

# GREEN BOND IMPACT REPORT

FINANCIAL YEAR 2016



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## Introduction

We are pleased to present this annual Impact Report for IFC's Green Bond Program covering financial year 2016 (FY16). IFC remains one of the world's largest financiers of climate-smart projects for developing countries. Since 2005, IFC has invested more than \$15 billion in long-term financing for renewable power, energy efficiency, sustainable agriculture, and green buildings, with an additional \$10 billion in core mobilization.

We believe that climate change is a fundamental threat to development in our lifetime, with the potential to impact millions, threatening agricultural livelihoods, increasing the incidence of natural disasters and affecting water, energy, and food supplies. A recent World Bank study "[Shock Waves: Managing the Impacts of Climate Change on Poverty](#)" shows that if not properly mitigated, climate change can push more than 100 million people back into poverty over the next 15 years, hitting the poorest regions of the world – Sub-Saharan Africa and South Asia – the hardest. At the World Bank Group's 2015 Annual Meetings, President Jim Kim pledged to step up the Group's investments in climate to 28% of annual commitments and leverage an additional \$13 billion of private sector co-financing by year 2020. Two months later, the historic climate agreement at the United Nations Climate Change Conference (COP21) in Paris was made.

The Paris Agreement is a major turning point for the global climate change agenda, laying a green path for greater opportunities for the private sector. Aligned with COP21 agenda, IFC is in an unprecedented position to help its private sector clients capture opportunities through investments, innovative financing, and advisory work to address regulatory and policy obstacles to green growth.

As part of the [World Bank Group Climate Change Action Plan](#) adopted in April 2016, IFC released its [Climate Implementation Plan](#), which serves as a roadmap to achieving the pledge set by President Kim through the following objectives:

- 1) Scale climate investments to reach 28% of IFC's annual financing by 2020
- 2) Catalyze \$13 billion in private sector capital annually by 2020 to climate sectors through mobilization, aggregation, and de-risking products
- 3) Maximize impact through GHG emissions reduction and resilience of investments
- 4) Account for climate risk in IFC's investment selection.

Developing innovative financing products to spur additional climate investments through the capital markets is key to IFC's mandate and underpins its commitment to promote continued growth and development of the Green Bond market. We believe that capital markets have an indispensable role to play in channeling money into much needed climate investments by leveraging private capital.

*"Climate change impacts everyone, but the effects will be most acutely felt by people in developing countries. The response to IFC's Green Bonds demonstrates the enormous potential of capital market mechanisms to mobilize long-term investment for climate finance and leverage the power of the private sector."*

IFC Vice President and Treasurer Jingdong Hua



## Green Bond Eligible Projects Summary - FY16



### IMPACT

The 35 new projects financed through Green Bonds in FY16 **contribute approximately 1 million MWh in annual renewable energy generation**, sufficient to supply close to 74,000 US households with electricity for one year.<sup>2</sup>

The contribution to GHG emissions reduced through new projects was 1.3 million tons of CO<sub>2</sub>-equivalent, which compares to taking around 275,000 cars off the road.<sup>3</sup> New projects in the wind energy and the green banking sectors account for 57% of the total GHGs reduced.

### COMMITMENTS

In FY16<sup>1</sup>, IFC's climate-related investments were close to \$2 billion and an additional \$1.3 billion was raised through core mobilization, for a total of \$3.3 billion invested in climate-smart projects. About 55% of IFC's overall climate related portfolio was eligible for financing from Green Bond Proceeds.

**In FY16, new Green Bond financed commitments were close to \$1 billion in 35 projects across 22 countries**, including 16 new markets such as Bangladesh, Cambodia and China. Investments in green banking and green buildings represent the two largest sectors, amounting to 59% of the Green Bond financed projects.

### DISBURSEMENTS

**During the fiscal year, disbursements to Green Bond Eligible Projects amounted to \$754 million**, of which \$328 million was disbursed to projects committed in FY16.



<sup>1</sup> IFC's financial year spans from July 1<sup>st</sup> to June 30<sup>th</sup>.

<sup>2</sup> Equivalencies calculated using the US EPA Calculator, available at <http://www2.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

<sup>3</sup> Equivalencies calculated using the US EPA Calculator, available at <http://www2.epa.gov/energy/greenhouse-gas-equivalencies-calculator>



## Industry Engagement

Throughout FY16, IFC continued its leadership role in developing the Green Bond market as an active member of the Executive Committee (EXCOM) for the Green Bond Principles (GBP). IFC actively participated in the drafting of the

updated version of the voluntary set of transparency and disclosure guidelines published in June 2016. The GBP have gained broad market acceptance, as good practice driving transparency and accountability, and membership grew close to 125 members in 2016.



**“IN ADDITION TO IFC’S STRONG CREDIT PROFILE, THERE ARE TWO COMPONENTS OF IFC’S GREEN BOND PROGRAM THAT DISTINGUISH IT AS ESPECIALLY ATTRACTIVE FOR INVESTORS: IMPACT REPORTING AND ENVIRONMENTAL SECOND OPINION. IFC’S WORK TOWARD HARMONIZATION OF ENVIRONMENTAL IMPACT METRICS AND ITS ENGAGEMENT WITH CICERO FOR A SECOND PARTY OPINION ARE EXTREMELY HELPFUL AS INVESTORS LOOK TO EVALUATE THE IMPACT OF PROJECTS IN A GREEN BOND PROGRAM.”**

**ASHLEY SCHULTEN, PORTFOLIO MANAGER AT BLACKROCK**

climate change and advancing environmentally sustainable growth. Formed in 2012, SBN brings together central banks, regulators and trade associations from across emerging markets that seek to transform domestic financial systems to advance national goals on climate change and sustainable growth. IFC acts as secretariat for SBN and contributes its expertise in establishing and implementing environmental, social and governance standards that have become the global benchmark for finance across emerging markets.

