GREENKO GROUP
GREEN BOND

FRAMEWORK OVERVIEW AND SECOND OPINION BY SUSTAINALYTICS

July 29, 2016

SUSTAINALYTICS

www.sustainalytics.com

Farnam Bidgoli (London)
Manager, Advisory Services
farnam.bidgoli@sustainalytics.com
(+44) 20 3514 3127

Trisha Taneja (Toronto)
Advisor, Advisory Services
trisha.taneja@sustainalytics.com
(+1) 647 317 3695

Charlotte Peyraud (New York)
Senior Advisor, Institutional Relations
charlotte.peyraud@sustainalytics.com
(+1) 646 518 0184

TABLE OF CONTENTS

1. PREFACE

Greenko Group is issuing a green bond that aims to fund the refinancing of five wind farms and three run-of-the-river hydropower projects. Greenko Group has engaged Sustainalytics to provide a second opinion on its green bond issuance and the bond's environmental credentials. As part of this engagement, Sustainalytics held conversations with various members of Greenko Group's management team to understand the sustainability impact of their business processes and planned use of proceeds for the bond issuance. Sustainalytics also reviewed relevant public and internal documents. This document contains two sections: Framework Overview – summary of Greenko Group's Green Bond framework; and Sustainalytics' Opinion – an opinion on the framework.

2. INTRODUCTION

Founded in 2004, Greenko Group, through its subsidiaries, develops and operates clean energy projects in India. Greenko's portfolio includes wind, hydropower, natural gas, and biomass assets in India. Through these assets, the group generates and sells electricity to state utilities, private customers, and other electricity transmission and trading companies. It also operates as an intermediate financing company for the development of clean energy projects. Greenko Group is headquartered in Hyderabad, India.

The Greenko Group states that its mission is to grow shareholder value by focusing on the adoption of technologies and methodologies that can meet the sustainable energy needs of India. On its website, the company discloses that it has an objective to be a responsible corporate citizen. This includes incorporating sustainability operationally and contributing to environmental and social impact in local communities. Greenko aims to achieve this objective through the generation of clean energy and the implementation of community programmes centred on education, health, and environmental stewardship.

In line with this objective, Greenko Group is planning to issue a green bond to refinance expenditures related to the development of wind and hydropower projects. These projects include five wind farms and three run-of-the-river hydropower projects.

3. FRAMEWORK OVERVIEW

This section presents Greenko's green bond framework for the use of proceeds, the process for project selection, the management of proceeds, and reporting.

3.1 Use of Proceeds

Greenko will use the net proceeds of the notes to refinance investments in five wind farms and three run-of-the-river hydropower projects, which are eligible as per the criteria specified below.

Eligibility Criteria

In order for a project to be refinanced through green bond proceeds, the project must meet one or more of the following eligibility criteria:

1. Expenditures related to the development of wind farms
2. Expenditures related to the development of run-of-the-river hydropower projects

Please see Appendix 1 for a full list of projects that meet the eligibility criteria.

3.2 Project Evaluation and Selection Process

Projects refinanced through the green bond proceeds were evaluated and selected based on (i) commercial feasibility (locational ease, land use, availability of resources); (ii) alignment with the eligibility criteria; (iii) alignment with Greenko's internal environmental and social risk assessment process. The Business Development Department oversaw the project selection with regards to commercial feasibility. The Greenko Integrated Management Systems (GIMS) and Environmental, Health, and Safety (EHS) teams oversaw project selection with regards to alignment with eligibility criteria and Greenko's internal environmental and social risk assessment process. This environmental and social risk assessment process ensures that:

1. All larger-scale run-of-the-river hydropower projects (>25 MW) undergo a formal Environmental Impact Assessment (EIA), dam break analysis, stakeholder consultations, and receive an Environmental Management Plan. All documents are required by, and submitted to the national Ministry of Environment and Forestry.

