

**Greenko** 

***Sustainability Report***  
**2016 - 17**



**Empowering  
Sustainability**



## AN EPITOME OF GROWTH AND LONGEVITY

Greenko's commitment to Sustainability,  
care for its employees, community development and all round growth;  
is synonymous to  
provision of shade, shelter and growth of a Banyan Tree.

The Banyan tree with its deep roots is known for its resilience and longevity.

Greenko's sustainability is fostered with deep rooted

**Core Values - SEED IT**

**(Stakeholder Inclusiveness, Excellence, Ethical, Discipline, Innovate & Team Work)**

to build healthy and vibrant work culture.

### **About the cover page:**

At Greenko we believe and practice the concept of "No tree cutting".

This Banyan Tree of 50 years, along with other 200 such trees,  
was uprooted from the project site and replanted at Ghani Solar Park.



India's Leading  
Clean Energy Company

# CONTENTS

<b>06</b>	Our Vision & Mission
<b>07</b>	Our Values
<b>08</b>	Message from the Chairman
<b>10</b>	Message from the CEO & MD
<b>14</b>	About this Report
<b>20</b>	Organizational Profile
<b>26</b>	Governance
<b>36</b>	Ethics and Integrity
<b>37</b>	Economic Performance
<b>42</b>	Technology and Innovation
<b>46</b>	Environmental Performance
<b>56</b>	Social Performance
<b>69</b>	Epilogue from the President & Joint MD
<b>71</b>	GRI Index



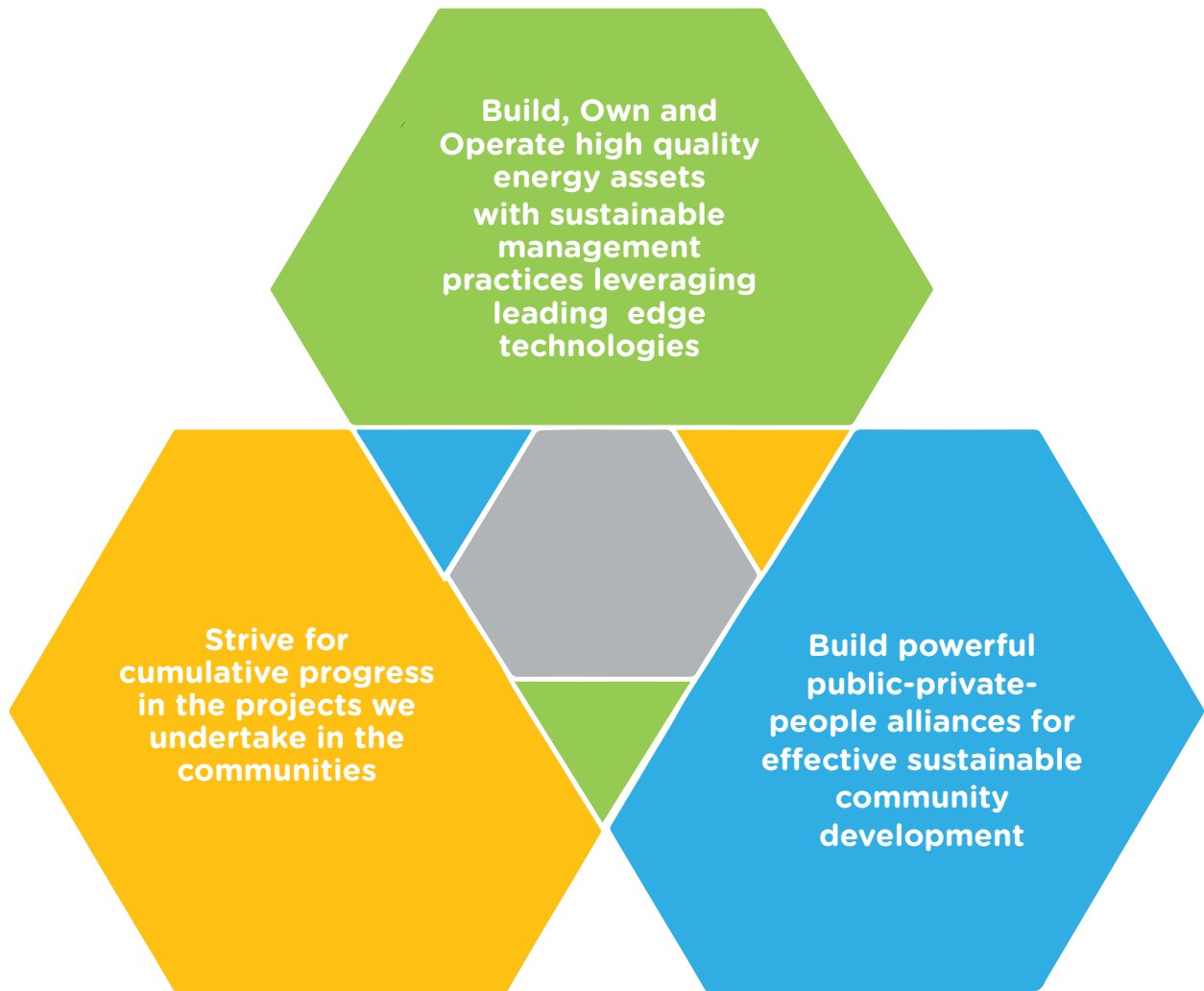






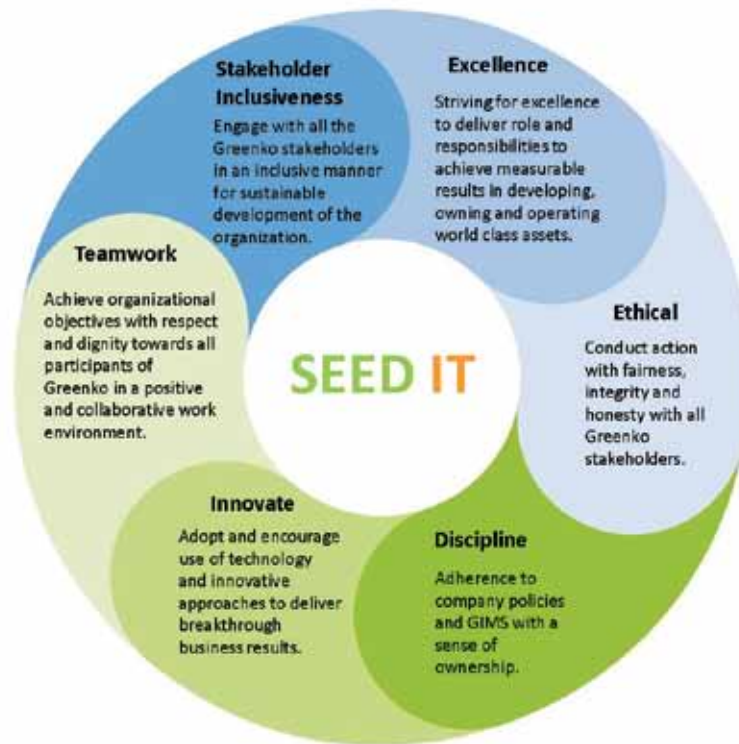
## Our Vision & Mission

**“To be the most admired Group in the  
Indian Energy Sector”**





# Our Values



“To be the most admired Group in the Indian Energy sector” is the Vision of the Greenko Group. The policies & systems are built with an objective to achieve the vision, strongly supported with interventions to build and develop talent. Human Resource management and development at Greenko has a holistic strategy which has evolved through the enriching culture and the Value System of the organization.

Our values **SEED IT** form the core of who we are and what we stand for as an organization. Our journey towards values started with a common understanding to inculcate Value Related behaviours and their Impact on business that binds us together.

Greenko has been built brick by brick with a profound Value System (**SEED IT**) comprising of **S**takeholder inclusiveness, **E**xcellence, **E**thical, **D**iscipline, **I**nnovate & **T**eam Work, which has been reinforced as the work culture across all levels amongst all employees. Periodic town hall meetings and employee engagement interventions emphatically reiterate the SEED IT Value System for sustenance of progressive growth of employees and the organization.

The SEED IT Value System ensures sustainable development of the employees complementing to

the development of the organization.

Greenko meticulously educates its employees for total compliance to the SEED IT Value System explicitly as under:

**Stakeholder Inclusiveness** - Engage with all the Greenko stakeholders in an inclusive manner for sustainable development of the organization.

**Excellence** - Striving for excellence to deliver role and responsibilities to achieve measurable results in developing, owning and operating world class assets.

**Ethical** - Conduct actions with fairness, integrity and honesty with Greenko stakeholders.

**Discipline** - Adherence to company policies and GIMS with a sense of ownership.

**Innovate** - Adopt and encourage use of technology and innovative approaches for delivering breakthrough business results.

**Team Work** - Achieve organizational objectives with respect and dignity towards all participants of Greenko in a positive and collaborative work environment.

# Message from the Chairman



**Om Prakash Bhatt**  
Chairman

Dear Stakeholders,

Spurred by the Government of India's drive to hasten the installation and use of renewable energy, the renewable energy sector has witnessed unprecedented progress in India to reach a total installed capacity of 57.24 GW. It is extremely satisfying for us at Greenko to note that Greenko is leading this mission with its renewable energy assets of 2.65 GW constituting 5% of the total installed capacity. Enthused by the Government's resolve to increase India's renewable energy installed base to 175 GW and driven by its own passion for excellence and innovation, Greenko has executed projects in 2016-17, constituting 18.84%, 8.47%, and 46.70% of country's capacity addition in wind, solar and renewable hydro sectors respectively.

Greenko has a top management team with extensive experience in all the relevant aspects of renewable energy, an enviable track record of successfully managing project execution, an in-

depth understanding of the business ecosystem and a demonstrated ability to grow businesses, both organically and inorganically. It has a strong shareholder base which among others, includes the two highly respected sovereign wealth funds, GIC and ADIA. We recognize that all this is important for any business. What is more important and what sets us apart is that even as we create value we have the strictest adherence to ethics, integrity and transparency, and a culture of sustainability in almost everything that we do. This is something that has resonance across all parts of Greenko right from the Board, the Management, the Executives and staff to all the stakeholders in our diverse and extensive ecosystem.

We have a Greenko Code of Conduct which serves as a guiding tool that helps employees integrate its value based principles into day-to-day business conduct by ensuring complete alignment between organizational values and employee conduct. The





Code further, provides practical guidance in areas such as conflicts of interest, gifts and business courtesies, anti-bribery and anti-corruption, confidentiality, environment health and safety (EHS), corporate social responsibility (CSR) and regulatory compliance. Grievance redressal and whistle blower mechanisms are the means to recognize the deviations and violations of the Code of conduct.

Greenko's business contributes to mitigation of climate change and sustainable development. In addition, the group makes direct interventions to contribute to environment and community. In 2016-17, we have organized 35 programs, of which 15 medical camps, 10 programs for the development of education of children, 4 programs focused on rural development activity and 6 programs focused on environment related activities. These programs are need based and helpful to the communities. Over 11,941 people benefitted from these 35 programs. At Devarakonda in Andhra Pradesh, Greenko involved the school students to green the local hill with 12000 saplings. It is a testimony to Greenko's commitment to environment that it has transplanted all the trees at its project site. The average age of such trees is above 50 years. To contribute to preservation of endangered Great

Indian Bustard, group has committed to adopt the Rollapadu bird sanctuary and would begin the work very soon. Through Public-Private-People partnerships, Greenko is committed to achieve, by 2020 the following: Making positive difference to 15000 students; providing access to healthcare for 50,000; to improving lives of 100,000 and planting 200,000 trees.

Greenko makes best efforts to contribute to national economy, mitigate climate change and also to deliver benefit to local environment and communities. The leadership at Greenko is sanguine the systems, processes and controls are in place to zealously protect and enhance the economic, environmental and societal values. Greenko will continue to build on the leading position towards building a responsible and prosperous future and we look forward to continued support from all stakeholders.

# Message from the CEO & MD



**Anil Kumar Chalamalasetty**  
Founder, Chief Executive &  
Managing Director

Dear Stakeholders,

It gives me immense pleasure to present the first sustainability report of Greenko Group developed in accordance with Global Reporting Initiative's G4 guidelines - core option. As one of the leading renewable power producer of India, we at Greenko are extremely buoyed by India's ratification of the Paris Climate Change Agreement. We believe this is a landmark in global climate action and is expected to invigorate the clean energy sector in India.

Since our inception, we believed the renewable energy sector to be a critical growth engine for Indian economy and this has been clearly evident in the last few years. The Indian energy sector is undergoing a significant change that has redefined the industry outlook. Sustained economic growth, despite short term blips, will continue to drive electricity demand in India. The Government of India's focus on attaining 'Power for all' has accelerated capacity addition in the country. At

the same time, the competitive intensity is increasing at both the market and supply sides. Consequent to ratification of Paris agreement, India has actioned on Intended Nationally Determined Contributions (INDCs) that are designed to hold the increase in global average temperature to well below 2°C, resulting in accelerated shift in the energy sources from coal based to renewables. This level of infrastructure development will require determined action, synergy and significant resources. It will also draw significantly on India's technical and entrepreneurial capabilities. India's leadership in climate action viz., solar alliance, is in synergy with its developmental ambition, technical capabilities and entrepreneurial spirit. India is in a position to harness the opportunity to frame laws and policies that will make it an example for other developing countries. Another key challenge that India is facing is generation of jobs and renewable sector is able to address this challenge too. As per the Council on Energy Environment and Water and



the National Research Development Corporation projections, utility and park scale solar PV projects through 2022 could create as much as 58,000 direct jobs in India.

During the reporting period, our focus has been to successfully operationalize the 390MW of solar and wind power generation assets of SunEdison that was acquired by the greenko in September 2016. Moving forward, we will build on the strength of our assets and grow organically and through value accretion. Our focus for short-medium term is to successfully build and operate our 3 GW of asset portfolio. We want to build a platform which is diversified and sustainable in the long term. We have raised the largest Green Bond by a private enterprise in July 2017 with the support of over 100 institutions globally.

We at Greenko group, believe that our value creation model is uniquely positioned to address many salient elements of sustainable development viz., Climate Change, Local and Regional Environmental Degradation, Powering the Economy, Generating Wealth and Employment, Technology and

Innovation and Inclusive Development. And these are sustainability focus areas and at the beginning of this report, we have disclosed our contribution in these areas as a part of our accountability to all stakeholders. As this is our first attempt to bring out our sustainability report, we have limited ourselves to the performance figures of the following six plants under three SBUs:

#### Solar plants

- SEI Aditya Shakti Private Limited
- Sunborne Energy Andhra Private Limited

#### Wind plants

- Greenko Rayala Wind Power Private Limited
- Tanot Wind Power Ventures Private Limited

#### Hydro plants

- AMR Power Private Limited
- Greenko Budhil Hydro Power Private Limited.

However, the ESG management systems are deployed across the Greenko Group. I hope you will find this report addressing your material concerns and is adequately informative. We welcome your feedback on our performance and disclosures.







# About this Report

**We are committed to transparently communicating our sustainability approach and performance to our stakeholders. Greenko Group has established the process for sustainability reporting and our approach towards reporting is based on the tenets of stakeholder inclusiveness and materiality assessments.**

## Report Profile

This is our first annual sustainability report developed in line with the Global Reporting Initiative (GRI) G4 sustainability reporting guidelines. This report covers our performance for the reporting period from 1st April 2016 to 31st March 2017. The report is meant to communicate our approach towards sustainability and our underlying performance. As this is our first report some of the information presented is as of the date of release of this report. The report is based on the principles of stakeholder inclusiveness and materiality to cover sustainability issues and topics relevant to our business as well as our stakeholders. The GRI content index has been presented at the end of the report. The report complies with the GRI G4 guidelines in accordance with 'Core' option.

- SEI Aditya Shakti Private Limited, Perambalur District, Tamil Nadu.
- Sunborne Energy Andhra Private Limited, Gadwal District, Telangana.
- Greenko Rayala Wind Power Private Limited, Anantapur District, Andhra Pradesh.
- Tanot Wind Power Ventures Private Limited, Jaisalmer District, Rajasthan.
- AMR Power Private Limited, Dakshina Kannada District, Karnataka.
- Greenko Budhil Hydro Power Private Limited, Chamba District, Himachal Pradesh.

All other information and data in the report pertains to all the entities and their operations within Greenko Group.

In this report, the reporting boundary has been limited to the following entities, while reporting environment and safety related performance data:

The boundary considered for reporting of performance of each aspect that either has high or medium impact on either business or on stakeholder is further detailed.