IFC also participated in the EXCOM’s five working groups on strategic topics, such as Standard/Assurance, Defining Green, Impact Reporting, Database/Index criteria, and New Markets. IFC was re-elected for a two-year term on the EXCOM in June 2016.

The G20 Green Finance Study Group (GFSG) was set up in January 2016 and IFC has been a key member of the group tasked with the mandate to “identify institutional and market barriers to green finance, and based on country experiences, develop options on how to enhance the ability of the financial system to mobilize private capital for green investment.” Emerging from the GFSG’s work are a number of options for the G20 country authorities to consider for voluntary adoption to enhance the ability of the financial system to mobilize private capital for green investment. In September 2016, at the G20 Summit in Hangzhou, China, global leaders endorsed a set of recommendations<sup>4</sup> to boost green finance and called on the IFC-supported Sustainable Banking Network (SBN) and other partners to help lead the implementation. This marks the recognition of the central role the financial sector plays in reducing

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<sup>4</sup> The Synthesis Report and a full range of GFSG input papers is available at: <http://g20.org/English/Documents/Current/201608/P020160815359441639994.pdf>

## Awards and Acknowledgements

IFC's Green Bond program was lauded through a number of industry awards and tributes:

- **EMEA Finance - Best Local Currency Green Bond** for IFC's ZAR 1 billion issuance (2015)
- **Climate Bond Initiative - Inaugural Green Bond** for IFC's February 2013 \$1 billion note as the market's first ever USD 1 billion Green Bond (2016)
- **The Asset "Triple A" Asia Infrastructure Award - Best Green Bond Facility** for the five-year green Masala bonds which raised 3.15 billion rupees for private sector investments that address climate change in India (2016).



**Environmental Finance Magazine** conferred two accolades to IFC:

- **Special Award for Innovation** for the Structure of the Yes Bank / IFC 'back-to-back' transaction (2016)
- **Special Award for the Impact Reporting Initiative**, a collaboration with a number of other multilateral development banks serving as a guide for issuers on post-issuance transparency. Its recommendations include annual reporting on the projects financed and their environmental impact (2016).



## IFC's Green Bond Process

IFC Green Bond Program follows best market practice, and is compliant with the Green Bond Principles.

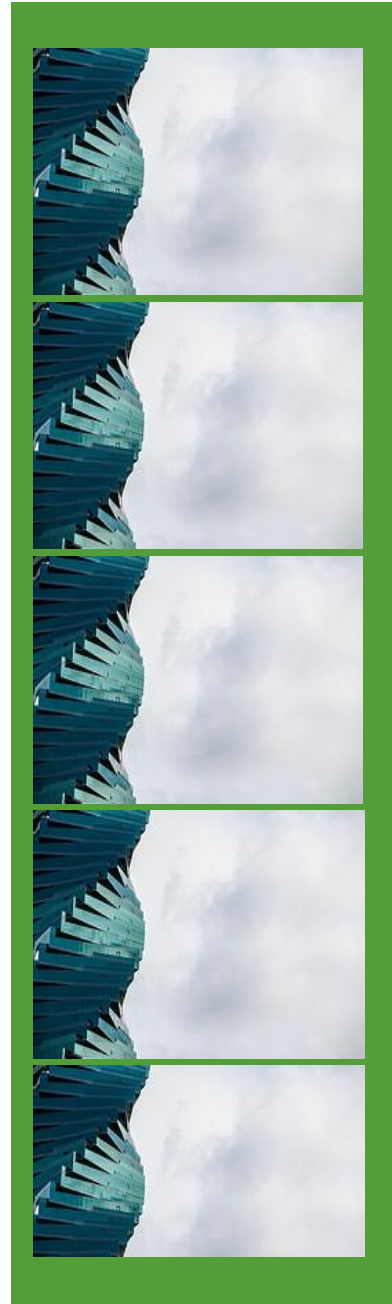
### USE OF PROCEEDS

Proceeds from IFC's Green Bonds are allocated to a special sub-portfolio that is linked to lending operations for climate-related projects ("Eligible Projects"). Eligible Projects are selected from IFC's climate-related loan portfolio, which comprises projects that meet IFC Definitions and Metrics for Climate-Related Activities<sup>5</sup>.

Only the loan portions of the projects are eligible for funding via Green Bond Proceeds (equity investments and guarantees are ineligible). The sub-portfolio is credited as disbursements are made towards Eligible Projects.

Projects eligible for Green Bond financing include the following sectors:

- **Renewable energy (RE):**  
investments in equipment, systems and services which enable the productive use of energy from renewable resources such as wind, hydro, solar and geothermal production
- **Energy efficiency (EE):**  
investments in equipment, systems and services which result in a reduced use of energy per unit of product or service generated, such as waste heat recovery, cogeneration, building insulation, energy loss reduction in transmission and distribution
- **Resource efficiency:**  
investments to improve industrial processes, services and products that enhance the conversion efficiency of manufacturing inputs (energy, water, raw materials) to saleable outputs, including reduction of impact at source



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<sup>5</sup>Please see IFC's definitions here:

[http://www.ifc.org/wps/wcm/connect/Topics\\_Ext\\_Content/IFC\\_External\\_Corporate\\_Site/CB\\_Home/Measuring+Reporting/](http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/CB_Home/Measuring+Reporting/)

- **Cleaner technology production:**  
investments in manufacturing of components used in energy efficiency or renewable energy, such as solar photovoltaics, manufacture of turbines or building insulation materials
- **Financial intermediaries:**  
lending to financial intermediaries with the requirement that IFC's investments are on-lent to climate projects that fit IFC's Green Bond eligibility criteria
- **Sustainable forestry:**  
investments that reduce emissions from deforestation and forest degradation by supporting sustainable management of natural forests.