2. All other smaller-scale hydropower projects and all wind projects undergo a voluntary Environmental and Social Impact Assessment (ESIA) study to evaluate their environmental and social risk. These studies are based on the International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability. These projects also undergo a voluntary stakeholder consultation to engage local communities, which is implemented by Greenko.

Greenko has confirmed to Sustainalytics that all selected projects have undergone an EIA or ESIA, and a stakeholder consultation process. Greenko has also confirmed that for all selected projects, the relevant EIA or ESIA and stakeholder consultation must conclude negligible environmental or social disruption.

3.3 Management of Proceeds

The proceeds of the green bond issued by Greenko will be immediately allocated towards refinancing the eligible projects. Net proceeds from the notes after deducting fees and expenses will be deposited in an escrow account. The funds in the escrow account will be used to subscribe to Indian Rupee (INR) bonds that will be issued by the eight subsidiary companies that own and operate the wind and hydropower developments. The proceeds from these INR bonds will in turn be used to refinance existing external debt and shareholder loans stemming from expenditures related to the eligible projects.

3.4 Reporting

Allocation Reporting

Greenko will disclose all allocation reporting on a project-by-project basis. The company has committed to disclosing a list of all projects refinanced with descriptions and amount of proceeds allocated on its website. Greenko has also confirmed that an independent auditor will provide verification on allocation of bond proceeds to eligible projects. Given that all proceeds will be allocated immediately, verification on allocation of bond proceeds will be disclosed all at once at the end of 2016.

Impact Reporting

For selected eligible projects, Greenko Group implements renewable energy projects in India under the Clean Development Mechanism (CDM) of the Kyoto Protocol.[1] Greenko has confirmed that it has an internal CDM team that implements projects in accordance with the guidelines of the Kyoto Protocol, and is responsible for the generation of the Certified Emission Reduction (CER) credits that are sold in carbon markets. This team is also responsible for estimating greenhouse gas (GHG) emissions avoided through the development of renewable energy projects.

For those projects where the CDM mechanism is in place (two of the eight eligible projects), Greenko has committed to quantitatively disclosing GHG emissions avoided (in tonnes of CO_2 avoided per project) on their website, in addition to the allocation reporting described above. Similar to allocation reporting, impact reporting will be disclosed all at once at the end of 2016.

[1] The CDM, as defined in article 12 of the Kyoto Protocol, allows a country with an emission-reduction commitment under the Kyoto Protocol to implement an emission-reduction project in developing countries. These projects are then eligible to earn Certified Emission Reduction (CER) credits, each of which is equivalent to one tonne of carbon dioxide. These CER credits are then traded in carbon markets.

4. SUSTAINALYTICS' OPINION

The importance of renewable energy in India: At the twenty-first meeting of the Conference of Parties (COP21) of the United Nations Framework Convention for Climate Change (UNFCC) in December 2015, India submitted its Intended Nationally Determined Contribution (INDC). INDCs require countries that are signatories to the Paris Agreement to make commitments that address climate change and to update those commitments every five years. Key goals identified by India in its INDC include (i) reducing the emissions intensity of its GDP by 33-35% by 2030, using 2005 as the baseline; (ii) achieving 40% cumulative electric power installed capacity from non-fossil-fuel-based energy resources by 2030.[2] Given this international pledge, India has set ambitious national targets with regards to installed capacity of wind and hydropower. By 2022, India is aiming to achieve a target of 60GW[3] of wind installed capacity. The annual capacity addition target for Financial Year (FY) 2016-17 has been set at 4.1 GW, an increase of 70% from FY 2015-16.[4] Similarly, India's Strategic Plan for Renewable Energy (2011-2017) has set a target to achieve 6.6GW of grid connected power from small scale hydro by the year 2022.[5]

In addition to its international commitments and corresponding national targets, renewable energy has a particularly high strategic importance in India. India is home to 30% of the world's global poor, and has 300 million people who live without access to electricity.[6] Currently, India's two primary sources of energy are coal and imported oil[7], both of which have been recognized as unsustainable in the face of a transition to a lower carbon economy. Given these two realities, India faces the tremendous challenge of fostering socio-economic development while transitioning to a more sustainable economy. In the face of this challenge, renewable energy in India can be seen to play the crucial dual role of mitigating climate change and aiding socio-economic development. Sustainalytics is of the opinion that Greenko's development of wind and hydropower projects is a step in the right direction, and offers clear benefits that are aligned with India's strategic priorities.

