

**CALIFORNIA INFRASTRUCTURE AND ECONOMIC DEVELOPMENT BANK**

**CLEAN ENERGY FINANCE CENTER**

**BUSINESS PLAN**

**February 17, 2015**

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## **Business Plan**

### **Clean Energy Finance Center**

#### **I. Executive Summary**

The California Infrastructure and Economic Development Bank (IBank) will be an integral part of protecting California's (State) environment and vast natural resources by offering financing that helps achieve the State's greenhouse gas reduction goals. At the same time, IBank will enhance the quality of life our State is known for by promoting and stimulating economic growth, creating clean energy jobs, protecting and caring for the environment and revitalizing communities.

IBank's broad statutory authority makes it uniquely suited to support climate change mitigation, because IBank is allowed to issue bonds and incur other indebtedness, make loans, provide guarantees and other credit enhancements for a wide variety of projects and borrowers. To further facilitate this, the IBank Board of Directors established a new Clean Energy Finance Center, dba California Lending for Energy and Environmental Needs Center (CLEEN Center) to help meet the State's greenhouse gas reduction goals and increase market confidence in green investing. The CLEEN Center will target projects that save money through energy efficiency, buy a hedge against rising costs through conservation or avoid peak charges by storing energy.

A variety of financing models are being considered for conservation and generation projects including leasing, savings contracts, and purchase agreements. The CLEEN Center will also consider tax incentives, the most common clean energy investment driver in the U.S. IBank's broad authority also allows for consideration of other low-cost capital; including yieldcos (a company that predominantly distributes its cash flows from owned operating assets as dividends or other payments to investors), securitizations of loans and other security enhancements such as Property Assessed Clean Energy (PACE) and on-bill repayments (OBR). Risks inherent in clean energy projects will be addressed by IBank's credit underwriting, technology assessments by independent engineers selected by IBank, and consideration of policies developed by the Investor Confidence Project (ICP), which has been embraced by the clean energy industry for providing technical guidelines and ensuring portfolio uniformity.

The initial CLEEN Center programs will be the Statewide Energy Efficiency Program (SWEEP) for small and large energy efficiency (EE) projects for California's municipalities, universities, schools and hospitals (MUSH) and the Commercial & Industrial Energy Efficiency Program (CEEP) for EE retrofits of commercial and industrial buildings in California, where there is market interest, but limited access to capital. SWEEP's and CEEP's goals are to drive down the costs of EE projects and retrofits (EE Projects), leverage existing public programs, encourage private investment and earn investment returns for IBank and partner with market intermediaries. Myriad projects qualify under SWEEP and CEEP that provide improvements to new and existing facilities. IBank requirements will narrow selected EE Projects to those that utilize commercially proven technologies, are able to timely repay the financing obligations and can provide written documentation on their energy efficiency. IBank also is developing a special LED Street Lighting Program (LED Program) under SWEEP for MUSH entities as an energy efficiency strategy for the State. The LED Program is modeled after Asheville, North Carolina's innovative street light replacement strategy, which provided a net savings over 12-years that was equal to approximately \$2.9mm.

IBank's primary role in SWEEP and CEEP will be as a provider of direct financing in a senior or subordinate lien position or as a credit enhancement provider. IBank's Infrastructure and State Revolving Fund (ISRF) Program is administered under its Amended and Restated Criteria, Priorities and Guidelines for the Selection of Projects for Financing under the Infrastructure State Revolving Fund Program Adopted October 29, 2013 (ISRF Criteria). The ISRF Criteria and any additional criteria developed specifically for SWEEP will be used as part of the applicant selection process for MUSH borrowers. IBank will develop specific criteria for CEEP that will be used as part of the applicant selection process for corporate and business owners of commercial and industrial buildings seeking IBank direct financing for EE Projects.

Billions of dollars are required to adequately transform the energy sector of California. With appropriate funding through green bonds, public/private investments and other funding, the IBank can help meet the State's Greenhouse Gas Goals. IBank will be able to leverage the investments in the CLEEN Center for SWEEP and CEEP to provide energy saving loans and improve the quality of life for the people of California. In particular, IBank is looking to partner with the California State Treasurer (STO) to



access private investments to be used to finance and support investable energy efficiency retrofits under CEEP.

## **II. Background**

In 1994 the California Infrastructure and Economic Development Bank (IBank) was established and began exercising its broad authority pursuant to the Bergeson-Peace Infrastructure and Economic Development Bank Act (Act). IBank's mission is to finance public infrastructure and private development that promote economic growth, protect and sustain the environment, support clean energy and efficiency, revitalize communities and enhance the quality of life for the people in California.

In 2006, California affirmed its support for climate change mitigation by passing Assembly Bill 32, the California Global Warming Solutions Act (AB32). AB32 established California's goals to reduce the State's greenhouse gas emissions to 1990 levels by 2020 and to 80% below 1990 levels by 2050 (Greenhouse Gas Goals). IBank is uniquely suited to help the State meet the Greenhouse Gas Goals, by offering practical and sustainable solutions via leveraged, risk adjusted direct financing for clean energy public projects and private commercial and industrial building retrofits throughout California. This position stems from IBank's broad statutory authority under the Act, which includes authority to issue bonds and incur other indebtedness, make loans, and provide guarantees and other credit enhancements for a wide variety of public development facilities and private commercial and industrial buildings owned by businesses and corporations that are directly related to environmental mitigation measures.

On September 23, 2014, the IBank Board of Directors (Board) authorized the establishment of a new Clean Energy Finance Center, dba California Lending for Energy and Environmental Needs Center (CLEEN Center) at IBank and the creation of a Statewide Energy Efficiency Program (SWEEP) to be operated under the CLEEN Center. In addition, IBank intends to ask the Board to authorize the creation of the commercial and industrial energy efficiency Program (CEEP) at the CLEEN Center and to approve the eligibility, underwriting and other CEEP requirements necessary for the success of SWEEP and CEEP.

As a general principle, the CLEEN Center will focus on EE projects and retrofits that employ technologies that drive the public benefit such as carbon reduction contemplated under AB32 necessary to achieve the Greenhouse Gas Goals. Attachment A is a list of many, but not all, of the technologies that would be eligible EE Projects. IBank may consider SWEEP projects and CEEP retrofits beyond the scope of Attachment A if the potential to increase energy efficiency or renewable energy and/or a potential to decrease greenhouse gas within the State is adequately demonstrated.

The key strategy of the CLEEN Center for achieving the State's Greenhouse Gas Goals and enhancing market confidence in clean energy investing is to:

1. Target projects such as generation, distribution, transmission and storage of electrical energy, energy conservations measures, environmental mitigation measures, and water treatment and distribution,
2. Provide affordable financings to municipalities, universities, schools, hospitals and owners of commercial and industrial buildings, for energy conservation improvements and clean energy additions and energy savings, and
3. Be open to established and innovative financing structures that control risks and maximize the Greenhouse Gas Goals.