Group's Sustainability Issue	GRI G4 Material Aspects	Aspect Boundary
Regulatory compliances / Govt. policies	Compliances	1. SEI Aditya Shakti Private Limited 2. Sunborne Energy Andhra Private Limited 3. Greenko Rayala Wind Power Private Limited 4. Tanot Wind Power Ventures Private Limited 5. AMR Power Private Limited 6. Greenko Budhil Hydro Power Private Limited
Labour welfare / Employee welfare/Skill Enhancement / Talent Acquisition/Employee Engagement /Emergency preparedness /Occupational Health & Safety	Labour management relations, Labour practices, grievance mechanism	
Profitability / RoE / Tariff / Risk Management / Corporate Governance / Plant efficiency	Economic performance	
Water management	Water	
Human rights	Investment, Non-discrimination, Freedom of association and collective bargaining, Child labour, Forced or compulsory labour	
Biodiversity	Biodiversity including ecosystem services, Indigenous rights	
CSR / local community initiatives	Indirect Economic Impacts, Local Community	
Waste Management / Equipment Life cycle	Environmental Management	

## Aspect Boundaries

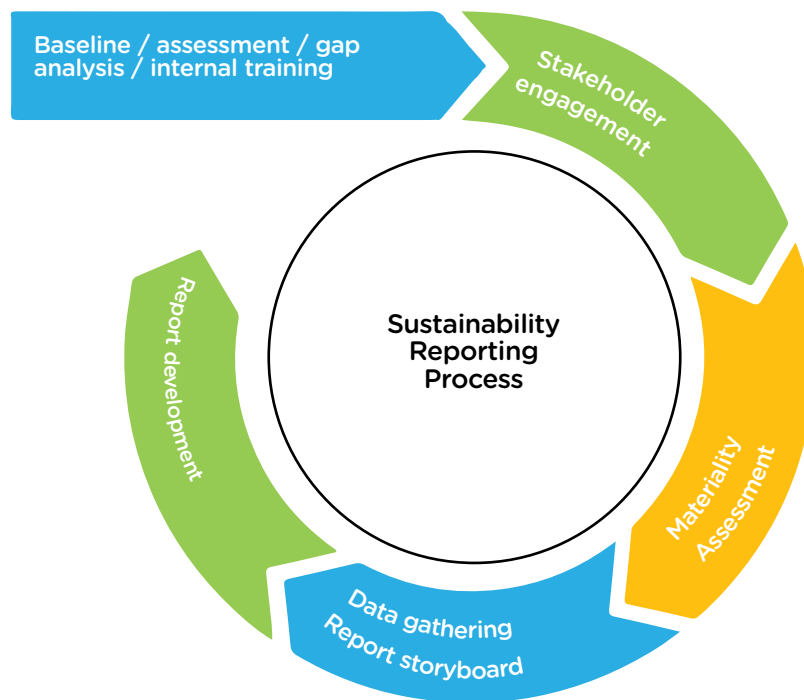




Our supply chain, is majorly located in India and spread across the country with multiple tiers of contractors, vendors, OEMs etc. We have initiated inclusion of various responsible business practices to be followed by the entities and individuals in the supply chain. However, we have not been monitoring the adherence to such practices by our suppliers and collation of performance data of our suppliers. Accordingly, performance reported herein does not include that of the supply chain. As a part of our ESMS, we have upgraded our supply chain practices and beginning our next sustainability report, we will include the data and information of the supply chain, as applicable.

## Reporting Process

The sustainability reporting process at Greenko Group is managed and co-ordinated by Greenko Integrated Management System (GIMS) department. The reporting process followed is presented below.



**Sustainability Reporting Process**

### Data Source

Data presented in the report has been either sourced centrally from Enterprise Resource Planning system, standalone online system and directly from the sites included in the reporting boundary.

presented in this report along with all other details presented to ensure that they are authentic, relevant and fulfill the information requirements of our stakeholders. We look forward to hearing from you on our sustainability performance<sup>1</sup>.

### External Assurance

For this first sustainability report, we have not sought an independent assurance of this report. We have carefully reviewed performance data

### Reporting Cycle

This is Greenko's first sustainability report and we plan to publish the sustainability reports annually.

<sup>1</sup> For any further query/ clarification/ suggestion, please contact our Sustainability cell at [sustainability@greenkogroup.com](mailto:sustainability@greenkogroup.com)

## Stakeholder Engagement

Engaging with our stakeholders is an essential component of our sustainability strategy. Such engagements are carried out throughout our operations. Our key stakeholder groups include customers, shareholders as well as bankers, regulatory authorities, employees, suppliers and local communities. We follow a well specified mode of engagement for each of these stakeholder groups. We have established an effective two-way communication with our stakeholders, allowing

us to create and maintain enduring relationships with all of them. Our engagement with our stakeholders have helped us to register their expectations and thoughts thereby providing us with an opportunity to effectively respond to stakeholder concerns. The table below presents our engagement mode and the areas of interest of various stakeholder groups with whom we have engaged for developing this report.

Stakeholder Group	Modes of Engagement	Area of Interest
Shareholders, bankers & financial institutions	Regular Board of Directors meetings, annual reports, Communications with CEO.	Group performance, Policy Compliance and major projects
Regulatory Authorities	One to one engagements and Annual Reports	Compliance
Employees	Employee engagement interventions, Performance review and feedback, Town Halls meets, One on One meetings, Training, Health check-ups, Safety Committee Meetings, Food and Welfare Committee meetings, Inter-departmental meetings, Sports and Recreation activities, Denunciation channels	Career development and management, skill enhancement and building a repository of required skills
Suppliers	Contract management and One to one engagement	Product quality, Pricing and availability, technical requirements, environment aspects, safety, pricing and payment terms
Local Communities	One to one meetings, Public Consultations, Grievance Redressal Meetings, Focused Group Discussions etc.	Community needs and concerns, rural infrastructural development support, health camps and support, educational interventions, scholarship programs support, environment protection and plantations etc.
Customers	Customer feedback, one to one Engagement, Monthly, Half yearly and Annual reviews	Product Quality and Safe Practices

**Stakeholder Engagement - Mode and areas of interest**

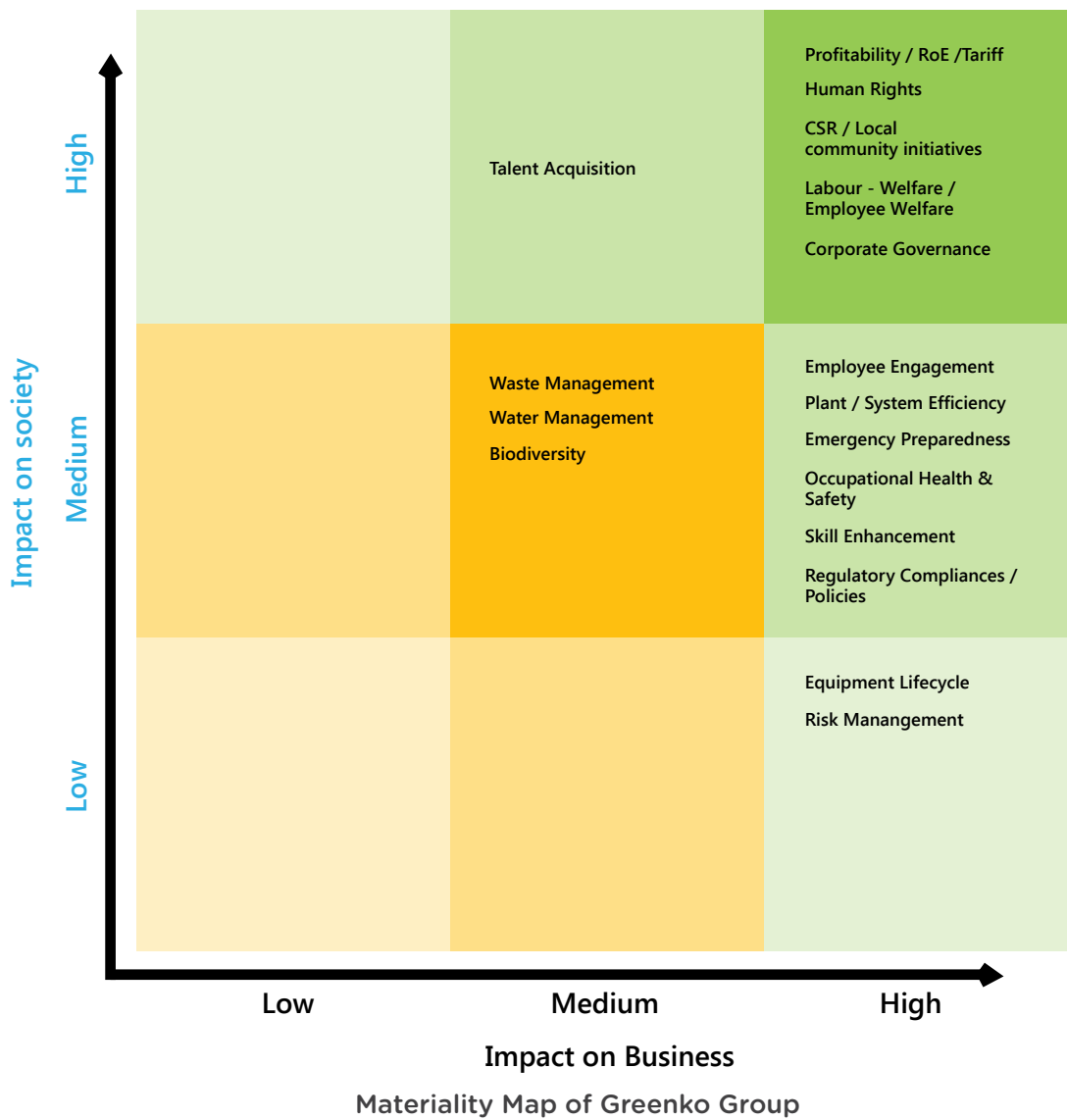


## Our Materiality Assessment

In line with GRI G4 requirements, we undertook a materiality assessment exercise in order to identify our material sustainability issues. We conducted secondary research and had interaction with internal stakeholders to arrive at a shortlist of sustainability topics relevant to our business and our stakeholders. Through this exercise, relevant sustainability topics were selected. In order to conduct the materiality assessment, we engaged persons from various functions from the corporate office and employees from the identified plants through a materiality workshop.

The workshop was meant to ascertain the extent of impact of the shortlisted sustainability topics on our business. All the shortlisted sustainability topics were discussed and the participants were asked to rate the topics in order of importance/relevance by way of their impact on our group's sustainable performance.

The aggregated inputs from the stakeholders were used to arrive at Greenko Group's materiality map shown below.









# Organizational Profile

**Greenko Group is a frontrunner in the growing clean energy industry in India. The Group has a diversified portfolio of wind, solar, hydro, natural gas and biomass assets within India.**

The Group presently has a total installed capacity of 2.65 GW with a target to increase the total capacity to 5 GW by the close of the year 2020 through development of new Greenfield assets. The Group's portfolio is carefully diversified geographically and risk is spread across 80 projects which utilise varied environmental friendly technologies. We have a footprint across 13 Indian states with around 80 operational projects.

Our assets generate over 8.5 billion units of clean energy electrifying about 2.7 million households thereby avoiding approximately 6.9 million tonnes of CO<sub>2</sub>e on annual basis. As a responsible company with focus on sustainable development, Greenko maintains a continuous involvement with local

community through its CSR programs in over 165 villages in the vicinity of project sites.

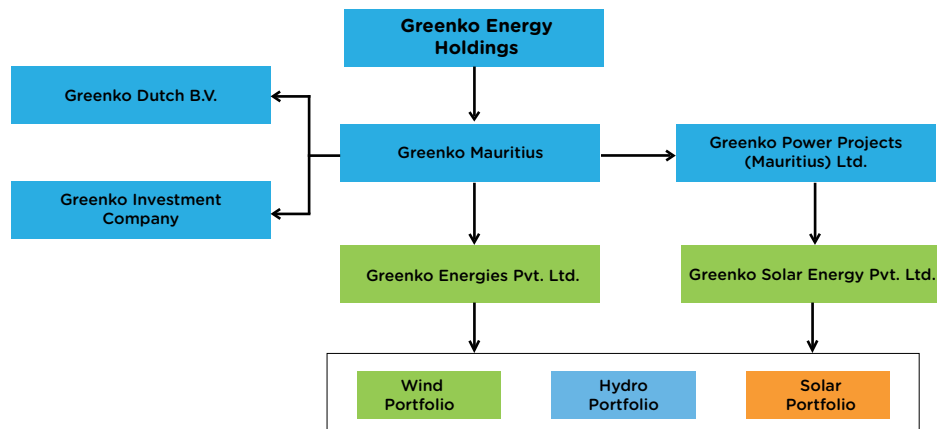
Greenko Group has an experienced management team employing directly over 2,000 associates, with proven extensive experience in the relevant fields. The team has in-depth understanding of successfully managing projects and demonstrable ability to grow businesses both organically and inorganically. The Group has a strong shareholder base which includes sovereign wealth funds like GIC and ADIA. The Group is headquartered at Hyderabad (Telangana, India) and its ultimate holding company is Greenko Energy Holdings that is incorporated in Mauritius.



Greenko Group in numbers



The overall Greenko Group structure is presented below



### Power Purchase Agreements

One of the key factors which affect our results of operations is our ability to enter into long-term PPAs for our generated power, thereby enhancing the security and long-term visibility of our revenues and limiting the impact of market price variability on our revenues. Almost all of our generated power is sold under PPAs to state utilities, industrial and commercial consumers and captive consumers.

While these PPAs reduce exposure to volatility in the market price for power, the predictability of our operating results and cash flows vary by project based on the negotiated terms of these agreements, in particular the tariffs.

Below are the benefits we deliver to customers through PPAs:

- i. Sharing of CDM credit with Customer: The Clean Development Mechanism during the tenure of the PPA shall be passed on to customer between 10%-50%
- ii. Green Power component (REC): The green power component is passed on to Customer. Thus enabling to meet RPOs at no additional cost.
- iii. Free Power to State Government: In case of Hydro Power plant, 12% of the energy generated is shared at free of cost with the state government. However, the above benefits are State, Sector and PPA specific and may change accordingly.

**Our PPAs are generally structured in three ways:**

#### Feed-in Tariffs

PPAs with preferential feed-in tariffs (“FITs”) (including PPAs for solar projects obtained through competitive bidding) having a term of between 10 to 25 years which provide greater downside protection since the tariffs are generally fixed for the duration of the PPA. PPAs based on FITs generally do not escalate for inflation.

#### Third party direct sales

Open access tariffs or Group captive consumer or third party direct sales linked to commercial tariffs which provide potential for upside based on increases in tariffs charged by state utilities to their industrial and commercial consumers in future years. Such PPAs are generally entered into on a long-term basis, providing clear visibility of revenues for the relevant project with potential growth in revenues from better payment terms.

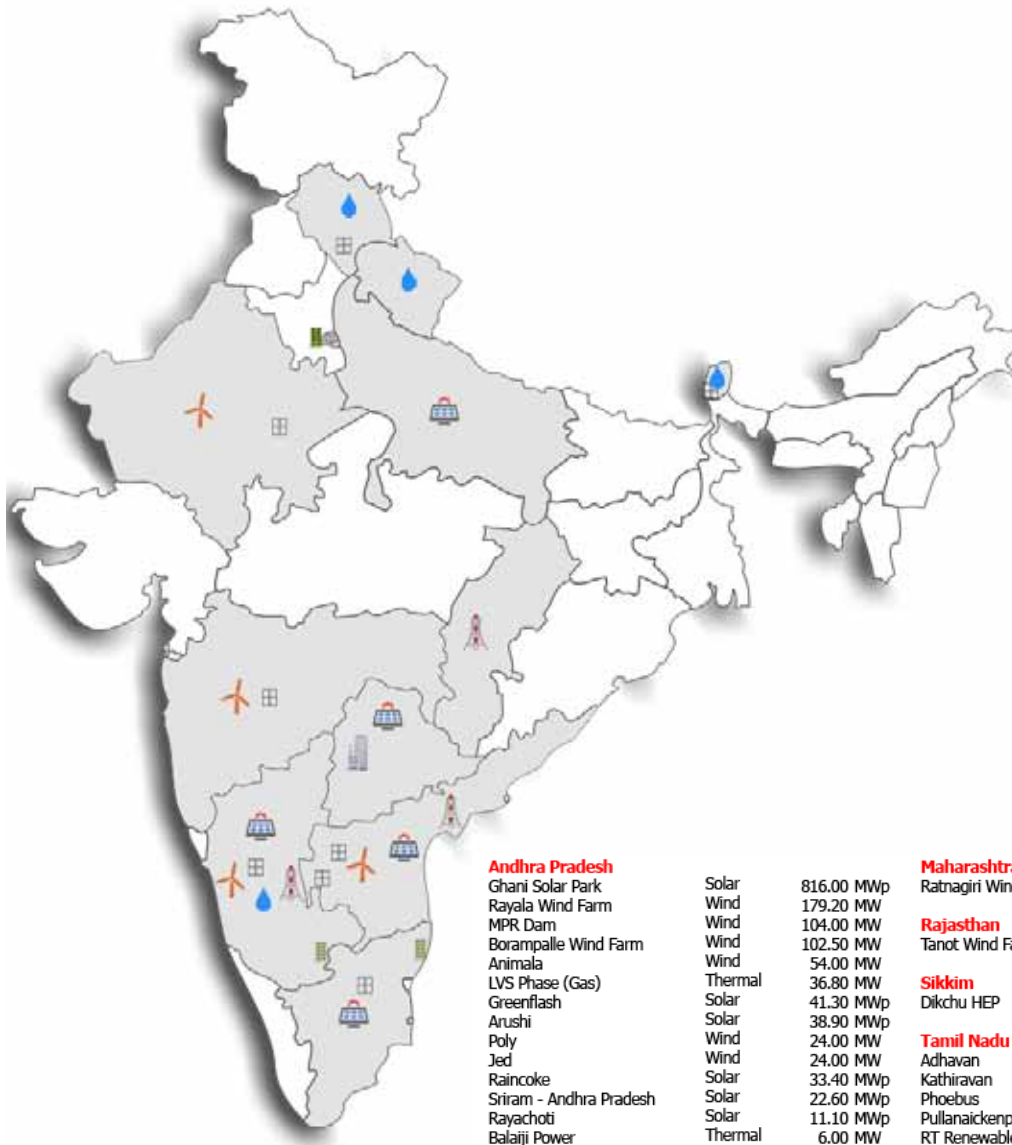
#### APPC tariffs

PPAs with tariffs based on average power purchase cost of electricity (“APPC”) plus RECs which offer greater upside revenue potential depending on the annual escalation in APPC tariffs and the market price of the RECs that may be sold. As the term of such PPAs is generally short, this PPA model allows us the flexibility to move to the merchant tariff model at an appropriate time with direct customers or Group captive consumers, enhancing the revenue realization of the relevant projects.