## EVALUATION AND SELECTION

In addition to meeting the Green Bond Principles eligibility criteria, all Eligible Projects have been implemented in consistency with IFC's Sustainability Framework, including the Performance Standards and World Bank Group EHS Guidelines, IFC's Corporate Governance Framework and disclosure requirements of the IFC Access to Information Policy. All projects have undergone a rigorous ESG due diligence process and are subject to ongoing monitoring and supervision.

IFC's project evaluation and selection criteria have been reviewed by the Center for International Climate and Environmental Research at the University of Oslo (CICERO). CICERO's Second Opinion is published on IFC's website.

## MANAGEMENT OF PROCEEDS

All proceeds from IFC Green Bonds are set aside in a designated Green Cash Account and are invested in accordance with IFC's conservative liquidity policy until disbursement to Eligible Projects. Disbursement requests for Eligible Projects take place in accordance with IFC's established policies and procedures and are often made over a period of time depending on project milestones etc.

In some cases, the climate-related component of a project supported by Green Bonds may be a part of a larger investment. In such cases, the Green Bond portfolio only finances the eligible portion of the project.

Monitoring of the projects comprises regular reports by the investee company on project activities and performance throughout the lifetime of investment.





## REPORTING

IFC Green Bond Impact Report follows the GBP's reference framework for reporting "[Working towards a harmonized framework for Green Bond impact reporting](#)", which aims at ensuring integrity of the market through increased transparency.

The Impact Report provides a list of projects that received funding from Green Bond proceeds and, subject to confidentiality considerations, also provides a brief description of each project, the amounts committed, and the expected environmental impact. The report only covers projects eligible for Green Bond financing, for more information on IFC's climate-related financing and other activities visit [www.ifc.org/climatebusiness](http://www.ifc.org/climatebusiness).



## Green Bonds Issuance Program - FY16

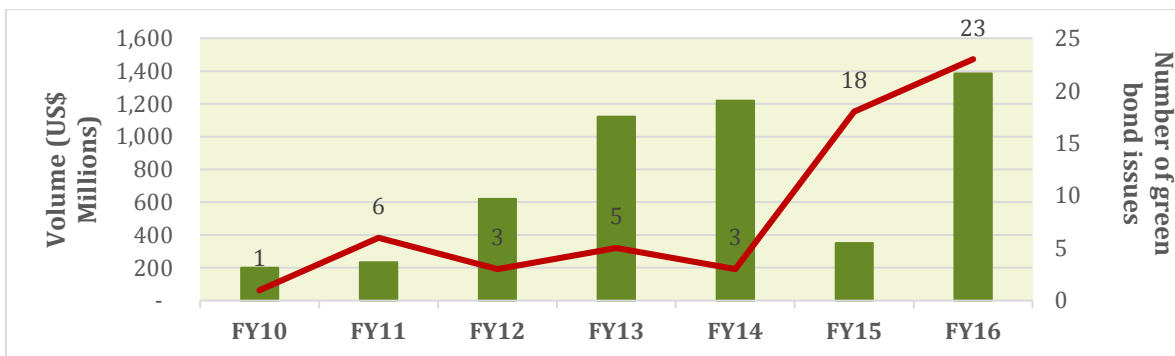
In FY16, IFC issued 23 Green Bonds in public, private and retail format across seven currencies amounting to a total volume of \$1.4 billion, the highest annual issuance since the inception of IFC's Green Bond Program. Highlighted issuances include: two offerings in November 2015 - a debut ZAR 1 billion (\$71 million) Green Bond, which was the first Green Bond issued by a multilateral in South Africa, and a \$500 million Green Bond, marking IFC's return to green benchmark issuances.

In March 2016, IFC issued a 10 year \$700 million Green Bond, IFC's longest tenor Green Bond to date. The bond was subsequently reopened in July 2016 and increased to \$1.2 billion, subscribed to by a well-diversified range of around 65 investors.

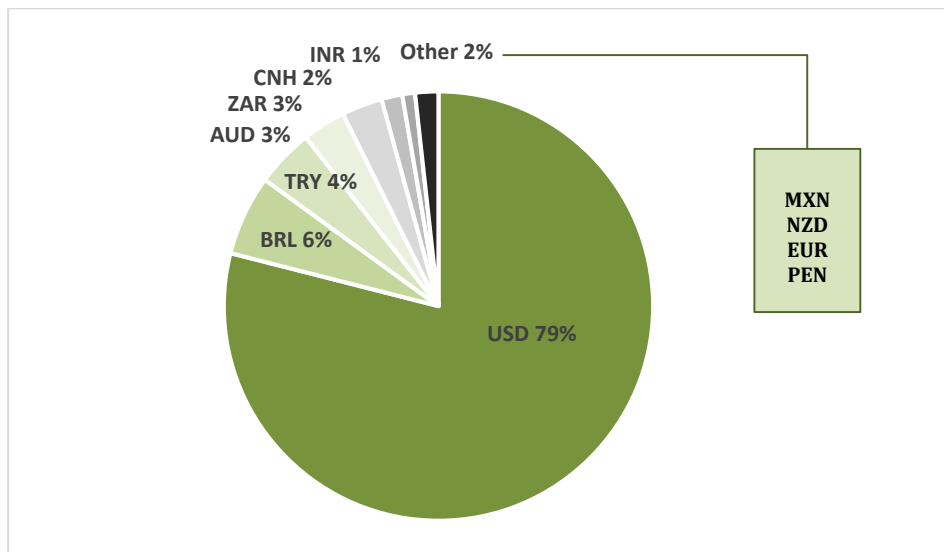
During the year, the first ever \$1 billion dollar Green Bond issued by IFC in February 2013, matured in May 2016.