### **III. Clean Energy**

For IBank to succeed in contributing to the Greenhouse Gas Goals of carbon/pollution reduction, it must implement comprehensive programs under the CLEEN Center that will ultimately save money by using less energy. There are widespread investment opportunities across the State in conservation, generation and other clean energy measures that could yield hundreds of millions of dollars of energy savings over the next 10 years and create substantial employment opportunities in clean energy jobs. By increasing the amount of clean energy actually realized for every dollar of funds invested in clean energy, IBank will significantly contribute to achieving the State's Greenhouse Gas Goals and stimulate economic development.

The CLEEN Center's programs are being designed to encourage concerted public and private investments in investable clean energy projects and utilize IBank's access to



capital markets more effectively. The programs will also energize capital markets for the clean energy industry so as to reduce the cost of capital and government support.

Clean energy opportunities and payback for the CLEEN Center include:

	<b>Generation</b>	<b>Conservation</b>	<b>Other</b>
<b>General Description</b>	New Energy Created	Improvements that allow for decreased use of grid electricity/gas	Storing, moving energy with a goal of increasing utilization of clean energy or storing energy bought “off peak” to use during peak times
<b>Types of Projects</b>	Solar, Wind, Biomass, Hydroelectric, etc.	Energy Efficiency Retrofits, LED lights, Building automation and Controls, etc.	Energy Storage (battery pumped storage, ice, new technologies) Electric Vehicle (EV) charging stations, Transmission, Distribution
<b>Typical Payback</b>	10+ years	1-10+ years, depending on measures utilized	Varies

The clean energy industry is well established with proven financing structures. As the CLEEN Center develops specific programs a variety of financing models are being considered for conservation and generation projects:

<b>Conservation</b>	<b>Generation</b>
<ul style="list-style-type: none"> <li>➤ Capital Lease</li> <li>➤ Operating Lease</li> <li>➤ Shared Savings Contract</li> <li>➤ Guaranteed Savings Contracts</li> <li>➤ Energy Services Agreements (ESA)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Power Purchase Agreement (PPA)</li> <li>➤ Prepaid Power Purchase Agreement</li> <li>➤ Capital Lease</li> <li>➤ Operating Lease</li> </ul>



➤ Managed Energy Services Agreement (MESA)	➤ Direct Purchase <ul style="list-style-type: none"> <li>• Cash</li> <li>• Bond-G.O. or Lease Revenue</li> <li>• Loan</li> </ul>
<b>No Tax Credits Generated</b>	<b>Tax Credits Generated</b>

To date, most clean energy investing in the United States has been driven by tax credit investors. The CLEEN Center will consider investable clean energy projects that offer tax incentives. For example, the Investment Tax Credit for solar, fuel cells, small wind, geothermal, micro-turbines, and combined heat and power partnership is available until December 31, 2016 and could drive private investments together with IBank investments towards investable clean energy projects.

In light of IBank’s broad authority, the CLEEN Center will be able to consider participation in transactions that utilize other sources of low-cost capital in the development of the CLEEN Center programs, including yieldcos and securitizations of loans. Furthermore, security enhancements like Property Assessed Clean Energy (PACE) and On-Bill Repayment (OBR) structures may be viable financing vehicles for future clean energy projects.

**A. Risks Inherent in Clean Energy Projects**

Four areas of risk have been identified for mitigation in clean energy transactions: Counterparty, Asset/Technical, Contractual/Market Condition and Real Estate/Environmental:

<b>Risk</b>	<b>Mitigation</b>
<b>Counterparty</b> <ul style="list-style-type: none"> <li>○ Ability to fulfill obligations</li> <li>○ Dependability of cash flows</li> </ul>	Establishment of selection and underwriting criteria specifically for clean energy projects.

<p><b>Asset/Technical</b></p> <ul style="list-style-type: none"> <li>○ Hardware</li> <li>○ Software</li> <li>○ Warranties</li> <li>○ Installation</li> <li>○ Interconnection/Transmission</li> <li>○ Life cycle of these Assets</li> </ul>	<p>Independent review of:</p> <ul style="list-style-type: none"> <li>○ Conservation/production estimates</li> <li>○ Design, equipment, engineering, procurement /construction contracts</li> <li>○ Permitting status</li> <li>○ Operations/ maintenance</li> <li>○ Contract/plan</li> <li>○ Confirmation of construction milestones/final completion.</li> </ul>
<ul style="list-style-type: none"> <li>○ <b>Contractual/Market Condition</b></li> <li>○ Obligations</li> <li>○ Outs</li> <li>○ Guarantees</li> <li>○ Rising Interest Rate</li> <li>○ Stock-market volatility</li> </ul>	<p>Establishment of selection and underwriting criteria specifically for clean energy projects.</p>
<p><b>Real Estate/Environmental/Legislative</b></p> <ul style="list-style-type: none"> <li>○ Permits</li> <li>○ Title and Easements</li> <li>○ Site Access</li> <li>○ Existing Condition/Disturbance</li> <li>○ Future Rulings and Tax Policies</li> </ul>	<p>Independent review of:</p> <ul style="list-style-type: none"> <li>○ Conservation/production estimates</li> <li>○ Design, equipment, engineering, procurement /construction contracts</li> <li>○ Permitting status</li> <li>○ Operations/ maintenance</li> <li>○ Contract/plan</li> <li>○ Confirmation of construction milestones/final completion.</li> </ul>

The counterparty and contractual/market condition risks will be addressed and mitigated through the establishment of selection and underwriting criteria specifically

for SWEEP and CEEP clean energy projects. Mitigation of the inherent asset/technical and real estate/environmental/legislative risks will require independent review of conservation/production estimates, design, equipment, engineering, procurement and construction contracts, permitting status, operations and maintenance contract/plan and confirmation of construction milestones, including final completion and developing an agile project management to provide required strength and flexibility in working under various legislative rulings and tax policies.

## ***B. Investor Confidence Project***

The CLEEN Center will consider from time to time the best-practice protocols of the Investor Confidence Project (ICP), a project of the Environmental Defense Fund. (Attachment B) ICP has been embraced by the clean energy industry, because it provides a framework for technical analysts. Specifically, ICP's clean energy strategies are designed to:

1. develop on-the-ground partnerships to build the smart grid, ensuring investments that benefit the economy and environment,
2. apply sound science to ensure natural gas provides real and sustained carbon benefits without harming the environment or health of communities,
3. develop regulatory reforms and business models that make energy efficiency profitable and market-driven,
4. create a model for bioenergy production that is economically viable and protects human health and wildlife, and
5. ensure appropriate regulations to guarantee the integrity of emissions reductions from carbon capture and storage.

