

ASSESSMENT

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Indian Renewable Energy Development Agency Ltd.

Green Bond Assessment - September 2017 issuance

Summary analysis



Summary opinion

A GB1 (Excellent) Green Bond Assessment (GBA) assigned to the <u>Indian Renewable Energy</u> <u>Development Agency's</u> (IREDA, Baa3 stable) US\$300 million equivalent green bond issued in September 2017 primarily reflects the following considerations:

- » Issuer's role as a nodal agency of the Indian government, with a remit to promote and develop renewable energy projects across India
- » Proceeds from the green bond fully allocated to solar power, manufacturing and infrastructure projects and wind power projects across India
- » Excellent organization and governance structure, including a transparent green bond framework with detailed project eligibility criteria that are aligned with the Climate Bond Initiative's (CBI) Climate Bond Standard Version 2.1¹
- » Strict investment guidelines and safeguard processes for the allocation of the green bond proceeds, somewhat mitigating the absence of a ring-fenced account
- » Issuer commitment to provide aggregated impact reporting beginning in the first half of 2019; lack of track record of impact reporting to date is a moderate weakness

Factor	Factor Weights	Score	Weighted Score
Organization	15%	1	0.15
Use of Proceeds	40%	1	0.40
Disclosure on the Use of Proceeds	10%	1	0.10
Management of Proceeds	15%	2	0.30
Ongoing Reporting and Disclosure	20%	2	0.40
Weighted Score			1.35

The transaction's weighted score, based on the GBA scorecard, is 1.35. This, in turn, corresponds to a composite grade of GB1.

Profile

Indian Renewable Energy Development Agency Limited's (IREDA) is a public financial institution, registered as a non-banking financial company with the Reserve Bank of India (RBI). It was established in March 1987 and is wholly owned by the Indian government under the Ministry of New and Renewable Energy (MNRE). IREDA's principal activities involve engaging in promoting, developing and extending financial assistance for setting up projects related to new and renewable sources of energy, and energy efficiency or conservation.

The company is headquartered in New Delhi, with branch offices in Chennai, Hyderabad and Ahmedabad.

Transaction summary

In September 2017, IREDA issued a US\$300 million (INR19.5 billion) equivalent Indian rupee-denominated senior unsecured green bond (the "IREDA Green Masala Bond"), with a coupon of 7.125% and a maturity of five years. The bond was issued under the issuer's US\$300 million Medium Term Note (MTN) program and was listed on the London Stock Exchange's International Securities Market (ISM) and the Singapore Exchange (SGX-ST).

Strengths and weaknesses

Strengths	Weaknesses
Nodal agency of the Indian government, with remit to develop renewable energy	No dedicated account or sub-account for the proceeds derived from issuance of
projects	the green bond; however, the issuer maintains a green bond register, updated annually, that records allocation of funds
Full proceeds allocated to finance investments within eligible sectors aligned with	Commitment to environmental and social impact reporting for projects financed by
the Climate Bond Standard Version 2.1	green bond at an aggregate level only
Robust governance underpinned by formal green bond framework and committee,	
pre- and post-issuance assurance, and broader sustainability credentials	
Excellent disclosure on types of eligible projects, including information on location,	
capacity additions, project costs and disbursement dates	

Organization







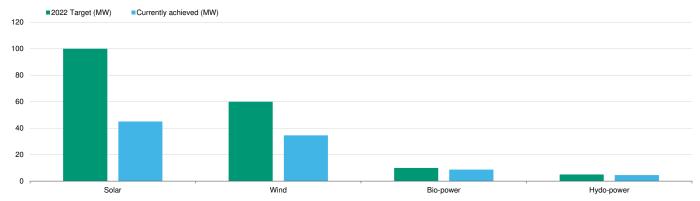




IREDA's sustainability objectives are a function of India's renewable energy and climate goals. The MNRE aims to add 175 gigawatts to the country's renewable energy capacity by 2022², compared with 72 gigwatts currently (see Exhibit 1), with a roadmap supported by policy and regulatory help for the sector. These goals also go towards supporting India's Paris Agreement targets³ to reduce emission intensity of GDP by 33%-35% by 2030, and increase the share of non-fossil based energy resource to 40% of installed electricity capacity by 2030.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Exhibit 1 India's 2022 renewable energy capacity targets (MW) vs current capacity



Note: Current capacity as of September 2018 Source: Government of India, Central Electric Authority

IREDA is the nodal agency tasked with implementing subsidies and grants to the renewable energy sector and administering the government's various renewable energy schemes. As such, IREDA's sole mandate it to promote and develop projects focusing on renewable energy across India. To this end, the agency has established a transparent and detailed green bond framework that is built around the four core pillars (use of proceeds, project evaluation and selection, management of proceeds, and reporting) of the Green Bond Principles⁴.

