management, reforestation and avoided deforestation;
- Protection against flooding (including reforestation and watershed management); and,
- Food security improvement and implementing stress-resilient agricultural systems.

The EIB's eligible project categories promote European Union policy objectives to protect and improve the natural environment and to promote sustainable communities and include:

- Climate change mitigation or adaptation-related investments, such as energy efficiency, renewable energy, cleaner energy and carbon sequestration projects;
- Sustainable natural resource management, including the protection and improvement of water, air and soil, waste management, and protection and enhancement of biodiversity and eco-system functioning;
- Improve the quality of urban life, such as the promotion of sustainable communities; and,
- Safeguard human health through enhancing the natural and built environment.

Entities interested in financing Green Projects may find these characteristics useful in identifying the types of Green Projects potential investors are seeking to finance. California local agencies interested in issuing and investing in Green Bonds can utilize these resources when developing their own Green Bond criteria and qualifying list of projects.

ISSUING GREEN BONDS

As an emerging class of bonds, green bonds enable municipal issuers to raise capital by attracting socially conscious investors. The "green" designation on a traditional water or waste management project could potentially attract new investors enlarging the investor base for the issuer. Green Bonds (taxable and tax-exempt) in the current market conform to one of four existing debt structures.[2] However, additional types may emerge as this market develops:

GENERAL OBLIGATION (GO) BONDS. Issued as a general obligation of a public agency backed by the "full faith and credit" of the issuer. These bonds typically carry the same credit rating as the issuer's other GO debt obligations. Bond proceeds go to financing or refinancing Green Proj-

[2] *Green Bond Principles*, January 2014 www.ceres.org/resources/reports/green-bond-principles-2014-voluntary-process-guidelines-for-issuing-green-bonds/view

ects that may or may not have been identified prior to the sale of the bonds. The State of California and State of Massachusetts' Green Bonds are an example of this type of debt structure.

REVENUE BONDS. Under this structure, bond proceeds finance Green Projects and are repaid by cash flow of a dedicated revenue stream. Revenue bonds support enterprise activities, such as hydroelectric projects or solar, wind, and geothermal energy projects, that generate revenue for their operations.

PROJECT BONDS. Issued for one specific Green Project or projects, project bonds are repaid solely by project generated cash flow which could include lease revenue and directly expose the investor to project risk such as delays in project completion that could disrupt cash flows. Examples of project specific bonds may include economic development projects such as financing the construction of eligible non-profit facilities (i.e. museum) certified under LEED[3] standards.

SECURITIZED BONDS. Under this structure, the bonds are securitized by the cash flows of the assets of Green Projects. These bonds can be structured as a form of covered bonds or asset backed securities. For instance, this structure has been used to securitize energy efficiency projects such as loans issued by Property Assessed Clean Energy (PACE) programs.

MARKETING GREEN BONDS

To market debt as Green Bonds, issuers are encouraged to describe how the project meets the "green" standard and address the following:

- Project selection and evaluation process;
- Management and reporting of the environmental benefits of the project; and
- Tracking of bond proceeds.

Purchasers of Green Bonds typically require the issuer to specify the environmental benefits of the completed or proposed projects and provide periodic updates of these benefits before and after project completion since they may be purchasing Green Bonds to satisfy specific investment policy goals such as Environmental, Social and Governance (ESG) objectives or Socially Responsible Investment (SRI) categories.

Issuers are encouraged to describe the internal procedures used to identify, evaluate and select Green Projects, in addition to the standard "use of bond proceeds" and "project description" sections in the official statements used to sell the Green Bonds. To satisfy "green" investor reporting requirements, the *Principles* recommend developing environmental impact reporting metrics and standards to assess existing or expected benefits of the Green Projects and also include a description of this assessment process in the official statement to investors.

By tracking the proceeds of Green Bonds in a separate portfolio or sub-portfolio to ensure the flow of funds to Green Projects, issuers can facilitate reporting practices and provide assurance of the use of Green Bond proceeds. Periodic Green Project updates are recommended to continue until all the bond proceeds are allocated. In the State of Massachusetts' June 2013 Green Bond offering, it agreed to provide quarterly updates on the use of bond proceeds and environmental benefits of the Green Bonds and will also provide a final report when the bond proceeds are fully spent. This type of environmental performance tracking and reporting is considered voluntary and does not fall under the continuing disclosure regulations of the Securities and Exchange Commission (SEC). However, while this type of post-issuance environmental performance tracking and reporting is not required by the SEC for continuing disclosure, municipal issuers are subject

[3] LEED, or Leadership in Energy & Environmental Design, is a green building certification program that recognizes best-in-class building strategies and practices.