## **IV. SWEEP at the CLEEN Center**

### ***A. Statewide Energy Efficiency Program***

The first and only currently approved direct lending program at the CLEEN Center is the Statewide Energy Efficiency Program (SWEEP) for small and large-scale energy efficiency upgrades and projects (EE Projects) for California's Municipalities, Universities, Schools and Hospitals (MUSH). The CLEEN Center will be able to provide capital for direct financings and credit enhancements for the MUSH market of EE

Projects and identify tools and processes for more effective and efficient EE Project financing.

For the last 20 years, IBank has been financing infrastructure projects for many participants in the MUSH market. MUSH is the client base with which IBank is most familiar. IBank understands the tight operating budgets and constitutional and regulatory limits on financings that these entities face. The priorities for MUSH entities are such that infrastructure and clean energy projects are often met with deferred maintenance and inefficient, failing or obsolete equipment. However, IBank, through the CLEEN Center is seeking to change this paradigm. The establishment of the CLEEN Center and the creation of SWEEP serve to raise awareness, particularly among the MUSH prospects, of the availability of targeted IBank direct financing. SWEEP also drives IBank's efforts on EE Projects that are likely to yield significant benefits to the State's Greenhouse Gas Goals.

SWEEP's goals are simple:

- a. Drive down the cost of EE Projects,
- b. Leverage existing public programs and funds to attract private sector investment,
- c. Encourage private investment by reducing the overall risks of EE Projects,
- d. Earn a return on investments to preserve and grow IBank's capital base and then recycle that capital into new EE Projects and ultimately operate as a self-sustaining clean energy fund, and
- e. Partner with market intermediaries that can demonstrate an ability to engage the market.

EE Projects under SWEEP include comprehensive efficiency improvements to new and existing facilities that save energy, such as the Eligible Technologies listed in Attachment A. In addition, IBank is considering emerging models for alternative repayment mechanisms, including allowing borrowers to repay through their electricity bill via an on-bill repayment charge. OBR as a method of repayment is in its early stage of deployment in the State. The California Public Utilities Commission's pilot program is being developed now and is expected to launch in the summer of 2015 in the service territories of Investor Owned Utilities (IOU). IBank will explore opportunities to



participate in the IOU pilots and to expand OBR to include the service territories of municipal utilities.

The initial strategic steps for the development of SWEEP include IBank's:

1. Review of proposals from parties interested in SWEEP financing,
2. Consideration of the project areas where the first phase of SWEEP would make the greatest impact,
3. Receipt of funding for SWEEP from a combination of IBank equity, proceeds from green bonds, commercial paper and other liquidity products, and
4. Identifying the initial sizable projects to serve as "pilot" projects to help launch SWEEP.

### ***B. Eligible SWEEP Applicants***

Eligible applicants under SWEEP includes any subdivision of a local or state government, including departments, agencies, commissions, cities, counties, non-profit corporations formed on behalf of an applicant, enhanced infrastructure financing districts, special districts, assessment districts, joint powers authorities within the state or any combination of these subdivisions, schools, and hospitals that makes application to IBank for financial assistance in connection with a SWEEP EE Projects in a manner prescribed by IBank. Applicants under SWEEP can apply on a standalone basis or as the lead applicant to IBank as part of a proposal team. Applicants will be encouraged to identify and/or include the other required constituents as part of a project team, including capital providers, lead providers, developers, energy service companies, owner operators and the like. All other team members must have direct relevant experience in the transaction and EE Project type. The names of all team members must be submitted to IBank for consideration under SWEEP.

### ***C. Eligible SWEEP Projects***

EE Projects under SWEEP will be required to use proven technologies. As a general principal, IBank will focus on those projects, which employ technologies that drive the public benefits and carbon reduction benefits contemplated under the Greenhouse Gas Goals.

To be eligible for SWEEP financing, an EE Project must demonstrate reasonable assurance of repayment of the SWEEP financing obligation and all other debt; and that the obligation combined with amounts available from other sources, will be sufficient to complete the EE Project.

***D. Eligible SWEEP Criteria***

IBank's primary role in SWEEP will be that of provider of direct financing in a senior or subordinate lien position. IBank may also be a credit enhancement provider by participating in a project as a guarantor or by providing a reserve fund. IBank will consider various transaction sizes and participation levels under SWEEP. **In no instance will IBank be a lender of last resort under any program in the CLEEN Center.**

IBank's Infrastructure and State Revolving Fund Program currently operates under the ISRF Criteria. Direct financing of EE Projects under SWEEP will be subject to the Credit Underwriting Criteria, Exhibit A of the ISRF Criteria and any additional criteria developed specifically for EE Projects (collectively, SWEEP Criteria).

***E. Interest Rate Methodology for SWEEP Financings***

SWEEP provides for an interest rate setting methodology for EE Project financings that is designed to achieve a number of goals:

1. Mitigate the risks of lending to lower creditworthy SWEEP borrowers by including risk-based factors in the interest rate setting methodology,
2. Increase the attractiveness of the SWEEP Program to higher-rated credits, thereby improving the over-all loan portfolio risk profile,
3. Allow subsidies to be provided to all borrowers, yet simultaneously allow IBank to achieve its mission with respect to promoting employment opportunities and assisting "low-wealth" areas of the State by making additional subsidies available to borrowers in communities with high unemployment and/or low median household incomes,

4. Ensure long term SWEEP viability by setting interest rates in a manner that covers IBank's cost of funding financings, easily adjusts to changing market and economic conditions and satisfies tax compliance requirements and
5. Achieve goals 1-4 in a manner that is based on publicly available pricing data and is transparent to the borrowers and prospective applicants.

**F. *LED Street Lighting Projects***

IBank is developing a special LED Street Lighting Program (LED Program) under SWEEP for the installation of LED street lights for MUSH entities as an energy efficiency strategy for the State. The SWEEP LED Program is modeled after Asheville, North Carolina's innovative street light LED replacement strategy adopted in 2010. Asheville's overall goal was to reduce its carbon footprint by 20% over five years (4% per year), which included its program to replace all 9,000 of its street lights with energy efficient LED fixtures. The street light replacements accounted for one-third of Asheville's 20% carbon footprint reduction goal and the net savings over the 12 years was equal to approximately \$2.9mm. Other key performance outcomes for Asheville included 2,294,030 kWh of energy saved annually, 6.5% reduction in Asheville's carbon footprint, and 4.6 years payback for capital investment.