Well positioned to address common wind and hydropower challenges in India:
Sustainalytics recognizes that wind and hydropower developments in emerging markets such as India are exposed to specific challenges. Wind farm developments in India are criticized when they are built on land usable for reforestation, and for loss of biodiversity when built on environmentally rich lands. Hydropower projects in India have been criticized for negative impacts on rural populations, such as displacement. Larger hydropower projects are also criticized for loss of aquatic biodiversity and wildlife habitat.

[2] Ernst & Yong, The Paris Agreement, A Universal Call to Action for Governments and Businesses: What it means for India, **http://www.ey.com/Publication/vwLUAssets/ey-the-paris-agreement-what-it-means-for-india/$FILE/ey-the-paris-agreement-what-it-means-for-india.pdf**
[3] UNFCC, India's Intended Nationally Determined Contribution **http://www4.unfccc.int/submissions/INDC/Published%20Documents/India/1/INDIA%20INDC%20TO%20UNFCCC.pdf**
[4] Clean Technica, **http://cleantechnica.com/2016/03/04/india-plans-add-12-gw-solar-power-4-1-gw-wind-energy-capacity-2016-17/**
[5] Strategic Plan for New and Renewable Energy Sector for the Period 2011-17, **http://mnre.gov.in/file-manager/UserFiles/strategic_plan_mnre_2011_17.pdf**
[6] UNFCC, India's Intended Nationally Determined Contribution **http://www4.unfccc.int/submissions/INDC/Published%20Documents/India/1/INDIA%20INDC%20TO%20UNFCCC.pdf**
[7] US Energy Information Administration, India Country Analysis Brief, **https://www.eia.gov/beta/international/analysis.cfm?iso=IND**

However, Sustainalytics is of the opinion that Greenko has a robust internal environmental and social risk assessment process that mitigates these concerns. The robustness of this risk assessment process stems from:

- *Compliance of all eligible large run-of-the-river hydropower projects with the Ministry of Environment and Forestry's requirement for an EIA*

  Greenko's larger run-of-the-river hydropower project built on the Dikchu river in Sikkim (with an electricity generation capacity of 96 MW) has undergone a formal EIA, as required by the Ministry of Environment and Forestry. The EIA evaluated the project on numerous parameters, including sustainable environmental management, minimization of environmental impacts, integration of environmental risks into project plan, and management of community issues and heritage.

  Based on these parameters, the EIA identified eight main impacts of the project in the areas of Land Environment, Terrestrial Ecology, Water Environment, Aquatic Ecology, Noise Environment, Air Environment, Socio-Economic Environment, and Geophysical and Seismic Environment. All impacts identified were manageable, and formed the basis of a comprehensive Environmental Management Plan (EMP). The EMP also included a monitoring programme that was set up to continuously assess social and environmental impacts during the construction and operational phases of the project. This monitoring programme directly informs Greenko's efforts to mitigate environmental impact. Greenko has also disclosed the existence of an Environmental Management Cell (EMC). The EMC is a team composed of a mix of senior managers from Greenko and technical environmental experts, and is responsible for the implementation of the monitoring programme and the EMP.

  Based on Sustainalytics' review of the EMP, Greenko's constant monitoring of environmental impacts, usage of monitoring results to inform its environmental management, and the assignation of responsibility for these actions to a designated team, Sustainalytics believes that Greenko has extensive measures in place to effectively mitigate the eight impacts identified above.