#### Our supply chain

Greenko Group’s commitment to embed sustainability extends to supplier network as well. The Group believes that for responsible business functioning and to become truly sustainable, the commitment and values should be shared and extended to business partners as well. Greenko Group wants its suppliers to uphold equivalent standards for business conduct and therefore have been helping the suppliers build capacities for improving their environmental and social performance. Right from on-boarding the vendors, the vendor registration process ensures compliance to the principles of ethics, safety, environment and sustainability. Majority of our suppliers are certified for Environment Management System (ISO 14001). This year, supply chain guidelines were administered to all the key suppliers.

## Greenko Group's Operational Presence



### Andhra Pradesh

Ghani Solar Park	Solar	816.00 MWp
Rayala Wind Farm	Wind	179.20 MW
MPR Dam	Wind	104.00 MW
Borampalle Wind Farm	Wind	102.50 MW
Animala	Wind	54.00 MW
LVS Phase (Gas)	Thermal	36.80 MW
Greenflash	Solar	41.30 MWp
Arushi	Solar	38.90 MWp
Poly	Wind	24.00 MW
Jed	Wind	24.00 MW
Raincoke	Solar	33.40 MWp
Sriram - Andhra Pradesh	Solar	22.60 MWp
Rayachoti	Solar	11.10 MWp
Balajji Power	Thermal	6.00 MW
KMS Power	Thermal	6.00 MW
Roshni Power	Thermal	6.00 MW

### Chattisgarh

Ecofren Power	Thermal	8.00 MW
ISA Power	Thermal	8.00 MW

### Delhi

DMRC	Solar	3.50 MWp
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### Himachal Pradesh

Budhil Hydro	Hydro	70.00 MW
Ravi River Basin Cluster	Hydro	32.00 MW
Sutlej River Basin	Hydro	30.00 MW
Beas River Basin Cluster	Hydro	25.00 MW

### Karnataka

Fortune Five Wind Farm	Wind	165.60 MW
Vyshali Wind Farm	Wind	100.00 MW
Devrahhipariggi Wind Farm	Wind	100.00 MW
Pavgada Solar Farm	Solar	90.00 MWp
Chitradurga Solar Farm	Solar	68.00 MWp
Netravathi River Basin Cluster	Hydro	59.60 MW
Hemavathy MHS	Hydro	24.00 MW
Jasper MHS	Hydro	10.50 MW
Sai Spurthi MHS	Hydro	10.30 MW
Ravikiran Power	Thermal	7.50 MW

### Maharashtra

Ratnagiri Wind	Wind	101.60 MW
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### Rajasthan

Tanot Wind Farm	Wind	120.00 MW
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### Sikkim

Dikchu HEP	Hydro	96.00 MW
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### Tamil Nadu

Adhavan	Solar	60.00 MWp
Kathiravan	Solar	60.00 MWp
Phoebus	Solar	60.00 MWp
Pullanaickenpatty	Solar	18.00 MWp
RT Renewable	Solar	18.00 MWp
Adityashakti	Solar	12.00 MWp

### Telangana State

NTPC - Karvy	Solar	77.00 MWp
Sunbrone	Solar	44.80 MWp
Karvy	Solar	22.00 MWp
Sriram - Telangana	Solar	22.00 MWp
Elianthakunta	Solar	12.00 MWp
Talmadla	Solar	11.63 MWp
Chennur	Solar	11.52 MWp
Kowdipalli	Solar	9.80 MWp
Digwal	Solar	9.40 MWp
Shankapur	Solar	8.60 MWp
Manakondur	Solar	6.00 MWp

### Uttarakhand

Swasti HEP	Hydro	22.50 MW
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### Uttar Pradesh

Dhruv Milkose	Solar	1.00 MWp
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Corporate Office



Regional Offices



Cluster Offices

Map not to scale

## Salient Features of Selected Sites

**1. Greenko Rayala Wind Farm** is a 240+ MW wind energy project located in Anantapur District, Andhra Pradesh of which 179.2 MW is operational and the balance capacity is under construction with the transmission distance of approximately 45 km. The project is owned and operated by our subsidiary, Greenko Rayala Wind Power Private Limited.

**2. Tanot Wind Farm** is a 120 MW wind energy project located in Jaisalmer district, Rajasthan. The power generated by the project is transmitted over a distance of approximately 38.50 km through a 220 kV transmission line from the pooling sub-station of the company to the closest RRVPNL's sub-station. The project is owned and operated by our subsidiary, Tanot Wind Power Ventures Limited.

**3. Greenko Budhil Hydro** is a 70 MW run-of-river hydropower project located on Budhil stream, a major tributary of Ravi River, in Chamba District, Himachal Pradesh. The project has been operational since October 2012. The power generated by the project is transmitted over a distance of approximately 18.0 km through a transmission line connecting to the PGCIL 220 KV Chamera Grid sub-station.

**4. AMR Hydro** is a 24.75 MW run-of-river hydropower project located on the banks of Netravathi River near Perla-Shamboor, Bantwal Taluk of Dakshina Kannada District, Karnataka. The project is owned and operated by our subsidiary, AMR Power Private Limited, and has been operational since June 2010. The power generated by the project is transmitted over a distance of approximately 10.0 km through a 110 kV double-circuit transmission line connecting to the 110/33 KV Pallamajallu Grid sub-station.

**5. Sunborne Energy** is a 44.80 MWp solar project located in Gadwal district of Telangana State. The project has been operational since February 2016. The power generated by the project is transmitted over a distance of approximately 17.8 km through a 132 kV double-circuit transmission line connecting to the 132/33 KV Leeja sub-station.

**6. Aditya Shakti** is a 12 MWp solar project located in Permabalur district of Tamil Nadu. The project has been operational since March 2016. The power generated by the project is transmitted over a distance of approximately 7.2 km through a 22 KV transmission line connecting to the Puttnampatti sub-station.











# Governance

**We believe in inculcating a culture of ethics and integrity not only within the organizational boundaries but also in our business partners. We have instituted robust governance framework enabled through policies and monitoring mechanisms to implement responsible business practices across our supply chain.**

Our vision is to be the most admired Group in the renewable energy sector. Our Board is responsible for the overall strategy and direction of Greenko in India, as well as for approving potential acquisitions, major capital expenditure items and financing matters. The Board has a formal schedule of business reserved to it and meets regularly during the year.

## Board of Directors



**Mr. Om Prakash Bhatt**

Chairman

Mr. Bhatt is the former Chairman of State Bank of India (“SBI”), India’s largest banking and financial services company in India, by assets. He started his career in 1972, as a probationary officer with SBI. During his tenure, Mr. Bhatt led SBI through challenging times and was instrumental in SBI finding place on the Global List rankings of Fortune 500.

Mr. Bhatt was the Chairman of the Indian Banks’ Association. Mr. Bhatt is also the recipient of numerous awards and recognitions during his career, including the “CNN-IBN Indian of the Year for Business”, in 2007.

Mr. Bhatt holds a Graduate degree in Physics and a Post Graduate degree in English literature. He is currently serving as an independent director on the Boards of Hindustan Unilever Limited, Tata Consultancy Services Limited, Tata Steel Limited and Standard Chartered PLC.



**Mr. Anil Kumar Chalamalasetty**

Founder, Chief Executive & Managing Director

Mr. Chalamalasetty had an extended entrepreneurial career during which he was involved in evolving start-up businesses in Information Technology, Infrastructure and Environmental sectors in the United Kingdom and India. Mr. Chalamalasetty is experienced in mergers and acquisitions, transition and project management with a successful track record of managing operations involving large remote teams. He co-founded and developed the group with Mahesh Kolli in 2004 and incorporated it in early-2006 to raise funds for financing early operations. He is responsible for effectively implementing the strategic business road map of the Company. Mr. Chalamalasetty is a graduate in Computer Science and holds a Masters from North West University.





## Mr. Mahesh Kolli

Founder, President & Joint Managing Director

Mahesh started his career in the energy sector and went on to build his entrepreneurial interests in Information Technology and Environmental space. His entrepreneurial journey started with an environmental solutions company focused on technology transfer from developed markets to India. He co-founded Greenko Group along with Mr Anil Chalamalasetty in 2006. Within Greenko, he is responsible for driving the vision, business development and new project initiatives of the Group. Mahesh is a regular speaker at Carbon Market & Clean Energy conferences around the world and is a graduate in Mechanical Engineering from Karnataka, India.



## Mr. Kunnasagaran Chinniah

Director

Mr. Kunnasagaran Chinniah is presently a director of Changi Airport International, the international subsidiary of Changi Airport Group. He sits on the boards of Edelweiss Financial Services Limited (EFSL), a listed financial services company in India, as well as two EFSL subsidiaries - Edelweiss Capital (Singapore) Private Limited and Edelweiss Commodities Services Limited. He is a member of the Hindu Endowments Board, a statutory board under Singapore's Ministry of Culture, Community and Youth.

Mr. Chinniah retired in September 2013 as the Managing Director / Global Co-Head of Portfolio, Strategy and Risk group with GIC Special Investments (GIC SI), the private equity arm of GIC Private Limited. Mr Chinniah had joined GIC SI in 1989 after completing his MBA, and subsequently held various positions within the company's North American, European and Asian divisions in a career spanning 24 years. During this time, he also served as a director of numerous GIC portfolio companies in the US, China, Hong Kong, India and Indonesia.

Mr. Chinniah is a Chartered Financial Analyst. He obtained his Bachelor's Degree in Electrical Engineering from the National University of Singapore in 1982 and an MBA from the University of California, Berkeley in 1989. In 1997, he attended the World Bank Executive Program conducted by Harvard University



## Mr. Sriram Yarlagadda

Director

Mr. Sriram Yarlagadda is presently a Managing Director at Mara group. He is also a Partner and CFO at Lion works capital, specializes in Infrastructure sector. He is a member of the Institute of Chartered Accountants of India. He was earlier associated with Pepsico, Tata AIG, to name a few.





Mr. Chin Hau Boon

Director

Mr. Boon joined the GIC Infrastructure Group in 2008 and currently has lead coverage responsibility for the Emerging Markets. Prior to joining GIC, Mr. Boon was an Investment Manager at Pulsar Energy Capital where he invested in projects across the energy sector in Europe and the Americas. Before Pulsar, Mr. Boon was a member of the Infrastructure advisory team at Credit Suisse covering a range of projects in transport, logistics and aerospace. He began his career at Singapore Power where he managed natural gas pipeline projects. Mr. Boon has degrees from Imperial College London and the University of Chicago.



Mr. Andrew Dench

Director

Mr. Dench joined the infrastructure team in the Private Equity and Infrastructure department of GIC in 2015 with responsibility for global infrastructure asset management. Prior to joining GIC, he was Deputy CEO and CFO at Veolia Water UK, Ireland and Northern Europe, CFO at Electricity North West and Head of Corporate Finance and Change at the London Stock Exchange Group. Mr. Dench also spent 15 years in investment banking at Morgan Stanley and Credit Suisse, providing strategic and capital markets advice largely in the infrastructure, utilities, energy and natural resources sectors.

Mr. Dench graduated from Strathclyde Business School with a Post-Graduate Diploma in Business IT Systems and the University of Glasgow with an M.A. (Hons), first class, in Economics. Mr. Dench also studied pre-clinical medicine at Oxford University.



Mr. Matthew Lim

Director

Mr. Lim joined GIC in 2006 and is a Senior Vice President at GIC. He leads coverage in the Energy, Natural Resources and Infrastructure sectors in the Global Investments, Strategy and Risk Group spanning both Private Equity and Infrastructure strategies. Prior to GIC, Mr. Lim was with KPMG's Global Projects and Infrastructure Team in London and Singapore. He has over 20 years of investment and corporate finance experience across a range of industries and countries. Mr. Lim holds a MEng in Electronic Materials Engineering from Oxford University.





**Ms. Nicole Goh**  
Director

Ms. Goh joined the GIC Infrastructure Group in 2008. She has coverage responsibility for infrastructure private equity opportunities in the Asia-Pacific region, with prior experience investing in the US and Europe. In 2015, she completed an 18 month secondment to the IFC Global Infrastructure Fund to invest alongside IFC in emerging market infrastructure equity opportunities. Ms. Goh has degrees from Imperial College London and Stanford University.



**Mr. Marcus Hill**  
Director

Mr. Hill is a Senior Fund Manager in the Real Estate and Infrastructure Department of the Abu Dhabi Investment Authority (ADIA). Mr. Hill joined ADIA in 2008 and is responsible for the sourcing, execution and management of infrastructure investments across the Asia Pacific region. Mr. Hill has experience across a range of sub-sectors including renewable energy, toll roads, ports and utilities. Prior to joining ADIA, Mr. Hill worked in infrastructure funds management for Colonial First State Global Asset Management and investment banking at J.P Morgan, both in Sydney, Australia. Mr. Hill holds a Bachelor of Finance from Bond University.



**Ms. Pinpin Kweton**  
Director



**Mr. Patrick Lee**  
Director

## Governance Structure and Composition

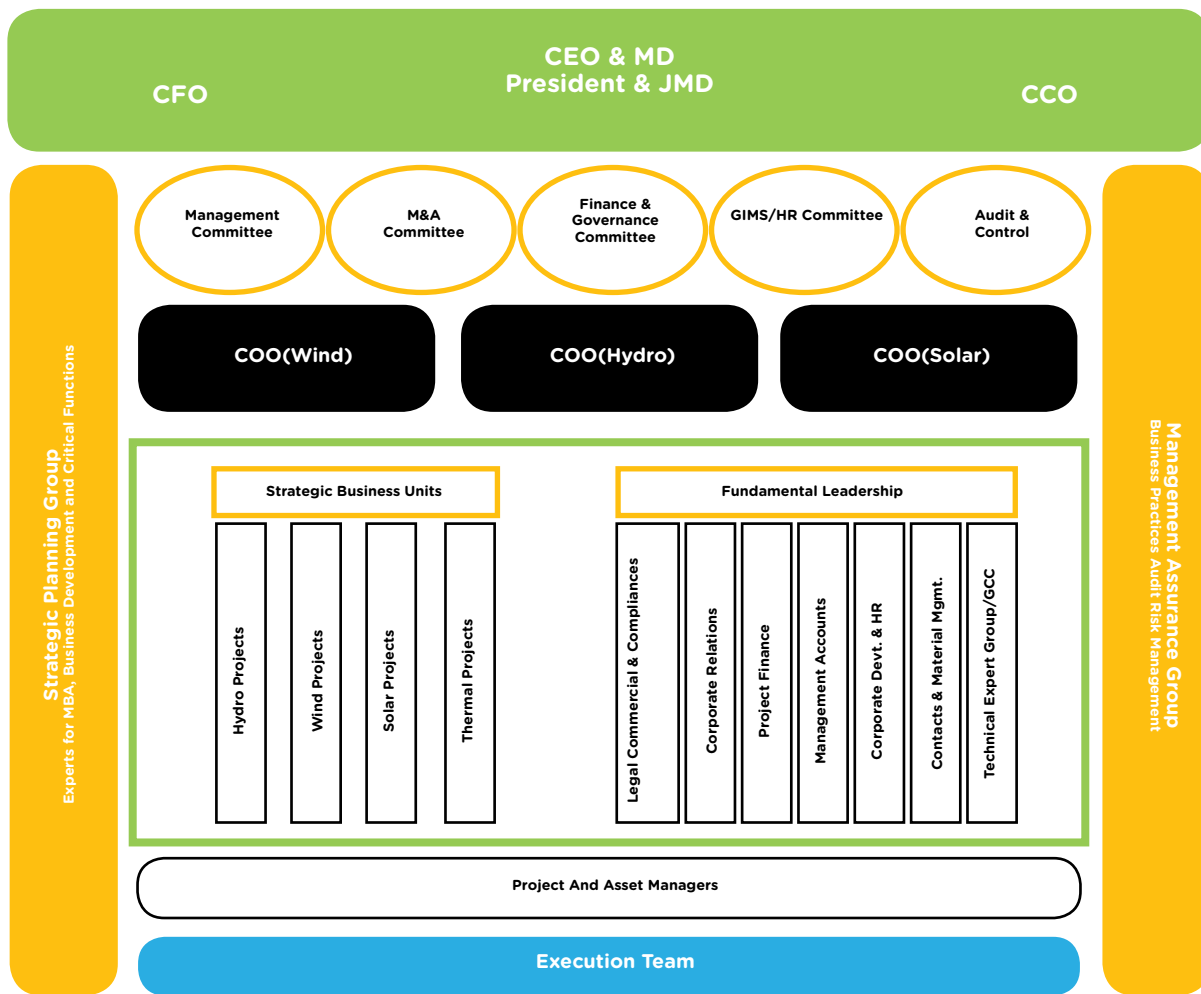
The Board of Directors is the highest elected body to oversee the group's affairs and activities. The members of our Board are eminent professionals with diverse backgrounds who are selected on the basis of their experience, qualifications and leadership positions held in the industry.

The Board is responsible for Greenko's overall strategy and direction, approving potential acquisitions, major capital expenditure items and financing matters. The Board has a formal schedule of business reserved to it and meets regularly during the year. In addition the Board also works through several committees, to clear

various statutory and non-statutory issues. The Board monitors exposure to key business risks, reviews the strategic direction of the Group, the annual budgets and its progress.

## Organizational Structure

Greenko practices the matrix organizational structure of working across all businesses and functions. In our matrix model, accountability and responsibilities rest through the matrix model which rests with multiple stakeholders, and across the members of the team in all functions and departments. Through matrix organization the responsibilities and accountability are distributed with respect to multiple resources.