As of June 30, 2016, IFC's outstanding Green Bonds amounted to around \$3 billion.

IFC HISTORICAL GREEN BOND ISSUANCE



IFC CUMULATIVE GREEN BOND ISSUANCE BY CURRENCY



## Use of Proceeds Reporting

In the last three years (from FY14 to FY16), there were 93 Green Bond Eligible Projects supported by IFC's Green Bond Proceeds. The total committed amount for these projects is close to \$3 billion, of which approximately \$1.9 billion has been disbursed. The current pipeline of undisbursed commitments to Green Bond Eligible Projects is \$1.1 billion.

### COMMITMENTS BY SECTOR

<i>USD millions</i>	FY14	FY15	FY16
Renewable Energy	756	808	305
Energy Efficiency	94	296	521
Other Mitigation (RE/EE)	86	51	134
<b>Total</b>	<b>936</b>	<b>1,155</b>	<b>960</b>

### COMMITMENTS BY REGION

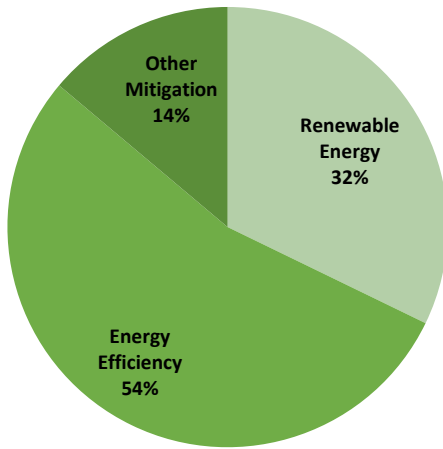
<i>USD millions</i>	FY14	FY15	FY16
Europe and Central Asia	178	382	284
East Asia and the Pacific	0	0	229
South Asia	62	155	200
Middle East and North Africa	55	143	118
Latin America and the Caribbean	618	422	90
Sub-Saharan Africa	23	43	39
Multi Region	0	10	0
<b>Total</b>	<b>936</b>	<b>1,155</b>	<b>960</b>

### DISBURSEMENTS BY REGION

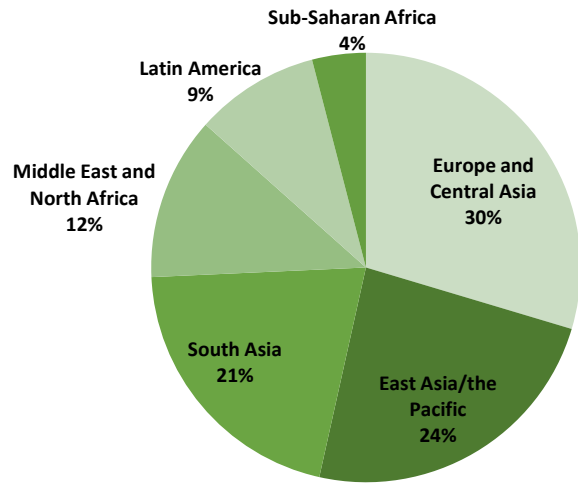
<i>USD millions</i>	FY14	FY15	FY16
Europe and Central Asia	66	228	265
Latin America and the Caribbean	156	551	210
Middle East and North Africa	9	34	123
South Asia	11	125	117
Sub-Saharan Africa	0	18	21
East Asia and the Pacific	0	0	18
<b>Total</b>	<b>242</b>	<b>956</b>	<b>754</b>

# IFC GREEN BOND IMPACT REPORT FY16

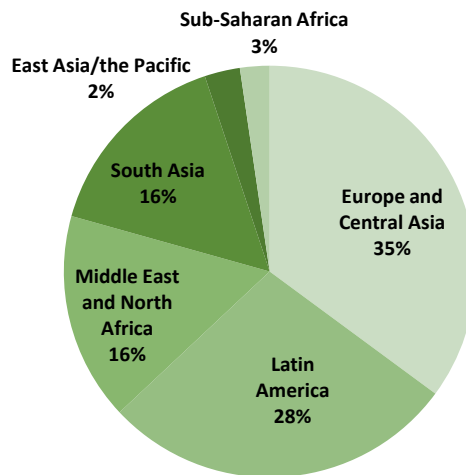
## FY16 COMMITMENTS BY SECTOR



## FY16 COMMITMENTS BY REGION



## FY16 DISBURSEMENTS BY REGION





## Impact Reporting

### IMPACT INDICATORS

IFC reports on a number of core indicators for projects included in the Green Bond Program in accordance with the [Harmonized Framework for Impact Reporting](#) developed by a group of multilateral development banks including IFC. The four core indicators are as follows:

1. Annual energy savings
2. Annual greenhouse gas (GHG) emissions reduced or avoided
3. Annual renewable energy produced
4. Capacity of renewable energy plant(s) constructed or rehabilitated

### IFC ACCESS TO INFORMATION POLICY

The [Access to Information Policy](#) is the cornerstone of IFC's Sustainability Framework and articulates IFC's commitment to transparency. IFC seeks to provide accurate and timely information regarding our investment and advisory services to clients, partners, and stakeholders. We disclose information relevant to project, environmental, and social issues, and expected development impact, prior to consideration by our Board of Directors. Through the life of each project IFC updates environmental and social information as necessary to ensure the continued accuracy of the information disclosed prior to investment. This commitment also applies to projects funded by the Green Bond Program.