SWEEP would make available funds targeted specifically for LED street lighting projects of MUSH entities. In addition to the SWEEP Criteria, the key requirements being considered for the LED Program financings would be that the MUSH entity creates:

- a. A policy of savings reinvestment and creates a savings fund where the annual savings from the LED project are deposited into an account as security for the LED financing (Energy Savings Account),
- b. An Energy Savings Account used to pay off debt incurred for LED project and to fund other energy savings initiatives the MUSH may have,
- c. Covenants to leave the operations budget line item for street lights unchanged during the term of the SWEEP LED financing,
- d. A rate structure with the utility that permits the MUSH to own the LED fixtures,
- e. Utility responsibility for installation, operation and maintenance and

- f. Rate structures that provide significant reduction in per-light costs based on the lower level of energy used and a reduced need for maintenance.

Adequate funding and targeted marketing will be essential to the success of the SWEEP LED Program. IBank is in the process of addressing both elements in connection with the initial development of the CLEEN Center.

## **V. CEEP at the CLEEN Center**

### **A. Commercial and Industrial Energy Efficiency Program**

Roughly half of all energy (and three quarters of all electricity) consumed in the United States is attributable to buildings.<sup>1</sup> Energy efficiency retrofits represent an opportunity for significant energy savings, operating cost savings, and a boost to employment in California. Commercial building energy efficiency retrofits represent approximately \$72 billion in investment potential across the United States. When implemented, these retrofits could employ more than 850,000.<sup>2</sup>

Despite the significant investment opportunity, the market for energy efficiency lending is nascent, offering timely opportunities for lenders and investors that are willing to perform diligence and work with technical experts to understand and mitigate the credit and technological risks. IBank, in partnership with the STO, will be recommending to the IBank Board approval of a direct lending program for businesses and corporations (not individuals) under the CLEEN Center for the Commercial & Industrial (C&I) market in California to address the gap in financing available for commercial Energy Efficiency projects (CEEP). To date, a majority of energy efficiency projects financed in California have been sized to fit into existing utility programs (\$200,000 or less for On-Bill Repayments) or have been financed expensively through energy service companies. While a variety of options (such as PACE and OBR) have emerged to enhance security, many lenders are waiting for a more robust data set of completed transactions before they will agree to lend into this market.

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<sup>1</sup> U.S. Energy Information Administration

<sup>2</sup> Deutsche Bank and Rockefeller Foundation, 2012.



IBank's C&I direct lending program will be designed to be responsive to the evolving market and will maintain flexibility in its range of offerings and its ability to support market growth while maintaining high standards.

Broadly, IBank will consider under CEEP:

1. short, medium, and long-term debt,
2. warehouse facilities and other means of aggregation of small projects intended for securitization,
3. credit enhancements, and
4. complex structured transactions that may include several elements above.

## **B. Criteria**

In addition to requesting the establishment of CEEP under the CLEEN Center, IBank will be developing for the IBank Board's approval the eligibility, underwriting, and other requirements and criteria necessary for a successful CEEP direct lending program at the CLEEN Center.

## **C. Independent Engineer**

Structural and market changes within the utility industry have created new opportunities for lenders, investment banks, and other market contributors. These opportunities also are associated with new risks that require highly-specialized expertise to evaluate and mitigate the risks to acceptable levels for creditworthy borrowers and commercially reasonable technological solutions. To assist with IBank's technology assessment, IBank will require an independent engineer report from an engineering firm selected by IBank.

It is expected that the independent engineer report will provide at a minimum the following information to IBank for each project under consideration:

1. Production (or Conservation) Estimates
2. Design/Equipment Review
3. Engineering, Procurement & Construction Contract Review
4. Permitting Status Review
5. Operations & Maintenance Contract/Plan Review
6. Confirmation of Construction Milestones, including Final Completion

## **VI. Capital Requirements for CLEEN Center Programs**

Billions of dollars of funding is required to adequately transform the entire energy sector in California. By using financial tools such as long-term, low interest rate loans, revolving loan funds, insurance products (such as loan guarantees or loan-loss reserves), and low-cost public investments, IBank will secure private financing for low-carbon technologies that will help to meet the State's greenhouse gas reduction goals. With appropriate funding through green bonds, public/private investments and other funds, the CLEEN Center will benefit from IBank's, infrastructure financing and investment experiences, relationships with private investors, and collaborations with the STO, State energy agencies, environmental advocates and other stakeholders.

In the 1998/1999 and 1999/2000 State Budgets, IBank received a total of \$475 million of "seed" funding to develop an infrastructure finance program, which eventually became IBank's ISRF Program. However in the 2001/2002 State Budget, \$298 million was taken from IBank and redirected back to the General Fund to assist the State with its budget crisis at that time. All ISRF financings since the 2001/2002 budget crisis have been funded solely from the original remaining \$177 million, \$150 million approximately in ISRF Program Bonds, interest earnings, fees on ISRF projects and loan repayments.

To effectively and adequately fund the CLEEN Center over the next 4 years, including the SWEEP and LED Programs and future clean energy programs, IBank requires a reliable source of funds, consisting primarily of IBank's equity (IBank Equity) and proceeds from pooled green bonds. The financing obligations pledged to repay the green bonds for the CLEEN Center SWEEP and CEEP Programs will be targeted to prospective borrowers seeking operating savings through energy conservation improvements, clean energy capacity additions, reductions in carbon load and enhancements in the environment. Some combination of IBank's current equity and other funds, like a warehouse line of credit, could provide credit enhancements as a SWEEP or CEEP Program reserve or guarantee mechanism with the remainder utilized for CLEEN Center direct lending programs and incentives. At least initially, interest rates on the SWEEP financings will follow the interest rate methodology for ISRF financings. Earnings on SWEEP reserves, for example, could be retained to expand

SWEEP financing capacity. Interest on the CEEP financings will likely be based on the London Inter-Bank Offered Rate (LIBOR).

The CLEEN Center will be able to leverage IBank's Equity and any warehouse line to provide multiples in energy saving loans. These funds will be used primarily to increase clean energy projects' financial viability and accelerate implementation of clean energy projects and retrofits, create reserves, directly finance clean energy projects and retrofits and potentially provide guarantees or other credit enhancements to protect green bond investors.

One example of how IBank's equity (IBank Equity) could be leveraged for SWEEP EE Projects would be to use some portion of the IBank Equity to establish a pooled loan credit, providing two levels of credit enhancement for the borrower's loans: (i) loan level credit enhancement and (ii) master trust level credit enhancement. A portion of the IBank Equity also could be allocated as a reserve for each loan financed (Loan Level Reserve). Reserves could be equal to 20% of the outstanding loan principal amount. Accordingly, a \$1 million loan will have an initial reserve allocation of \$200,000. As principal is repaid, the Loan Level Reserve will be similarly reduced by 20% of the principal amount of the loan repayment. If at any time a borrower defaults, that borrower's Loan Level Reserve will pay debt service on the related green bonds. As repayments reduce Loan Level Reserves, funds are released to the master trust level reserve (Master Level Reserve) held by the trustee for the green bondholders to replenish any Loan Level Reserves tapped to pay debt service on green bonds due to a borrower default.