Greenko Group - Organizational Structure

\* CCO- Chief Compliance Officer

\* M&A- Mergers & Acquisitions

\* COO- Chief Operating Officer

\* GIMS- Greenko Integrated Management System

## Greenko Integrated Management System

The Group has put in place the Greenko Integrated Management System (GIMS) that operates in accordance with global best practices, works on establishment, implementation, integration, and maintenance of Quality, Environment, Health & Safety, Information Security, Energy and Social Accountability Management Systems (QEHS-IS-En-SA) as per the requirements of ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007, ISO 27001:2013, ISO 50001:2011 and SA 8000:2014 respectively. In addition to ISO standards, the ESMS (environmental and Social Management Systems) as per the requirements of IFC performance standards and Sustainability reporting as per the requirements of GRI-G4 are also integrated into GIMS. Greenko is certified by DNV-GL for implementing ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 & ISO 27001:2013.

## Internal Audit

Internal audit is an assurance function established by Greenko group. The main objective of internal audit is to provide internal assurance of compliance designed to add value to Greenko's operations. Greenko has an effective audit committee. The audit committee oversees and provides assistance to the Board in fulfilling the responsibilities related to financial auditing and compliance. Our integrated management system department GIMS is responsible for a systematic and disciplined approach to evaluate and improve the effectiveness of management systems. GIMS

team conducts regular internal audits of integrated Quality management, Environmental management, Occupational Health & safety management, social accountability and Information security management systems at planned intervals.

## Risk Management

The risk management system at Greenko is backed by a strong governance structure which includes the Board, Audit Committee, and Risk Management department.

Our risk management department allows us to manage risk and compliance-related issues that are inherent to our operations. We thoroughly track and prioritize risks and undertake suitable mitigation measures. We also identify all high-level and medium-level risks and map suitable mitigation plans to manage these risks. For an organization of our size that includes all our plants and projects, our risk management system has allowed us to track and mitigate several high risk issues effectively.

The risks at Greenko Group across the SBUs are broadly classified as:

- Operational risk
- Security risk
- Legal and regulatory risk
- Financial risk
- Environmental risk
- Safety risk
- Social risk



Greenko Group Risk Management Committee Structure



## Our Awards and Alliances

The Group continues to demonstrate their real commitment to sustainable development by contributing to environment protection, employee safety and socio-economic development. As a testimony to the group's efforts, many accolades were conferred for exemplary business performance. Some notable ones are:

- Greenko received the “Smart importer logistics award” from Maritime Gateway in the “Smart Logistics Summit held at Hyderabad.
- Greenko received Best management award for Ghani, Kurnool project from government of Andhra Pradesh.

- Our CEO & MD has been Awarded the “Best Entrepreneur” from government of Telangana in the “Power & infrastructure category”

- Greenko has received Excellence in Supply Chain Management in the event NATCOM-2016 conducted by Indian Institute of Material Management.

- Our CEO & MD has been awarded the “The South Indian Business Achiever's Award” by E&Y in the Construction & Infrastructure category in recognition of his outstanding work from across all businesses and professions within the South Indian Diaspora



South Indian Business Achiever's Awards Ceremony

Greenko Group actively participates in responsible policy advocacy through industry forums like CII, FICCI, Indian Institute of Material Management and National Safety Council. The group is a member of these bodies. The representatives of Greenko Group regularly participate in the activities of these associations.

We were one of the prime sponsors for RenewX 2017 held at Hyderabad: UBM India, organizers of

Renewable Energy India (REI) Expo launched the second edition of RenewX. The expo witnessed a congregation of South India's green economy community to discuss industry trends, challenges and share market insights. It also served as an industry platform for organizations to capitalize and penetrate into the lucrative South Indian renewable energy market. The show brought together over 130 exhibitors that included manufacturers, EPCs, distributors and service providers.



Greenko - RenewX 2017 Event









# Ethics and Integrity

**Ethics and integrity is the crux of ‘SEED-IT’ value system at Greenko. We believe that it is our responsibility to provide our internal and external stakeholders with a fair and ethical work environment.**

Our value system SEED IT forms the core of who we are and what we stand for as an organization. Our journey towards values started with a common understanding to inculcate Value based behaviour and their impact on business that binds us together.

## Code of Conduct

Our Code of Conduct serves as a guiding tool that integrates our values into our day-to-day business conduct by ensuring complete alignment between organizational values and employee conduct. Our code of conduct provides practical guidance in areas such as conflicts of interest, gifts and business courtesies, anti-bribery and anti-corruption, confidentiality, Environment Health and Safety (EHS), Corporate Social Responsibility (CSR) and regulatory compliance.

All employees, including new hires are required to attend an induction session which encompasses a session on the Code of Conduct. All the employees need to adhere to the code of conduct.

We have a well-established procedure for grievance mechanisms for affected communities, to address their concerns and grievances and facilitate resolutions of issues pertaining to environmental and to social performance of our projects/operations. We have established, implemented and maintained procedure for periodically evaluating compliance with applicable legal and other requirements relevant to our operations.

We have procedure in place for external communication that includes various methods to address concerns.



Components of Greenko Group's Code of Conduct

# Economic Performance

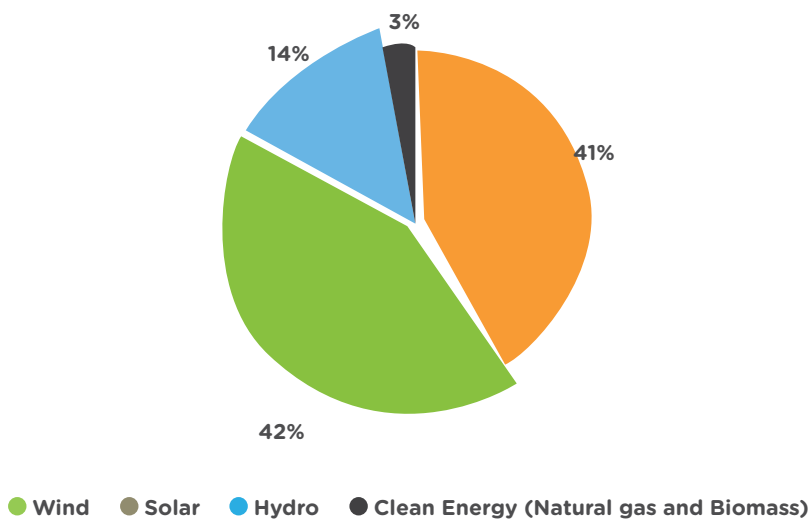
With a focus on diversification, Greenko Group intends to play a key role in the changing profile of the Indian power sector to facilitate Indian economy sustain high levels of growth enabling the Govt. to meet the Nationally Determined Contribution targets.

## Renewable Energy Market in India

Renewable energy in India comes under the purview of the Ministry of New and Renewable Energy (MNRE). Newer renewable electricity sources are targeted to grow massively by 2022, including a more than doubling of India's large wind power capacity and an almost 15 fold increase in solar power from April 2016 levels. Such ambitious targets would place India amongst the world leaders in renewable energy use and place India at the center of its International Solar Alliance project promoting the growth and development of solar power internationally to over 120 countries.

Greenko contributes to nearly 4.6% of the India's total renewable energy generation capacity, including renewable technologies that include wind, small hydro and solar.

Out of Greenko's total 2657 MW installed capacity Wind energy (1075 MW) contributes to 41%, solar energy (1125 MW) contributes to 42%, hydro power (380 MW) contributes to 14% and clean energy (natural gas and biomass) (78 MW) contributes to 3%. The break-up of the same is shown in the pie chart.



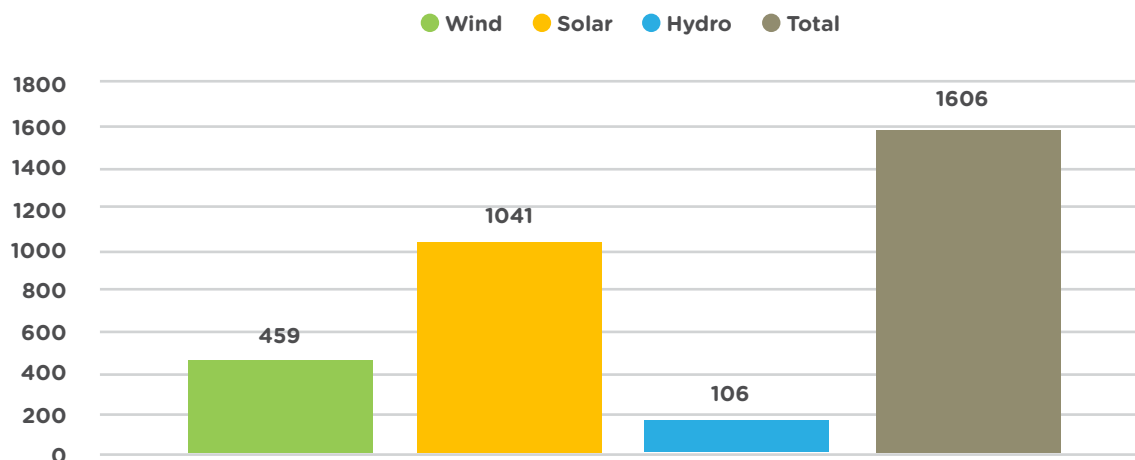
Greenko Installed Capacity in percentage

## Our Growth

We have significantly expanded our installed base of operational projects. In recent years, we have made a number of acquisitions, including the SunEdison acquisition, to increase the total generating capacity of our projects, with a focus on acquiring operational and advanced construction projects near our existing and upcoming project clusters.

In FY 2016-17 Greenko has contributed 14.4% of India's renewable energy capacity addition. The break-up of the same is given in the below table and graph.

Category	Greenko Capacity Addition (MW) in FY 2016-17	India's Capacity Addition (MW) in FY 2016-17	% of Greenko's Capacity Addition w.r.t. India's Capacity Addition
Solar	1041	5526	18.8%
Wind	459	5413	8.5%
Hydro	106	227	46.70%
Total	1606	11149	14.38%



Greenko Capacity Addition FY 2016-17 (in MW)

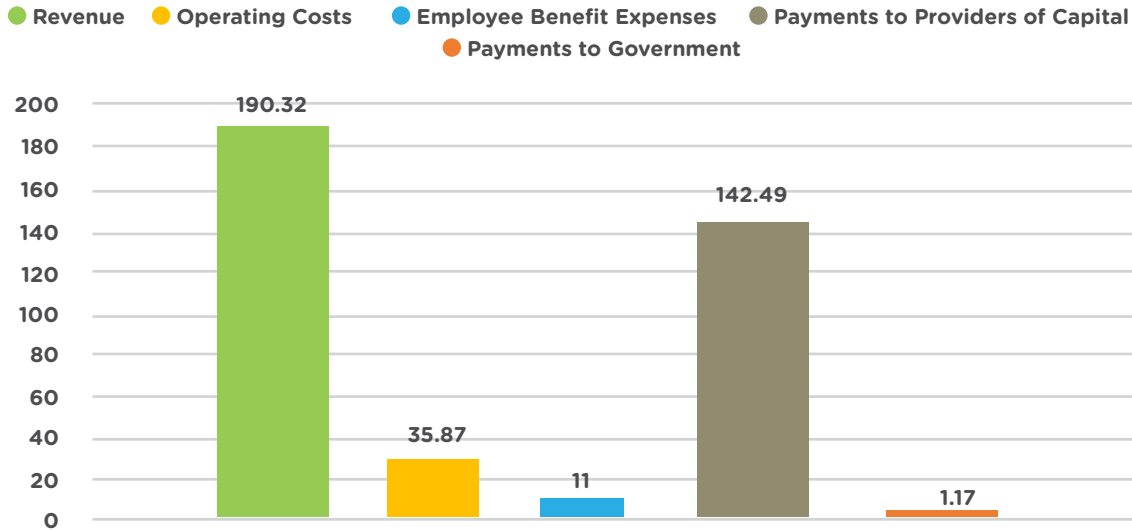
As our business has grown, we have increased our expenditures on general and administrative functions necessary to support this growth and support our operations. As part of our efforts to reduce risks in our business, although we currently outsource the operations and maintenance of our WTGs to OEM, we are also building in-house skills concurrently to oversee and back-up the operations and maintenance of our turbines, a model which is different from that generally adopted by our competitors.

A key driver of our results of operations is our ability to bring new projects into commercial operation successfully. As of the date of this

report, we have 80 operational projects with a combined installed capacity of 2657 MW and our under-construction projects include interests in three hydropower projects and three wind energy projects having a combined licensed capacity of 184.0 MW. We expect these projects to become operational over the next 48 months. Our under-active development projects include interests in hydropower projects, wind energy projects and solar projects. Our near-term operating results will, in part, depend upon our ability to transition these projects into commercial operations in accordance with our existing construction budgets and schedules.

## Economic Value Generated and Distributed

The group has significantly grown and generated revenue of USD 190.32 Million in FY16 in comparison to the USD 157.98 Million revenue generated during April 2016 to March 2017, amounting to growth by 50%.



Economic Value Generated and Distributed for FY 2016-17

### Defined contribution plans

Each group entity's approved superannuation schemes, state government provident fund scheme, employee state insurance scheme are defined contribution plans. The contribution paid / payable under the schemes is recognised during the period in which the employee renders the related service.

### Defined Benefit Plans

The employee's gratuity fund scheme, long term compensated absences, pension, post-retirement medical and long term service award benefit schemes are defined benefit plans. The present value of the obligation under such defined benefit plans is determined based on the actuarial valuation using the Projected Unit Credit Method as at the date of the Balance sheet. In case of funded plans, the fair value of plan asset is reduced from the gross obligation under the defined benefit plans, to recognise the obligation on the net basis.

These funds are maintained under a registered Trust and there is no other liability to the group. The Retirement benefit obligations for 2016-17 were US \$ 1.91 Mn.

### Financial incentives received from Government

Financial incentive from Government in the form of generation based incentives (GBI) was received for the renewable energy generation.

Such Generation Based Incentive amounted to 6.88 US \$ Mn in the reporting period.

The group also received financial benefits in terms of deferred tax benefit, custom and import duty exemption for certain eligible projects and imported components e.g. solar panels.

Regardless of gender, and all other parameters being equal, female employees are paid the same as men across different employee categories. All employees gradually grow through a fair evaluation and promotion program.









# Technology and Innovation

**Greenko as a technology driven group uses the tools, technologies and instrumentation existing today that allow project management, plant operation and plant maintenance. The technology deployed help increase safety, cut costs through effective project management, predictive maintenance, reduced downtime, and enhanced economic output.**

## Technology Adoption in Hydro Sites

Greenko develops its Hydro projects using state-of-the-art technology. We adhere to global standards and comply with stringent operating procedures that apply to hydro asset management.

During Project implementation stage, latest construction techniques and equipment are used with emphasis on maximum mechanisation and safety. Underground excavation of big chambers, long tunnels and deep shafts in highly challenging and fragile geology of young Himalayas is successfully done by our highly skilled teams with utmost accuracy using highly sophisticated (laser guided) survey instruments. The excavations at extremely inaccessible locations have been tackled with use of unique imported Spider Excavators. Rigorous project management review system is adopted to expedite execution of projects.

Our Hydro plants are automated and have a SCADA system which supports remote monitoring. Connectivity with the remote Hydro Plants is addressed by adopting IoT based system. Adoption of these systems and technologies resulted in significant improvement in operational excellence. Increased plant availability was achieved through real time monitoring of the performance parameters & health condition of the plant and machinery viz. Airgap and Vibration measurement systems and prognosis of the potential problems. Further, through quicker fault finding, root cause analysis and initiation of remedial action, the risks of failures and unplanned outages have reduced. Plant performance is maximized through validation of the operating parameters, comparison with standards/ benchmarks, analysis of the variances and taking corrective actions. Correlating with historical data, status and standards, we are able to optimise predictive and preventive maintenance. Optimum utilization of resources is ensured by leveraging ERP capabilities to manage inventory levels and Plant reliability.

Efficient generation is ensured by deploying technology based scheduling and water

management. Also, improved trading of Power & Revenue realization is achieved through better forecasting of the generation in line with the market demand.

We are investing in advanced Analytics with respect to operating conditions, trend analysis, detection of slow & long-term deteriorations and timely R&M to provide the ability to increase life of the assets.

## Technology Adoption in Wind Sites

Greenko develops wind farms with modern and sophisticated technology wind turbines having larger hub height, greater rotor diameter and DFIG. Our WTGs are sourced from world Wind technology leaders such as Gamesa and GE. Greenko's in-house competent teams employ powerful tools to conduct comprehensive Wind Resource Assessment and Micro-siting, to maximize the Park Energy yields. This has led to better AEP (Annual Energy Production) and improved Project economics.

Greenko's internal engineering team validates the design of the Wind Turbine Generator and the project implementation team manages the installation of wind farm including internal grid lines (33 kV line to the higher level EHV systems) and power evacuation system.

The Operation and Maintenance of the Wind turbine generator is entrusted with the OEM's Services team. Greenko's in-house O&M personnel oversee the service contract on the OEM and manage the O&M of the balance of plant to maximize availability, Uptime and overall Generation. Advanced SCADA systems help in providing detailed digital information of the operation of the Plant which is subjected to further analysis to improve generation, for better condition monitoring for health and scheduling of maintenance activities. This also lends to sophisticated Forecasting and Scheduling of the plant to help the grid operator to manage the intermittency aspect of wind as a renewable resource.





From time to time, sophisticated technology is used to study the vibration signals of the machines to assess the possibility of any impending component failure and thus improving machine reliability. Drones are deployed with high resolution cameras to help view the condition of the blades for any wear and tear or lightning impact to take necessary corrective and preventive measures to avoid any catastrophic failures.

### Technology Adoption in Solar Sites

Greenko adopts and applies the state-of-the-art technology available, to augment efficiency and speed during Construction to maximise Asset performance during operations phase of the Solar Plants.