The issuer has received pre-issuance assurance from an external verifier that its framework complies with the Climate Bonds Standard Version 2.1, and has been certified by Climate Bond Initiative. Furthermore the issuer also employs an internal sustainability framework which was created in 2016. IREDA has several teams and committees to approve the nomination of projects and/or assets for green bond allocation, including a technical team that determines project eligibility, an approving authority that provides final sanction of the use of proceeds and the finance department that monitors the allocation of the green bond proceeds. These committees includes broad-based participation from a diverse array of senior stakeholders.

Factor 1: Organization (15%)	Yes	No
Environmental governance and organization structure appear to be effective	•	
Policies and procedures enable rigorous review and decision making process	•	
Qualified and experienced personnel and/or reliance on qualified third parties	•	
Explicit and comprehensive criteria for investment selection, including measurable impact results	•	
External evaluations for decision making in line with project characteristics	•	
Factor Score	1	

Use of proceeds





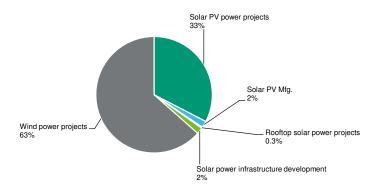






IREDA's green bond framework provides clear eligibility criteria for the use of green bond proceeds in accordance with the Climate Bonds Standard Version 2.1. In particular, the framework states that the agency will utilize the net proceeds of the green bond for the financing or refinancing of renewable energy or energy efficiency projects. We note that the full green bond proceeds from the Septemeber 2017 issuance have been allocated to solar power, manufacturing and infrastructure projects and wind power projects across India (see Exhibit 2). This corresponds to an "Excellent" score within the Use of Proceeds factor of the GBA methodology, and is aligned with the renewable energy category under the Green Bond Principles.

Exhibit 2
Aggregate level of projects financed by the green bond proceeds



Sources: IREDA, Moody's Investors Service

The framework adheres to strict eligibility criteria and required standards for project selection.

All projects must fall into a specific renewable sector, including the following:

- » Wind power
- » Small hydro power
- » Biomass power co-generation
- » Energy efficiency & conservation
- » Solar energy
- » Waste to energy

Funding under specified schemes (for financing and refinancing) include the following:

- » Project financing
- » Equipment financing
- » Loans for manufacturing
- » Financial intermediaries
- » Financing of commissioned projects including takeover of loans from other Banks / financial institutions
- » Additional / bridge loan against Sugar Development Fund Loan
- » Loan against securitization

IREDA has set out clear eligibility criteria for each of the aforementioned sectors and schemes in its Financing Norms and Schemes⁵ document. Using biomass power generation as an example, there are five clear criteria for project selection including "IREDA shall finance not more than one independent Biomass Power Project excluding captive Biomass based Co-generation, in a radius of 50KM" and "for Biomass direct combustion power projects, IREDA's loan exposure may be limited up to 50% of project cost".

Factor 2: Use of Proceeds	Yes	No
>95% - 100% of proceeds allocated to eligible project categories that are determined based on the issuer's adopted policies and the categories established under the Green Bond Principles that will be further informed by one or more robust and widely recognized green bond frameworks or taxonomies that qualify eligible projects, including any applicable regulatory guidelines.	•	
Factor Score	1	

Disclosure on the use of proceeds



IREDA provides excellent disclosure on the type of eligible projects financed with the proceeds of the green bond. The issuer provided an array of examples of project level disclosures, which included several layers of impact assessments. These include economic, social and environmental impact assessments, followed by an overall socioeconomic impact assessment. The environmental impact assessment provides, where applicable, projected environmental benefits over the life of the projects, for example the quantitative amount of energy saved and mitigation of CO₂ levels. In addition the issuer has provided detailed breakdown of the allocation of use of proceeds to individual projects in terms of:

- » The project name
- » Project cost
- » Final INR allocation
- » Capacity (MW)
- » Eligible project category as per green bond framework
- » Disbursement date and amount

Such disclosure provides a strong signal of the transparency we expect the agency will display over the life of the green bond. The agency's internal environmental and social (E&S) management team is tasked with calculating the expected environmental benefits, including greenhouse gas emissions avoided. They use installed capacity and plant load factor data from the Central Electricity Authority of India, and adhere to the methodology prescribed by the Clean Development Mechanism of the United Nations⁶.

With regard to external assurances, the issuer has received external pre-issuance assurance that its framework complies with the Climate Bonds Standard Version 2.1, and has been certified by Climate Bond Initiative.

Factor 3: Disclosure on the Use of Proceeds	Yes	No
Description of green projects, including portfolio level descriptions, actual or intended	•	
Adequacy of funding and/or strategies to complete projects	•	
Quantitative and/or qualitative descriptions for targeted environmental results	•	
Methods and criteria, both quantitative and qualitative, for calculating performance against targeted environmental results	•	
Issuer relies on external assurances: Second Party reviews, audits and/or third party certfications	•	
Factor Score	1	

Management of proceeds











IREDA does not have segregated sub-accounts for green bond proceeds to be ring-fenced and then allocated to projects. However, since the agency's remit is to only invest in renewable energy and energy efficiency projects, there are strict investment guidelines for the allocation of the green bond proceeds. In addition, the green bond proceeds are separately tracked on an accounting basis.