The Master Level Reserve provides programmatic cross-collateralization such that released reserves of non-defaulting borrowers are used to replenish the reserves of any defaulting borrowers. Amounts in the Master Level Reserve in excess of the Master Reserve requirement would be available to reallocate to new Loan Level Reserves or to relend for other SWEEP Projects.

## **VII. Green Bonds**

Green bonds are bonds that specifically finance new and existing clean energy projects and other projects with environmental benefits (Green Bonds). On January 13, 2014,

the Green Bonds Principles, 2014 (Attachment C) were issued as voluntary guidelines for issuing Green Bonds to provide (i) issuers with guidance on the key components involved with issuing green bonds, (ii) investors with information necessary to evaluate the environmental impact of green bonds and (iii) assistance to underwriters with standard disclosures to facilitate transactions. IBank will follow the Green Bond Principles when issuing Green Bonds under the CLEEN Center.

There are 3 types of non-recourse green bonds IBank would consider issuing to provide funding to finance clean energy projects:

1. **Green Revenue Bonds:** a non-recourse-to-the-issuer debt obligation. These are the types of bonds that IBank currently issues to fund ISRF for infrastructure and economic expansion projects. The cash flow from the clean energy project loans made from the proceeds of the revenue bonds would be pledged to the bondholders to repay the bonds. There would be no recourse to IBank, as issuer.
2. **Green Project Bonds:** a project bond for a single or multiple clean energy projects. The investors have direct exposure to the risks associated with the project. The investors would not have recourse to IBank, as issuer. Project bonds may be the best financing vehicle available to fund an extremely large clean energy project or series of projects in a region. IBank is considering partnering with STO on Green Project Bonds.
3. **Green Securitized Bonds:** green project bonds collateralized by a pool of specific clean energy projects or loans. Like the Green Revenue Bonds, the source of repayment is the cash flow from the clean energy project loans. IBank is considering partnering with STO on Green Securitized Bonds.

Debt service on the Green Bonds will be structured to match the aggregated expected repayment of the loans made to CLEEN Center borrowers.



## **VIII. Management and Staffing**

IBank has made great strides in the last year to enhance the skills and experiences of its executive management with the additions of IBank's new Chief Credit Officer, Chief Compliance Officer, Fiscal Manager, ISRF Manager, Bond Manager, Deputy Director of External Affairs, and General Counsel and Deputy Director of Legislative Affairs. Moving forward towards a successful CLEEN Center, IBank will require highly skilled loan and bond officers and lawyers and para-professionals with demonstrated experience in complex municipal and commercial & industrial financings.

The importance of hiring and retaining management and staff with all of the necessary skills and experiences to build a successful CLEEN Center cannot be overstated. The major consequence of personnel without the required talent would be the awarding of financings that could result in the loss of hundreds of millions of dollars, lawsuits, inability to make other financings, loss of credibility with the public, the Legislature, lending and financial institutions, and diminished ratings with Standard and Poor's, Moody's Investors Service and Fitch Ratings. The consequence of errors places a heavy responsibility on staff to ensure that all financings are fully compliant with all policies, procedures, eligibility criteria, laws, rules, and regulations. Delays, mistakes, or errors in judgment can lead to inaccurate information, poor relations, and the loss of tax-exempt status on bond financings causing severe financial impacts to the borrower and/or IBank, the loss of jobs, and the loss of critical financing in California communities. IBank needs subject-matter experts who have expertise involving business finance, export finance, municipal finance or revenue bond finance, and C&I finance, as well as having a thorough knowledge and understanding of financial statements analysis and business and municipal operations and legal considerations for MUSH and C&I entities. It is critical that IBank is able to offer salaries that will enable it to hire and retain staff with the relevant experience and skills for the CLEEN Center.

## **IX. Marketing Plan**

To be truly successful, it is imperative that the CLEEN Center and the SWEEP, LED and CEEP Programs are widely known and understood among potential MUSH and C&I borrowers as truly viable financing opportunities for energy efficiency projects and retrofits. Many MUSH and C&I prospects are unfamiliar with IBank and lack the

experience and expertise to evaluate procurement and financing options for funding EE Projects. IBank will have to provide information, guidance and direct assistance to help prospective MUSH and C&I applicants evaluate the financing options available at the CLEEN Center at IBank.

California will not be able to accomplish the Greenhouse Gas Goals without comprehensive energy efficiency projects in the MUSH and C&I markets. To achieve that goal, it is essential IBank provide comprehensive and extensive education, marketing support and technical assistance to grow the markets for affordable clean energy projects. IBank's new Deputy Director of External Affairs joined IBank in early December 2014 and is already posed to address this need.

The key to a successful CLEEN Center and the resulting success of SWEEP and the LED Programs require an official launch of a concerted and comprehensive marketing campaign of the programs throughout the State. The marketing plan will include but not be limited to the following:

1. Create a data base of organizations for each MUSH category; such as The California League of Cities, Water Utilities Association, Private Post-secondary Schools Organization, Association of Hospitals, etc.
2. Create Fact sheets and brochures identifying how each industry can best utilize IBank's EE financing.
3. Publish information in their newsletters, blogs and websites
4. Get on the agendas of their meetings and conferences
5. Vendor tables at their events
6. Generate media success stories and opinion editorials written under the byline of the IBank Director and leaders of each industry

If CEEP is ultimately approved by the IBank Board, a marketing plan also will have to be created to address the needs of C&I prospective borrowers.

## **X. Collaboration Opportunities with State Agencies**

Another area where IBank can further the State's Greenhouse Gas Goals is through selectively partnering with other agencies in the State that currently have authority to



finance clean energy projects. Two prime examples include the California Energy Commission and the State's Clean Water State Revolving Fund. IBank serves as the issuer for both entities.

### ***A. California Energy Commission***

The California Energy Commission (CEC) currently operates a loan fund through its Energy Conservation Assistance Act (ECAA) program that provides loans of up to \$3 million dollars to school districts and local government borrowers at rates of 0% and 1%, respectively. The ECAA fund has an existing loan portfolio of approximately \$333 million and new loan originations are limited to funds on hand after receipt of loan repayments. CEC is currently distributing Prop 39 Funding in the form of grants.

### ***B. Clean Water State Revolving Fund***

One of the newest innovations to arise in the area of energy efficiency finance involves the approval by the U.S Environmental Protection Agency of the use of State Clean Water funds to facilitate financing of energy efficiency projects. To date, New York's Environmental Facilities Corporation has taken the lead in this area by using funds in that State's state revolving fund to guarantee residential energy efficiency loans. While IBank is not contemplating residential lending, this approach can be similarly applied to the MUSH market segment that IBank does plan to target.