  Specifically with regards to the three major risks posed by large hydropower projects (displacement, loss of aquatic biodiversity, and loss of wildlife habitat), the EIA identified some potential negative impacts under loss of aquatic biodiversity. However, these identified impacts are not irreversible and can be addressed through mitigation. Sustainalytics has reviewed documentation relating to the EIA and EMP, and is of the opinion that the mitigation measures in place for these impacts, combined with the strength of the process described above, are sufficient to address any risks identified.

- *Alignment of Greenko's voluntary environmental and social risk assessment initiatives with IFC Performance Standards on Environmental and Social Sustainability*

  Greenko also has internal processes to assess environmental and social risk that are beyond legal compliance. For smaller-scale hydropower and all-wind projects, Greenko conducts voluntary Environmental and Social Impact Assessment (ESIA) studies. These studies are based on the IFC Performance Standards, which cover a wide range of issues to address environmental and social risk, including management of environmental and social impacts, community health, resource efficiency and pollution prevention, and labour conditions.

- *Greenko's comprehensive stakeholder engagement process*

  Greenko has also disclosed to Sustainalytics that they conduct stakeholder consultations for their projects, and have conducted these for all the eligible projects identified in the framework. Greenko's stakeholder engagement policy explicitly identifies local communities as an important stakeholder, and describes a process for their engagement. This process specifies that a Greenko project manager can be approached by any representative of a local community who wishes to share a grievance. These grievances are then recorded in a Grievance Redressal register kept at each project site. Greenko's Grievance Redressal Policy further specifies that grievances recorded at each project site are investigated by a committee, and a decision communicated to the relevant party within fifteen days. Sustainalytics believes this process to be extensive.

In addition, seven of the eight eligible projects being refinanced through the proceeds of this bond are complete and operational. The Sneha-Kinetic Dikchu hydropower project is complete, and is expected to be operational in the following months. Sustainalytics has reviewed all projects, and found no evidence of environmental or social controversies associated with these projects.

Furthermore, Greenko has demonstrated a commitment to mitigating environmental and social risks in its operations. The company has received and maintained external certifications for its environmental management system (ISO 14001:2004) and its occupational health and safety management (OHSAS 18001:2007). Given the integration of environmental and social concerns into its operations, its robust internal risk assessment process for wind and hydro projects, and the lack of environmental and social controversies associated with the eligible projects, Sustainalytics believes that Greenko Group is well positioned to issue this green bond.

Alignment with Green Bond Principles (GBP) 2016: Sustainalytics has determined that Greenko Group's green bond aligns with the four pillars of the Green Bond Principles 2016. Please see Appendix 2 for details.

Conclusion

Greenko Group's green bond framework is transparent and provides clarity regarding use of proceeds and the outcomes of the green bond investments. Renewable energy is recognized by the GBP as an eligible green project category, offering clear environmental benefits. In the context of India's sustainable development challenge, Greenko's development of wind and hydropower projects contribute to an important national priority and the country's transition to a low-carbon economy. Furthermore, in Sustainalytics' view Greenko Group's internal environmental and social risk assessment process positions it well to address the challenges associated with wind and hydropower development in India. Sustainalytics is of the opinion that Greenko Group's green bond is credible and robust.

APPENDICES

Appendix 1: List of Eligible Projects

Project	Type	Generation Capacity (MW)	Location
Rayalaseema Wind Farm	Wind	10.0	Andhra Pradesh
Anantpura Wind Farm	Wind	10.0	Andhra Pradesh
Bagewwadi Wind Farm	Wind	34.0	Karnataka
Tanot Wind Farm	Wind	120.0	Rajasthan
Vyshali Wind Farm	Wind	100.0	Karnataka
Sneha-Kinetic Dikchu	Hydro	96.0	Sikkim
Perla Hydro	Hydro	10.0	Karnataka
Bhilangana HEP	Hydro	22.5	Uttarakhand