The issuer's internal environmental & social safeguard unit ensures that every project has underwent an environmental and social review, with safeguard processes carried out for all projects financed by green bonds.

The agency is also committed to publishing allocation of proceeds on an annual basis for the lifetime of the bond. Furthermore, IREDA maintains a detailed register of allocated green bond proceeds by amount, capacity and project type, which is updated yearly based on the allocation of proceeds. All allocated proceeds have to be approved by several layers of committees, and are tracked by the finance department. In addition, unallocated proceeds are kept in fixed deposits as established by the investment guidelines of the agency.

The issuer has a post-issuance verification from an independent verifier on the use of proceeds of the green bond, in accordance with the post-issuance requirements under Climate Bonds Standard.

Factor 4: Management of Proceeds	Yes	No
Bond proceeds are segregated and separately tracked on an accounting basis or via a method by which proceeds are earmarked		•
Application of proceeds is tracked by environmental category and project type	•	
Robust process for reconciling planned investments against actual allocations	•	
Clear eligibility rules for investment of cash balances	•	
Audit by external organization or independent internal audit unit	•	
Factor Score	2	

Ongoing reporting and disclosure



IREDA has committed to report on the use of green bond proceeds throughout the life of the bond, and until the proceeds have been fully allocated to eligible projects. The first report is intended to be published in the first quarter of 2019. These reports will be published annually on the Indian government's website with aggregated information on the renewable energy capacity produced, fossil fuel capacity avoided, carbon emissions reduced, and employment created. The extent of the reporting will ensure strong transparency around IREDA's current and future green bond transactions.

Factor 5: Ongoing Reporting and Disclosure	Yes	No
Reporting and disclosure post issuance provides/to be provided detailed and timely status updates on projects	•	
Ongoing annual reporting is expected over the life of the bond	•	
Disclosures provide granular detail on the nature of the investments and their expected environmental impacts	•	
Reporting provides/to be provided a quantiative and/or qualitative assessment of the environmental impacts actually realized to-date	•	
Reporting includes/to include quantitative and/or qualitative explanation of how the realized environmental impacts compare to projections at the time the bonds were sold		•
Factor Score	2	

Moody's Green Bond Assessment (GBA)

Moody's GBA represents a forward-looking, transaction-oriented opinion on the relative effectiveness of the issuer's approach to managing, administering, allocating proceeds to and reporting on environmental projects financed with green bond proceeds. GBAs are expressed using a five-point relative scale, ranging from GB1 (Excellent) to GB5 (Poor). A GBA does not constitute a credit rating.

Moody's related publications

Methodology:

» Green Bonds Assessment (GBA), 30 March 2016

Issuer research:

» Indian Renewable Energy Develop. Agency Ltd.: Update to credit analysis, 20 June 2018

Green bond research:

- » Structured finance Global: Green finance sprouts across structured finance sectors, 13 November 2018
- » Green bonds Global: Repeat issuers drive volume as green bond market matures, 12 November 2018
- » Green Bonds Global: Adoption of UN Sustainable Development Goals to drive demand, 12 November 2018
- » Green Bonds Global: Issuance in the first three quarters of 2018 flat compared with 2017, 6 November 2018
- » <u>Default research Global: Default and recovery rates for project finance bank loans, 1983-2016: Green projects demonstrate lower default risk,</u> 18 September 2018
- » Green Bonds Global: Second-quarter issuance rebounds but full-year 2018 growth likely to moderate, 31 July 2018
- » Green Bonds Sovereign: Sovereign green bond market on course for critical mass, but challenges remain, 9 July 2018
- » Green Bonds Global: Modest Q1 2018 issuance a speed bump on the road to market growth, 30 April 2018
- » Green Bonds Global: Global municipal green bond issuance will continue to rise, 19 March 2018
- » Green Bonds Global: Global green bond issuance set to eclipse \$250 billion in 2018, 31 January 2018
- » Cross-sector Global: FAQ: The green bond market and Moody's Green Bonds Assessment, 29 November 2017
- » Green Bond Assessments Global: Issuers exhibit strong organizational frameworks but differ on disclosure, 19 September 2017

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Endnotes

- 1 https://www.climatebonds.net/files/Climate%20Bonds%20Standard%20v2_1%20-%20January_2017.pdf
- 2 https://mnre.gov.in/sites/default/files/uploads/Tentative-State-wise-break-up-of-Renewable-Power-by-2022.pdf
- 3 https://climateactiontracker.org/countries/india/pledges-and-targets/
- 4 https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2018/Green-Bond-Principles---June-2018-140618-WEB.pdf
- 5 http://www.ireda.in/writereaddata/Financing_norms14-05-2018.pdf
- 6 https://cdm.unfccc.int/methodologies/index.html

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