## **XI. SWOT Analysis (Strengths/Weaknesses/Opportunities/Threats)**

### ***Strengths***

IBank has a growing reputation throughout California for quality service, responsiveness, transparency and value. The success of SWEEP, LED Program, and any future programs under the CLEEN Center, including CEEP, hinges on IBank's strong underwriting, legal and administrative capabilities and the strength of the loans and credit support provided by the program structure and program reserves. The CLEEN Center under the broad authority of IBank can mobilize private capital and accelerate the utilization of clean energy throughout the State in support of the Greenhouse Gas Goals.

### ***Weaknesses***

While the clean energy industry is well established, IBank and the CLEEN Center do not currently have dedicated funding specifically for clean energy projects. The ISRF Program currently serves as the umbrella for energy efficiency programs in the context of infrastructure financings. There must be public confidence that the CLEEN Center will be appropriately capitalized with the required levels of funding to successfully impact the Greenhouse Gas Goals.

In addition, the CLEEN Center is a new IBank Center. In order to maximize the effectiveness of the SWEEP, the LED and eventually CEEP Programs, IBank must be positioned alongside private investors and coordinated with other State agencies engaged in the clean energy sector to access grants and other incentives to facilitate the utilization of clean energy technology. IBank must begin to collaborate more extensively with other participants in the private clean energy sector.

### ***Opportunities***

As IBank's reputation builds and successful EE Projects are financed by IBank's CLEEN Center, opportunities for additional programs under the CLEEN Center targeted for other clean energy and energy related projects may be presented given IBank's broad authority. IBank has the ability to help diminish many of the financial barriers to facilitate the flow of private capital to clean energy projects. In addition, IBank now has the ability to leverage private capital and provide for a cleaner environment, system resilience, job creation and economic development. By partnering with the STO, private investment and other state agencies, IBank will have the ability to leverage both capabilities and investment funds.

### ***Threats***

IBank's CLEEN Center and the SWEEP, the LED and CEEP Programs are at risk if IBank is not able to respond to the dynamic marketplace and to manage a portfolio that optimizes the risk-rewards of clean energy technologies. IBank's management team must be able to respond to this threat with a solid understanding of credit and C&I and municipal markets to enable dynamic and sustainable risk management and the ability to identify and mitigate risks immediately.



## Attachment A

### Eligible Technologies<sup>3</sup>

#### Energy efficiency

- ❖ Advanced metering systems to support conversion of master-metered buildings to sub-metering
- ❖ Data center, information technology, communications
- ❖ Energy management and/or control systems, including continuous commissioning
- ❖ Demand response programs
- ❖ Water/wastewater, pipeline, mining/extraction, and similar end-use processes, facilities, buildings, and infrastructure
- ❖ Lighting and control systems
- ❖ Heating, ventilation and air conditioning systems (HVAC)
- ❖ Building envelope
- ❖ Occupant plug load management systems
- ❖ Load reduction of various types
- ❖ Thermal and electric energy storage

#### Renewable Energy Sector

- ❖ Solar photovoltaic (no minimum/maximum capacity)
- ❖ Distribution technologies
- ❖ Solar thermal (no minimum/maximum capacity)
- ❖ Geothermal energy
- ❖ Thermal storage systems
- ❖ Onshore and offshore wind (no minimum/maximum capacity)

#### Storage Technology

- ❖ Fuel cells (continuous duty) – natural gas fuel or hydrogen
- ❖ Thermal storage
- ❖ Storage technologies

#### Water Sector

- ❖ Hydroelectric / Hydropower
- ❖ Waste heat recovery systems
- ❖ New low-impact run-of-facility

#### Ocean thermal energy

- ❖ Wave or tidal energy

#### Alternative Technologies

- ❖ Biomass (from eligible biomass feedstock)

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<sup>3</sup> New York Green Bank – Illustrative Guidelines for Eligible Investments

- ❖ Biomass direct combustion
- ❖ Combined heat and power (CHP)
- ❖ Co-fire with existing fossil fuel (only biomass feedstock portion is eligible)
- ❖ Biothermal energy
- ❖ Biomass conversion technologies
- ❖ Biogas
  - Landfill gas (methane)
  - Sewage gas (methane)
  - Manure digestion
  - Anaerobic digestion
  - Biomass thermo-chemical gasification (syngas from municipal solid waste)
  - Biogas (from eligible biomass feedstock) combined heat & power
  - Biogas (from eligible biomass feedstock) co-fired with existing fossil fuel combustion
  - Liquid biofuels

### **Hydrogen production**

- ❖ Hydrogen conversion technologies

### **Alternative fuels**

- ❖ Ethanol, biodiesel, methanol, bio-oil, and eligible biomass feedstock

### **Transportation**

- ❖ Infrastructure refueling stations (electric, gas, hydrogen)
- ❖ Electric Vehicles
- ❖ Hybrid electric vehicles
- ❖ Alternative fuel vehicles

## Attachment B

### Investor Confidence Project







## Investor Confidence Project

Environmental Defense Fund's (EDF) Investor Confidence Project (ICP) is developing a consensus framework to predict and measure energy savings, enabling the acceleration of energy efficiency investments and the emergence of a robust and thriving commercial building sector. While ICP is not meant to define a single acceptable approach to energy efficiency projects, the ICP framework provides a foundation for consistent, predictable and reliable savings outcomes. Through ICP, EDF is working closely with engineers, industry allies, financial market participants, insurers, regulators and utilities to help define standard weights and measures that will be indispensable for the flow of private investment required to launch a global market for energy efficiency in buildings.

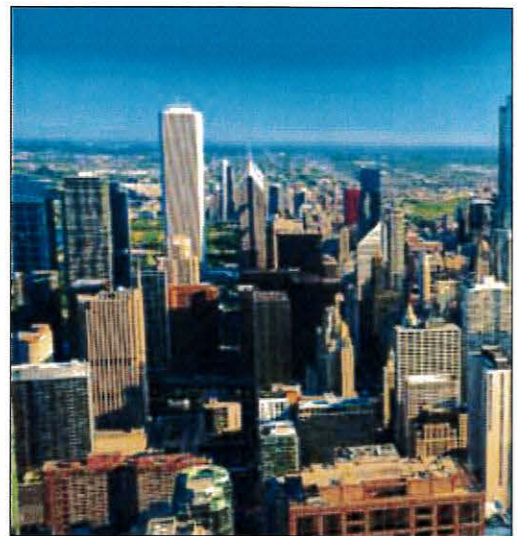
“With the Investor Confidence Project, EDF brings order to the world of energy engineering methods that have been too long a confusing menu of technically valid approaches and idiosyncratic techniques.”