CASE STUDY:
The Commonwealth of Massachusetts Green Bond

On June 4, 2013, the State of Massachusetts issued $669 million tax-exempt, fixed rate general obligation (GO) bonds including $100 million of Green Bonds issued at the same time as a separate series to the state's GO offering. The Green Bonds carried the same credit rating as the state's GO bonds. Bond proceeds were to finance environmentally beneficial projects including:

- Clean Water and Drinking Water Projects
- Energy Efficiency and Conservation Projects in State Buildings
- Land Acquisition, Open Space Protection and Environmental Remediation Projects
- River Revitalization and Preservation and Habitat Restoration Projects

Investor interest in the Green Bonds was strong with orders received from approximately 150 different retail orders and 10 unique institutional orders, as well as 7 new institutional and professional retail investors which had not previously invested in the state's general obligation bonds.

In September 2014, the State of Massachusetts issued a second series of Green Bonds totaling $350 million which also attracted substantial investor demand.

to the SEC's Rule 10b-5 once information is provided in an official statement to investors. Municipal securities are purchased on the basis of statements provided in offering documents. Green Bond offerings are labeled as such to allow investors to purchase bonds which finance environmentally beneficial projects therefore sufficient facts must be disclosed so that an informed investment decision can be made and for which any misleading statements may result in an enforcement action by the SEC.

The *Principles* also encourage issuers to bolster their Green Bond issuance process by obtaining independent verification by third parties to provide an extra level of justification by certifying an issuer's identified Green Projects and assessed environmental benefits as "green". The issuer can include or refer to the third party opinion in the official statement or periodic reporting to assure investors that they are financing Green Projects.

Local agencies may find that some projects they have already financed and completed would have been eligible as Green Projects under the criteria described above. Going forward municipal entities may find it useful and cost-effective to develop or amend existing policies and procedures related to debt, climate and sustainability to include a process for selecting, financing or refinancing Green Projects that can be structured and marketed as Green Bonds. However, issuers should ensure that the cost of issuance (including certifying, researching, and providing additional information to investors) does not exceed the benefits (in the form of interest rate, higher demand, positive perception and publicity) of issuing Green Bonds.

INVESTING IN GREEN BONDS

Many California local agencies have adopted policies which require agency treasurers and investment staff to invest in entities and products financing socially responsible and environmentally sound projects. The developing market of tax-exempt and taxable Green Bonds provides an alternative investment for California local agencies which might satisfy these agency goals and investment policies. However, as is the case with other investment products, local agencies investing in Green Bonds should ensure that the issuers and products comply with state investment laws and local investment guidelines. For instance, most of the outstanding Green Bonds in the market have been issued by supranational entities, such as International Finance Corporation (IFC), IBRD, the EIB, as well as other international banking and finance institutions. The Green Bonds issued by these entities have investment grade ratings, and until recently state law prohibited California local agencies from purchasing debt issues by these institutions since they were not organized and operating in the United States.[4]

The enactment of AB 1933 (Chapter 59, Statutes of 2014), effective January 1, 2015, will enable California local agencies to purchase United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank. This type of investment is restricted to a maximum remaining maturity of five years or less, eligible for purchase and sale within the United States, rated "AA" or better by an NRSRO[5] and cannot exceed 30 percent of the agency's surplus investment portfolio.

Local agencies may also purchase Green Bonds issued as municipal and state government obligations, medium-term notes issued by US corporations, mutual funds, money market funds or asset-backed securities as long as these securities comply with California's investment laws.

SUMMARY

The emerging Green Bond market may appeal to California public agencies that have policies encouraging climate, socially conscious and environmental sustainability goals. While the overall issuance of Green Bonds is similar to issuing conventional debt, there are additional administrative costs to consider with regard to developing a Green Project selection process and on-going reporting requirements related to the environment benefits of such projects. Issuers should ensure that the cost of issuance does not exceed the benefits of issuing Green Bonds. The enactment of recent legislation enables agencies to consider investment in Green Bonds issued by supranational organizations such as the World Bank beginning January 1, 2015. Issuers may currently be able to invest in Green Bonds in other investment categories as this market continues to expand.

4 See CDIAC Publication, *Investments Under Government Code 53601(k) – Focus on Foreign Issuers* for a comprehensive discussion. www.treasurer.ca.gov/cdiac/reports/53601k.pdf

5 A nationally recognized statistical rating organization (NRSRO) registered with the SEC.

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CALIFORNIA
DEBT AND
INVESTMENT
ADVISORY
COMMISSION

915 Capitol Mall, Room 400, Sacramento, CA 95814
p 916.653.3269 • f 916.654.7440
cdiac@treasurer.ca.gov
www.treasurer.ca.gov/cdiac