At Project Implementation stage, real time monitoring of project construction through an in-house cloud based software assists in quick identification of lagging activities for rapid initiation of corrective action. This has ensured completion of projects in record span of time.

For automation of material tracking at site, RFID technology is implemented. The RFID tags placed on materials enable tracking with respect to materials received at site, materials issued to contractors and materials available in the

warehouse. The RFID tracking software is linked to the in-house project monitoring software and this facilitates appropriate inventory management, resulting in reduction of carrying costs and elimination of delays due to material shortfall.

At Plant Operations stage, IoT based SCADA is adopted to monitor Performance, gauge Performance ratios, detect and prevent failures/ reduce downtimes.

Advanced Ticketing system help efficient and quick servicing required to fix the issues that could potentially lead to downtime. Capturing operational parameter data up to string level enables faster identification and resolution of specific problems at a solar plant and hence improves trouble shooting efficiency. Outage Management System - based on issuance of tickets per activity, to secure faster TAT (Turnaround Time) - optimizes the resources for trouble shooting & breakdown maintenance.

Different methods of module cleaning (Waterless, Water based fixed installation, Water based mobile) are employed to adapt according to availability of resources. Soiling stations help evaluate the energy loss due to soiling and take informed decisions to adopt cleaning frequencies focused on keeping financial losses to the minimum.



**Project HUB for Project Management**



**SCADA Room for Plant Operations Management**











# Environmental Performance

**Greenko owns and operates clean energy projects and as a responsible corporate, the Group business is driven towards addressing the challenge of climate change. In our operations we endeavour to integrate biodiversity and environmental protection measures in our decision making process.**

We as a growing Nation are straddled with challenges, however two issues that are on top of the Government agenda are 1) Climate change and 2) Local employment. Renewable energy sector in India is uniquely positioned to enable the local economy to address both these challenges. India's Nationally Determined Contributions as per the submission to COP Paris Summit include to 1) reduce the emissions intensity of its GDP by 33-35% by 2030, from the 2005 level and 2) achieve around 40% cumulative electric power installed capacity from non-fossil-fuel-based energy resources by 2030 and 3) create an additional carbon sink of 2.5-3 billion tonnes of CO<sub>2</sub> equivalent, through additional forest and tree cover by 2030. It is evident from these commitments that India's renewable energy sector is expected to play a key role and recent initiatives by the Government of India, such as the Smart Cities Mission and the announcement of ambitious renewable energy targets present significant opportunities for future growth.

Greenko Group is driven towards contributing to the National issues and to ensure that Greenko's activities respect, promote and advance internationally recognized environmental principles & commitments, Greenko has put in place Greenko Integrated Management Systems

(GIMS) and corporate EHS functions. The objective is to establish Greenko as the most admired Group in Indian Energy Sector by demonstrating and complying with International standards. Greenko Group strongly advocates precautionary measures to be carried out throughout the project life - from pre-construction, construction and operations. For the purpose of monitoring we have put in Environmental management system and got few sites certified under ISO 14001:2015 standard for "Operation and Maintenance" activities.

Moreover, Greenko has established Environment and Social Management System (ESMS) as per the requirements of IFC performance standards.

The ESMS includes the following strategic plans:

- Environmental and social risk assessment
- Stakeholder engagement
- Resource efficiency and pollution prevention
- Community health, safety and security
- Biodiversity conservation and sustainable management
- Emergency response & preparedness
- Monitoring and reviewing of ESMS performance

The details regarding the safety aspects have been covered in the 'Social' chapter of this report.



**Greenko Group's ESMS Plan**

## Energy Management

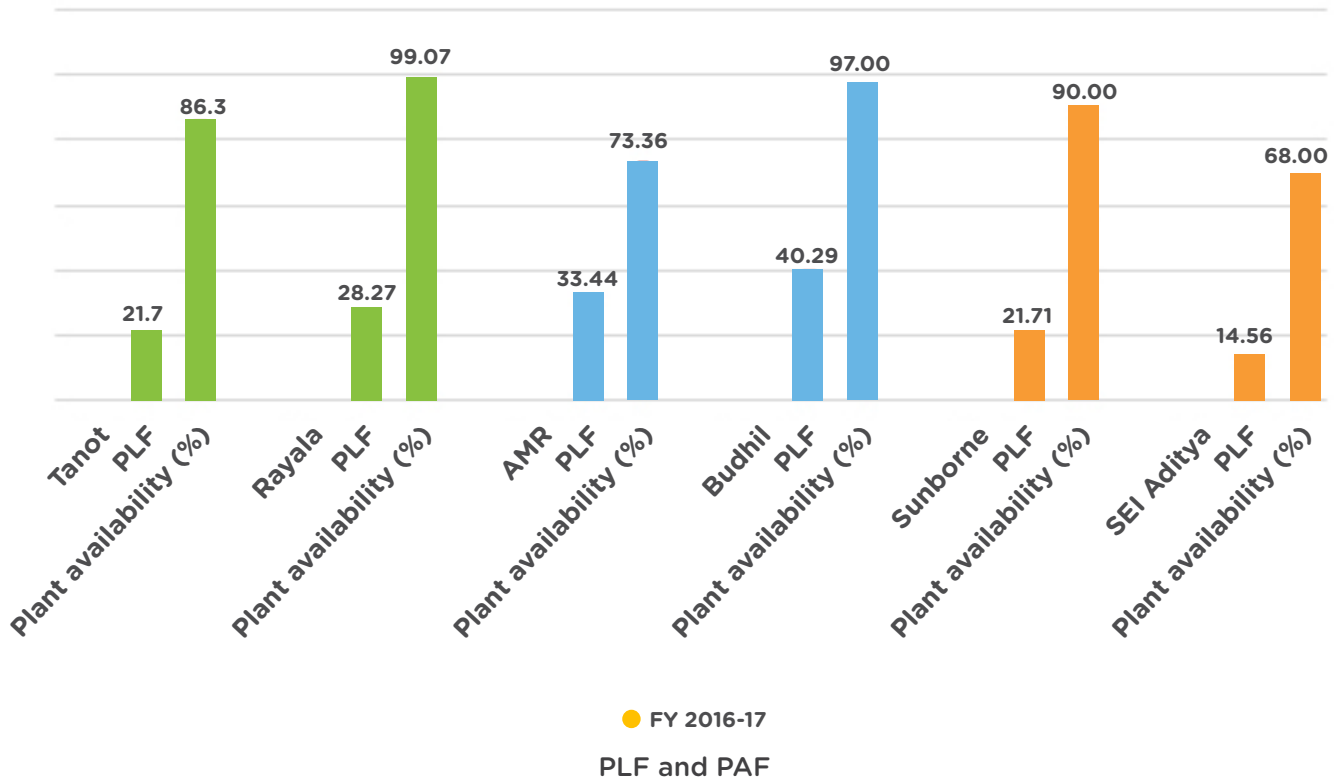
Sustainability is at the core of our business strategy to provide for our customers' growing energy demands. In our operation, we achieve this by maintaining high levels of energy efficiency for our power generating stations and increasing our renewable portfolio through a mix of Greenfield growth and acquisitions. Over the next few years, we will focus on continuing our energy efficiency initiatives, modernizing our intervention strategies and implementing new demand response measures.

By ensuring high levels of average PLF (Plant Load Factor) and plant availability we are able to cater to the growing load in an optimum manner. The chart below depicts the PLF and the percentage availability of our six plants considered in the reporting boundary.

Some of the common energy efficiency initiatives/ programs across our project sites include:

- Use of energy efficient CFL & LED lighting
- Regular maintenance of the auxiliary equipment's
- Awareness training on energy conservation
- Operational management of hydro plants- arresting water leakage through proper Grouting work in power house avoiding operation of pumps
- Commissioning energy efficient 5-star rated ACs
- Lighting controls automation with installation of outdoor light sensor timer

Particulars	Unit	2016-17
Energy exported	MWH	1035974
Auxiliary consumption	MWH	2890
Energy imported	MWH	2041
Diesel consumption	Litres	2470





## GHG emissions and Climate Change

The global warming contributes to and accelerates, aggravates the climate change impacts. Thus, as responsible businesses, it is desirable to monitor and make efforts to reduce the GHG emissions from business operations. The global community has agreed on limiting the global temperature rise within 1.5-2°C compared to pre-industrial temperatures. Traditionally, economic development has been closely correlated to a higher energy consumption and therefore the increase in GHG emissions.

In 2008, the Government of India released 'India's National Action Plan on Climate Change'. Through this, India has identified specific sectors for the GHG emission mitigation. In 2014, the 'Expert Group on Low Carbon Strategies for Inclusive Growth' under the Planning Commission has also published pathway to reduce the emission intensity of country's GDP by 20 to 25 percent, over 2005 levels, by 2020. India's Intended Nationally Determined Contributions (INDC) details the actions towards the voluntary goal of reducing the emissions intensity of its GDP by 20-25%, over 2005 levels, by 2020. The emission intensity of India's GDP has decreased by 12% between 2005 and 2010. United Nations Environment Programme (UNEP) in its Emission Gap Report 2014 has recognized India as one of the countries on course to achieving its voluntary goal. This achievement is mainly due to aggressive Renewable Power generation during 2005-2010. It is essential that the country has to continue the rate of growth, if not accelerate the growth of renewable energy program, to achieve the 25% reduction by 2020 target.

Renewable energy can help mitigate this correlation, contributing to sustainable development. It can also be enabler for other benefits such as:

- Promote social and economic development through improved access to energy
- Reduces its negative effects on the environment and health as compared to fossil fuels

Greenko Group is a mainstream participant in the growing Indian energy industry and a market leading owner and operator of clean energy projects in India. The Group is building a de-risked portfolio of wind, solar, hydropower and clean energy assets within India and intends to increase the installed capacity it operates by developing new Greenfield assets.

As this is our first report, this year's performance will be taken as the baseline for the future reports. The details of Scope I and Scope II emissions of reporting plants are presented below:

Particulars	Unit	2016-17
Scope 1 Direct GHG Emissions - Diesel consumption from generators	kg	6662
Scope 2 Indirect GHG Emissions - Electricity Imported	kg	1581000

## Clean Development Mechanism

As part of the Group's commitment to responsible business practices, the group has till date registered 21 Clean Development Mechanism (CDM) projects with UNFCCC. These include 5 biomass, 13 hydro and 3 wind power projects, generating a total of 15,90,560 Certified Emission Reductions. We have estimated our CO<sub>2</sub> emissions from our operations following the standard of Green House Gas Protocol (GHG Protocol) and using as a reference the emission factors provided by the IPCC. This is fundamental step in ensuring that environmentally responsible companies effectively contributing to the process of reduction of greenhouse gases.

In addition to its contribution to CDM projects, Greenko Group with its operational 2.65 GW of renewable energy projects, has generate over 8.5 billion units of clean energy thereby avoiding approximately 6.9 million tonnes of CO<sub>2</sub> the details of which are shown below:

1	Estimated annual generation from 2.65 GW installed capacity	8.5 billion kWh
2	Indian grid's average emission factor	0.82 t CO <sub>2</sub> /MWh (Source: CEA - CO <sub>2</sub> Baseline Database for the Indian Power Sector, Version 11.0, April 2016)
3	Annual CO <sub>2</sub> emissions avoided	6.9 Mn tCO <sub>2</sub>

## Material Consumption

As an environmental conscious group, none of the operations use Polychlorinated Biphenyl (Persistent Organic Pollutants, POP) as well as Volatile Organic Compounds, (VOC)

Particulars	Unit	Data for FY 2016-17
Batteries	Nos.	253
Lubrication Oil	Litres	2833
Turbine Oil	Litres	14312
Gear Oil	Litres	1135
Petrol	Litres	419
Transformer Oil	Litres	1135
Grease	kg	8785
LPG	kg	2972
Oxygen cylinder	Nos.	41

## Waste Management

Greenko Group's management of wastes is based on its Environment and Social Management System that establishes practices to meet the legal requirements along with reducing or avoiding generation of wastes and to re-use or recycle whenever possible. The system governs identification of the waste streams generated in the process of construction and operations & maintenance at project sites and their classification, manner of collection, transport and appropriate final disposal. Greenko carries out continuous control of generation, storage and allocation of wastes to outsourced contractors.

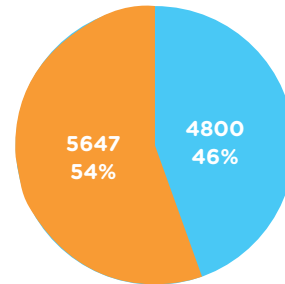
The typical waste items include hazardous items such as paint cans, mineral oil lubricants, items containing thinner, sawdust contaminated with oil, greases, chemical products, air filters, brake pads, cutting waste, oil filters, papers and plastics contaminated with grease/oil, sweepings etc. and typical non-hazardous waste items include plastic, glass, cardboard, paper, iron & iron scrap, etc. Greenko conducts Environmental Education Program for employees and partners, which includes raising of awareness about environmental issues, with a focus on reduction, reuse and recycling of waste.

Hazardous waste		
Items	Unit	FY 2016-17
Waste Oil	Kgs	16640
Contaminated absorbents	Kgs	134
Contaminated packaging	Kgs	0
Used batteries	No's	253
E-waste	Kgs	1225

Non-hazardous waste		
Packaging waste	Kg	35
Paper waste	Kg	318
Plastic waste	Kg	46
Metallic waste	Kg	375
Organic Waste	Kg	1206

## Water Management

Our operations require water supply for in-house water consumption and maintenance. Most of our plants are located and designed to use water from surface water sources. As water is critical to the environment in Indian geography, water management is very critical and material to our operations. None of our plants/projects create any significant water stress in the areas where we operate.



● Ground Water (KL) ● Surface Water (KL)

### Water Consumption

### Water Management Initiatives

- Sprinkler & dripping system has been installed and maintained in the power house and staff quarters
- RO plant waste water facilitates to plants and earth pit
- Rain Water Harvesting System - All the Rain water is diverted through drains to rain water collection pit and that water is reused for gardening purpose



Rain water harvesting system at Wind Site

## Biodiversity

In comparison to conventional sources of energy such as coal/ natural gas, renewable power projects typically have minimal impact on biodiversity. Biodiversity assessment is a key aspect of our projects so to ensure that as the project development activities are conducted in a way that it does not adversely impact biodiversity.

Based on the Precautionary Principle, Greenko Group believes that the absence of absolute scientific certainty should not be a reason for postponing effective and economically viable measures to prevent the threat of serious or irreversible damage to the environment or to human health in the procedures for prior license, installation and operation. The Group is cognizant of the importance of native flora and fauna population in the areas adjoining the project sites. Greenko Group carries out Environmental and Social Impact Assessment (ESIA) study prior to the commencement of the operations, in line with the requirements of ten Equator Principles; eight International Finance Corporation (IFC) Social & Environmental Sustainability Performance Standards (PS); and IFC Environment, Health and Safety (EHS) Guidelines for Renewable Energy Projects.

The potential impacts of the proposed projects have been assessed for relevant social and environmental parameters, considering the IFC Performance Standards. The adverse impacts were found to be minimal in most cases. Environmental Management Plans have been prepared to help mitigating any potential adverse social and environmental impacts.

Biodiversity assessment is a key aspect of our project planning, implementation and operation. Keeping with IFC's Performance Standard on "Biodiversity Conservation and Sustainable Management of Living Natural Resources" we have outlined a procedure in our Environmental and Social Management System and diligently adhere to it. This procedure is audited by an external party during the ESMS audits.

We have been investing towards environmental conservation/ protection initiatives in the following areas:

- IMS Certifications (EMS, OHSAS, QMS)
- Environmental education and training
- Green Purchases
- Preservation of Biodiversity
- Environmental Monitoring Equipment
- Impact Assessment Studies

### Biodiversity Conservation Initiatives

Some of the key initiatives undertaken by Greenko Group towards biodiversity conservation include:

- Working with the public authorities e.g., forest department to adopt conservation programs
- Regular tree plantation drives
- Providing birds nest huts in identified areas for bird's shelter
- Biodiversity conservation related training and awareness programs for employees
- Green belt development in and around the plants and project sites
- Noise mitigation measures has been taken to avoid disturbance to human as well as flora & fauna
- Fish seeding initiatives at Hydro Plants



Green belt development covering an area of 300 sq. m. at AMR Plant



Employees participating in fish seeding initiative at AMR Plant

### Conserving the habitat of Great Indian Bustard

The grasslands around Rollapadu, a village in Andhra Pradesh's Kurnool district, was declared a sanctuary in 1988 to protect the dwindling populations of the critically endangered Great Indian Bustard. The bustard inhabits dry and semi-arid regions of the country which hold naturally occurring grasslands and savannahs. The decision to declare it as a sanctuary was also to preserve the Rollapadu grasslands, which are critical for the survival of semi-arid and grassland fauna in the Deccan region.

In the recent years, the Great Indian Bustard has been rarely spotted in Rollapadu. Forest officials say they are hardly able to spot the bustards once or twice a year. Not just the Great Indian Bustard, Montagu's harrier—a magnificent migratory bird that travels from parts of central Asia to the sanctuary every winter—has also shown declining trends of its presence. Two decades ago, the bird visited the sanctuary in hundreds. According to a study by the Bombay Natural History Society. In 2016, their recorded numbers had dropped to just about 50-75.