## Interpreting Impact Indicators

IFC's investment is pro-rated against the climate related portion of the project to derive the amount of the "Climate Loan Committed." Climate impact indicators are tracked on a project-level basis and have not been pro-rated for the portion of IFC's contribution. Some climate projects contribute to mitigation, but do not have an agreed methodology for impact's calculation. Investments in financial intermediaries ensure that climate finance is available for smaller clients that IFC cannot reach directly, such as small and medium sized enterprises. It is important for IFC that our partner financial intermediaries assess climate impact of their investments, and therefore, IFC has developed a web-based application CAFI (Climate Assessment for FI Investment), which enables the partners to monitor the results of investments in the areas of energy efficiency, renewable energy, climate adaptation, and special climate.<sup>6</sup>

IFC's GHG Methodology and Climate Related Definitions and Metrics are available at IFC's Climate Business website.<sup>7</sup>

The Impact Assessment table allows for quantification of a few core indicators, but it is important to appreciate the limitations of the data reported. The main considerations to adequately interpret the results are:

- **Scope of results:** Reporting is based on "ex-ante" estimates at the time of project appraisal and mostly for direct project effects.
- **Uncertainty:** An important consideration in estimating impact indicators is that they are often based on a number of assumptions. While technical experts aim to make sound and conservative assumptions that are reasonable based on the information available at the time, the actual impact of the projects may diverge from initial projections. In general, behavioral changes or shifts in baseline conditions can cause deviations from projections.
- **Comparability:** Caution should be taken in comparing projects, sectors, or whole portfolios because baselines (and base years) and calculation methods may vary significantly. In addition, the cost structures between countries will also vary, so that developing cost-efficiency calculations (results per unit of amount invested in Eligible Projects) could place smaller countries with limited economies of scale at a disadvantage and will not take into consideration country specific context.
- **Omissions:** Projects may have impact across a much wider range of indicators than captured in the Impact Assessment table and may have other important development impacts. Furthermore, there may be some projects for which the proposed core indicator is either not applicable or the data is not available.

While IFC takes efforts to improve the consistency and availability of reported metrics over time, projects with climate impact can range over a wide diversity of sectors and sub-sectors making complete harmonization of reporting metrics challenging.

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<sup>6</sup> See <http://www.ifc.org/cafi>

<sup>7</sup> [http://www.ifc.org/wps/wcm/connect/Topics\\_Ext\\_Content/IFC\\_External\\_Corporate\\_Site/CB\\_Home/Measuring+Reporting/](http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/CB_Home/Measuring+Reporting/)

## Impact Assessment: Green Bond Eligible Projects Committed in FY16 and FY15

The Impact Assessment table below lists the expected climate results from projects funded, in whole or in part, with IFC Green Bond proceeds. The projects are organized by sector and are categorized by project type as RE for renewable energy, EE for energy efficiency and RE/EE for combined and other mitigation.

**Reporting is based on “ex-ante” estimates at the time of project appraisal. As the Impact Assessment table includes the estimated results of projects that are still in the construction or implementation phase, there is no guarantee that these results will ultimately materialize. The reporting is thus not intended to provide actual results achieved in a specific year or reporting period.**

**The Impact Assessment covers only projects committed in FY16 and FY15. The table does not include impact indicators of projects committed in earlier years.**

As the table below illustrated, new Green Bond Eligible Project commitments for two years - FY16 and FY15 - totaled \$2.1 billion. Disbursements for the projects committed in FY16 and FY15 amounted to \$1.2 billion. These projects are expected to contribute 4.5 million MWh in annual renewable energy generation, sufficient to supply over 330,000 US households with electricity. They also should yield total GHG reductions of almost 3.8 million tons of CO2-equivalent, comparable to taking around 800,000 cars off the road.

No	Project Short Name	Year	Country	Project ID	Project Description	Type	Climate Loan Committed	Annual Energy Produced	Annual Energy Savings	RE Capacity Constructed/Rehabilitated	Annual GHGs Reduced
							<i>\$ Million</i>	<i>MWh</i>	<i>KWh</i>	<i>MW</i>	<i>tCO2eq/yr</i>
<b>Solar</b>											
1	Azure_PV_40MW	FY16	India	<a href="#">38003</a>	Construction of four solar power plants to increase private sector investment in low income states	RE	9.2	69,000	n/a	40	51,266
2	Azure_Raj_40MW	FY16	India	<a href="#">38004</a>		RE	9.2	69,000	n/a	40	51,266
3	Azure Sunrise	FY16	India	<a href="#">38005</a>		RE	11.5	86,000	n/a	50	63,897
4	Azure Clean	FY15	India	<a href="#">35058</a>		RE	13.9	63,350	n/a	40	49,210
5	Canadian Solar	FY16	Multi-Country	<a href="#">36142</a>	Increasing production and sales of solar modules to promote the development of utility scale solar power plants	RE	40.0	-	n/a	-	-