—Sean Neill  
Managing Director,  
SCIenergy

### Problem

Lenders, insurers, regulators, building owners and indeed even the engineering industry lack a standardized method to gauge the accuracy of predicted energy and financial savings from efficiency upgrades. Without a standard approach to performance assurance that gives parties comfort that the predicted quantity of energy savings resulting from a retrofit can be reasonably relied upon, market actors are unable to manage the risk associated with efficiency investments. Furthermore, loans and other investment strategies cannot be standardized and, ultimately, securitized. Until the market deepens through standardization and a broadening of financial offerings, existing buildings will not realize the true potential of these investments, including reduced operating costs, higher market value, enhanced productivity and a significantly lower carbon footprint, among others.

Evidence of this problem in the energy efficiency marketplace is clear. Large funds assembled for energy efficiency remain untapped due to a lack of investment-grade projects.



## ENERGY EFFICIENCY FINANCE

“Reliable data is the basis for risk management and therefore attracting investment, which is essential for a thriving market.”

—Elizabeth Stein  
Attorney, EDF

### Solution

In order to make funding decisions, investors need to know:

1. The likelihood of projected savings outcomes
2. That mechanisms are in place to ensure those outcomes continue
3. Outcomes can be clearly measured and validated post-investment

Active, fluid markets for efficiency investments require that methods evaluating these three elements are transparent and replicable. Once those methods are consistently used, the data they produce will be comparable across projects, and investors will be able to take a more actuarial approach in decision-making. Consistent, replicable methods are, however, a prerequisite to data reliability. That is the goal of ICP—trusted, consistent, replicable specifications and practices for evaluating energy efficiency projects, measuring energy savings and ensuring that these savings persist post-retrofit.

ICP is a living system driven by the needs of an evolving industry, and the specifications will progress over time, with your help. Some methods may move from an “additional” or “recommended” category to a standard requirement. Others may prove insignificant for accuracy of projections or outcomes relative to the time and effort they require.

### ICP specifications

The ICP specifications are divided into five categories, which together are designed to represent the entire lifecycle of a well-conceived and well-executed energy efficiency project:

1. Baselineing
2. Savings projections
3. Initial commissioning
4. Ongoing commissioning
5. Measurement verification

For each category, the ICP specifications establish minimum requirements, including:

- Elements
- Procedure (step-by-step process guide)
- Documentation

### Next steps

ICP invites engineers, building owners and managers, software developers, prospective lenders, insurers, utilities and others to participate in testing and improving these specifications by applying them to retrofit projects and sharing their results.

The Investor Confidence Project is currently working with partners in the public sector, as well as the financial, insurance and service provider industries. Your participation is welcome.

For more information, please contact:

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## Attachment C

### Green Bond Principles, 2014





# **Green Bond Principles, 2014**

## **Voluntary Process Guidelines for Issuing Green Bonds**

January 13, 2014

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### **I. EXECUTIVE SUMMARY**

Green Bonds enable capital-raising and investment for new and existing projects with environmental benefits. Recent activity indicates that the market for Green Bonds is developing rapidly. The Green Bond Principles (GBP) are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond. The GBP are intended for broad use by the market: they provide issuers guidance on the key components involved in launching a credible Green Bond; they aid investors by ensuring availability of information necessary to evaluate the environmental impact of their Green Bond investments; and they assist underwriters by moving the market towards standard disclosures which will facilitate transactions.

The GBP include guidelines for: Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds, and Reporting. There is diversity of opinion on the definition of Green Projects; therefore it is not the intent of the GBP to opine on the eligible Green Project categories. The GBP recommend issuers communicate their Use of Proceeds categories clearly so that investors can determine the bond's consistency with their investment strategy. The transparency and disclosure recommended by the GBP are intended to provide the informational basis for the market to increase capital allocation to environmentally beneficial purposes without any single authority or gate keeper.

The four banks that served as a drafting committee for the Principles will propose in 2014 a governance process that will allow for diverse stakeholder input into the GBP. It is anticipated that an independent third party will be designated to serve as a secretariat whose administrative duties will include facilitating information exchange with issuers, investors, underwriters, and other stakeholders such as non-profit environmental organizations, non-government organizations, academics and other thought leaders.

## II. TYPES OF GREEN BONDS

Green Bonds are instruments in which the proceeds will be exclusively applied (either by specifying Use of Proceeds, Direct Project Exposure, or Securitization) towards new and existing Green Projects – defined here as projects and activities that promote climate or other environmental sustainability purposes. There are currently four types of Green Bonds (additional types may emerge as the market develops and these will be incorporated in annual GBP updates):

- **Green Use of Proceeds Bond**: a standard recourse-to-the-issuer debt obligation for which the proceeds shall be moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for projects. Pending such investment, it is recommended that the issuer make known to investors the intended types of eligible investments for the balance of unallocated proceeds. (See Management of Proceeds section below.)
- **Green Use of Proceeds Revenue Bond**: a non-recourse-to-the-issuer debt obligation in which the credit exposure in the bond is to the pledged cash flows of the revenue streams, fees, taxes etc., and the Use of Proceeds of the bond goes to related or unrelated Green Project(s). The proceeds shall be moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for projects. Pending such investment, it is recommended that the issuer make known to investors the intended types of eligible investments for the balance of unallocated proceeds. (See Management of Proceeds section below.)
- **Green Project Bond**: a project bond for a single or multiple Green Project(s) for which the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer.
- **Green Securitized Bond**: a bond collateralized by one or more specific projects, including but not limited to covered bonds, ABS, and other structures. The first source of repayment is generally the cash flows of the assets. This type of bond covers, for example, asset-backed securitizations of rooftop solar PV and/or energy efficiency assets.

### **III. GREEN BOND PRINCIPLES**

The GBP recommend concrete process and disclosure for issuers which investors, banks, investment banks, underwriters, placement agents and others may use to understand the characteristics of any given Green Bond.

The GBP have four components:

- 1) Use of Proceeds
- 2) Process for Project Evaluation and Selection
- 3) Management of Proceeds
- 4) Reporting

#### **1. Use of Proceeds**

The cornerstone of a Green Bond is the utilization of the proceeds of the bond. For a Green Use of Proceeds Bond or a Green Use of Proceeds Revenue Bond, the issuer should declare the eligible Green Project categories (including types of investments made indirectly through financial intermediaries) in the Use of Proceeds section of the legal documentation for the security. The GBP recommend that all designated Green Project categories provide clear environmental benefits that can be described and, where feasible, quantified and/or assessed.

There are several categories and sets of criteria defining eligible Green Projects already in existence in the market. Issuers and other stakeholders can refer to examples in the Appendix.