Appendix 2: Adherence to the Green Bond Principles 2016

Green Bond / Green Bond Programme
External Review Form

Section 1. Basic Information

Issuer name: Greenko Group

Review provider's name: Sustainalytics

Section 2. Review overview

SCOPE OF REVIEW

The review assessed the following elements and confirmed their alignment with the GBPs:

- ☒ Use of Proceeds
- ☒ Process for Project Evaluation and Selection
- ☒ Management of Proceeds
- ☒ Reporting

ROLE(S) OF REVIEW PROVIDER

- ☒ Consultancy (incl. 2nd opinion)
- ☐ Certification
- ☐ Verification
- ☐ Rating
- ☐ Other *(please specify)*:

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

Section 3. Detailed review

1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The Use of Proceeds of this bond are clearly described in the public offering statement. In addition, renewable energy is one of the broad categories recognized by the GBP as offering clear environmental benefits. Given the unique role of renewable energy in India, Sustainalytics is of the opinion that hydropower and wind projects offer clear benefits that align with the country's strategic priorities.

Sustainalytics is of the opinion that the eight projects described in the framework will contribute to mitigating climate change by reducing GHG emissions, and enabling India's sustainable socio-economic development.

Use of proceeds categories as per GBP:

☒	Renewable energy	☐	Energy efficiency
☐	Pollution prevention and control	☐	Sustainable management of living natural resources
☐	Terrestrial and aquatic biodiversity conservation	☐	Clean transportation
☐	Sustainable water management	☐	Climate change adaptation
☐	Eco-efficient products, production technologies and processes	☐	Other *(please specify)*:
☐	Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs		

If applicable please specify the environmental taxonomy, if other than GBPs: N/A

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section *(if applicable)***:**
All eight projects were selected based on their alignment with (i) the eligibility criteria defined in the framework, and (ii) Greeko's internal environmental and social risk assessment process. This process ensures that all projects adhered to licensing and permitting requirements of the national Ministry of Environment and Forestry. This process also ensures that all eligible projects underwent a mandated or voluntary environmental and social risk assessment, where the voluntary assessments were aligned with well-recognized third party criteria (IFC Performance Standards). Sustainalytics is of the opinion that the process to select eligible projects is credible.

Evaluation and selection

- ☒ Defined and transparent criteria for projects eligible for Green Bond proceeds
- ☒ Summary criteria for project evaluation and selection publicly available
- ☐ Documented process to determine that projects fit within defined categories
- ☐ Other *(please specify):*

Information on Responsibilities and Accountability

- ☒ Evaluation / Selection criteria subject to external advice or verification
- ☐ Other *(please specify)*:
- ☐ In-house assessment

3. MANAGEMENT OF PROCEEDS

Overall comment on section *(if applicable)***:**
All proceeds from the bond will be held in a separate escrow account and allocated immediately. Greenko Group has sufficient oversight over the management of proceeds; this process is in line with industry norms.

Tracking of proceeds:

- ☒ Green Bond proceeds segregated or tracked by the issuer in a systematic manner
- ☐ Disclosure of intended types of temporary investment instruments for unallocated proceeds
- ☐ Other *(please specify)*:

Additional disclosure:

- ☐ Allocations to future investments only
- ☐ Allocations to both existing and future investments
- ☒ Allocation to individual disbursements
- ☐ Allocation to a portfolio of disbursements
- ☐ Disclosure of portfolio balance of unallocated proceeds
- ☒ Other *(please specify)*: Allocation to refinance existing investments only

4. REPORTING

Overall comment on section *(if applicable)***:**
Greenko Group will disclose a list of all projects with descriptions, amounts allocated, and (where CDM mechanisms are implemented) impact metrics in its 2016 annual report. Given that proceeds of the bond will be immediately allocated, reporting will be disclosed all at once at the end of the year. Additionally, Greenko Group will also report on verification of allocation of proceeds conducted by an independent third party. This is in line with industry norms.