Greenko group has submitted a plan to the forest department to adopt the Rollapadu bird sanctuary and would begin the work very soon. The conservation project, besides other things would involve:

1. Development of infrastructure for habitat & species conservation
  - Bio Fencing along Rollapadu sanctuary boundary
  - Conducting Great Indian Bustard Survey in Satellite Grassland in Kurnool & Ananthapur Dist
  - Improvement of European Economic Community at Rollapadu
  - Engaging and associating with NGO's and research institution

2. Habitat improvement program
  - Unwanted weed, woody growth removal for development of grass land
  - Engaging of 5 Nos. Fire watchers from April to May and January to March every year
3. Reduction of man-animal conflict by Crop compensation
  - Adjacent private land shall be acquired to increase the sanctuary size and reducing the public intervention
4. Publicity, Education, Nature Camp program
  - Conducting awareness program's around Rollapadu villages to ensure public support for cause of conservation
  - Filming a documentary about the great Indian bustard and screening in electronic media and local theatres to improve the awareness on bird and sensing the bird sighting every year across the corridor
5. Eco-Development
  - Providing Solar lights to the Villages adjoining to Sanctuary area
  - Providing Solar Cookers to the Villagers adjoining to Sanctuary area to reduce fuel wood dependency
  - Providing Solar based drinking water pumping system for providing water facilities in adjoining villages near Rollapadu
6. Promotion of Eco Tourism
  - Providing Solar lights near accommodation for visitors
  - Semi-permanent Cottages with attached Bathroom at GIB Wild Life Sanctuary
  - Tented accommodation with attached bath
  - Reception cum Restaurant
  - Battery Operated Vehicles
  - Maintenance of Ecotourism facility including man power support



Great Indian Bustard (GIB)



## Tree Transplantation

The trees are an important part of our ecosystem, and play a vital role in maintaining the biodiversity of the area. In order to facilitate the construction of Ghani Solar Park in a large scale, Greenko has adopted the latest technology to suit the need to conserve trees within the project site. Greenko has transplanted all the trees without cutting. The trees were taken out from project site and replanted at planned locations and along the roads within the

project site. The average age of the trees replanted is above 50 years. We have adopted the following steps during the process of transplantation.

1. Soil sampling and site selection
2. Root pruning and tree packing
3. Transplantation of trees
4. Mechanical support and root pruning
5. Post transplantation treatment















# Social Performance

We at Greenko are committed to sustainable development at all our facilities to the satisfaction of our stakeholders while fulfilling our economic, environmental and social responsibilities. Social Responsibility being one of our core values, we align our community activities through regular stakeholder engagements resulting in inclusive growth

## Our Community

We are committed to bring in good environmental and social practices through our CSR initiatives. We have an established and dedicated team for implementing CSR activities and aligning them to our business strategy, vision and mission.

Our core focus areas under CSR are:

**Education** - To ensure access to equitable and quality primary and secondary education leading to relevant and effective learning outcomes in rural communities.

**Healthcare** - To provide access to quality healthcare to the rural communities close to our operations

**Rural development** - To improve the living standards of rural people in an equitable and sustainable manner through creation of community services and facilities

**Environment** - To ensure that our activities respect, promote and advance internationally recognized environmental principles and commitments.



CSR focus areas

## 2020 CSR Goals

We are constantly working towards the CSR targets and goals set for 2020. Below are the goals set under various focus areas.

**Education** - To be able to make a positive difference to about 15,000 students through our interventions in Government run schools near our Projects and Plants.

**Healthcare** - To be able to bring access to quality Health care to over - 50,000 people near our Plants.

**Rural development** - To be able to improve the living standards of over 1,00,000 people mainly by way of improving the basic amenities and rural infrastructure in the neighbourhood villages of our Plants.

**Environment** - To be able to undertake at least 2,00,000 trees plantations in and around Plant areas and neighbourhood villages and support the natural resources management.

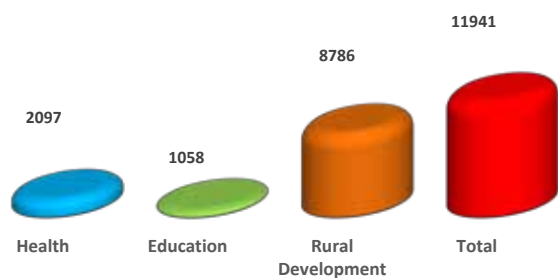
## Appointing School Teachers

Greenko as part of its CSR interventions in the neighbourhood schools has supported the Government High School at East Kodipalli Village, Kalyandurg Mandal, Anantapur District Andhra Pradesh by providing additional school teachers. After an appropriate due diligence and stakeholder consultations and as per the Education Department, Government of Andhra Pradesh orders Greenko has appointed 5 teachers to teach for higher classes for two years.

Our efforts are geared towards bringing cumulative improvements in the above focus areas to communities near our facilities by progressive interventions to create value.

In 2016-17, we have organized 35 programs, of which 15 medical camps, 10 programs for the development of education of children, 4 programs focused on rural development activity and 6 programs focused on environment related activities. These programs are need based and helpful to the communities. Over 11,941 people benefitted from these 35 programs. These programmes were in line with our 2020 CSR Goals. The sector wise programs and number of beneficiaries is elaborated and presented in the following sections.

**Number of Beneficiaries**



### Education

Our prime objective under this sector is to provide access to quality education in the Government managed schools located in the neighborhood communities. This is expected to be achieved through a meaningful and fruitful dialogue with the Government run schools to bring about sustainable improvement among the students. As a priority for the reporting period we have provided some of the basic necessary services to the school authorities like equipment for science/computer labs, and other basic infrastructure items. Some key areas of our intervention include the appointment of school teachers for upper primary school, providing infrastructure like benches, printers and inverter etc. About 1058 children from different schools benefited from our educational initiatives that are located around our project sites and plants.

### Community Skill Development Program

The Ministry of New Renewable Energy, Government of India has taken an initiative to install 100 GW solar projects by 2022. In order to achieve this mission more than 50,000 skilled manpower are required for installation, commissioning, operation and maintenance in the field of solar technology.



Recognizing the need and urgency, National Institute of Solar Energy (NISE) has launched Suryamitra Skill Development Program in collaboration with State Nodal Agencies at various locations across India.

Under this scheme Greenko has introduced a Solar Skill Development Certification Program for 280 ITI students of the local communities in Kurnool cluster at Ghani Solar Park with a vision to enhance their skills for employability. Greenko has provided employment to over 100 trainees of Suryamitra Skill Development Program.



## Healthcare

To provide access to quality health care we have organized free general medical camps and eye camps at some of our plants located across India in association with local hospitals. Our objective is to bring quality and specialized healthcare to the communities close to our operating plants as well as project sites across the country. We have been organizing these camps at least once in a year at our operational plants. A total of 2097 people participated in these medical camps and benefited from the free diagnostic, treatment and free medicines services. A notable achievement is the Diagnostic, Screening and Treatment (DST) Eye Camps conducted at our Hydel Plants in Himachal Pradesh.



Health Camp at Hatkoti Site



Eye checkup camp at Palampur Cluster

## DST Eye Camp

Greenko considers providing access to health services in remote areas as a priority. As part of its health related CSR activities, a Diagnostic Screening and Treatment (DST) Eye Camp was conducted at Village Deol, Tehsil Baijnath, District Kangra, Himachal Pradesh. The main objective of the camp was to provide medical eye care service to the local community unreached with these services and provide surgical eye care service to the patients diagnosed with cataract and other refractive errors to eliminate avoidable blindness. The eye camp covered the residents of nearby 10 to 15 villages falling under project Panchayats of 4 Hydel Plants.

The Eye Camp was organized in association with Mela Mal Sood Rotary Eye Hospital, Maranda, Palampur. A seven member professional team including eye specialists' technical staff has provided their services at the Eye Camp. The diagnostic and screening camp covered screening of the eyes using the necessary equipments and for refractive errors were examined for vision test. The patients diagnosed for cataract & other eye surgeries were examined in detail by other technician for general health condition including Blood Sugar (Diabetes), Blood Pressure (Hypertension) etc. Other patients requiring minor treatment were given specific medicines such as eye drops free of charge for ophthalmic diseases.

A total of 354 people availed the services of the screening camp and out of the total screened about 45 of them were selected for cataract & other eye surgeries. The surgeries were undertaken at Rotary Hospital, Palampur and Greenko took the responsibility of all the costs of surgery, post-operative medicines for the patients Hospital Authorities had provided accommodation at the Hospital free of charge. Post-operative follow up activity was organized for the needy patients by the Hospital authorities.



## Rural development

We initiate rural development programs in consultation and coordination with local panchayats. After assessing the various short term and long term needs of the local communities, such as clean drinking water, availability of infrastructure like roads, street lighting, sanitation facilities etc. and based on the inputs received from the local stakeholders we design our interventions for rural development projects.



**RO plant at Narayanapuram Village**

A key project during the reporting period included the construction and maintenance of Reverse Osmosis (RO) plants commissioned in Cholasamudram Village, Kudair Mandal, Ananthapur District, Andhra Pradesh State. The RO plant provides safe drinking water to the local villagers. Under the rural development initiatives in addition to the RO plants, considering the acute drought conditions prevailed, some of the other initiatives like digging of bore wells, construction of open wells etc. were undertaken at the villages near our plants.

## Environment

Under the environment initiatives a total of 6 activities were undertaken in the reporting period. A significant activity among them is the plantation program conducted at Devarakonda, Bukkarayasamudram Mandal, Anantapur District, Andhra Pradesh.



**Tree Plantation at Devarakonda Village**

The plantation program was undertaken as part of the 67th Vanamahotsavam (Part of Vanam-

Manam) a mass Plantation Program of the Government of Andhra Pradesh.

The tree plantation program was held at identified locations on a local hill close to a famous temple at Devarakonda. The plantation type was a Block Plantation and a total of 12000 saplings were planted with the help of students from the local schools. Other activity under this focus areas included environment day celebrations at plant locations and advocacy programs for natural resources management.

## Reverse Osmosis (RO) Plant installation

Rural Development is one of the important focus areas under "Sustainable Development" interventions of Greenko Group. Under this program and to provide "safe drinking water" to the local community a RO (Reverse Osmosis) plant has been installed at Goridindla Village under Rayala Wind Power Company Private Limited. The village is in Atmakur Mandal of Ananthapur District in Andhra Pradesh. It is situated at about 6 km away from Atmakur and about 34 kms away from Anantapur.

After necessary stakeholder's consultations, the RO plant was setup in the Goridindla main village at a strategic location easily accessible by the local people. A separate room has been constructed for installing the facility. The plant has the capacity to purify and provide 2,000 litres of safe drinking water per hour to the local people. Over 2,000 people covering 450 families residing in Goridindla main village and Goridindla Tanda (Tribal hamlet) are expected to directly benefit from the above facility.

By extending the core objectives, Greenko is moving ahead to meet pivotal activities towards community on regular basis under sustainability development. In this process, an RO Plant was installed at Cholasamudram, a community village near to the Rayala Wind Power Plant.



**RO Plant at Cholasamudram**



## Our Human Capital

Greenko has a HR Policy handbook for employees, comprising of various policies and the salient features of these policies is explained through an orientation session at the time of induction program for new hires. All the HR policies are a part of Greenko Integrated Management System (GIMS) and the implementation of these policies is monitored by the HR team and has periodic audits.

The Leadership & HR teams travel across the project locations and plants to conduct team meetings and town halls to engage with the employees of the location and to address their questions and concerns, if any. HR & Leadership Teams travelling to the sites stay with the employees and spend quality time engaging with the employees on various matters.

Employees at sites are provided accommodation facility with requisite infrastructure for recreation and entertainment. The canteen provides good food with breakfast, lunch and dinner served in unlimited quantity in the designated cafeteria. There are committees for Canteen and Safety comprising employees in the site location who have freedom to decide on the menu for food and needs of any additional safety. The accommodation facility with good infrastructure and food is at a cost totally borne by Greenko and provided

as a benefit for employees across projects and plants. In addition to the benefits applicable as per various Welfare Acts, Greenko provides the families of the employees with benefits of Group Health Insurance, Educational Support and Personal Accident coverage for the employee.

## Employment

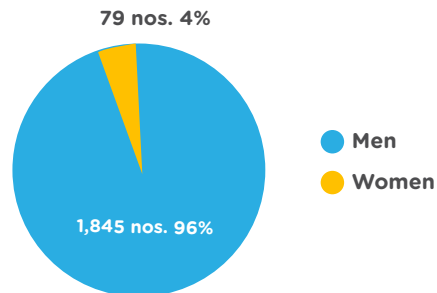
We believe that only when our internal stakeholders are satisfied, we can deliver quality services to our customers. We provide a host of benefits to our employees. All our employees are covered under the ESI, EPF, Gratuity and other applicable Acts. Some of the other benefits that our full-time employees enjoy are Group Personal Accident cover, Group Medical Insurance Cover, Maternity Leave and Extraordinary Leave.

## Diversity and equal opportunity

We are an equal opportunity employer and have a zero tolerance policy for any form of discrimination on the grounds of race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, or other human attributes. All our female employees enjoy the same benefits as their male colleagues. However, based on business requirements, we target a local talent pool with knowledge of the local language and geographic conditions for certain specific positions.

Employee Details	FY(2016-17)	
	Male in No's	Female in No's
Total workforce	1845	79
Total person hours training	36951	5074
Total new hires	661	34
Average training hours per employee	21.84 hrs	

Employee details



Workforce diversity



Women's Day Celebrations at HO

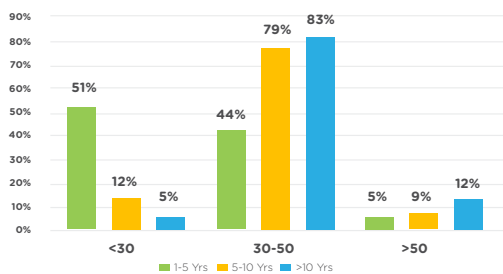
## Talent & Career Management

Greenko has nurtured the talent as a philosophy and with a strong orientation towards its employees, being the key stakeholders.

Greenko cares for the career growth of employees both within and across functions. This is done with a conscious effort to develop employees on multiple competencies to sustain and augment their career beyond livelihood as an objective, which encompasses the mechanics of Talent Management.

Each of the businesses (Hydro, Wind & Solar) have a Career Matrix for trainees and experienced employees weighing their performance and potential into two tracks of career plans as Normal Track & Fast Track Career Progression.

The unique Career Management strategy of Greenko is a personification of its Talent Management with higher levels of retention of employees in the industry. Greenko promotes the concept of multiskilling and multi-tasking across functions and in the areas of Engineering Designs, Project Management, Operations & Maintenance, Instrumentation & SCADA, etc. The organization has grown with strong orientation towards skill development and enhancement of its employees from various businesses wherein employees are trained in multiple domains and technologies promoting significant progress and movement across the businesses, aligning with a pipeline of projects in Hydro, Wind & Solar. For instance, most of the employees from biomass plants, which are not viable to operate given the business economics of the biomass industry have been trained with skills from other verticals (Hydro, Wind & Solar) to ensure sustainable career growth of its employees.



Employee age vs Greenko Experience

Career Management is an integral part of the Performance Management process; the developmental needs are captured through the annual appraisal cycle. The Training Needs Identified (TNI) are classified as Technical and Behavioural needs and the annual training calendar addresses the appropriate training interventions

for the identified training needs. The performance and potential of an employee is captured and based on the potential and given the significant contribution towards deliverables, the next level growth plan is envisaged in consultation with the Line Managers and Business and Functional Heads. Career Progression based on potential is managed to be a part of cross functional teams or into other domain areas. For example, engineers are trained in multiple domains (Hydro, Wind, and Solar) to be competent, quality management team across the businesses which is a classic example of moving from engineering function to quality function.

Over 40% of the critical middle management teams are identified and groomed from the existing list of HIPOs based on the performance across the businesses. Majority of the employees working in verticals such as Wind and Solar have been moved from Verticals of Thermal and Hydro.

Greenko is an equal employment opportunity employer with fair distribution of workforce with no bias for gender.

## Performance Management & Recognition

The Performance Management process has been conceived with significant objectivity, measurable goals and KRAs for employees across all levels. The PMS is designed with measurable metrics with 50% weightage for Greenko Value System (SEED IT) and 50% for the Business and Functional KRAs. The Value System must be complied with and adhered to while achieving the business goals and KRAs. The appraisal system provides for evaluation of performance against the KRAs assigned and the level of potential of the employees. The line manager reviews the performance followed by the other reporting managers at the cluster and business level, culminating in a final review by the Business Head. The multiple levels of review and discussion provides ample opportunity for objective assessment of performance.

## Rewards & Recognition

The Appraisal period is from April to March, Employees who have completed at least one year of service from the date of joining will qualify for the appraisal. Based on the performance of the individual, the business unit and the organization annual merit increases are given as a percentage to Cost to the Company (CTC). Greenko has one of the best practices of recognizing the employees beyond regular merit increases through Ex-Gratia pay-outs for the performance of the employees in Projects, Plants & other offices.

Special bonus for project completion and for achieving significant milestones is also one of the best practices at Greenko.

All employees are also given Greenko branded goodies periodically.

### **Labour Welfare and Human Rights**

We have established policies and codes of conduct across all SBUs on human rights and labour practices. Given the type of service provided by Greenko Group of companies, no risks connected with child labour, threats to freedom of association or forced labour were identified in reporting period.

### **Training and Education**

The Council on Energy Environment and Water and the National Research Development Corporation project that utility and park scale PV projects through 2022 could create 58,000 direct jobs in India. Our success depends on the sustained commitment of our employees who are provided with every opportunity to realize their potential and augment their career as the organization reaches greater and new heights. We take pride in ourselves on our highly motivated and engaged workforce. Employee engagement, training as well as career development are strategic and key imperatives for us, bearing a direct impact on service delivery and customer satisfaction.

### **Greenko Group - Learning & Development (L&D):**

The L&D function has evolved with a Vision to build & enhance employee competencies for consistent deliverables to drive the business growth.