The GBP recognize several broad categories of potential eligible Green Projects for the Use of Proceeds including but not limited to:

- Renewable energy
- Energy efficiency (including efficient buildings)
- Sustainable waste management
- Sustainable land use (including sustainable forestry and agriculture)
- Biodiversity conservation
- Clean transportation
- Clean water and/or drinking water

## **2. Process for Project Evaluation and Selection**

The issuer of a Green Bond should outline the investment decision-making process it follows to determine the eligibility of an individual investment using Green Bond proceeds. Where applicable, the issuer should, as a first step, review the investments' overall environmental profile. In all cases, the issuer should establish a well-defined process for determining how the investments fit within the eligible Green Project categories identified in the Use of Proceeds disclosure.

A process of review should determine and document an investment's eligibility within the issuers' stated eligible Green Project categories. If possible, issuers should work to establish impact objectives from the projects selected. To the extent feasible, issuers should consider direct and indirect impacts of Green Projects, such as cases where investments lock-in a current level of emissions into the future.

Multilateral and bilateral agencies and other International Finance Institutions have established processes to ensure that environmental criteria are considered for each project to which they allocate funds, independent of whether they qualify for use of Green Bond proceeds. These reviews are carried out with resident teams of environmental experts. The GBP recommend all issuers, where applicable, engage in similar environmental reviews of the projects they are financing. In addition to the Green Bond process, criteria and assurances that an issuer provides, many Green Bond investors may also take into consideration an issuer's overall environmental and social and governance framework.

## **3. Management of Proceeds**

The net proceeds of Green Bonds should be moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for projects. So long as the Green Bonds are outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching investments made during that period. Pending such investments, it is recommended that the issuer make known to investors the intended types of eligible instruments for the balance of unallocated proceeds.

The management process to be followed by the issuer for tracking the proceeds should be clearly and publicly disclosed. The environmental integrity of Green Bond instruments will be enhanced if an external auditor, or other third party, verifies the internal tracking method for the flow of funds from the Green Bond proceeds. Depending on issuers' and investors' expectations, outside review of the internal tracking method may or may not be necessary.



#### 4. Reporting

In addition to reporting on the Use of Proceeds and the eligible investments for unallocated proceeds, issuers should report at least annually, if not semi-annually, via newsletters, website updates or filed financial reports on the specific investments made from the Green Bond proceeds, detailing wherever possible the specific project and the dollars invested in the project.

The GBP recommend the use of quantitative and/or qualitative performance indicators which measure, where feasible, the impact of the specific investments (e.g. reductions in greenhouse gas emissions, number of people provided with access to clean power or clean water, or avoided vehicle miles travelled, etc.). While there is variability in impact measurement systems, much progress towards standardization has been made in the past several years. Issuers are recommended to familiarize themselves with impact reporting standards and, where feasible, to report on the positive environmental impact of the investments funded by Green Bond proceeds.

#### IV. ASSURANCE

Attention will be paid to the accuracy and integrity of sustainability information and data whose disclosure is recommended by the GBP and which will be reported by issuers to stakeholders and used for strategic decision making by investors. There are a variety of ways for issuers to obtain outside input to the formulation of their Green Bond offerings such that they address the issues raised by the GBP. There are also several levels of independent assurance that can be provided to the market. Such guidance and assurance might include, in order of increasing rigor:

- (i) Second party consultation: for example, an issuer (“first party”) can hire an expert consultant (“second party”) with climate expertise to help in the establishment of a Green Bond’s eligible Green Project categories. The issuer may choose to keep the recommendations of the consultant private.
- (ii) Publicly available reviews and audits: if an expert consultant or auditor and an issuer so choose, a consultant’s recommendations or an auditor’s evaluation may be put in the public domain by the issuer.
- (iii) Third party, independent verification/certification: at the moment, at least one or more standards intended for use by accredited third parties to certify Green Bonds are in development. The GBP are supportive of certification of Green Bonds against fully developed and vetted standards. It is also the intention of the GBP to allow for

third party evaluation/audit of conformance with the guidelines recommended herein. (Further review in 2014 will refine this intended use and related communications.)

**DISCLAIMER**

*The Green Bond Principles are voluntary process guidelines that neither constitute an offer to purchase or sell securities nor constitute specific advice of whatever form (tax, legal, environmental, accounting or regulatory) in respect of Green Bonds or any other securities. The Green Bond Principles do not create any rights in, or liability to, any person, public or private. Issuers adopt and implement the Green Bond Principles voluntarily and independently, without reliance on or recourse to the Green Bond Principles, and are solely responsible for the decision to issue Green Bonds. Underwriters of Green Bonds are not responsible if issuers do not comply with their commitments to Green Bonds and the use of the resulting net proceeds. If there is a conflict between any applicable laws, statutes and regulations and the guidelines set forth in the Green Bond Principles, the relevant local laws, statutes and regulations shall prevail.*

## V. APPENDIX

For reference, below are publicly available resources addressing the Use of Proceeds from existing Green Bond issuers, non-profit and non-government organizations, and other relevant stakeholders. By providing this material, the GBP aim to aid investors in strengthening the environmental integrity of their investments.

- A. **Climate Bonds Initiative**, *Draft Green Bonds Taxonomy (Climate Bonds Initiative is not a Green Bonds Issuer but is developing an independent, third party standard)*  
<http://www.climatebonds.net/taxonomy-project>
  
- B. **European Investment Bank**, *Environmental and Social Practices Handbook and EIB's Screening and Assessment Criteria for Energy Projects (EIB is a Green Bonds Issuer)*  
<http://www.eib.org/infocentre/publications/all/environmental-and-social-practices-handbook.htm>  
[http://www.eib.org/attachments/strategies/eib\\_energy\\_lending\\_criteria\\_en.pdf](http://www.eib.org/attachments/strategies/eib_energy_lending_criteria_en.pdf)
  
- C. **International Finance Corporation**, *Definitions and Metrics for Climate-Related Activities (IFC is a Green Bonds Issuer and a second party opinion was consulted for this investment criteria statement)*  
[http://www.ifc.org/wps/wcm/connect/534495804a803b32b266fb551f5e606b/IFC\\_Climate\\_Definitions\\_2013.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/534495804a803b32b266fb551f5e606b/IFC_Climate_Definitions_2013.pdf?MOD=AJPERES)
  
- D. **Organization of Economic Development and Cooperation (OECD)**, *OECD Environment Working Papers, No. 46: Mobilizing Investment in Low Carbon, Climate Resilient Infrastructure ; See pp. 73-78, Defining Low Carbon, Climate Resilient Infrastructure Systems*  
<http://dx.doi.org/10.1787/5k8zm3gxxmng-en>
  
- E. **World Bank**, *World Bank Green Bond Project Selection Criteria (WB is a Green Bonds Issuer)*  
<http://treasury.worldbank.org/cmd/htm/GreenProjects.html>
  
- F. **European Bank for Reconstruction and Development**, *web site detailing EBRD criteria (EBRD is a Green Bonds Issuer)*  
<http://www.ebrd.com/pages/workingwithus/capital/sri.shtml>