## IFC GREEN BOND IMPACT REPORT FY16

No	Project Short Name	Year	Country	Project ID	Project Description	Type	Climate Loan Committed	Annual Energy Produced	Annual Energy Savings	RE Capacity Constructed/Rehabilitated	Annual GHGs Reduced
							\$ Million	MWh	KWh	MW	tCO2eq/yr
6	FRV Solar Jordan	FY16	Jordan	<a href="#">36877</a>	Construction of a 50 MW solar plant providing energy to approximately 60,000 customers annually	RE	19.0	143,187	n/a	50	86,893
7	Luz del Norte	FY15	Chile	<a href="#">34405</a>	Construction of a solar power plant for the Chilean mining industry, which accounts for 40% of country's total energy consumption	RE	60.0	394,700	n/a	162	170,803
8	Abengoa CSP Xina	FY15	South Africa	<a href="#">34051</a>	Construction of a 100 MW concentrated solar power plant in response to South Africa's electricity constraints	RE	43.1	351,133	n/a	100	294,874
9	Acme Solar NSM 1	FY15	India	<a href="#">35187</a>	Construction of five solar plants by Acme Solar and its subsidiaries to increase solar power generation by 100MW and alleviate India's power shortage	RE	6.4	38,536	n/a	20	28,516
10	Acme Solar NSM 2	FY15	India	<a href="#">36019</a>		RE	6.4	38,536	n/a	20	28,516
11	Acme Solar NSM 3	FY15	India	<a href="#">36021</a>		RE	6.4	38,536	n/a	20	28,516
12	Acme Solar NSM 4	FY15	India	<a href="#">36022</a>		RE	6.4	38,536	n/a	20	28,516
13	Acme Solar NSM 6	FY15	India	<a href="#">36048</a>		RE	7.1	38,536	n/a	20	27,398
14	Adenium Jordan 1	FY15	Jordan	<a href="#">35467</a>	Construction of five solar plants on a build-own-operate basis to diversify the fuel mix for Jordan and increase energy security	RE	11.3	25,663	n/a	10	15,573
15	Adenium Jordan 2	FY15	Jordan	<a href="#">34726</a>		RE	11.3	25,663	n/a	10	15,573
16	Adenium Jordan 3	FY15	Jordan	<a href="#">34728</a>		RE	11.3	25,663	n/a	10	15,573
17	Arabia One Solar	FY15	Jordan	<a href="#">35474</a>		RE	10.5	21,704	n/a	10	13,171
18	Jordan Solar One	FY15	Jordan	<a href="#">35479</a>		RE	14.4	47,000	n/a	20	28,322
19	Aura Solar II	FY15	Honduras	<a href="#">35364</a>	Construction of three solar power plants demonstrating viability of utility-scale solar power in Honduras	RE	24.4	117,000	n/a	61	53,317
20	SunEdison HON3	FY15	Honduras	<a href="#">34975</a>		RE	41.7	168,753	n/a	82	74,359
21	Valle Solar PV	FY15	Honduras	<a href="#">35080</a>		RE	30.0	125,100	n/a	70	55,124



## IFC GREEN BOND IMPACT REPORT FY16

No	Project Short Name	Year	Country	Project ID	Project Description	Type	Climate Loan Committed	Annual Energy Produced	Annual Energy Savings	RE Capacity Constructed/Rehabilitated	Annual GHGs Reduced
							<i>\$ Million</i>	<i>MWh</i>	<i>KWh</i>	<i>MW</i>	<i>tCO2eq/yr</i>
<b>Wind</b>											
22	Ostro Andhra	FY16	India	<a href="#">37086</a>	Construction of two wind farms to increase clean energy production to reach approximately 0.5 million individuals by 2019	RE	29.5	256,790	n/a	99	190,792
23	Ostro AP Wind	FY16	India	<a href="#">38398</a>		RE	30.8	278,410	n/a	99	206,856
24	BMR Wind	FY15	Jamaica	<a href="#">35081</a>	Construction of the first independent and privately owned RE power plant in Jamaica to modernize, diversify and improve the competitiveness of the energy sector	RE	10.0	104,300	n/a	34	66,136
25	Dawood TGL	FY15	Pakistan	<a href="#">30145</a>	Construction of two wind farms to capitalize on Pakistan's favorable wind power environment and support a newly issued wind feed-in tariff (FIT) regime	RE	22.0	126,300	n/a	50	55,822
26	Gul Ahmed Wind	FY15	Pakistan	<a href="#">35088</a>		RE	11.6	151,900	n/a	50	93,783
27	Green Infra Wind	FY15	India	<a href="#">35415</a>	Financing five wind power farms with a total capacity of 242 MW in 5 low-income states of India	RE	55.2	405,716	n/a	242	285,218
28	Penonome Wind	FY15	Panama	<a href="#">34810</a>	Construction of a 215 MW wind power plant, the largest wind project in Panama and located in one of the least developed provinces	RE	80.0	512,000	n/a	215	188,434
29	Rudine WPP	FY15	Croatia	<a href="#">34079</a>	Construction of a 34 MW wind farm to meet Croatia's growing power demand and reduce reliance on imported energy	RE	24.9	75,660	n/a	34	25,836

## IFC GREEN BOND IMPACT REPORT FY16

No	Project Short Name	Year	Country	Project ID	Project Description	Type	Climate Loan Committed	Annual Energy Produced	Annual Energy Savings	RE Capacity Constructed/Rehabilitated	Annual GHGs Reduced
							\$ Million	MWh	KWh	MW	tCO2eq/yr
<b>Hydro Power</b>											
30	KTDA Small Hydro	FY16	Kenya	<a href="#">36402</a>	Construction of seven new run-of-the-river small hydropower plants to power tea production plants	RE	12.5	100,133	-	16	59,742
31	Gulpur Hydro	FY15	Pakistan	<a href="#">32874</a>	Construction of a run-of-the-river hydropower plant under a build-own-operate transfer plan to reduce power generation costs	RE	50.0	360,000	-	102	170,946
32	Kabeli	FY15	Nepal	<a href="#">30977</a>	Increasing hydropower supply to improve access to reliable and affordable electricity in the eastern and western regions of Nepal	RE	19.3	205,200	-	38	114,441
<b>Green Buildings</b>											
33	Arpico Retail	FY16	Sri Lanka	<a href="#">33883</a>	Installation of solar panels on commercial rooftops for a retail chain	RE/EE	7.5	4,809	-	4	2,326
34	Ciputra Res Loan	FY16	Indonesia	<a href="#">37122</a>	Construction of new housing compliant with green buildings standards to facilitate the creation of a sustainable living environment	EE	30.0	-	-	-	-
35	Credence	FY16	Egypt	<a href="#">33360</a>	Hotel expansion and new hotels' construction in Cairo applying green building standards	EE	10.5	-	-	-	-
36	Aclea Education	FY16	Cambodia	<a href="#">35242</a>	Construction of new campus buildings following IFC's Green Building Standard (EDGE) and reducing the use of energy, water and materials by 20 percent	EE	13.0	-	-	-	-