The Mission of the L&D division is to develop a Learning Organization with a value add and ROI (Return on Investment) for the businesses. To measure the impact of training for ROI we follow Kirkpatrick Model.

### **L&D organization at Greenko:**

- Inculcates an ownership mind-set amongst employees to achieve the Vision & Mission of the organization
- Facilitates need based continuous learning of employees and stakeholders
- Has well defined learning processes and practices
- Develops Managerial and Leadership skills and Talent

The Learning & Development activities at Greenko focuses on the following streams:

- Orientation & Induction for New Hires
- Entry Level Trainee Program (ELTP)
- Need based Training and Development Interventions
- Training of Contractual Employees

### **Orientation & Induction for New Hires**

The New Hire Induction is held at HO for all new employees joining the Corporate Office and for employees directly reporting to the site the same process is followed. The topics covered during this induction include HR Systems & Policies, Greenko Values System, EHS (Environment, Health & Safety), GIMS (Greenko Integrated Management Systems) and ISMS (Information Security Management Systems).



**SEED IT Orientation Workshop**



### Entry Level Trainee Program (ELTP)

At Greenko we consider Trainees as 'Future Talent'. Greenko invests significantly in the ELTP program which hones and develops the skills of trainees who have joined directly from campus or have no relevant work experience. Based on the feedback of the assessment panel, the L&D needs are profiled for the period of training. The campus hires (Masters, BTech, Polytechnic, ITI & other Management streams) join as Trainees and go through a structured learning process. ELTP comprises of classroom training on domain skills, on the job training (OJT), soft skills and outdoor learning sessions. During this period of one year training, trainees with a technical background are coached and mentored by supervisors and Department heads in the branches of Mechanical, Electrical and Civil Engineering. Each of the trainees is assigned to a Mentor for a period of one year. Their learning is documented in the Trainee Orientation Program Diary where they meticulously capture learning on a daily/ weekly/ monthly/ quarterly basis, which is reviewed by the Line/ Reporting Manager.

On completion of one year training, there is a presentation done by the trainee to a panel of experts to evaluate the level of learning during the year and for a recommendation to confirm the services from the level of trainees. It is mandatory for all trainees to achieve a minimum of 80% score in all the three domain streams during the one year training duration.

Significant resources and time are invested in these trainees for upskilling and development during this period of training, to harvest the future talent.

23 High Performing and High Potential Trainees were identified from the list of 168 trainees in the

FY 2016-2017, for a fast track training in domains of Hydro, Wind, Solar and engineering areas (Civil, Electrical & Mechanical). They were subsequently deployed for crucial quality assurance work across the projects. Identified High Potential employees are also sent for external training programs/ conferences in India and other international locations including Spain, China, Europe and the United States of America.

### Employee Training/ Learning

For employees training begins with the Training Need Identification (TNI) in the month of April with input from SBU Heads/ SBU HR and the respective employee. Based on the business need & individual growth map we identify High, Medium and Low priority training requirements in Domain, EHS, Mandatory Programs, Behavioural & any other niche skill/s required to accelerate the performance and output of employees. On completion of the TNI the training calendar is designed based on the level of priority and training is scheduled in the annual training calendar. The learning curve through the training imparted by means of class room sessions, On the Job Training (OJT), external training, if need be.

For all in-house programs we have highly experienced domain specialist/trainers and for niche skills we send employees to external training institutes nationally and internationally. It is mandatory for the In-House program to have a pre-assessment and a post assessment feedback we receive participant suggestions on how to continuously improve. Post two months post training we conduct a 360 degree feedback from each participant's stake holders on how the employee has been able to implement their learning.



Training on Grow Coaching

We send high performing employees to National & International Conferences, IIM's, ISB, XLRI, China, The USA, Europe, and Singapore to acquire / learn new technologies, processes and systems. On their return these employees capture their learning in a power point presentation and share these learnings with their team through training/ mentoring session. We have also initiated the setup of Centre of Excellence at the cluster level to ensure that learning is a continuous process. A Centre of Excellence will include a technical Lab, fully furnished dedicated training rooms, a library and access to all significant learning data through a Knowledge Management & Knowledge Sharing system. Virtual Learning has also been initiated which will add incredible value to learning and upskilling of employees.

We have achieved 42,025 person hours on training. The average training hours per employee was 21.84 hours. Training our employees across the levels is an objective agenda for the L&D department, however based on the Training Need Identified from the businesses. This gives us an opportunity to connect with our employees and understand their viewpoints and suggestions on training requirements. The purpose of our training module is to bridge the KSA (Knowledge, Skill & Attitude) gaps based on the identified training needs and to ensure employee capability building and enhancement of organizational competencies through continuous improvement of:

- Individual employee's knowledge and skills
- Development of managerial, behavioural and other personal attributes
- Technical and specific niche skills



**Teambuilding Training**



**Grow Coaching Training**



## Occupational Health and Safety

The nature of our operations demands a strong focus on the health and safety of our employees. We aim to regularly enhance our internal safety systems through functional & behavioural trainings and safety awareness programs, to sensitize our employees about criticality of safety measures. We have implemented an effective Environment, Health and Safety (EHS) governance by focusing on the core areas as described below.

We train our employees/workers regularly to enrich safety awareness and ensure safe working environment at all work locations. We conduct relevant training programs for the executives to enhance their knowledge and skills.

### Leadership & Accountability

Each Greenko facility has Health and Safety leader, specialist in the fields of safety at work, industrial hygiene, ergonomics, applied psycho-sociology and health monitoring. Leader along with team will also overlooks the applicable outsourcers, purchasing, and supplier under the monitoring of site In-charge & central EHS team.

We have established EHS committee at all our projects and plants to ensure EHS compliance at the work locations. Monthly interactions are held to review and document EHS performance, status on EHS commitments and EHS risk prevention measures.

### EHS Training

We train our employees and workers regularly to enrich safety awareness and ensure safe working environment at all work locations.

Internal training:

We have made a list of Training programs to be conducted in a Calendar Year and provided relevant "Training Modules" to the Executives so as to enable them to organize the training programs in effective manner. In addition to this we have circulated soft copy of "Animated Safety Videos" to site teams to be used as resources for the training sessions .

Some of our regular in-house trainings are on

- GIMS policy, Procedures, code of conduct, EHS Orientation & Tool box talks
- Behaviour Based Safety
- Office Safety & Ergonomic Safety
- Road Safety (Two / Four-Wheeler)
- Electrical safety
- ERP Heat Stress Management
- Fire Safety & Housekeeping
- Awareness on First Aid Treatment
- EHS Aspects and Impacts
- Conservation of Resources

We organize training by external agency on different topics like operation of portable fire extinguishers, working at height & applicable laws for the executives to enhance their knowledge and skill. We regularly conduct EHS orientation as a part of new joiner's induction orientation training program at our corporate office and our plants.



OHS Focus Areas



### Risk Assessment & Prevention

We conduct Hazard Identification, Risk Analysis and Environmental Aspect Impact Analysis to identify, analyse and mitigate the OHS and Environmental risks. We conduct “Work Place Inspections” bimonthly and observe the unsafe acts and conditions for continual improvement of work place safety. We ensure 100% compliance with the observations noted against various hazards & EHS work place inspection report. We have initiated traffic signage at all projects and plants to eliminate risks pertaining to road safety. We organize “Road Safety & Defensive Driving” training sessions across the business verticals to bring down the accident rate of construction vehicles.

### EHS Compliance Management

Health and Safety Regulations: Compliance System has a comprehensive list of applicable statutes and the various items of compliance are monitored for traction through the compliance tool. The compliance status goes through a robust process of auditing through an authorized audit team every month and a certificate of compliance is presented to the Chief Compliance Officer. At Greenko, the goal is to deliver 100% compliance with regulations of product and service.

We make constant efforts with our plant in-charges to be compliant with legal and statutory regulations.

### Emergency Preparedness & Response

We ensure that our Emergency Response Plan (ERP) is available at all the projects and plants considering the various emergency scenarios that may occur during our operations. We organize mock exercises to familiarize our employees with emergency response procedures.

The prime risk scenarios which emerged from hazard identification are:

- Fires: Fire at fuel storage, Trash catching fire, diesel fire, cable fire, electrical fire in panels, transformer oil fire, Fire in administration building, LPG cylinder catching fire etc.
- Explosion: LPG cylinder explosion, air receiver cylinder bursting, Explosives handling
- Leakage of toxic or combustible gases
- Spillage of acids/chemicals/ flammable liquids
- Drowning in the water bodies
- Road accidents
- Cave in / Structural collapse
- Tower crane / mobile crane / crawler crane collapse, scaffold collapse
- Bomb Threat
- Natural calamities

- Snake bite / scorpion / poisonous insect
- Electrocution
- Heat Stroke

### Personal Protective Equipment (PPE) Program

Protecting the health and welfare of each employee and to strive towards compliance with National, state and local regulations, appropriate PPE is required in areas where there may be a risk of injury or exposure to hazardous substances or conditions. This program addresses general requirements to protect employees from various hazards encountered in their work area.



**Demonstration on Usage of PPE**

The PPE Program consists of three main areas:

1. Hazard assessment of the workplace and procedures (identifying hazards and determining which PPE will protect the employee)
2. Employee training (when PPE is required, proper use of PPE, limitations, cleaning and storage)
3. Written verification of hazard assessments and employee training. Procurement, receipt, storage and issue of PPE, firefighting equipment and other OHS related material.

We procure PPE conforming to BIS and maintain stock as planned & regularly inspect as per requirements by safety leader at site & confirmation by central team at HO. This ensures that PPE are kept operational at all times.

### EHS Contractor Management

We at Greenko are committed to the management of health and safety for all employees working on or behalf of us, working in sites or in the public domain. The four key areas of contractor management are: Contractor Pre-qualification, Contractor Selection, Mobilization and Contractor Performance Evaluation. The Contractor, health and safety management systems assist Owners, Prime Contractors and Contractors to develop effective implementation of processes. Our management systems are designed to help promote a collaborative working relationship among Greenko, Prime Contractors and Contractors, resulting in improved health & safety and productivity for all parties involved.

### EHS Audits

We conduct internal/external audits at all project/plant locations and identify the deviations and non-conformance. We strongly believe in developing "Safety culture/Safe working environment" across all the projects and plants.

### EHS Rewards & Recognition

We encourage our employees and workmen to voluntarily participate in various EHS awareness campaigns to establish congenial working environment. Our Rewards & Recognition Award Program is to acknowledge and reward outstanding individual and/or team contributions that promote stronger safety culture or identify, prevent, or correct safety related issues at Greenko. We observe the following EHS wise important days:

- National safety day/Week
- World environment day
- Fire services day
- Spot the Hazard Competition

### EHS Performance

We established EHS committee at all our projects and plants to ensure EHS compliance at the work locations. We interact once in a month to discuss EHS performance and commitments.



Prize distribution at EHS Event



Safety day celebration at project site

Parameter	Aditya Shakti	Sunborne Energy	Greenko Rayala Wind Farm	Tanot Wind Farm	AMR Hydro	Greenko Budhil Hydro
Fatalities	0	0	0	0	0	0
Lost Time Incidents (LTI)	0	0	0	0	0	0
LTI Frequency Rate	0	0	0	0	0	0
LTI Severity Rate	0	0	0	0	0	0
Near-miss Incidents	0	0	11	5	1	7

Workplace safety details at plant sites

## Security Systems

Greenko continues to invest in its business functions to meet the needs of our growing organization. The Group has put in place Greenko security system (GSS) to take the ownership of physical security. The system takes care of threat and risk assessments, vulnerability and counter measure analysis. We monitor the material movement at our project sites through our online application Greenko Energy Project System (GEPS). This application, installed on a tab enables GSS team and the Project management team to receive

continuous tracking and status information of the material movement”.

The Integrated electronic surveillance at Greenko Group functions on multiple window design principle providing live monitoring & recording reviews on 24/7 basis to central Security Control Room located at HO in Hyderabad and site based security control room. All site activities are continuously monitored by both the monitoring stations to provide instant response.



GSS Core Team Meeting at HO



Central Security Control Room at HO



# Epilogue from the President & Joint MD

Dear Stakeholders,

The economies of our planet are critically dependent on the services of ecological life-support systems. So in one sense their total value to the economy is infinite. Because ecosystem services are not fully accounted in commercial markets as our economic services are, they are often given too little weight in decisions. We would compromise Our Common Future- the sustainability of humans in the biosphere, if we don't change our course significantly. At Greenko, we are determined to take necessary steps and be a catalyst for change to protect our Planet, while we continue to grow our People and Profits.

In this context, we believe that our compass-measurement and accounting systems by nations, companies and individuals- has to change so that we are steered in right direction, at each step, to achieve sustainable development. United Nations Sustainable Development Goals is one such compass with which we can measure and evaluate our progress and take right decisions. At Greenko, we pursued value creation model that is fundamentally sustainable and undertook sustainability reporting to measure, assess and disclose our progress in contribution to economic, environment and social systems. Through this journey, for over a decade, our commitment to sustainable development and the belief that pursuing this path firmly delivers sustainable shareholder value, has been reinforced. We are already witnessing that technology changes more than favorable changes in regulation have overcome cost and scale barriers and mainstreamed renewable energy. This trend will continue irreversibly and of course, the renewable energy systems and business models would have to transform to cater to and substitute non-renewable energy sources for other end uses like transport etc.

Through this report, we hope to have given an account of our contribution to economy of India, mitigation of climate change, improving local environment and economy and finally caring and growing our people. While, we are determined to be steadfast in our pursuit, we value partnership with our stakeholders as also your views.



**Mahesh Kolli**  
**Founder, President &**  
**Joint Managing Director**





# GRI Context

## (Linking the GRI, SDGs UNGC and IFC)

GRI G4 disclosures		Section Reference		SDG Link	UNGC Link	IFC Link
General standard disclosure						
Indicator	Description	Section Name (Document)	Page number/ explanation			
<b>Strategy and Analysis</b>						
G4-1	Statement from the most senior decision-maker of the organisation	Message from the Chairman, CEO & MD, President & Joint MD	08-11; 69		Statement of Continuing Support	
G4-2	Description of key impacts, risks and opportunities	About this report	14-17			PS 1
<b>Organizational Profile</b>						
G4-3	Name of the organization	About this report	14-17			
G4-4	Primary brands, products and services	About this report	14-17			
G4-5	Location of the organization's headquarters.	Back cover of the report	Greenko's headquarters is located in Hyderabad			
G4-6	Number of countries where the organization operates	About this report	14-17			
G4-7	Nature of ownership and legal form	About this report	14-17			
G4-8	Markets served (geographic/types of customers)	About this report	14-17			
G4-9	Scale of the reporting organization	About this report; Social performance	14-17; 56-68			
G4-10	Details on workforce broken down by gender, employment contract, employment type	Social performance	56-68			
G4-11	Percentage of total employees covered by collective bargaining agreements	GRI Index	Greenko allows freedom to make associations who avails all rights including that of collective bargaining. Greenko respects the right of employees and informs the personnel	SDG 8		



GRI G4 disclosures		Section Reference		SDG Link	UNGC Link	IFC Link
General standard disclosure		Section Name (Document)	Page number/ explanation			
Indicator	Description					
			that they are free to join an organization of their choosing and that their doing so will not result in any negative consequences to them or retaliation from the company.			
G4-12	Description of the organization's supply chain	About this report	14-17			
G4-13	Significant changes during the reporting period regarding the organisation's size, structure, ownership, or its supply chain	GRI Index	This is our first sustainability report			
G4-14	How the precautionary approach or principle is addressed by the organisation	GRI Index	Our approach towards addressing business related risks have been explained in the relevant sections throughout the report		Actions Taken to Implement Principle 7	PS 1 PS 4
G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organisation subscribes or which it endorses	Governance	26-33		Actions Taken to Implement Principles 1-10	PS 1
G4-16	Memberships of associations and national/ international advocacy organisations in which the organisation holds a position on the governance body and participates in projects or committees	Governance	26-33		Actions Taken to Implement Principles 1-10	



GRI G4 disclosures		Section Reference		SDG Link	UNGC Link	IFC Link
General standard disclosure						
Indicator	Description	Section Name (Document)	Page number/ explanation			
<b>Identified Aspects and boundaries</b>						
G4-17	Entities included in the organisation's consolidated financial statements with indication of coverage in the report	About this report	14-17			
G4-18	Process for defining the report content and the Aspect Boundaries	About this report	14-17			
G4-19	Material Aspects identified in the process for defining report content	About this report	14-17			
G4-20	Description of Aspect Boundary within the organisation for each material aspect	About this report	14-17			PS 1 PS 2
G4-21	Description of Aspect Boundary outside the organisation for each material aspect	About this report	14-17			PS 1 PS 2
G4-22	Explanation of the effect of any re-statement of information provided in the earlier Reports	GRI Index	This is our first sustainability report			
G4-23	Significant changes from previous reporting periods in the scope and aspect boundaries	GRI Index	This is our first sustainability report			
<b>Stakeholder engagement</b>						
G4-24	List of stakeholder groups engaged by the organisation	About this report	14-17		Sharing the COP with the Company's Stakeholders	PS 1 PS 5 PS 7
G4-25	Basis for identification and selection of stakeholders with whom to engage	About this report	14-17		Sharing the COP with the Company's Stakeholders	PS 1 PS 5 PS 7
G4-26	Organisation's approach to stakeholder engagement	About this report	14-17		Sharing the COP with the Company's Stakeholders	PS 1 PS 5 PS 7
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those	About this report	14-17		Sharing the COP with the Company's Stakeholders	PS 1 PS 5 PS 7