Use of proceeds reporting:

- ☒ Project-by-project
- ☐ On a project portfolio basis
- ☐ Linkage to individual bond(s)
- ☐ Other *(please specify):*

Information reported:

- ☒ Allocated amounts
- ☐ GB financed share of total investment
- ☐ Other *(please specify):*

Frequency:

- ☐ Annual
- ☐ Semi-annual
- ☒ Other *(please specify):* Since all proceeds will be immediately allocated, allocation reporting will take place all at once at the end of the year.

Impact reporting:

☒ Project-by-project

☐ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other *(please specify):*

Frequency: TBD

☐ Annual

☐ Semi-annual

☒ Other *(please specify):* Since all proceeds will be immediately allocated, impact reporting will take place all at once at the end of the year.

Information reported (expected or ex-post):

☒ GHG Emissions / Savings

☐ Energy Savings

☐ Other ESG indicators *(please specify):*

Means of Disclosure

☐ Information published in financial report

☐ Information published in sustainability report

☐ Information published in ad hoc documents

☒ Other *(please specify):* Allocation and impact reporting will be published on the Greenko Group website

☐ Reporting reviewed *(if yes, please specify which parts of the reporting are subject to external review):*

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS *(e.g. to review provider methodology or credentials, to issuer's documentation, etc.)*
http://www.greenkogroup.com/

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE
Type(s) of Review provided:

☐ Consultancy (incl. 2nd opinion)

☐ Certification

☐ Verification / Audit

☐ Rating

☐ Other *(please specify):*

Review provider(s): N/A **Date:**

Disclaimer

The Opinion was drawn up with the aim to explain why the analyzed bond is considered sustainable and responsible. Consequently, this Opinion is for information purposes only and Sustainalytics will not accept any form of liability for the substance of the opinion and/or any liability for damage arising from the use of this Opinion and/or the information provided in it.

As the Opinion is based on information made available by the client, Sustainalytics does not warrant that the information presented in this Opinion is complete, accurate or up to date.

Nothing contained in this Opinion shall be construed as to make a representation or warranty, express or implied, regarding the advisability to invest in or include companies in investable universes and/or portfolios. Furthermore, this Opinion shall in no event be interpreted and construed as an assessment of the economic performance and credit worthiness of the bond, nor to have focused on the effective allocation of the funds' use of proceeds.

The client is fully responsible for certifying and ensuring its commitments` compliance, implementation and monitoring.

ABOUT SUSTAINALYTICS

Sustainalytics is the largest independent provider of sustainability research, analysis, and services to investors. We serve over 250 institutional investors which include some of the world's largest asset owners and asset managers. Through over 20 years of experience serving the responsible investment (RI) market, we have gained a reputation for providing high-quality ESG research solutions and excellent client service.

Sustainalytics is headed by seasoned professionals in the field of business, finance, and sustainability, with a wealth of experience in the Responsible Investment area. After more than 20 years of local experience and expertise in the Responsible Investment (RI) market Sustainalytics has developed a comprehensive understanding of trends and best practices and a solid process to assist organisations in integrating ESG considerations into their policies and strategies. We have worked with some of the world's financial institutions including pension plans, investment managers and banks providing customised support to help them achieve their RI objectives. Clients include ABN AMRO, APG, BBVA, BNP Paribas, Deutsche Bank, ING Bank, Lombard Odier, Lloyds Bank, Triodos Bank, UBS and over 250 other financial institutions and organisations.

Sustainalytics now has a staff of 250 employees globally, including over 120 analysts, with operations in Amsterdam, Boston, Bucharest, Frankfurt, New York, Paris, London, Singapore, Sydney, Timisoara, and Toronto, and representation in Brussels and Washington DC.

In 2015, Sustainalytics was named the Best SRI or Green Bond Research Firm by GlobalCapital. In December 2014, for the third year in a row, Sustainalytics was named best sustainable and responsible investment research firm in the Independent Research in Responsible Investment (IRRI) Survey, conducted by Thomson Reuters and SRI-CONNECT.