## IFC GREEN BOND IMPACT REPORT FY16

No	Project Short Name	Year	Country	Project ID	Project Description	Type	Climate Loan Committed	Annual Energy Produced	Annual Energy Savings	RE Capacity Constructed/Rehabilitated	Annual GHGs Reduced
							<i>\$ Million</i>	<i>MWh</i>	<i>KWh</i>	<i>MW</i>	<i>tCO2eq/yr</i>
37	Eurasia Univ	FY16	China	<a href="#">37659</a>	Expansion and retrofitting of existing academic buildings to reduce water and energy usage, progressively developing a "green campus"	EE	35.1	-	-	-	-
38	Exchange-Debt	FY16	Ghana	<a href="#">35396</a>	Building of a new commercial center in Accra, incorporating green building standards, operational efficiency and advanced technologies	EE	26.3	-	-	-	-
39	Ibis Mongolia	FY16	Mongolia	<a href="#">37451</a>	Construction of an international-standard hotel and retail space integrating green building design principles	RE	6.5	-	1,454,215	-	777
40	M2RE II – AfH	FY16	Georgia	<a href="#">37432</a>	Implementing green building standards for Georgia's first 3-star international hotel and an affordable housing project	EE	11.5	-	-	-	-
41	M2RE II-Ramada	FY16	Georgia	<a href="#">37431</a>		EE	7.0	-	1,355,496	-	92
42	PNBHF Green Bond	FY16	India	<a href="#">37417</a>	Construction of green residential buildings in India	EE	75.0	-	-	-	1,423
43	Schwarz IV	FY16	Bulgaria	<a href="#">36671</a>	Construction of a new retail space for a supermarket chain implementing green building best practices	EE	89.7	-	-	-	8,388
44	USAL Exp	FY16	Argentina	<a href="#">37778</a>	Construction of a green university building that can accommodate more than 5,000 students	EE	6.9	-	365,761	-	165
45	STS Chittagong	FY16	Bangladesh	<a href="#">31841</a>	Building of a 243-bed energy efficient hospital facility in Chittagong	EE	17.5	-	-	-	-

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							\$ Million	MWh	KWh	MW	tCO2eq/yr
46	Adana Health	FY15	Turkey	<a href="#">34358</a>	Enhancing healthcare access via one of the country's first public- private healthcare projects that uses modern, energy efficient technologies and infrastructure	EE	43.7	-	14,254,326	-	6,721
47	Kayseri Health	FY15	Turkey	<a href="#">31029</a>		EE	37.6	-	18,067,000	-	8,519
48	Etlık Health	FY15	Turkey	<a href="#">33677</a>	Energy-efficient technologies for a network of hospitals	EE	82.2	-	36,971,000	-	17,432
<b>Green Banking</b>											
49	AAIB SL	FY16	Egypt	<a href="#">37161</a>	Sustainable energy financing to medium-sized enterprises	RE/EE	50.0	n/a	n/a	n/a	119,176
50	DCM RCBC Bond	FY16	Philippines	<a href="#">37489</a>	Government partnership with RCBC to mobilize long-term funds that support the country's long term infrastructure needs	RE	22.5	n/a	n/a	n/a	12,586
51	EMILIA	FY16 FY15	Chile	<a href="#">33707</a>	On-lending to renewable energy projects. A follow-on investment from FY14 and FY15.	RE	55.0	n/a	n/a	n/a	
52	DCM TSKB Climate	FY16	Turkey	<a href="#">37063</a>	Financing of climate mitigation projects through Turkey's first privately-owned development and investment bank	RE/EE	75.0	n/a	n/a	n/a	62,635
53	Fransabank SEF 2	FY16	Lebanon	36883/ <a href="#">34320</a>	Scale-up of lending to climate-smart businesses looking to adopt and improve their renewable and energy-efficient technologies	RE/EE	14.0	n/a	n/a	n/a	54,919



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							\$ Million	MWh	KWh	MW	tCO2eq/yr
54	NBK - Egypt	FY16	Egypt	<a href="#">37029</a>	Improving access to finance for mid-sized businesses and promoting Egypt's first sustainable energy financing (SEF) credit line	RE/EE	25.0	n/a	n/a	n/a	56,667
55	Pichincha ECU II	FY16	Ecuador	<a href="#">37502</a>	Supporting Banco Pichincha to finance climate-smart projects by SMEs	RE/EE	7.5	n/a	n/a	n/a	18,868
56	Abank EE	FY15	Turkey	<a href="#">34488</a>	On-lending to sustainable energy projects in SME sector through a local bank	RE/EE	20.0	n/a	n/a	n/a	73,350
57	Consorcio RE	FY15	Chile	<a href="#">36053</a>	Financing of smaller non-conventional renewable energy projects	RE	30.0	n/a	n/a	n/a	34,652
58	FinansL EE II	FY15	Turkey	<a href="#">36153</a>	Improved energy efficiency to reduce SMEs' energy costs	RE/EE	40.0	n/a	n/a	n/a	77,824
59	Itau Climate Smart	FY15	Brazil	<a href="#">34525</a>	Expansion of a credit facility to climate-smart projects	RE/EE	100.0	n/a	n/a	n/a	122,987
60	Odeabank GrMortg	FY15	Turkey	<a href="#">35827</a>	Green mortgages to improve energy efficiency of the housing sector	EE	44.5	n/a	n/a	n/a	5,914
61	PFS II	FY15	India	<a href="#">36091</a>	Scaling-up investments (local and international) by a financial intermediary in renewable energy projects	RE	34.1	n/a	n/a	n/a	30,500