GRI G4 disclosures		Section Reference		SDG Link	UNGC Link	IFC Link
General standard disclosure		Section Name (Document)	Page number/ explanation			
Indicator	Description					
	key topics and concerns					
<b>Report profile</b>						
G4-28	Reporting Period	About this report	14-17			
G4-29	Date of most recent previous Report	GRI Index	This is our first sustainability report			
G4-30	Reporting cycle	About this report	14-17			
G4-31	Contact point for questions regarding the report or its contents	About this report	14-17			
G4-32	GRI Content Index	This table	-			
G4-33	Organisation's policy and current practice with regard to seeking external assurance for the report; relationship with the assurance providers; the highest governance body's involvement in seeking assurance for the organisation's Sustainability Report	GRI Index	The Company has not sought external assurance for this report			
<b>Governance</b>						
G4-34	Governance structure of the organisation; committees responsible for decision making on economic, environmental and social impacts	Governance	26-33		Actions Taken to Implement Principles 1-10	
G4-35	Governance structure of the organization, including committees of the highest governance body. Any committees responsible for decision-making on economic, environmental and social impacts.	Governance	26-33			
G4-36	Any executive-level position or positions with responsibility for economic, environmental and	Governance	26-33			





GRI G4 disclosures		Section Reference		SDG Link	UNGC Link	IFC Link
General standard disclosure		Section Name (Document)	Page number/ explanation			
Indicator	Description					
	social topics, Post holders report directly to the highest governance body					
G4-37	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	GRI Index	Regular meetings and discussions with shareholders and their representatives		Actions Taken to Implement Principles 1-10	
G4-38	For organisations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members	GRI Index	Please refer the Greenko Group website for details <a href="http://www.greenkogroup.com/about#greenko-board-of-directors">http://www.greenkogroup.com/about#greenko-board-of-directors</a>			
G4-39	Indicate whether the chair of the highest governance body is also an executive officer	Governance	26-33	SDG 16	Actions Taken to Implement Principles 1-10	
G4-40	Process for determining the composition, qualification and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity	GRI Index	The Nomination & Remuneration committee of the Board is responsible for determining the composition, qualification and expertise of the members of the highest governance body and its committees	SDG 8	Actions Taken to Implement Principles 1-10	
G4-41	Processes in place for the highest governance body to ensure conflicts of interest are avoided	Governance	26-33			
G4-42	Highest governance body's and senior	Governance	26-33			

GRI G4 disclosures		Section Reference		SDG Link	UNGC Link	IFC Link
General standard disclosure						
Indicator	Description	Section Name (Document)	Page number/ explanation			
	executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts					
G4-43	measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics	GRI Index	Greenko has well-diversified board members. There are frequent knowledge sharing on economic, environment and social topics in orientation and discussions.	SDG 4		
G4-44	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental and social performance	GRI Index	The Nomination & Remuneration committee of the Board carries out evaluation of every director's overall performance.		Actions Taken to Implement Principles 1-10	
G4-45	Procedures of the highest governance body for overseeing the organisation's identification and management of economic, environmental and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct and principles	Governance	26-33			



<b>GRI G4 disclosures</b>		<b>Section Reference</b>		<b>SDG Link</b>	<b>UNGC Link</b>	<b>IFC Link</b>
<b>General standard disclosure</b>		<b>Section Name (Document)</b>	<b>Page number/ explanation</b>			
<b>Indicator</b>	<b>Description</b>					
G4-46	Highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics	Governance	26-33			
G4-47	Frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities	Governance	26-33			
G4-48	Highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered	Governance	26-33			
G4-49	Process for communicating critical concerns to the highest governance body.	GRI Index	Regular meetings and discussions with shareholders and their representatives			
G4-50	The nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them	Governance	26-33			
<b>Ethics and Integrity</b>						
G4-56	Organisation's values, principles, standards and norms of behaviour such as codes of conduct and codes of ethics	Ethics and Integrity	36	SDG 16		
G4-57	Internal and external mechanisms for seeking advice on ethical and lawful	Ethics and Integrity	36	SDG 16		



GRI G4 disclosures		Section Reference		SDG Link	UNGC Link	IFC Link
General standard disclosure						
Indicator	Description	Section Name (Document)	Page number/ explanation			
	behaviour, and matters related to organizational integrity, such as helplines or advice lines					
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behaviour, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines	Ethics and Integrity	36	SDG 16		

 GRI G4 Material Aspects

Specific standard disclosures - Aspects						
DMA & Indicator	Description	Section reference		SDG Link	UNGC Link	IFC Link
		Section name	Page number/ explanation			
<b>Category: Economic</b>						
<b>Aspect: Economic Performance</b>						
G4-DMA	Generic disclosure on management approach	Message from the Chairman, CEO & MD, President & Joint MD; About this report; Economic performance	08-11; 69; 14-17; 37-39	SDG 5 SDG 7 SDG 8 SDG 9 SDG 10 SDG 13 SDG 17	Actions Taken to Implement Principles 1,4,6 and 7	PS 1
<b>Aspect: Research and Development</b>						
G4-DMA	Generic disclosure on management approach	Message from the Chairman, CEO & MD, President & Joint MD; About this report; Environmental performance	08-11; 69; 14-17; 46-52	SDG 7 SDG 9		
<b>Aspect: Availability and Reliability</b>						



Specific standard disclosures - Aspects						
DMA & Indicator	Description	Section reference		SDG Link	UNGC Link	IFC Link
		Section name	Page number/ explanation			
G4-DMA	Generic disclosure on management approach	Message from the Chairman, CEO & MD, President & Joint MD; About this report; Environmental performance	08-11; 69; 14-17; 46-52			
G4-EU10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	Environmental performance	46-52	SDG 7		
<b>Aspect: System efficiency</b>						
G4-EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime	Environmental performance	46-52			
<b>Category: Environmental</b>						
<b>Aspect: Energy</b>						
G4-DMA	Generic disclosure on management approach	Environmental performance	46-52	SDG 7 SDG 12 SDG 13 SDG 14 SDG 15	Actions Taken to Implement Principles 7, 8 and 9	PS 1 PS 3 PS 6
G4-EN1	Materials used by weight or volume	Environmental performance	46-52	SDG 8 SDG 12		PS 3
G4-EN2	Percentage of materials used that are recycled input materials	Environmental performance	46-52	SDG 8 SDG 12	Principle 8, Principle 9	PS 3
G4-EN3	Energy consumption within the organisation	Environmental performance	46-52	SDG 7 SDG 8 SDG 12 SDG 13	Principle 8	PS 3
G4-EN4	Energy consumption outside of the organisation	Environmental performance	46-52	SDG 7 SDG 8 SDG 12 SDG 13	Principle 8	PS 3
G4-EN6	Reduction of energy consumption	Environmental performance	46-52	SDG 7 SDG 8 SDG 12 SDG 13	Principle 8	PS 3

Specific standard disclosures - Aspects						
DMA & Indicator	Description	Section reference		SDG Link	UNGC Link	IFC Link
		Section name	Page number/ explanation			
G4-EN7	Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives	Environmental performance	46-52	SDG 7 SDG 8 SDG 12 SDG 13	Principle 8 Principle 9	PS 1 PS 3
<b>Aspect: Biodiversity</b>						
G4-DMA	Generic disclosure on management approach	Environmental performance	46-52	SDG 6 SDG 14 SDG 15		PS 1 PS 3 PS 6
G4-EU13	Biodiversity of offset habitats compared to the biodiversity of the affected areas	Environmental performance	46-52	SDG 6 SDG 14 SDG 15		PS 1 PS 3 PS 6
<b>Aspect: Emissions</b>						
G4-DMA	Aspect specific disclosure on management approach	Environmental performance	46-52	SDG 12 SDG 13 SDG 14 SDG 15	Principle 8 Principle 9	PS 1 PS 3
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope1)	Environmental performance	46-52	SDG 3 SDG 12 SDG 13 SDG 14 SDG 15	Principle 8	PS 3 PS 6
G4-EN16	Indirect greenhouse gas (GHG) emissions (Scope2)	Environmental performance	46-52	SDG 3 SDG 12 SDG 13 SDG 14 SDG 15	Principle 8	PS 3
G4-EN19	Reduction of greenhouse gas (GHG) emissions	Environmental performance	46-52	SDG 3 SDG 12 SDG 13 SDG 14 SDG 15	Principle 8	PS 1 PS 3
G4-EN20	Emissions of ozone-depleting substances (ODS)	Environmental performance	46-52	SDG 3 SDG 12 SDG 13 SDG 14 SDG 15	Principle 8	PS 3
G4-EN21	NOX, SOX, and other significant air emissions	GRI Index	DGs are only source of material NOx, SOx emissions; All DG sets are compliant	SDG 3 SDG 12 SDG 13 SDG 14 SDG 15	Principle 8	PS 3



Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
			with CPCB norms.			
<b>Aspect: Product and services</b>						
G4-DMA	Generic disclosure on management approach	Environmental performance	46-52			PS 1 PS 3
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	Environmental performance	46-52			PS 1 PS 3
<b>Aspect: Compliance</b>						
G4-DMA	Generic disclosure on management approach	Environmental performance	46-52	SDG 12 SDG 13 SDG 14 SDG 15 SDG 16		PS 1 PS 3
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	GRI Index	No significant fines			PS 3
<b>Aspect: Supplier Environmental Assessment</b>						
G4-DMA	Generic disclosure on management approach	Environmental performance	46-52			PS 1 PS 3
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	GRI Index	100% new suppliers are screened using environmental criteria			PS 3
<b>Aspect: Environmental Grievance Mechanisms</b>						
G4-DMA	Generic disclosure on management approach	Governance; Social performance	26-33; 56-68	SDG 16		PS 1 PS 3
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	Governance	26-33			PS 1 PS 3

Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
<b>Category: Social</b>						
<b>Sub-category: Labour practices and decent work</b>						
<b>Aspect: Employment</b>						
G4-DMA	Generic disclosure on management approach	Social performance	56-68	SDG 5	Actions Taken to Implement Principles 1, 3 and 6	PS 1 PS 2
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	Social performance;	56-68	SDG 5		PS 2
G4-EU15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region	Social performance;	56-68			PS 2
G4-EU17	Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities	Social performance;	56-68			PS 2
<b>Aspect: Occupational health and safety</b>						
G4-DMA	Aspect specific disclosure on management approach	Social performance	56-68		Principle 1	PS 1 PS 2
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational	GRI Index	An EHS (Environment, Health & Safety) team at all plants and projects are responsible for health and safety of employees.	SDG 8	Principle 1	PS 2



Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
	health and safety programs					
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism and total number of work related fatalities	Social performance;	56-68	SDG 3 SDG 8	Principle 1	PS 2
G4-LA7	Education, training, counselling, prevention and risk-control programmes in place to assist workforce members, their families, or community members regarding serious diseases	Social performance	56-68	SDG 3 SDG 8	Principle 1	PS 2
G4-LA8	Health and safety topics covered in formal agreements with trade unions	GRI Index	No employee in Greenko group are covered under trade unions.	SDG 8	Principle 1	PS 2
<b>Aspect: Training and education</b>						
G4-DMA	Generic disclosure on management approach	Social performance	56-68			PS 1 PS 2
G4-LA9	Average hours of training per year per employee by gender, and by employee category	Social performance;	56-68	SDG 4 SDG 8		PS 2
<b>Aspect: Diversity and equal opportunity</b>						
G4-DMA	Generic disclosure on management approach	Governance; Social performance	26-33; 56-68	SDG 5		PS 1 PS 2
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to	Governance; Social performance	26-33; 56-68	SDG 5		PS 2



Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
	gender, age group, minority group membership, and other indicators of diversity					
<b>Aspect: Equal remuneration for men and women</b>						
G4-DMA	Generic disclosure on management approach	Social performance;	56-68	SDG 5	Principle 6	PS 1 PS 2
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	GRI Index	There is no discrimination of basic salary and remuneration based on gender.	SDG 5 SDG 16	Principle 1	PS 2
<b>Aspect: Supplier Assessment for labor practices</b>						
G4-DMA	Generic disclosure on management approach	Social performance	56-68			PS 2
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	GRI Index	100% new suppliers are screened using labour practices criteria			PS 2
<b>Aspect: Labor practices grievance mechanisms</b>						
G4-DMA	Generic disclosure on management approach	Governance	26-33	SDG 16		PS 1 PS 2
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	Governance	26-33			PS 2
<b>Sub-category: Human rights</b>						
<b>Aspect: Non discrimination</b>						
G4-DMA	Generic disclosure on management approach	Governance; Social performance	26-33; 56-68	SDG 5 SDG 16	Actions Taken to Implement Principles 1, 2, 3, 4, 5 and 6	PS 1 PS 2 PS 7
G4-HR3	Total number of incidents of	Governance;	26-33; 56-68	SDG 5 SDG 16		PS 2

Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
	discrimination and corrective actions taken	Social performance				
<b>Aspect: Child labour</b>						
G4-DMA	Generic disclosure on management approach	Governance	26-33	SDG 16	Principle1- Principle 6	PS 1 PS 2
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour	Governance; Social performance	26-33; 56-68	SDG 8 SDG 16		PS 2
<b>Aspect: Forced or compulsory labour</b>						
G4-DMA	Generic disclosure on management approach	Governance	26-33	SDG 8	Principle1- Principle 6	PS 1
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour	Governance; Social performance	26-33; 56-68	SDG 8		PS 2
<b>Aspect: Indigenous Rights</b>						
G4-DMA	Generic disclosure on management approach	Social performance	56-68		Principle1- Principle 6	PS 1 PS 2
G4-HR8	Total number of incidents of violations involving rights of indigenous people and actions taken	Social performance	56-68	SDG 2		PS 2
<b>Aspect: Assessment</b>						
G4-DMA	Generic disclosure on management approach	Governance;	26-33		Principle1- Principle 6	PS 1 PS 2
H4-HR9	Total number and percentage of	Governance;	26-33; 56-68		Principle1- Principle 6	PS 1 PS 2

Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
	operations that have been subject to human rights reviews or impact assessments.	Social performance				
<b>Aspect: Supplier human rights assessment</b>						
G4-DMA	Generic disclosure on management approach	Governance; Social performance	26-33; 56-68		Principle1- Principle 6	PS 1 PS 2
G4-HR10	Percentage of significant suppliers, contractors and other Business Partners who have undergone human rights screening, and actions taken	Governance; Social performance	100% new suppliers are screened using human right criteria			PS 2
<b>Aspect: Human rights grievance mechanisms</b>						
G4-DMA	Generic disclosure on management approach	Governance; Social performance	26-33; 56-68	SDG 16	Principle1- Principle 6	PS 1 PS 2
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	Governance	26-33			PS 1 PS 2
<b>Sub-category: Society</b>						
<b>Aspect: Local communities</b>						
G4-DMA	Generic disclosure on management approach	Social performance	56-68	SDG 1	Actions Taken to Implement Principle 1 to 10	PS 1 PS 3 PS 7
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programmes	Social performance	56-68	SDG 1 SDG 2		PS 1 PS 3 PS 5 PS 7
G4-EU22	Number of people physically or economically displaced and	Social performance	56-68	SDG 2		





Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
	compensation, broken down by type of project					
<b>Aspect: Anti-corruption</b>						
G4-DMA	Generic disclosure on management approach	Governance	26-33		Principle 10	PS 1
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	GRI Index	100% (all plants and projects have been assessed for corruption risks)		Principle 10	
G4-SO4	Communication and training on anti-corruption policies and procedures	Governance	26-33		Principle 10	
G4-SO5	Confirmed incidents of corruption and actions taken	Governance	26-33		Principle 10	
<b>Aspect: Anti-competitive behaviour</b>						
G4-DMA	Generic disclosure on management approach	Governance	26-33		Principle 10	PS 1
G4-SO7	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes	GRI Index	No legal actions			
<b>Aspect: Compliance</b>						
G4-DMA	Generic disclosure on management approach	Governance	26-33	SDG 16		PS 1
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	GRI Index	No significant fines			
<b>Aspect: Grievance mechanisms for impacts on society</b>						
G4-DMA	Generic disclosure on management approach	Governance	26-33	SDG 16		PS 1

Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	Governance	26-33			PS 1
<b>Sub-category: Product responsibility</b>						
<b>Aspect: Customer health and safety</b>						
G4-DMA	Aspect specific disclosure on management approach	Social performance	56-68		Actions Taken to Implement Principles 1 and 8	PS 1
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	Social performance	56-68			PS 1
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	GRI Index	No incidents of non-compliance			PS 1
G4-EU25	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases	Social performance	56-68			
<b>Aspect: Product and service labelling</b>						
G4-DMA	Generic disclosure on management approach	Environmental performance	46-52			PS 1
G4-PR3	Type of product and service	Environmental performance	46-52	SDG 12		



Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
	information required by the organisation's procedures for product and service information and labelling, and percentage of significant product and service categories subject to such information requirements					
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes	GRI Index	No incidents of non-compliance	SDG 12		
G4-PR5	Results of surveys measuring customer satisfaction	Social performance	56-68			
<b>Aspect: Customer privacy</b>						
G4-DMA	Generic disclosure on management approach	Social performance	56-68	SDG 16	Principle 8	
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	GRI Index	No complaints received for any breach in customer privacy	SDG 16		
<b>Aspect: Compliance</b>						
G4-DMA	Generic disclosure on management approach	Governance	26-33	SDG 16		
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the	GRI Index	None			



Specific standard disclosures - Aspects				SDG Link	UNGC Link	IFC Link
DMA & Indicator	Description	Section reference				
		Section name	Page number/ explanation			
	provision and use of products and services					
<b>Aspect: Access</b>						
G4-DMA	Generic disclosure on management approach	Environmental performance	46-52			
G4-EU30	Average plant availability factor by energy source and by regulatory regime	Environmental performance	46-52	SDG 1 SDG 7		