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							\$ Million	MWh	KWh	MW	tCO2eq/yr
62	RA Energy Access	FY15	Multi-Country	<a href="#">31386</a>	Working capital to finance manufacturers and distributors of solar-powered lighting and energy solutions through Energy Access Fund	RE/EE	10.0	n/a	n/a	n/a	37,143
63	YKL Sustainable	FY15	Turkey	<a href="#">33950</a>	Long-term funding for sustainable energy projects to a leading leasing company in Turkey	RE/EE	64.0	n/a	n/a	n/a	122,163
<b>Agribusiness</b>											
64	CVA	FY16	Brazil	<a href="#">33683</a>	Promoting sustainable management of 9,600 hectares of land, including the introduction of regional sustainability standards for 6,300 hectares of teak plantations	RE/EE	17.1	n/a	n/a	n/a	81,305
65	DCM Bharuch II	FY16	India	<a href="#">36511</a>	Conversion of a caustic soda/chlorine production to more environmentally friendly membrane cell technology	RE/EE	9.5	n/a	n/a	n/a	-
66	Lacteos Toni II	FY16	Ecuador	<a href="#">36550</a>	Construction of a new dairy plant and processing line with energy efficiency improvements in Guayaquil	EE	11.0	n/a	n/a	n/a	-
67	Arla AFISA	FY15	Argentina	<a href="#">35983</a>	Improving industrial energy efficiency for dairy production with a reach of approx. 1,900 farmers in rural Argentina	EE	25.6	n/a	n/a	n/a	-
<b>Transport</b>											
68	MMI Metro Line	FY16	Turkey	<a href="#">37093</a>	Construction and electro-mechanical works on a 5.3 km metro line in Istanbul	RE/EE	65.3	Project contributes to climate mitigation, but no IFC methodology exists for impact calculation			

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							\$ Million	MWh	KWh	MW	tCO2eq/yr
69	Transambiental	FY16	Colombia	<a href="#">36340</a>	Acquisition of a fleet of 212 buses operating on natural gas and under modern environmental standards	RE/EE	12.7				Project contributes to climate mitigation, but no IFC methodology exists for impact calculation
70	Izmir Railcars	FY15	Turkey	<a href="#">35012</a>	Purchase of 85 railcars for Izmir Metro system to expand public transportation infrastructure	EE	13.2				Project contributes to climate mitigation, but no IFC methodology exists for impact calculation
<b>Industrial Energy</b>											
71	Cemex Green	FY16	Mexico	<a href="#">37840</a>	Supporting Cemex's 2020 Sustainability Enhancement Target to improve environmental performance of the company's operations	RE/EE	82.0	-	-	-	-
72	SSL Bosnia IV	FY16	Bosnia and Herzegovina	<a href="#">37515</a>	Improving energy efficiency of a soda ash plant for one of the largest soda ash producers in Southern Europe	EE	6.5	-	260,897,000	-	91,968
73	Trakya Cam VIII	FY16	Turkey	<a href="#">35338</a>	Improving energy efficiency by revamping furnaces and waste heat recovery for a leading flat glass manufacturer	EE	29.3	-	189,341,615	-	63,349
<b>TOTAL</b>							<b>\$2,103</b>	<b>4,506,814</b>	<b>522,706,413</b>	<b>1,838</b>	<b>3,750,538</b>



### AZURE PROJECTS (P38005, P38003 AND P38004)

#### Solar Energy in India

India has an ambitious goal to reach 100,000 MW of solar capacity by 2022, requiring \$100 billion in new investments. Although the Indian solar sector has indeed made remarkable gains, it faces critical bottlenecks and shortcomings within the power sector. Approximately 300 million people, close to 25 percent of the country's population, remain without electricity. In an effort to overcome these challenges and light up more homes and businesses, Azure Power's most recent solar developments in Karnataka, India's largest state by population, are increasing the availability of clean, efficient, and dependable energy for all.



As one of the country's top providers of solar photovoltaic (PV) energy technology and an established IFC partner since 2010, Azure Power builds, owns, and operates small and medium-scale solar plants with a total installed capacity of 356 MW. Azure currently has 17 large solar panel installations under operation and another 11 under development – contributing to the company's goal to deliver 5,000 MW of solar power to the Indian grid by the end of 2020. In 2016, Azure won three separate bids amounting to 130 MW, which together form a large solar complex in the Indian state of Karnataka.

IFC made a loan of US\$30 million to three wholly owned subsidiaries: Azure PV, Azure Raj, and Azure Sunrise to help finance these three plants. The long-term nature of IFC's loan matches the Azure solar plants' longevity, ensuring proper financing for years to come.

The Karnataka Azure solar complex will soon contribute 226 GWh of electricity yearly with an installed capacity of 130 MW, reaching approximately 116,000 people. It's estimated that the Karnataka Azure development will help to avoid greenhouse-gas emissions equivalent to approximately 166,000 tons of carbon dioxide per year.

IFC's work with the Indian solar industry has a notable demonstration effect and will help mature the market as solar energy becomes more viable and renewable energy becomes more attractive to foreign investors.

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